Usenet Newsgroup Archive: rec.radio.amateur.homebrew

2001

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Date span: 2001-01-01 through 2001-12-31

Source text: rec.radio.amateur.homebrew.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 8,045

Message records with no readable body available in the source text: 2

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: Anyone have plans for a 6M transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 01:22:37 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <978313349.10956.0.nnrp-01.9e98acde@news.demon.co.uk>
Source record: 55697

Have a look at Hands electronics ....
not scratch build but kits for six + many other bands
http://www.rf-kits.demon.co.uk/index.htm

Scott wrote in message <3A4F9627.9B837F6B@win.bright.net>...
>Anyone have a schematic of a simple 6M, crystal controlled transmitter
>with somewhere between 1 and 5 Watts output?
>
>--
>--Scott N0EDV--

2. Re: Tube Water Cooling ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 02:30:32 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <cZR36.71839$nM5.11551949@news02.optonline.net>
Source record: 55699

Jim,

Yup, that's right. I just find the other way easier to remember. I wonder if there is a 4V150 out there that's vapor cooled with a glass seal ....

Bob

"Jim Adney" <jadney@vwtype3.org> wrote in message news:2odt4tk2ju0lrfdcn24i5qbuud6v213dh4@4ax.com...
> "Bob Camp" <bob@cq.nu> wrote:
>
> >If you want to give it try look for tubes with "CV" (cooled, vapor) or
> >"CW" (cooled, water) in the part numbers. Not all CV's and CW's are
> >vapor or water cooled. All the vapor and water cooled stuff I have
> >seen surplus has been a CV or CW though ...
>
> One quick nitpick: According to the EIMAC catalog the C in CV & CW
> stands for Ceramic, to designate a tube with ceramic insulators
> instead of glass.
>
> Other letters:
> X stands for air cooled
> <no letter> stands for glass insulators
>
> So a 4X150 is a glass air-cooled tetrode, while the 4CX250 is a very
> similar air-cooled tetrode with a ceramic insulator.
>
> -
> ---
> Jim Adney jadney@vwtype3.org
> Madison,Wisconsin USA
> ---

3. Re: DSL Availability In Your Area? cpJzdnId7IuM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 02:51:42 UTC
From: wb4lnm@aol.com
Message-ID: <20001231215142.01117.00001050@ng-ch1.aol.com>
Source record: 55700

I might also ask what are you doing on my tax money (hey, you have a .GOV address) putting out a message like this?

I just put in Verizon DSL and it played the first time and worked just fine, thank you. Beats the dial up to AOL any day.

I don't put the laurels at the feet of Verizon folks to put this in place - it was the dedicated electrical engineers (not software weenies) who figured out how to put 500 kbps over the twisted pair that are the heros.

John...

>
>This message concerns anyone who may be considering getting DSL service
>in the near future.
>-
>I strongly urge you to spend some time in COMP.DCOM.XDSL before you chose
>a provider. If you do, it will become immediately apparent that Verizon,
>or any of the BabyBells are clearly the worst choices.

4. Re: How determine SSB PEP?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 03:10:44 UTC
From: Greg Knapp <gknapp@freshrain.org>
Message-ID: <t4vtbtes3e02b1@corp.supernews.com>
Source record: 55701

I want to thank everyone for sharing their wisdom directly with me via E-mail or here on the newsgroup. Apparently it is quite difficult to measure SSB PEP in real life QRP QSOs (as opposed to 2-tone tests) without an actual PEP reading meter.

Especially thanks to Steve, KZ1X/4, who sent me the W1HUE PEP circuit mod to the WM-1 / WM-2 which will allow direct reading of PEP on my soon-to-be-built QRP wattmeter. It should do the trick.

Again, thanks to all who replied, I really appreciate it, and 73...

Greg, N6GK

5. FS: OHR 100A CW QRP Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 03:15:31 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <nDS36.13002$Q9.3383322@ratbert.tds.net>
Source record: 55702
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Hi All,
I have a reently built OHR 100A CW transceiver for sale. The rig was built and tested by me and fully aligned. It works great and puts out about 7 watts max power. It is setup for the general portion of 40M.

The rig sells for $129.00 from OHR. I will sell this one for $100.00 shipped/insured.

Pictures available on request.

Regards,
Jeff W8CQ
w8cq@arrl.net

6. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 04:29:05 UTC
From: rcnixon@mindspring.com
Message-ID: <3a500762.1754620@news.mindspring.com>
Source record: 55703

Thiourea contains mercury, just be careful.

Russ - KF4WXD

k3ky@erols.spamnocom (David Sinclair) wrote:

>I use Tarnex on a lot of transmitter parts. It cleans up silver very
>nicely. If you use it, it is important to flush the work piece
>very thoroughly with lots of hot water afterwards. I guess that
>is because any remaining film of this cleaner would still be
>chemically active. I have found that it also does a good job
>on ceramic. They claim that the process involves the chemical
>conversion of the silver oxides back into silver, i.e. it is not
>abrasive and is not removing anything. In practice, I have
>applied it mainly with Q-Tips (small cotton swabs), and have
>observed some grayish stain on the swab coming from the work
>piece. Perhaps this is just dirt and contamination and not any
>silver or silver compounds. You can find Tarnex in
>pretty much any drug store. It is in a black plastic bottle with
>white cap and white printing. I think I paid about 4 dollars last
>time I bought some. It lasts a long time. The ingredients
>statement lists "Acidified Thiourea, Detergent, and Corrosion
>Inhibitors." Cautions include wearing gloves, plus a statement
>that "using this product will expose you to a chemical known to
>the state of California to cause cancer." I use it perhaps several
>times a year, and I feel reasonably comfortable with it. I doubt
>it is anywhere near as bad as getting various volatile solvents
>like trichloroethylene, acetone, etc. on your skin a lot. I simply
>minimize skin contact, wash often, and don't worry too much
>about it. "Your mileage may vary." 73, David K3KY
>
>In article <20001231015447.10817.00000666@ng-bj1.aol.com>
>k9sqg@aol.com (K9SQG) wrote:
>
>> How can you renew the sheen to discolore silver plated coils, at least for
>> certain areas of contact. Jewelry cleaner seems to be cancer related and/or
>> you can only leave it on the silver for 10 seconds. Any better method?
>>
>> Thanks.
>>
>> Happy New Year!
>>
>> Evan
>
>

>

7. Re: BC238 transistor substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 07:45:28 UTC
From: "Kevin B. Haywood" <haywoodkb@delphi.com>
Message-ID: <3A503597.A171087@delphi.com>
Source record: 55704

My book lists 2N3227 2N3242 2N3509 2N4124 also SK3122
does that help?

Robert John wrote:

> Can anyone provide a substitute transistor to use in place of a BC238.
> Tnx. Bob

8. Re: How determine SSB PEP?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 12:31:12 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <igm05tslak7ecucl8u87n9nfh0560bdum2@4ax.com>
Source record: 55705

On Sun, 31 Dec 2000 19:10:44 -0800, "Greg Knapp"
<gknapp@freshrain.org> wrote:

>I want to thank everyone for sharing their wisdom directly with me via
>E-mail or here on the newsgroup. Apparently it is quite difficult to measure
>SSB PEP in real life QRP QSOs (as opposed to 2-tone tests) without an actual
>PEP reading meter.

In addition, some rigs (e.g. the IC-706) are notorious for first
generating nearly the full power before the ALC limits the power when
the transmitter is operated at lowest power settings (e.g. for driving
a transmitter). With such transmitters using a peak reading meter with
hold, will show that first large initial peak.

Paul OH3LWR

9. VOX circuit needed or kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 14:47:46 UTC
From: compcnsult@aol.com
Message-ID: <20010101094746.23823.00002315@ng-fe1.aol.com>
Source record: 55706

I am looking for a VOX either circuit or prebuilt (or kit) to use on my FT-840,
Nice rig but no VOX function.

If you know where I can find a schematic or kit please let me know.

Thanks and Happy New Year
Chuck
W0CBF

10. AIRWX 09 NOW IN ENGLISH

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 15:05:04 UTC
From: F1LXJ SERGE <f1lxj@club-internet.fr>
Message-ID: <92q6ij$2hs$1@front6m.grolier.fr>
Source record: 55707

```
WXAIR 09 INFO
```

on http://perso.club-internet.fr/f1lxj
now in English
NEW:
If the speed of wind is understood between 7 and 90 km/h and that the
temperature
don't exceed 15°C, there is display of the equivalent temperature (°C) felt
by skin
high cloud,according to the ambient temperature and the speed of wind.

```
RECALL:

WXAIR version 0.9
It is a generator of plot weather report for the UIVIEW program
Infos are collected on the frequency phone weather report of the airport the
nearer.
Data enter the program, in the stated order.

HOME WX version 0.9
It is an adaptation of airwx, taking in account the summaries weather
report,
of instruments
personal.

GPS SIMULATOR version 0.9
Since the version 0.3 nothing was change.
```

11. Re: VOX circuit needed or kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 16:08:13 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A50AB6D.D35933E0@win.bright.net>
Source record: 55708

Ramsey Electronics sell a nice kit for $6.95. Works super. It can be found at http://www.ramseyelectronics.com/hk/hobbykits.htm and then click on the Voice Activated Switch. I have 2 of them in service.

Scott
N0EDV

CompCnsult wrote:
>
> I am looking for a VOX either circuit or prebuilt (or kit) to use on my FT-840,
> Nice rig but no VOX function.
>
> If you know where I can find a schematic or kit please let me know.
>
> Thanks and Happy New Year
> Chuck
> W0CBF

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

12. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 17:33:03 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <3A50E985.AF672BF@earthlink.net>
Source record: 55709

"Russell C. Nixon" wrote:
>
> Thiourea contains mercury, just be careful.
>
> Russ - KF4WXD
>

The compound is definitely toxic, but it doesn't contain mercury. It's an organic compound based on carbon, hydrogen, nitrogen and sulfur.

Marty K1FHR

13. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 17:50:08 UTC
From: Bob Weiss <bweiss@carroll.com>
Message-ID: <3A50C350.F908FB84@carroll.com>
Source record: 55710

Are you sure about that? "Thio" refers to sulfur, and urea is a simple organic compound containing nitrogen, carbon, and hydrogen.

Synonyms: isothiourea, sulfourea, 2-thiourea, USAF EK-497, pseudothiourea, thiocarbamide
Molecular formula: C H4 N2 S
CAS No: 62-56-6
EINECS No: 200-543-5

No mercury there. Perhaps you were thinking of thimerosal?

Bob Weiss N2IXK

"Russell C. Nixon" wrote:

> Thiourea contains mercury, just be careful.
>
> Russ - KF4WXD
>
> k3ky@erols.spamnocom (David Sinclair) wrote:
>
> >I use Tarnex on a lot of transmitter parts. It cleans up silver very
> >nicely. If you use it, it is important to flush the work piece
> >very thoroughly with lots of hot water afterwards. I guess that
> >is because any remaining film of this cleaner would still be
> >chemically active. I have found that it also does a good job
> >on ceramic. They claim that the process involves the chemical
> >conversion of the silver oxides back into silver, i.e. it is not
> >abrasive and is not removing anything. In practice, I have
> >applied it mainly with Q-Tips (small cotton swabs), and have
> >observed some grayish stain on the swab coming from the work
> >piece. Perhaps this is just dirt and contamination and not any
> >silver or silver compounds. You can find Tarnex in
> >pretty much any drug store. It is in a black plastic bottle with
> >white cap and white printing. I think I paid about 4 dollars last
> >time I bought some. It lasts a long time. The ingredients
> >statement lists "Acidified Thiourea, Detergent, and Corrosion
> >Inhibitors." Cautions include wearing gloves, plus a statement
> >that "using this product will expose you to a chemical known to
> >the state of California to cause cancer." I use it perhaps several
> >times a year, and I feel reasonably comfortable with it. I doubt
> >it is anywhere near as bad as getting various volatile solvents
> >like trichloroethylene, acetone, etc. on your skin a lot. I simply
> >minimize skin contact, wash often, and don't worry too much
> >about it. "Your mileage may vary." 73, David K3KY
> >

> >In article <20001231015447.10817.00000666@ng-bj1.aol.com>
> >k9sqg@aol.com (K9SQG) wrote:
> >
> >> How can you renew the sheen to discolore silver plated coils, at least for
> >> certain areas of contact. Jewelry cleaner seems to be cancer related and/or
> >> you can only leave it on the silver for 10 seconds. Any better method?
> >>
> >> Thanks.
> >>
> >> Happy New Year!
> >>
> >> Evan
> >
> >
> >

14. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 17:54:36 UTC
From: Robert Richardson <rrichard@zianet.com>
Message-ID: <3a50d4d6.0@oracle.zianet.com>
Source record: 55714

K9SQG <k9sqg@aol.com> wrote in message
news:20001231015447.10817.00000666@ng-bj1.aol.com...
> How can you renew the sheen to discolore silver plated coils, at least for
> certain areas of contact. Jewelry cleaner seems to be cancer related
and/or
> you can only leave it on the silver for 10 seconds. Any better method?

An old-fashioned cleaner for silver is plain old household ammonia solution
available in any grocery or convenience store for less than a dollar. Just
brush it on with a small brush, like a small paintbrush, scrub it a little
and viola, you have a clean shiny silver surface. To clean the amonia off,
one can use plain water or rubbing alcohol. No need for polishes or other
stuff (containing only God knows what) to clean the tarnish off silver.
K5DXN

15. Re: Tube Mic Preamp Circuit Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 18:04:10 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <4E346.2799$J_.57505@e420r-atl2.usenetserver.com>
Source record: 55711

http://www.jensen-transformers.com/as/as020.pdf

Of course for commnications use, you can (should?) use a lower-quality (cheaper) transformer. You don't need the wide frequency response and ultra-low distortion of the Jensen products Additional schematics at:

http://www.jensen-transformers.com/apps_sc.html

RC

<ilikedeja@my-deja.com> wrote ...
> I would like to build a single-ended mic preamp
> utilizing a 12AX7 or similar tube. I need it to have
> a low-Z balanced input (300-600 ohms) and a
> balanced low-Z output. Since I am planning to
> use it with a dynamic mic, it doesn't need to provide
> phantom power. I don't need a lot of fancy features;
> just a good, basic circuit. Can anyone point me
> to a schematic on the web or email me one? Thank you.

I won't attempt to e-mail to anyone using a *deja.com address due to the overwhelming failure of that service. My experience is that all mail to *deja addresses BOUNCE every time.

16. Re: DSL Availability In Your Area?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 18:17:10 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <gQ346.2833$J_.59018@e420r-atl2.usenetserver.com>
Source record: 55712

Any of the methods (xDSL telco, cable, even sattelite) are dependent on the business decisions of the carriers. How much bandwidth will they provide vs. growing number of customers per hub/transponder?

In many cases the customer service response may be more significant than the data rate of DSL vs. cable. YMMV depending on who your local vendor(s) are and how their local management runs the operation.

RC in OR
still using 26.4K dialup (no DSL or cable in my neighborhood)

17. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 18:58:00 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t51kps9f94jl52@corp.supernews.com>
Source record: 55713

i think i recall somewhere earlier that someone mentioned using a solution
of vinegar and sodium bicarbonate and putting the sliver into the solution..
i can't recall the chemical reaction but in essence the silver oxide or
sulphate was restored to silver and the tarnish precipiated..
i widh i could remember but can't..
maybe someone with a good chemistry backgound can help..
73
hank wd5jfr
"K9SQG" <k9sqg@aol.com> wrote in message
news:20001231015447.10817.00000666@ng-bj1.aol.com...
> How can you renew the sheen to discolore silver plated coils, at least for
> certain areas of contact. Jewelry cleaner seems to be cancer related
and/or
> you can only leave it on the silver for 10 seconds. Any better method?
>
> Thanks.
>
> Happy New Year!
>
> Evan

18. 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 19:11:20 UTC
From: "Lindsay C. Blanton" <lblant1@airmail.net>
Message-ID: <c4l15tobfpt1fd83v5g9t4n29v7na2q68u@4ax.com>
Source record: 55715
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hello everyone!

I'm attempting to find some information on how to build an RF up converter circuit for the 400 Mhz band.

My requirements are to be able to up convert signals in the 450-465 Mhz band to exactly 40 Mhz higher (to 490-505 Mhz).

Ex.

460.025 Mhz --> [Up converter] ---> 490.025 Mhz

My problem is, I've got a receiver that only receives in the 480-512 Mhz band, but I need to allow this receiver to monitor signals in the 450-465 Mhz band. There are no transmission requirements, only the need to attach an antenna to the input of this up converter, and then attach the output of the up converter to the antenna input of the receiver.

I'd prefer to build this circuit myself, but if there are commercial products available that will accomplish this I'll consider those too...

I'm hoping someone can help!

Warmest regards, and Happy new Year!

Lindsay Blanton
lindsay@lcblanton.com
The Trunked Radio Information Homepage
http://www.trunkedradio.net

19. Re: Need schematic for FT-101B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 19:27:37 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <JS446.225502$RP.43414450@news1.rdc1.md.home.com>
Source record: 55716
Cross-posted to: rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.swap

I want to thank all for the input and assistance. I have more than enough information now.

I can, in the future, provide info for those whom need it for the FT-101 series. One of my procurements through all this was an original Maintenance Service Manual - FT-101 Series.

Happy Holidays to all!

Thanks Again!
N0DGN

"B-Squared" <rbethman@home.com> wrote in message

> I need a schematic for a Yaesu FT-101B. I'm going to convert it over to
> 6146B finals based on the QST from May 1999. Send me an email, let me know
> if you can or will fax, scan and email a jpg or whatever. Anyone have an
> old manual or copy of one lose? Will pay for copy.
>
> Thanks!
> N0DGN
> mailto:rbethman@home.com
>
>
>

20. Re: Is this the easiest way to make pcbs?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 20:07:33 UTC
From: wa4qal@ix.netcom.com
Message-ID: <3a50ddda.19307387@nntp.ix.netcom.com>
Source record: 55717

On Fri, 29 Dec 2000 10:53:39 GMT, JW <jdwalton@home.com> wrote:

>With overhead transparency material it's easy to make a positive, however
>photosensitive boards need a negative -- this I've done with 4*5 film. Being lazy
>I am looking for something even easier without wet chemistry.
>
>For those who are interested, you can fashion a negative of sorts by using "Print
>Screen" to capture the image from your Layout Program, copy the screen using
>"Print Screen", open MS Paint or Photoshop, copy the image to Photoshop,
>inverting the colors and try to size it to 100%. I just find it easier to print
>a high res image, lay it on the scanner etc., open Photoshop, invert the image
>and print to an overhead transparency.
>
>Jack exWA8PZL
>
>Jim Pennino wrote:
>
>> Ralph Mowery <rmowery@dialpoint.net> wrote:
>> > There is some material made that you place in a copier like you would paper
>> > and make a copy of the layout. Then you put the special paper on the PCB,
>> > I think you then have to use an iron to iron it on but not sure. Read
>> > about this method several years ago.
>>
>> You can do it with tranparency material and a laser printer.
>>
>> Jim Pennino

I've used the EASYTRAX package for producing my artwork (Freeware,
courtsey of the Protel corporation.) While EASYTRAX only produces
postive artwork, there is an add-on program, called CONVERT, which
will convert the positive artwork to negative artwork. This program
is available on the RCS Radio web-page:

http://www.cia.com.au/rcsradio/

(Bob was talking about selling the company, but I haven't heard
anything recently. Bob, if you're reading this, I hope you're doing
well after the accident.).

I've made several PC boards using the thermal transfer technique
with a laser printer, and, while it works, I'm not satisfied with the
repeatability. Sometimes, the boards turn out fine, other times,
the toner/resist fails to adequately stick to the copper. I'm not
sure if it has to do with the type of paper (regular copier paper,
heavy-weight paper, glossy/photo paper, etc.), with the toner
used in the laser printer, with the cleaning/preparation of the

board, with the temperature of the thermal transfer process,
or if it has to do with something else.

I'm planning on giving the photographic technique a try later
this year (Too many things to do, not enough time.). I'm aware
of both a negative and a positive photoresist, although the
existance of the CONVERT program makes this pretty much
a moot point.

I've thought about trying the direct plot on the board approach,
but I've not had much luck finding a flat-bed plotter (HP used to
make one decades ago, although I'm not sure how easy it
would be to interface it to a modern system. I think there's another
manufacturer who makes a reasonably afforable (used) flat-bed
plotter, but, I can't recall the name.).

Dave
WA4QAL

21. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 20:37:24 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <8U546.73931$nM5.12181415@news02.optonline.net>
Source record: 55720
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Lindsay,

Depending on the result you are trying for the converter isn't all
that hard or may be nearly impossible.

Here's a few quick easy thing to try:

1) cheap, dirty and probably not useful:

Take a Mini Circuits mixer and hook the antenna to the RF port.

Hook a signal generator tuned to 40 MHz to the LO port.

Pull the output off the if port.

Should give you about 6 db of loss and lots and lots and lots of
spurs.

2) not quite so cheap, still dirty, may be useful:

Same hookup as 1 above, only set the signal generator to 465 + 490 =
955 MHz.

Same loss, still a lot of spurs, but not as bad as in 1 above.

3) Spend more money:

Put an RF bandpass filter in front of the mixer. Try hamfests or eBay
for one since they can be fairly expensive ($400+) purchased new.
Cuts down on the spurs.

4) Spend still more money:

Put an SAW if in between a pair of mixers ....

At this point you are building a receiver from scratch ....

All said, if the simple lash up's are not adequate a new receiver may
be cheaper than a converter. Obviously if the simple setups work then
you can replace the signal generator with a fixed frequency
oscillator. If they don't work you are only out the price of the
mixer.

Hope this helps ....

Bob

KB8TQ

"Lindsay C. Blanton" <lblant1@airmail.net> wrote in message
news:c4l15tobfpt1fd83v5g9t4n29v7na2q68u@4ax.com...
> Hello everyone!
>
> I'm attempting to find some information on how to build an RF up
> converter circuit for the 400 Mhz band.
>
> My requirements are to be able to up convert signals in the 450-465
> Mhz band to exactly 40 Mhz higher (to 490-505 Mhz).
>
> Ex.
>
> 460.025 Mhz --> [Up converter] ---> 490.025 Mhz
>
> My problem is, I've got a receiver that only receives in the 480-512
> Mhz band, but I need to allow this receiver to monitor signals in
the
> 450-465 Mhz band. There are no transmission requirements, only the
> need to attach an antenna to the input of this up converter, and
then
> attach the output of the up converter to the antenna input of the
> receiver.
>
> I'd prefer to build this circuit myself, but if there are commercial
> products available that will accomplish this I'll consider those
> too...
>
> I'm hoping someone can help!
>
> Warmest regards, and Happy new Year!
>
> Lindsay Blanton
> lindsay@lcblanton.com
> The Trunked Radio Information Homepage
> http://www.trunkedradio.net
>

22. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 20:40:41 UTC
From: "Al, N2NKB"
Message-ID: <dX546.9537$al6.644971@bgtnsc05-news.ops.worldnet.att.net>
Source record: 55719

That's certainly true. I always chuckle when I see someone in the lab search for an antenna adapter, and grab a nice shiny one rather than an ugly tarnished one.
Al

Chris wrote in message <3A51103D.296A@netusa1.net>...
>I read once that silver oxide is a better conductor than
>silver. Cleaning would only enhance looks, not operation.
>
> Chris N9LLO
>
>> K9SQG <k9sqg@aol.com> wrote in message
> > How can you renew the sheen to discolore silver plated coils, at
>least for
>> > certain areas of contact.

23. Re: OHR 100A CW QRP Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 21:14:01 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <tq646.13402$Q9.3587329@ratbert.tds.net>
Source record: 55721
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Hi All,
The OHR 100A is spoken for.

Thanks,
Jeff
"Jeff Weinberg W8CQ" <w8cqjeff@tds.net> wrote in message
news:nDS36.13002$Q9.3383322@ratbert.tds.net...
> Hi All,
> I have a reently built OHR 100A CW transceiver for sale. The rig was
built
> and tested by me and fully aligned. It works great and puts out about 7
> watts max power. It is setup for the general portion of 40M.
>
> The rig sells for $129.00 from OHR. I will sell this one for $100.00
> shipped/insured.
>
> Pictures available on request.
>
> Regards,
> Jeff W8CQ
> w8cq@arrl.net
>
>
>

24. Re: Need schematic for FT-101B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 21:14:16 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <Bo646.39141$FO1.1122645@brie.direct.ca>
Source record: 55722
Cross-posted to: rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.swap

```
Try rbethman@home.com .
"B-Squared" <rbethman@home.com> wrote in message
news:JS446.225502$RP.43414450@news1.rdc1.md.home.com...
> I want to thank all for the input and assistance. I have more than enough
> information now.
>
> I can, in the future, provide info for those whom need it for the FT-101
> series. One of my procurements through all this was an original
Maintenance
> Service Manual - FT-101 Series.
>
> Happy Holidays to all!
>
> Thanks Again!
> N0DGN
>
>
> "B-Squared" <rbethman@home.com> wrote in message
>
> > I need a schematic for a Yaesu FT-101B. I'm going to convert it over to
> > 6146B finals based on the QST from May 1999. Send me an email, let me
> know
> > if you can or will fax, scan and email a jpg or whatever. Anyone have
an
> > old manual or copy of one lose? Will pay for copy.
> >
> > Thanks!
> > N0DGN
> > mailto:rbethman@home.com
> >
> >
> >
>
>
```

25. Re: Need schematic for FT-101B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 21:20:58 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <_w646.225668$RP.43501853@news1.rdc1.md.home.com>
Source record: 55723
Cross-posted to: rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.swap,rec.radio.swap

Thanks Again Miki!

N0DGN
Bob

"John S. MacKay" <k35454@direct.ca> wrote in message
news:Bo646.39141$FO1.1122645@brie.direct.ca...
> Try rbethman@home.com .
> "B-Squared" <rbethman@home.com> wrote in message
> news:JS446.225502$RP.43414450@news1.rdc1.md.home.com...
> > I want to thank all for the input and assistance. I have more than
enough
> > information now.
> >
> > I can, in the future, provide info for those whom need it for the FT-101
> > series. One of my procurements through all this was an original
> Maintenance
> > Service Manual - FT-101 Series.
> >
> > Happy Holidays to all!
> >
> > Thanks Again!
> > N0DGN
> >
> >
> > "B-Squared" <rbethman@home.com> wrote in message
> >
> > > I need a schematic for a Yaesu FT-101B. I'm going to convert it over
to
> > > 6146B finals based on the QST from May 1999. Send me an email, let me
> > know
> > > if you can or will fax, scan and email a jpg or whatever. Anyone have
> an
> > > old manual or copy of one lose? Will pay for copy.
> > >
> > > Thanks!
> > > N0DGN
> > > mailto:rbethman@home.com
> > >
> > >
> > >
> >
> >

>
>

26. 400 Mhz RF Up-converter circuit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 21:23:59 UTC
From: "Lindsay C. Blanton" <lindsay@lcblanton.com>
Message-ID: <zB646.41$7T1.72681@nnrp3.sbc.net>
Source record: 55724
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Hello everyone!

I'm attempting to find some information on how to build an RF up converter circuit for the 400 Mhz band.

My requirements are to be able to up convert signals in the 450-465 Mhz band to exactly 40 Mhz higher (to 490-505 Mhz).

Ex.

460.025 Mhz --> [Up converter] ---> 490.025 Mhz

My problem is, I've got a receiver that only receives in the 480-512 Mhz band, but I need to allow this receiver to monitor signals in the 450-465 Mhz band. There are no transmission requirements, only the need to attach an antenna to the input of this up converter, and then attach the output of the up converter to the antenna input of the receiver.

I'd prefer to build this circuit myself, but if there are commercial products available that will accomplish this I'll consider those too...

I'm hoping someone can help!

Warmest regards, and Happy new Year!

Lindsay Blanton
lindsay@lcblanton.com
The Trunked Radio Information Homepage
http://www.trunkedradio.net

27. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 22:30:24 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <4y746.129615$iy3.28693565@news1.rdc1.tn.home.com>
Source record: 55725
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Not knowing the type of receiver you have, it may be much easier to move it
to the desired freq range by changing its LO.

jim K4KAE

"Lindsay C. Blanton" <lblant1@airmail.net> wrote in message
news:c4l15tobfpt1fd83v5g9t4n29v7na2q68u@4ax.com...
> Hello everyone!
>
> I'm attempting to find some information on how to build an RF up
> converter circuit for the 400 Mhz band.
>
> My requirements are to be able to up convert signals in the 450-465
> Mhz band to exactly 40 Mhz higher (to 490-505 Mhz).
>
> Ex.
>
> 460.025 Mhz --> [Up converter] ---> 490.025 Mhz
>
> My problem is, I've got a receiver that only receives in the 480-512
> Mhz band, but I need to allow this receiver to monitor signals in the
> 450-465 Mhz band. There are no transmission requirements, only the
> need to attach an antenna to the input of this up converter, and then
> attach the output of the up converter to the antenna input of the
> receiver.
>
> I'd prefer to build this circuit myself, but if there are commercial
> products available that will accomplish this I'll consider those
> too...
>
> I'm hoping someone can help!
>
> Warmest regards, and Happy new Year!
>
> Lindsay Blanton
> lindsay@lcblanton.com
> The Trunked Radio Information Homepage
> http://www.trunkedradio.net
>

28. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 23:16:55 UTC
From: Robert <romapa@earthlink.net>
Message-ID: <3A510F53.F8A6F807@earthlink.net>
Source record: 55726
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Give me a break! Even Einstein would know that a fixed 40MHz oscillator and mixer combination beats a * tunable * LO oscillator. He can buy a little 3dBm mixer for about $2, a 40MHz osc for $5, and he is there. The mixer should be double-balanced and he will not need a filter- closest product down 20dB at this frequency. He may take a 6dB hit in conversion loss so he has about 30% reduction in reception range for the same S/N; or he can listen to same range with a little less S/N. Or he can spring for a MAR and be about the same.

jim bennett wrote:

> Not knowing the type of receiver you have, it may be much easier to move it
> to the desired freq range by changing its LO.
>
> jim K4KAE

>

29. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 23:18:21 UTC
From: Chris <csnichol@netusa1.net>
Message-ID: <3A51103D.296A@netusa1.net>
Source record: 55718

I read once that silver oxide is a better conductor than
silver. Cleaning would only enhance looks, not operation.

Chris N9LLO

> K9SQG <k9sqg@aol.com> wrote in message
> How can you renew the sheen to discolore silver plated coils, at
least for
> > certain areas of contact.

30. On-frequency repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 23:40:28 UTC
From: Joe McElvenney <joemac@xic.demon.co.uk>
Message-ID: <VA.00000149.00280aa5@xic.demon.co.uk>
Source record: 55728

Hi,

Some years ago I witnessed a demonstration of an on-frequency repeater made by Plessey in the UK. One of its main uses was to provide radio shadow fill-in on the battlefield and as such was meant to be left unattended. The antennas were a couple of monopoles spaced a few metres apart and except for a low power provision (10mW or so, which is common on military gear) there was no obvious method of stopping RF blocking. I had the manual in my hand at one time but regret that I didn't get round to reading it before it was whisked away. Does anyone remember this or shed a little light on the subject? As I recall it didn't use a small offset and narrow filters but I could be wrong. I suspect that the receiver was somewhat deaf though.

73 de Joe, G3LLV

31. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 23:42:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A5115F4.F85739AD@eznec.com>
Source record: 55727

Silver oxide isn't a better conductor than silver. But tarnish is primarily silver sulfide, which is about 100,000 times less conductive than silver. The amount of loss it would introduce depends on the thickness and frequency.

Where did you read that silver oxide is more conductive than silver? The writer would be an author to avoid.

Roy Lewallen, W7EL

Chris wrote:
>
> I read once that silver oxide is a better conductor than
> silver. Cleaning would only enhance looks, not operation.
>
> Chris N9LLO

32. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-01 23:59:45 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <RR846.129693$iy3.28745805@news1.rdc1.tn.home.com>
Source record: 55729
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

"Robert" <romapa@earthlink.net> wrote in message
news:3A510F53.F8A6F807@earthlink.net...
>
> Give me a break! Even Einstein would know that a fixed 40MHz oscillator
and
> mixer combination beats a * tunable * LO oscillator.

Who said the LO was tunable..we don't know. If I was looking at this project
and I wanted to only tune the bandwidth listed and had no need for the old
bandwidth, I would look hard at what I suggested.

Nice to meet you
jim K4KAE

He can buy a little 3dBm
> mixer for about $2, a 40MHz osc for $5, and he is there. The mixer should
be
> double-balanced and he will not need a filter- closest product down 20dB
at
> this frequency. He may take a 6dB hit in conversion loss so he has about
30%
> reduction in reception range for the same S/N; or he can listen to same
range
> with a little less S/N. Or he can spring for a MAR and be about the same.
>
>
>
> jim bennett wrote:
>
> > Not knowing the type of receiver you have, it may be much easier to move
it
> > to the desired freq range by changing its LO.
> >
> > jim K4KAE
>
> >
>

33. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 00:06:07 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <PX846.225885$RP.43618279@news1.rdc1.md.home.com>
Source record: 55730

Amen!

I recommended a visit to the Cool Amp site and request a sample of their powder. Not only clean the silver, but add additional plating.

I automatically do a double take when someone tells me a corroded surface is more conductive than one not. Some folks will believe ANYTHING.

N0DGN

"Roy Lewallen" <w7el@eznec.com> wrote in message news:3A5115F4.F85739AD@eznec.com...
> Silver oxide isn't a better conductor than silver. But tarnish is
> primarily silver sulfide, which is about 100,000 times less conductive
> than silver. The amount of loss it would introduce depends on the
> thickness and frequency.
>
> Where did you read that silver oxide is more conductive than silver? The
> writer would be an author to avoid.
>
> Roy Lewallen, W7EL
>
> Chris wrote:
> >
> > I read once that silver oxide is a better conductor than
> > silver. Cleaning would only enhance looks, not operation.
> >
> > Chris N9LLO

34. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 00:20:08 UTC
From: rcnixon@mindspring.com
Message-ID: <3a511e82.2805232@news.mindspring.com>
Source record: 55731

Yep, that's exactly what happened, as I wrote to Marty, brain fade
confused the two "th" words!

Russ - KF4WXD
Bob Weiss <bweiss@carroll.com> wrote:

>Are you sure about that? "Thio" refers to sulfur, and urea is a simple organic
>compound containing nitrogen, carbon, and hydrogen.
>
>Synonyms: isothiourea, sulfourea, 2-thiourea, USAF EK-497, pseudothiourea,
>thiocarbamide
> Molecular formula: C H4 N2 S
> CAS No: 62-56-6
> EINECS No: 200-543-5
>
>No mercury there. Perhaps you were thinking of thimerosal?
>
>Bob Weiss N2IXK
>
>"Russell C. Nixon" wrote:
>
>> Thiourea contains mercury, just be careful.
>>
>> Russ - KF4WXD
>>
>> k3ky@erols.spamnocom (David Sinclair) wrote:
>>
>> >I use Tarnex on a lot of transmitter parts. It cleans up silver very
>> >nicely. If you use it, it is important to flush the work piece
>> >very thoroughly with lots of hot water afterwards. I guess that
>> >is because any remaining film of this cleaner would still be
>> >chemically active. I have found that it also does a good job
>> >on ceramic. They claim that the process involves the chemical
>> >conversion of the silver oxides back into silver, i.e. it is not
>> >abrasive and is not removing anything. In practice, I have
>> >applied it mainly with Q-Tips (small cotton swabs), and have
>> >observed some grayish stain on the swab coming from the work
>> >piece. Perhaps this is just dirt and contamination and not any
>> >silver or silver compounds. You can find Tarnex in
>> >pretty much any drug store. It is in a black plastic bottle with
>> >white cap and white printing. I think I paid about 4 dollars last
>> >time I bought some. It lasts a long time. The ingredients
>> >statement lists "Acidified Thiourea, Detergent, and Corrosion
>> >Inhibitors." Cautions include wearing gloves, plus a statement
>> >that "using this product will expose you to a chemical known to

>> >the state of California to cause cancer." I use it perhaps several
>> >times a year, and I feel reasonably comfortable with it. I doubt
>> >it is anywhere near as bad as getting various volatile solvents
>> >like trichloroethylene, acetone, etc. on your skin a lot. I simply
>> >minimize skin contact, wash often, and don't worry too much
>> >about it. "Your mileage may vary." 73, David K3KY
>> >
>> >In article <20001231015447.10817.00000666@ng-bj1.aol.com>
>> >k9sqg@aol.com (K9SQG) wrote:
>> >
>> >> How can you renew the sheen to discolore silver plated coils, at least for
>> >> certain areas of contact. Jewelry cleaner seems to be cancer related and/or
>> >> you can only leave it on the silver for 10 seconds. Any better method?
>> >>
>> >> Thanks.
>> >>
>> >> Happy New Year!
>> >>
>> >> Evan
>> >
>> >
>> >
>

35. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 00:26:14 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <3A512026.BFFC6A9E@austininstruments.com>
Source record: 55732
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Robert wrote:
>
> Give me a break! Even Einstein would know that a fixed 40MHz oscillator and
> mixer combination beats a * tunable * LO oscillator.

I believe Einstein would have been more interested in the
frequency change of the fixed oscillator in an accelerating frame
relative to an observer in a "fixed" frame.

John Fields Austin Instruments, Inc.
El Presidente Austin, Republic of Texas
"I speak for my company" http://www.austininstruments.com

36. Re: Tube Water Cooling ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 00:26:14 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <9q325tk1aloh28v56cds3afhc875rq7tv8@4ax.com>
Source record: 55733

"Bob Camp" <bob@cq.nu> wrote:

>Jim,
>
>Yup, that's right. I just find the other way easier to remember. I
>wonder if there is a 4V150 out there that's vapor cooled with a glass
>seal ....

Surely not! All the vapor cooled tubes that I'm aware of are 100,000
Watts and above. ;-)

I got a quote a few months ago for some 4CV250,000 tubes as possible
replacements in case I blow up one of the 175kW tubes in my current
assignment, for which we have no spares. The price was ~$15k @ once
you added in the new collets, etc. OUCH!

I think this means I need to be careful with the ones I've got.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA
---

37. Re: Tube Water Cooling ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 02:41:57 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <92rf83$8pu@nnrp4.farm.idt.net>
Source record: 55734

"Bob Dodson" <wb5apd@alltel.net> wrote in message
news:3A4AC09E.D3EAF38F@alltel.net...
> Anyone know where I can find info of how to build a water cooling
> system
> for a big tetrode. Also any real drawbacks to water cooling.

Where I work we have used large water cooled triodes for induction heating uses in a power oscillator circuit from power levels of 30 KW to 150 KW. We found there are several issues with water cooling a large power tube. These tubes were "designed" for liquid cooling, and not modified air cooled versions.

1. The water quality. The water has to be very clean and non-conductive. You can use deionzied or distilled water. You should check the conductivity of the water at regular intervals.

2. You may need to use "targets" at the anode of the tube. The target will slowly dissolve in to the cooling water instead of the tube's anode, or the water cooling jacket the tube sits in. The targets should be installed at the anode of the tube, and in line where the water enters, and exits the cooling jacket.

3. You MUST use non-conductive hose for all water connections. You would be very surprised by how many hose materials are conductive or break down at high anode voltages. The best thing to do is test a sample at the volts per foot you will be using.

4. Watch your hose length! You need enough length of hose to keep electrolysis to a minimum so your targets don't "disappear" after a few weeks or months of operation. Don't forget to check the targets on a regular schedule either. We have used about 20 to 30 feet of nylon reinforced Tygon hose, 1-1/2 inch size, at anode voltages up to around 15 to 18 KV. The hose has to be suspended in air away from anything conductive connected to ground along its length, until you get to the end fittings which must be grounded. If you don't, the high voltage/RF will "burn through" the hose from the water inside to the ground point! This is most important near the tube's anode of course. In place of using hose I have seen PVC pipe used too with the same notes applying as for the hose.

5. You will need some control logic to be sure you have water flow BEFORE you turn on the tube filaments! Some of the tubes I have seen take 14 volts at 250 to 350 amps. That heat has to go somewhere!

6. You will also need logic to let the tube cool down for some minutes after the anode voltage is removed BEFORE the cooling flow is shut off.

7. Finally you will need logic to dump the anode supply voltage in case of cooling flow failure, or coolant over temperature condition. Also an Emergency-Stop switch to shut off the coolant flow, pump, and anode supply voltage in case of a coolant leak is also recommended!

The above is the basic things you need to consider for a liquid cooled tube application. There maybe a few minor points I forgot to mention however.

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse Code is used exclusively by Electronics Based life forms to communicate amongst themselves using advanced Organic Digital Signal Processors, running state of the art Artificial Intelligence Software, to perform the highly complex transmit encryption, receive decryption and error correction functions."

38. Re: Anyone have plans for a 6M transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 03:21:30 UTC
From: Jim Griffin <jhg_949@msn.com>
Message-ID: <OUFtmrGdAHA.237@cpmsnbbsa07>
Source record: 55735

You could look at http://www.tentec.com. They also have a kit for 6
meters. They might sell you a schematic and construction manual.

Jim - KD5ISH

"Scott" <acepilot@win.bright.net> wrote in message
news:3A4F9627.9B837F6B@win.bright.net...
> Anyone have a schematic of a simple 6M, crystal controlled transmitter
> with somewhere between 1 and 5 Watts output?
>
> --
> --Scott N0EDV--

39. Parametric Eq info required.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 03:53:59 UTC
From: "t.dxnet" <t.dxnet@infonie.fr>
Message-ID: <978408341.265815@romulus.infonie.fr>
Source record: 55736

I will like to get for a parametric Eq and i will like to know if any of
you knows from the EQX-2 by LA Audio?
http://www.laaudio.co.uk/PRODPAG/eqx2.htm
or if you have another one than you know let me know about your opinion.
It will be to use with my FT-1KMP.
the audio device project will be:
Eq like EQX-2 (LA Audio).
Mix as MX602 (Behringer).
Mic as NT-1(Rhode).

73'Thierry.
t.dxnet@infonie.fr
Have an HAPPY NEW YEAR 2001.

40. Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 05:48:24 UTC
From: Barry Ornitz <ornitz@dpnet.net>
Message-ID: <nVd46.9162$dm4.802308@news-east.usenetserver.com>
Source record: 55737

Boy, some of the answers on cleaning tarnish from silver have been quite humorous but completely wrong. To correct a few things: all "thio" compounds are sulfur containing (not mercury), silver oxide is not more conductive than metallic silver but it is more conductive than silver sulfide (black tarnish),

The simplest process for cleaning silver of tarnish is described below. It is likely what Henry Kolesnik was trying to remember. It does not remove any silver, unlike polishes. It reduces the silver sulfide to metallic silver. The only problem is that the silver or silver plated part must be immersed in an aqueous solution.

To begin, find an aluminum pan that is deep enough to hold the part. It is best not to steal the wife's Mirro cookware. A disposable pan like grocery stores sell for holiday baking is excellent. Fill the pan with water and add a little table salt (sodium chloride) or baking soda (sodium bicarbonate). No more than a half teaspoon is necessary. Now dunk the silver part in the pan and allow it to rest on the aluminum. It must make electrical contact to the aluminum. To speed things up, heat the water. You will quickly find the black discoloration on the silver dissolves and the aluminum pan will darken.
Rinse the part well after removing it from the solution. The finished silver part may not come out very shiny (but it will be bright). This is because the process only removes the sulfur. If you mechanically polish the silver, you WILL remove some silver.

What is happening is an electrolytic oxidation-reduction chemical reaction. The silver sulfide is reduced to metallic silver with the sulfur ions going into solution. They react with the aluminum making it black. The electrical contact is needed for the electrolytic reaction to take place. The aluminum reaction is the oxidation.

If you did accidentally use the wife's fancy pot and you are too lazy to scrub it with a scouring pad, you can cook some tomatoes in the pot. Their acidity will dissolve the aluminum sulfides. The added sulfur in the tomatoes is generally not harmful but it can give some awful flatulence!

The fancy product sold on television that has a liquid and a "magic" metal plate to put in the bottom of a bowl is essentially just this - at a far higher price! That metal is just aluminum.

Cool-Amp powder is sold in large electrical supply stores. You add a little water to it to make a thick paste and rub it on copper to produce a thin silver coating. It works quite well. The main use is to coat electrical buss bars and breaker contacts with a thin silver plating to reduce contact resistance. The stuff is quite expensive and they only sell

it in one pound jars. A jar will last you and your friends a lifetime however.

By the way, while I am the "resident chemist" on the Old Tube Radios mailing list (Boatanchors), I am really a chemical/electrical engineer.

73, Barry L. Ornitz WA4VZQ ornitz@usa.net

41. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 07:57:28 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <9nr25t031s9j91p74vei1jgp0s3o3d4msc@4ax.com>
Source record: 55738
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 01 Jan 2001 23:16:55 GMT, Robert <romapa@earthlink.net> wrote:

>
>Give me a break! Even Einstein would know that a fixed 40MHz oscillator and
>mixer combination beats a * tunable * LO oscillator.

It is usually better to have a tunable receiver moved to the desired band than having a fixed converted followed by the original tunable receiver when looking at the number of potential spurs.

However, if the original receiver has a good front end selectivity, then in addition of moving the LO, the front end filters would have to be retuned for the new band, which can be a hard task, if complex filtering are used.

>Or he can spring for a MAR and be about the same.

Have you ever connected an antenna directly to any of those low noise MAR amplifiers in the vicinity of strong transmitters ? You need quite a lot of selectivity in front of the MAR amplifier to protect it from overload or you have to use some of the high IP3 versions in the MAR series, but the noise figure is not much better than a SBL series diode ring mixer.

Paul OH3LWR

42. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 07:57:29 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ffs25tompral5s204o03t0a48c59e82vob@4ax.com>
Source record: 55739
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

On Mon, 01 Jan 2001 20:37:24 GMT, "Bob Camp" <bob@cq.nu> wrote:

>1) cheap, dirty and probably not useful:

>Take a Mini Circuits mixer and hook the antenna to the RF port.

>Hook a signal generator tuned to 40 MHz to the LO port.

And you have the image frequency band at 530 .. 545 MHz. This is in the UHF television broadcast band so if there are _any_ TV broadcasts detectable in that range at your location, then these will produce image frequencies with the same intensity as the desired signals, unless some heavy bandpass filtering is used in front of the mixer.

>Pull the output off the if port.

>Should give you about 6 db of loss and lots and lots and lots of
>spurs.

However, if you are lucky, no TV broadcasts are detectable in that frequency range in your area, so even with no front end selectivity, this system will be quite usable, although the effective noise figure will degraded by a further 3 dB due to the band noise in the image frequency range, so the total noise figure would be more than 9 dB.

>2) not quite so cheap, still dirty, may be useful:

>Same hookup as 1 above, only set the signal generator to 465 + 490 =
>955 MHz.

>Same loss, still a lot of spurs, but not as bad as in 1 above.

Please note that

955 MHz - 450 MHz = 505 MHz (frequency difference 55 MHz)
955 MHz - 465 MHz = 490 MHz (frequency difference 25 MHz)

Thus the receiver would tune in _opposite_ direction, the frequency difference would not be 40 MHz as required, the sidebands would be flipped and so on.

>3) Spend more money:

>Put an RF bandpass filter in front of the mixer. Try hamfests or eBay
>for one since they can be fairly expensive ($400+) purchased new.
>Cuts down on the spurs.

Toko made quite a few helical filters in that frequency range for
maybe $5 .. $10, but the insertion loss was about 2 .. 6 dB.

Paul OH3LWR

43. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 08:52:47 UTC
From: John Woodgate <jmw@jmwa.demon.co.uk>
Message-ID: <a7WjYeAfbZU6EwAd@jmwa.demon.co.uk>
Source record: 55746
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

<ffs25tompral5s204o03t0a48c59e82vob@4ax.com>, Paul Keinanen
<keinanen@sci.fi> inimitably wrote:
>Please note that
>
>955 MHz - 450 MHz = 505 MHz (frequency difference 55 MHz)
>955 MHz - 465 MHz = 490 MHz (frequency difference 25 MHz)
>
>Thus the receiver would tune in _opposite_ direction, the frequency
>difference would not be 40 MHz as required, the sidebands would be
>flipped and so on.

Your point about 'frequency difference' is misleading. With the 'osc.
high' configuration, the new tuning range is 490 to 505 MHz, as
required. Reversing the tuning direction is probably not a big
disadvantage. Inverting the sidebands may or may not be a problem
depending on what signals are to be received.
--
Regards, John Woodgate, OOO - Own Opinions Only. Phone +44 (0)1268 747839
Fax +44 (0)1268 777124. http://www.jmwa.demon.co.uk Foxhunters suffer from
tallyhosis. PLEASE do not mail copies of newsgroup posts to me.

44. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 09:19:14 UTC
From: Bill Sloman <bill.sloman@ieee.org>
Message-ID: <92s6eggmc1@nnrp1.deja.com>
Source record: 55740
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

In article <3A512026.BFFC6A9E@austininstruments.com>,
John Fields <jfields@austininstruments.com> wrote:
> Robert wrote:
> >
> > Give me a break! Even Einstein would know that a fixed 40MHz
> > oscillator and mixer combination beats a * tunable * LO
> > oscillator.
>
> ---
>
> I believe Einstein would have been more interested in the
> frequency change of the fixed oscillator in an accelerating frame
> relative to an observer in a "fixed" frame.

Only when he was young. When he got older he got onto serious stuff,
like designing fridges. Haven't you been reading your Scientific
American recently?

--
Bill Sloman, Nijmegen

Sent via Deja.com
http://www.deja.com/

45. Re: On-frequency repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 10:59:31 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a51b3e4.2331621@news.cantech.net.au>
Source record: 55741

Joe

If the gain exceeds the isolation for a continuous real-time repeater configuration, there are immediate stability issues. Ways around this are either exoensive or use time-slicing. The current TETRA equipment achieves this function with four timeslots, permitting a "normal" TETRA mobile to act as a repeater or "range_extender" to a hand-held in a normally shadowed area.

HTH

Peter

On Mon, 01 Jan 2001 23:40:28 GMT, Joe McElvenney <joemac@xic.demon.co.uk> wrote:

>Hi,
>
> Some years ago I witnessed a demonstration of an on-frequency
>repeater made by Plessey in the UK. One of its main uses was to
>provide radio shadow fill-in on the battlefield and as such was
>meant to be left unattended. The antennas were a couple of
>monopoles spaced a few metres apart and except for a low power
>provision (10mW or so, which is common on military gear) there
>was no obvious method of stopping RF blocking. I had the manual
>in my hand at one time but regret that I didn't get round to
>reading it before it was whisked away. Does anyone remember this
>or shed a little light on the subject? As I recall it didn't use
>a small offset and narrow filters but I could be wrong. I suspect
>that the receiver was somewhat deaf though.
>
> 73 de Joe, G3LLV
>
>

46. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 11:05:33 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <1Ci46.227338$RP.44025672@news1.rdc1.md.home.com>
Source record: 55742

If you contact Cool Amp they WILL sell it in in 1/4 lb increments.

"Barry Ornitz" <ornitz@dpnet.net> wrote in message
news:nVd46.9162$dm4.802308@news-east.usenetserver.com...
> Boy, some of the answers on cleaning tarnish from silver have been quite
> humorous but completely wrong. To correct a few things: all "thio"
> compounds are sulfur containing (not mercury), silver oxide is not more
> conductive than metallic silver but it is more conductive than silver
> sulfide (black tarnish),
>
> The simplest process for cleaning silver of tarnish is described below.
It
> is likely what Henry Kolesnik was trying to remember. It does not remove
> any silver, unlike polishes. It reduces the silver sulfide to metallic
> silver. The only problem is that the silver or silver plated part must be
> immersed in an aqueous solution.
>
> To begin, find an aluminum pan that is deep enough to hold the part. It
is
> best not to steal the wife's Mirro cookware. A disposable pan like
grocery
> stores sell for holiday baking is excellent. Fill the pan with water and
> add a little table salt (sodium chloride) or baking soda (sodium
> bicarbonate). No more than a half teaspoon is necessary. Now dunk the
> silver part in the pan and allow it to rest on the aluminum. It must make
> electrical contact to the aluminum. To speed things up, heat the water.
> You will quickly find the black discoloration on the silver dissolves and
> the aluminum pan will darken.
> Rinse the part well after removing it from the solution. The finished
> silver part may not come out very shiny (but it will be bright). This is
> because the process only removes the sulfur. If you mechanically polish
> the silver, you WILL remove some silver.
>
> What is happening is an electrolytic oxidation-reduction chemical
reaction.
> The silver sulfide is reduced to metallic silver with the sulfur ions
going
> into solution. They react with the aluminum making it black. The
> electrical contact is needed for the electrolytic reaction to take place.
> The aluminum reaction is the oxidation.
>
> If you did accidentally use the wife's fancy pot and you are too lazy to
> scrub it with a scouring pad, you can cook some tomatoes in the pot.
Their

> acidity will dissolve the aluminum sulfides. The added sulfur in the
> tomatoes is generally not harmful but it can give some awful flatulence!
>
> The fancy product sold on television that has a liquid and a "magic" metal
> plate to put in the bottom of a bowl is essentially just this - at a far
> higher price! That metal is just aluminum.
>
> Cool-Amp powder is sold in large electrical supply stores. You add a
> little water to it to make a thick paste and rub it on copper to produce a
> thin silver coating. It works quite well. The main use is to coat
> electrical buss bars and breaker contacts with a thin silver plating to
> reduce contact resistance. The stuff is quite expensive and they only
sell
> it in one pound jars. A jar will last you and your friends a lifetime
> however.
>
> By the way, while I am the "resident chemist" on the Old Tube Radios
> mailing list (Boatanchors), I am really a chemical/electrical engineer.
>
> 73, Barry L. Ornitz WA4VZQ ornitz@usa.net
>
>
>

47. Re: On-frequency repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 11:15:09 UTC
From: Alan <amtilley@students.latrobe.edu.au>
Message-ID: <3A51B83C.B9265477@students.latrobe.edu.au>
Source record: 55743

The product that the post was referring to was described in Wireless World quite a few years ago.
Long before Tetra, although they may have been the digital modes that were used around that time, such
as frequency hopping and etc. It is also conceivable that standard FM may have been used synchronies
regeneration and isolators may have made it possible. Although as you rightly point out tetra and
similar schemes tend make those ideas redundant.

budgie wrote:

> Joe
>
> If the gain exceeds the isolation for a continuous real-time repeater
> configuration, there are immediate stability issues. Ways around this
> are either exoensive or use time-slicing. The current TETRA equipment
> achieves this function with four timeslots, permitting a "normal"
> TETRA mobile to act as a repeater or "range_extender" to a hand-held
> in a normally shadowed area.
>
> HTH
>
> Peter
> ---

> On Mon, 01 Jan 2001 23:40:28 GMT, Joe McElvenney
> <joemac@xic.demon.co.uk> wrote:
>
> >Hi,
> >
> > Some years ago I witnessed a demonstration of an on-frequency
> >repeater made by Plessey in the UK. One of its main uses was to
> >provide radio shadow fill-in on the battlefield and as such was
> >meant to be left unattended. The antennas were a couple of
> >monopoles spaced a few metres apart and except for a low power
> >provision (10mW or so, which is common on military gear) there
> >was no obvious method of stopping RF blocking. I had the manual
> >in my hand at one time but regret that I didn't get round to
> >reading it before it was whisked away. Does anyone remember this
> >or shed a little light on the subject? As I recall it didn't use
> >a small offset and narrow filters but I could be wrong. I suspect
> >that the receiver was somewhat deaf though.
> >
> > 73 de Joe, G3LLV

> >
> >

48. Re: Anyone have plans for a 6M transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 11:51:48 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A51C0D4.C02866FD@win.bright.net>
Source record: 55744

Thanks for the tip, however, what I'm really looking for is just a schematic of a simple transmitter (only) with 1-5 Watts out or so, to be used as a beacon transmitter on 6M.

Scott
N0EDV

Jim Griffin wrote:
>
> You could look at http://www.tentec.com. They also have a kit for 6
> meters. They might sell you a schematic and construction manual.
>
> Jim - KD5ISH
>
> "Scott" <acepilot@win.bright.net> wrote in message
> news:3A4F9627.9B837F6B@win.bright.net...
> > Anyone have a schematic of a simple 6M, crystal controlled transmitter
> > with somewhere between 1 and 5 Watts output?
> >
> > --
> > --Scott N0EDV--

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

49. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 12:00:47 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <Ppj46.227701$RP.44045095@news1.rdc1.md.home.com>
Source record: 55745

Barry - My searching of technical papers disagrees with you on one point - "Sulfur-containing atmospheres will produce silver sulfide that increases contact resistance. "

What is the conductivity of silver sulfide?

N0DGN

"Barry Ornitz" <ornitz@dpnet.net> wrote in message news:nVd46.9162$dm4.802308@news-east.usenetserver.com...
> Boy, some of the answers on cleaning tarnish from silver have been quite
> humorous but completely wrong. To correct a few things: all "thio"
> compounds are sulfur containing (not mercury), silver oxide is not more
> conductive than metallic silver but it is more conductive than silver
> sulfide (black tarnish),
>
> The simplest process for cleaning silver of tarnish is described below. It
> is likely what Henry Kolesnik was trying to remember. It does not remove
> any silver, unlike polishes. It reduces the silver sulfide to metallic
> silver. The only problem is that the silver or silver plated part must be
> immersed in an aqueous solution.
>
> To begin, find an aluminum pan that is deep enough to hold the part. It is
> best not to steal the wife's Mirro cookware. A disposable pan like grocery
> stores sell for holiday baking is excellent. Fill the pan with water and
> add a little table salt (sodium chloride) or baking soda (sodium
> bicarbonate). No more than a half teaspoon is necessary. Now dunk the
> silver part in the pan and allow it to rest on the aluminum. It must make
> electrical contact to the aluminum. To speed things up, heat the water.
> You will quickly find the black discoloration on the silver dissolves and
> the aluminum pan will darken.
> Rinse the part well after removing it from the solution. The finished
> silver part may not come out very shiny (but it will be bright). This is
> because the process only removes the sulfur. If you mechanically polish
> the silver, you WILL remove some silver.
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> What is happening is an electrolytic oxidation-reduction chemical reaction.
> The silver sulfide is reduced to metallic silver with the sulfur ions going
> into solution. They react with the aluminum making it black. The
> electrical contact is needed for the electrolytic reaction to take place.

> The aluminum reaction is the oxidation.
>
> If you did accidentally use the wife's fancy pot and you are too lazy to
> scrub it with a scouring pad, you can cook some tomatoes in the pot.
Their
> acidity will dissolve the aluminum sulfides. The added sulfur in the
> tomatoes is generally not harmful but it can give some awful flatulence!
>
> The fancy product sold on television that has a liquid and a "magic" metal
> plate to put in the bottom of a bowl is essentially just this - at a far
> higher price! That metal is just aluminum.
>
> Cool-Amp powder is sold in large electrical supply stores. You add a
> little water to it to make a thick paste and rub it on copper to produce a
> thin silver coating. It works quite well. The main use is to coat
> electrical buss bars and breaker contacts with a thin silver plating to
> reduce contact resistance. The stuff is quite expensive and they only
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> it in one pound jars. A jar will last you and your friends a lifetime
> however.
>
> By the way, while I am the "resident chemist" on the Old Tube Radios
> mailing list (Boatanchors), I am really a chemical/electrical engineer.
>
> 73, Barry L. Ornitz WA4VZQ ornitz@usa.net
>
>
>

50. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 17:57:40 UTC
From: "Lindsay C. Blanton" <lindsay@lcblanton.com>
Message-ID: <4Go46.5$Ig7.14044@nnrp3.sbc.net>
Source record: 55647
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Ok, I'm thinking I'd like to try option #1 -- purchasing a mixer and feed 40 Mhz LO into the Mixer.

I think I can work around the TV Image issue -- we really don't have TV stations in this range in my area.... if I did, I could adjust what I feed LO to get around that. The signals that I want to receive are fairly strong, so 9Db of loss should be acceptable....I hope ;-)

The radio in question is an Motorola ASTRO spectra... and I don't want to muck around with tuning this radio etc.

Now, I've got a few questions about this....

1. What is a good suggestion for a good mixer. I've heard Mini-Circuits makes a good mixer -- but which one do I choose? I see lots of different options on their web site.

2. How do I build a signal generator to feed 40 Mhz into the LO port? Are there are sample circuits around?

If anything, this will be a fun project to tackle....

Please respond via email as well as the list -- my news server is spotty at best.

Warmest regards to all,

Lindsay Blanton
lindsay@lcblanton.com
The Trunked Radio Information Homepage
http://www.trunkedradio.net

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:ffs25tompral5s204o03t0a48c59e82vob@4ax.com...
> On Mon, 01 Jan 2001 20:37:24 GMT, "Bob Camp" <bob@cq.nu> wrote:
>
>
> >1) cheap, dirty and probably not useful:
>
> >Take a Mini Circuits mixer and hook the antenna to the RF port.
>
> >Hook a signal generator tuned to 40 MHz to the LO port.
>
> And you have the image frequency band at 530 .. 545 MHz. This is in
> the UHF television broadcast band so if there are _any_ TV broadcasts
> detectable in that range at your location, then these will produce

> image frequencies with the same intensity as the desired signals,
> unless some heavy bandpass filtering is used in front of the mixer.
>
>
> >Pull the output off the if port.
>
> >Should give you about 6 db of loss and lots and lots and lots of
> >spurs.
>
> However, if you are lucky, no TV broadcasts are detectable in that
> frequency range in your area, so even with no front end selectivity,
> this system will be quite usable, although the effective noise figure
> will degraded by a further 3 dB due to the band noise in the image
> frequency range, so the total noise figure would be more than 9 dB.
>
>
> >2) not quite so cheap, still dirty, may be useful:
>
> >Same hookup as 1 above, only set the signal generator to 465 + 490 =
> >955 MHz.
>
> >Same loss, still a lot of spurs, but not as bad as in 1 above.
>
> Please note that
>
> 955 MHz - 450 MHz = 505 MHz (frequency difference 55 MHz)
> 955 MHz - 465 MHz = 490 MHz (frequency difference 25 MHz)
>
> Thus the receiver would tune in _opposite_ direction, the frequency
> difference would not be 40 MHz as required, the sidebands would be
> flipped and so on.
>
> >3) Spend more money:
>
> >Put an RF bandpass filter in front of the mixer. Try hamfests or eBay
> >for one since they can be fairly expensive ($400+) purchased new.
> >Cuts down on the spurs.
>
> Toko made quite a few helical filters in that frequency range for
> maybe $5 .. $10, but the insertion loss was about 2 .. 6 dB.
>
> Paul OH3LWR
>
>

51. Re: 400Mhz RF Signal upconverter circuit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 18:18:17 UTC
From: Robert <romapa@earthlink.net>
Message-ID: <3A521AD3.62B64094@earthlink.net>
Source record: 55648
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.design

Paul Keinanen wrote:

> On Mon, 01 Jan 2001 23:16:55 GMT, Robert <romapa@earthlink.net> wrote:
>
> >
> >Give me a break! Even Einstein would know that a fixed 40MHz oscillator and
> >mixer combination beats a * tunable * LO oscillator.
>
> It is usually better to have a tunable receiver moved to the desired
> band than having a fixed converted followed by the original tunable
> receiver when looking at the number of potential spurs.
>
> However, if the original receiver has a good front end selectivity,
> then in addition of moving the LO, the front end filters would have to
> be retuned for the new band, which can be a hard task, if complex
> filtering are used.

I disagree because the performance of the existing receiver is being used to advantage. The front end is presented with the same RF mix as usual- he is only shifting one band into another. The selectivity will remain the same. As you say, the conversion will put other channels and mixing products into the same band. There may be a problem with image reception but 400/40=10 is an easily achievable Q at 400MHz. He will also have an interchannel modulation of in-band that will down by 2*(IP3-Pin) of the mixer, and this is usually not a problem with reasonable Pin expected off the air- but should be considered. So he should use a preselector (homemade coil+cap) if there's anything in that 360-400MHz band nearby.

> >Or he can spring for a MAR and be about the same.
>
> Have you ever connected an antenna directly to any of those low noise
> MAR amplifiers in the vicinity of strong transmitters ? You need quite
> a lot of selectivity in front of the MAR amplifier to protect it from
> overload or you have to use some of the high IP3 versions in the MAR
> series, but the noise figure is not much better than a SBL series
> diode ring mixer.
>
> Paul OH3LWR

This is a good point- even with high dynamic range MAR, the interference will desensitize the mixer and effectively destroy the S/N of the desired channel. You would have the same problem without the MAR since relative signal level is what's important. He should look into a simple preselector (fixed-band) input filter. As you probably know, the NF of the mixer is effectively the conversion

loss- so the MAR doesn't buy him much in the way of NF improvement. The mixer VSWR should be workable over this limited range.

52. Wesite on ATV and other info ....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 18:39:15 UTC
From: whocares <Ronny.Stobbaerts@pandora.be>
Message-ID: <nfp46.50858$MA1.1428909@afrodite.telenet-ops.be>
Source record: 55649

HI OMs,

Just updated my webpages with info on my 13 cm TX : scheme, pics,
downloadable test images for ATV, a movie ...
Just check it at : www.geocities.com/on4cay and let me know if there are
some missing links or errors in it ...

Thanks and 73s de ON4CAY
Ronny

53. Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 19:33:04 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <Q1q46.83176$nM5.13120844@news02.optonline.net>
Source record: 55650

My homebrew spectrum analyzer project took an odd twist about a week ago. My employer tossed out a HP 8590A and I happened to fish it out of the trash ....

It seems to have all the basic parts one would want to use to build a spectrum analyzer out of save for a pair of good diodes in the mixer. The HP service manual lists an in-house part number (5062-0785) for them that is on the "no longer available" list (or so I am told ....).

So the first question - given that this is ham radio and not NASA and that the objective is a spectrum analyzer in the basement and not in a cal lab ..... what's a good pair of mixer diodes to try ?

The second question - any body out there have any experience with these gizmos ? If so I've got a couple of questions ....

Thanks !

54. FOR SALE:Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 19:56:36 UTC
From: Leon Snider <leons@worldnet.att.net>
Message-ID: <Unq46.16596$bU.1117810@bgtnsc04-news.ops.worldnet.att.net>
Source record: 55651

KILLER TRANSFORMER!! NEW! Never been used. 240v input. 4000/6000volts out @2.5 amps. 5 taps! 163#! Email pics available. $700 delivered within 150 miles of 35126.

55. Re: FOR SALE:Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 20:01:00 UTC
From: Leon Snider <leons@worldnet.att.net>
Message-ID: <0sq46.16616$bU.1118954@bgtnsc04-news.ops.worldnet.att.net>
Source record: 55652

I might add that Tom Hand custom built the transformer using Hypersil plates and the latest engineering. Leon

56. Re: loop ant ? 60kHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 20:08:21 UTC
From: wa8mfl@aol.com
Message-ID: <20010102150821.22259.00000471@ng-fc1.aol.com>
Source record: 55653

Ask WA8ULG how much GREEN wire is needed.

57. Re: Using 2 paralell 50ohm coax's instead of 1 for 25

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 20:11:14 UTC
From: wa8mfl@aol.com
Message-ID: <20010102151114.22259.00000472@ng-fc1.aol.com>
Source record: 55654

Putting 2 50 ohm coaxes in parallel is a trick that has been around for a long time. It works.

58. Analogue Dialogue - Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 21:07:43 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A526D76.1D104F2B@home.com>
Source record: 55655

The current issue (November/December 2000 - just emailed today) of Analogue Dialogue has a nice article using a DDS chip from ADI as a reduced phase noise oscilator.

59. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 21:23:27 UTC
From: Barry Ornitz <ornitz@dpnet.net>
Message-ID: <3Cr46.1667$yA5.23845@news-east.usenetserver.com>
Source record: 55668

"B-Squared" <rbethman@home.com> wrote in message
news:Ppj46.227701$RP.44045095@news1.rdc1.md.home.com...
> Barry - My searching of technical papers disagrees with you on one
point -
> "Sulfur-containing atmospheres will produce silver sulfide that increases
> contact resistance. "
>
> What is the conductivity of silver sulfide?
>
> N0DGN
>
> "Barry Ornitz" <ornitz@dpnet.net> wrote in message
> news:nVd46.9162$dm4.802308@news-east.usenetserver.com...
> > Boy, some of the answers on cleaning tarnish from silver have been
quite
> > humorous but completely wrong. To correct a few things: all "thio"
> > compounds are sulfur containing (not mercury), silver oxide is not more
> > conductive than metallic silver but it is more conductive than silver
> > sulfide (black tarnish),

Please turn of automatic quoting if you are unwilling to edit out
unnecessary text.

Your paper agrees with me exactly.

I think you are misunderstanding the terms conductivity and resistivity.
They are the reciprocal of each other. Silver sulfide is less conductive
than silver oxide meaning that its resistance is higher. Both the sulfide
and the oxide are far less conductive than metallic silver.

Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

60. Re: On-frequency repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 22:42:44 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <jG148PAkllU6EwFC@g3ohx.demon.co.uk>
Source record: 55656

On a similar subject, how does the 'Channel Radio' on 117.7MHz work (as you approach the Channel Tunnel terminal on the M20 motorway)? They use cross-polarised (45/45 degree) log periodics, on 30' poles about 20 feet apart, pointing away from each other.

There is no sign of a glitch when you pass a repeater site (spaced at appx 1 mile intervals). Do they rely purely on having good isolation between the two antennas, or do they also use a small, alternate frequency offset (say =/-25kHz wrt the nominal frequency) to increase the isolation? The 'ultrasonic-ness' of the 50khz beat (as you pass from zone to zone) plus the capture-effect of the FM receiver should ensure glitchless reception.

Also, how do they provide a similar continuous coverage (on 117.6MHz) on the motorway between Calais and Paris? You keep passing roadside antennas (looks like some form of co-linear), but there's no obvious sign of repeaters. Do they simply use modulated transmitters at each site (with small, alternate frequency offsets, if necessary)?

Ian.

In article <3A51B83C.B9265477@students.latrobe.edu.au>, Alan <amtilley@students.latrobe.edu.au> writes
>The product that the post was referring to was described in Wireless World quite
>a few years ago.
>Long before Tetra, although they may have been the digital modes that were used
>around that time, such
>as frequency hopping and etc. It is also conceivable that standard FM may have
>been used synchronies
>regeneration and isolators may have made it possible. Although as you rightly
>point out tetra and
>similar schemes tend make those ideas redundant.
>
>budgie wrote:
>
>> Joe
>>
>> If the gain exceeds the isolation for a continuous real-time repeater
>> configuration, there are immediate stability issues. Ways around this
>> are either exoensive or use time-slicing. The current TETRA equipment
>> achieves this function with four timeslots, permitting a "normal"
>> TETRA mobile to act as a repeater or "range_extender" to a hand-held
>> in a normally shadowed area.
>>
>> HTH

>>
>> Peter
>> --
>----------------------
>> On Mon, 01 Jan 2001 23:40:28 GMT, Joe McElvenney
>> <joemac@xic.demon.co.uk> wrote:
>>
>> >Hi,
>> >
>> > Some years ago I witnessed a demonstration of an on-frequency
>> >repeater made by Plessey in the UK. One of its main uses was to
>> >provide radio shadow fill-in on the battlefield and as such was
>> >meant to be left unattended. The antennas were a couple of
>> >monopoles spaced a few metres apart and except for a low power
>> >provision (10mW or so, which is common on military gear) there
>> >was no obvious method of stopping RF blocking. I had the manual
>> >in my hand at one time but regret that I didn't get round to
>> >reading it before it was whisked away. Does anyone remember this
>> >or shed a little light on the subject? As I recall it didn't use
>> >a small offset and narrow filters but I could be wrong. I suspect
>> >that the receiver was somewhat deaf though.
>> >
>> > 73 de Joe, G3LLV
>> >
>> >
>

61. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 23:52:17 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A526B9B.5D25@pop.removethistomailme.net>
Source record: 55657

Bob Camp wrote:
>
> My homebrew spectrum analyzer project took an odd twist about a week
> ago. My employer tossed out a HP 8590A and I happened to fish it out
> of the trash ....
>
> It seems to have all the basic parts one would want to use to build a
> spectrum analyzer out of save for a pair of good diodes in the mixer.
> The HP service manual lists an in-house part number (5062-0785) for
> them that is on the "no longer available" list (or so I am told ....).
>
> So the first question - given that this is ham radio and not NASA and
> that the objective is a spectrum analyzer in the basement and not in a
> cal lab ..... what's a good pair of mixer diodes to try ?
>
> The second question - any body out there have any experience with
> these gizmos ? If so I've got a couple of questions ....
>
> Thanks !

Sounds like you hit the jackpot. What connections are made to the
8590's mixer module? Any of the Mini-Circuits 2 GHz DBMs ought to work,
at least as a first attempt. Use the DBM's IF port as your RF input,
and vice versa, for RF coverage down to near DC. You'll lose a couple
dB worth of amplitude calibration accuracy but it'll still be
light-years better than any of the homebrew SA designs out there.

There will probably be a DC bias on the mixer for amplitude-levelling
purposes -- perhaps fed in through a bias tee, if not through a pin on
the mixer assembly. Leave this disconnected if you use a DBM.

Otherwise, given the low (1.5 GHz) frequency ceiling of the 8590, I'd
suggest just trying any old random Schottky diodes you can find.
Nothing to lose, right?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

62. Re: Tube Water Cooling ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-02 23:56:51 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <7Vt46.2045$iK.238667@monger.newsread.com>
Source record: 55658

You hit most of the important items.

We used 3/4 inch tubing wound on a phenolic form on systems as high as 175 KW.

At the highest of legal amateur power levels the flow and pressure would not have to be very high. I'd still want at least 8 or more feet of tubing between the plate and ground with only 4 or 5 KV.

As for water resistivity I built a probe with 1 CM square plates separated by 1 CM hooked to a Simpson multimeter to get a rough approximation of ohms per CC.

I don't remember our target resistively though. Seems like it was close to 100K/CC, but it may have been less.

--
Roger Halstead (K8RI) www.RogerHalstead.com
N833R World's Oldest Debonair? s# CD-2

"Leland C. Scott" <no-spam@junk-mail.net> wrote in message
news:92rf83$8pu@nnrp4.farm.idt.net...
>
> "Bob Dodson" <wb5apd@alltel.net> wrote in message
> news:3A4AC09E.D3EAF38F@alltel.net...
> > Anyone know where I can find info of how to build a water cooling
> > system
> > for a big tetrode. Also any real drawbacks to water cooling.
>
> Where I work we have used large water cooled triodes for induction heating
> uses in a power oscillator circuit from power levels of 30 KW to 150 KW.
We
> found there are several issues with water cooling a large power tube.
These
> tubes were "designed" for liquid cooling, and not modified air cooled
> versions.
>
> 1. The water quality. The water has to be very clean and non-conductive.
You
> can use deionzied or distilled water. You should check the conductivity of
> the water at regular intervals.
>
> 2. You may need to use "targets" at the anode of the tube. The target will
> slowly dissolve in to the cooling water instead of the tube's anode, or
the
> water cooling jacket the tube sits in. The targets should be installed at

> the anode of the tube, and in line where the water enters, and exits the
> cooling jacket.
>
> 3. You MUST use non-conductive hose for all water connections. You would
be
> very surprised by how many hose materials are conductive or break down at
> high anode voltages. The best thing to do is test a sample at the volts
per
> foot you will be using.
>
> 4. Watch your hose length! You need enough length of hose to keep
> electrolysis to a minimum so your targets don't "disappear" after a few
> weeks or months of operation. Don't forget to check the targets on a
regular
> schedule either. We have used about 20 to 30 feet of nylon reinforced
Tygon
> hose, 1-1/2 inch size, at anode voltages up to around 15 to 18 KV. The
hose
> has to be suspended in air away from anything conductive connected to
ground
> along its length, until you get to the end fittings which must be
grounded.
> If you don't, the high voltage/RF will "burn through" the hose from the
> water inside to the ground point! This is most important near the tube's
> anode of course. In place of using hose I have seen PVC pipe used too with
> the same notes applying as for the hose.
>
> 5. You will need some control logic to be sure you have water flow BEFORE
> you turn on the tube filaments! Some of the tubes I have seen take 14
volts
> at 250 to 350 amps. That heat has to go somewhere!
>
> 6. You will also need logic to let the tube cool down for some minutes
after
> the anode voltage is removed BEFORE the cooling flow is shut off.
>
> 7. Finally you will need logic to dump the anode supply voltage in case of
> cooling flow failure, or coolant over temperature condition. Also an
> Emergency-Stop switch to shut off the coolant flow, pump, and anode supply
> voltage in case of a coolant leak is also recommended!
>
> The above is the basic things you need to consider for a liquid cooled
tube
> application. There maybe a few minor points I forgot to mention however.
>
>
> --
> 73's,
>
> Leland C. Scott

> KC8LDO
>
> ARRL member
> NCI member
>
> "You ask what Morse Code is good for? I'll tell you. Morse
> Code is used exclusively by Electronics Based life forms to
> communicate amongst themselves using advanced Organic
> Digital Signal Processors, running state of the art Artificial
> Intelligence Software, to perform the highly complex
> transmit encryption, receive decryption and error correction
> functions."
>
>
>
>
>
>

63. Re: Anyone have plans for a 6M transmitter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 00:16:43 UTC
From: bzd9 <bzd9@yahoo.com>
Message-ID: <3A527042.BA6DC74E@yahoo.com>
Source record: 55659

Also try hamtronics, they have 6 meter kits.

www.hamtronics.com

64. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 00:22:22 UTC
From: Barry Ornitz <ornitz@dpnet.net>
Message-ID: <i0w46.2073$6K6.42286@news-east.usenetserver.com>
Source record: 55660

"B-Squared" <rbethman@home.com> wrote in message
news:Ppj46.227701$RP.44045095@news1.rdc1.md.home.com...
> Barry - My searching of technical papers disagrees with
> you on one point -
> "Sulfur-containing atmospheres will produce silver sulfide
> that increases contact resistance. "
>
> What is the conductivity of silver sulfide?
>
> N0DGN
>
> "Barry Ornitz" <ornitz@dpnet.net> wrote in message
> news:nVd46.9162$dm4.802308@news-east.usenetserver.com...
> > Boy, some of the answers on cleaning tarnish from silver
> > have been quite humorous but completely wrong. To
> > correct a few things: all "thio" compounds are sulfur
> > containing (not mercury), silver oxide is not more
> > conductive than metallic silver but it is more
> > conductive than silver sulfide (black tarnish),

Please turn of automatic quoting if you are unwilling to
edit out unnecessary text.

Your paper agrees with me exactly.

I think you are misunderstanding the terms conductivity and
resistivity. They are the reciprocal of each other. Silver
sulfide is less conductive than silver oxide meaning that
its resistance is higher. Both the sulfide and the oxide
are far less conductive than metallic silver.

Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

65. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 02:38:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A5290AD.8F1F845E@eznec.com>
Source record: 55661

Barry Ornitz wrote:
> . . .
> I think you are misunderstanding the terms conductivity and
> resistivity. They are the reciprocal of each other. Silver
> sulfide is less conductive than silver oxide meaning that
> its resistance is higher. Both the sulfide and the oxide
> are far less conductive than metallic silver.
>
> Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

I want to thank Barry for yet another informed and comprehensive post. It's now in my reference archive along with quite a few others of his.

I'd like to make a point about conductivity. If you coat a wire with a perfect conductor, you won't increase its loss -- it just thickens the wire. If you coat it with a perfect insulator (think of air), that won't increase the loss either. These are opposite ends of the conductivity (or resistivity if you prefer) range. Loss occurs when a coating is neither a perfect conductor nor a perfect insulator, and it's maximum with some value in between. At what value? Well, it depends on the frequency, conductivities of the coating and wire, and the coating thickness. I'd like to get a better feel for some typical cases, and have the equations for coated wires, but haven't had the time to work them into a program. (They require complex Kelvin functions, which I haven't yet located a calculation algorithm for. I haven't had time to search.) But in the meantime, don't just assume that higher resistivity in a coating is necessarily worse (or better). It depends.

Roy Lewallen, W7EL

66. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 02:39:17 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <phw46.229325$RP.44439578@news1.rdc1.md.home.com>
Source record: 55662

Simply overzealous on both parts. I do precisely understand that conductivity is the reciprocal of resistance. I jumped before letting brain assimilate. Pardon me - my slip is showing. ;^)

Bob

"Barry Ornitz" <ornitz@dpnet.net> wrote

> Your paper agrees with me exactly.
>
> I think you are misunderstanding the terms conductivity and
> resistivity. They are the reciprocal of each other. Silver
> sulfide is less conductive than silver oxide meaning that
> its resistance is higher. Both the sulfide and the oxide
> are far less conductive than metallic silver.
>
> Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

67. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 04:24:35 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <7Qx46.229606$RP.44527912@news1.rdc1.md.home.com>
Source record: 55663

Roy - I agree with you up to a point. In RF we have to deal with skin effect at the higher frequencies. That being said, a layer of silver bonded to a copper conductor will improve the conduction of the RF signal. The same philosophy is used in the "Copperweld" conductors, albeit a much less expensive solution. They coat steel cores with bonded copper. It provides the strength, reduces the stretch factor, and addresses the skin effect.

The only reason that gold is used in electronics is that it does not tarnish, therefore reducing the conductivity. Silver would actually be more preferable except that it indeed tarnishes - silver sulfide. Silver has better conductivity than gold. Not everone understands this.

Bob

"Roy Lewallen" <w7el@eznec.com> wrote in message

> I'd like to make a point about conductivity. If you coat a wire with a
> perfect conductor, you won't increase its loss -- it just thickens the
> wire. If you coat it with a perfect insulator (think of air), that won't
> increase the loss either. These are opposite ends of the conductivity
> (or resistivity if you prefer) range. Loss occurs when a coating is
> neither a perfect conductor nor a perfect insulator, and it's maximum
> with some value in between. At what value? Well, it depends on the
> frequency, conductivities of the coating and wire, and the coating
> thickness. I'd like to get a better feel for some typical cases, and
> have the equations for coated wires, but haven't had the time to work
> them into a program. (They require complex Kelvin functions, which I
> haven't yet located a calculation algorithm for. I haven't had time to
> search.) But in the meantime, don't just assume that higher resistivity
> in a coating is necessarily worse (or better). It depends.
>
> Roy Lewallen, W7EL

68. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 05:38:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A52BABC.D505326F@eznec.com>
Source record: 55664

I was talking about the loss of wires, not contacts. The requirements are quite different for the two applications. An enameled contact isn't much good, but "enamel" insulation has no significant effect on wire loss. Silver is widely used for contacts, but only ones that carry considerable voltage and current. The normal arcing that occurs (along with contact wiping action) cleans off surface oxides and other contamination each time the switch closes. Quality switches for "dry circuits" -- ones carrying little voltage or current -- are almost always gold plated. Without the arcing to clean the contacts, even a small amount of surface contamination is intolerable. You can buy switches for either purpose which have thin gold over heavy silver. But once you use it to switch a high power circuit, the gold is gone and you can't use it for dry circuits afterward.

Copperweld and similar wire works because the plating is thick enough that no significant amount of current penetrates to the underlying steel. Skin depth is very small in good conductors like copper. But as the conductivity of a plating decreases, the skin depth increases. When the skin depth gets to be on the order of the plating thickness, the problem gets more complex.

The conductivity of pure metals is usually beside the point. Alloys commonly used for plating often have conductivities very different from pure metals. For example, most silver plating alloys are much less conductive than copper. Not may people understand this, either.

Roy Lewallen, W7EL

B-Squared wrote:
>
> Roy - I agree with you up to a point. In RF we have to deal with skin
> effect at the higher frequencies. That being said, a layer of silver bonded
> to a copper conductor will improve the conduction of the RF signal. The
> same philosophy is used in the "Copperweld" conductors, albeit a much less
> expensive solution. They coat steel cores with bonded copper. It provides
> the strength, reduces the stretch factor, and addresses the skin effect.
>
> The only reason that gold is used in electronics is that it does not
> tarnish, therefore reducing the conductivity. Silver would actually be more
> preferable except that it indeed tarnishes - silver sulfide. Silver has
> better conductivity than gold. Not everone understands this.
>
> Bob

69. Re: Cleaning tarnish from silver - added comments

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 07:10:39 UTC
From: Barry Ornitz <ornitz@usa.net>
Message-ID: <xcA46.3685$6K6.77309@news-east.usenetserver.com>
Source record: 55665

Some added comments while we are on the subject of silver, silver plating, and wire coatings....

First, thanks Roy. I have learned much from your posts over the years too.

Gold is used in contacts not only because it is tarnish resistant, but also because it is so soft and maleable. This allows two slightly irregular surfaces to make better contact. On printed circuit board edge connectors, it is common to electroplate nickel over the copper before applying a thin "flash" of gold. The term "flash" in this case is electroplater's jargon for a very thin coating, often obtained from a cyanide bath. "Strike" is similar plater's jargon and sometimes the two are used interchangeably, but usually a "strike" layer is a thin layer used over a base metal to provide better adhesion for a thicker layer to be applied in a second bath.

Silver can be electroplated in a quite pure form. But the crystalline structure of the plated layer may be quite different than in a cast metal. This leads to the differences in conductivity often found. Changing the electroplating conditions even slightly can cause extreme changes in the crystalline structure of a coating. Sometimes it is possible to do a quick reflow by heating the object quickly above silver's melting point and quenching it afterward.

The silver coating obtained from Cool-Amp powder is hardly pure and extremely thin. It helps a little for corrosion protection of bare copper, but do not rely on it to replace a thick silver plate. In fact, I doubt if most hams could ever measure a Q improvement in a typical coil that was thickly silver plated over a bright, shiny copper one of the same dimensions. Coating the bare copper conductor with a low-loss dielectric coating (like Krylon acrylic) will keep the copper surface shiny and conductive. But, being an insulator, it is no good for moving or sliding contacts.

In the chemical and paper industries, gold plated switch contacts are the norm. In fact, conformal coatings on circuit boards used in control systems is common. There is nothing so disheartening as to open an electronic cabinet and see your circuit boards corroding away! Hermetically sealed relays and reed switches are common in these

industries both for corrosion and to not be an ignition source in explosive atmospheres.

Finally for those that read the excellent article on skin depth and conductors in the last QEX, it should be remembered that many stainless steels are slightly ferromagnetic. Even the 300 series can be changed into a magnetic form by machining and polishing. Once the conductor becomes magnetic, its skin depth decreases increasing RF losses. So not only do the stainless steels have a lower conductivity than copper, their magnetic properties can provide even higher RF losses.

73, Barry WA4VZQ ornitz@usa.net

{Note for Roy: I haven't seen Kelvin functions used much in chemical engineering, although Bessel functions are common in heat conduction problems. My ancient NBS tome, "Handbook of Mathematical Functions", gives tables, expansions, series, and polynomial approximations. Since I know you speak the "true engineer's language", Fortran, you might check the Numerical Algorithms Group (NAG) GAMS Fortran Library for S19AAF - Kelvin function ber x, S19ABF - Kelvin function bei x, S19ACF - Kelvin function ker x, and S19ADF - Kelvin function kei x at:
http://www.nag.com/Advisory/GAMSwww/C10c.html]

70. Re: Cleaning tarnish from silver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 11:43:46 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <SfE46.230234$RP.44675030@news1.rdc1.md.home.com>
Source record: 55666

Alas, I was referring to wires also when talking skin effect. Like those use in a B&W 850A, or in the case of Copperweld, antenna wire. I agree with your entire assessment.

"Roy Lewallen" <w7el@eznec.com> wrote in message
> I was talking about the loss of wires, not contacts. The requirements

> Copperweld and similar wire works because the plating is thick enough
> that no significant amount of current penetrates to the underlying
> steel. Skin depth is very small in good conductors like copper. But as
> the conductivity of a plating decreases, the skin depth increases. When
> the skin depth gets to be on the order of the plating thickness, the
> problem gets more complex.
> Roy Lewallen, W7EL
>
> B-Squared wrote:
> >
> > Bob

71. Swan Siltronix web page updated again

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 19:37:05 UTC
From: Skipp likes Swan & Siltronix Radios <skipp@pilot.ucdavis.edu>
Message-ID: <92vv11$347$1@woodrow.ucdavis.edu>
Source record: 55667
Cross-posted to:
rec.radio.cb,rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

re: Swan 1011 and Siltronix 1011 Tranceiver web page.

Hello there!

Another shameless plug to tell people about the updated Siltronix web page at http://sonic.ucdavis.edu/siltronix

Hot off the press! We have added pictures of the prototype Swan - Siltronix 1011 tranceiver. Even better yet, we've added more text information and an Owner/Service Manual down load for free.

Life doesn't get any better... well maybe, but not yours. Have a look and Email us what you think.

thanks and 73's

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu (it's on the Amateur Radio Pages section)

72. 2m preamp with BF980?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 21:39:23 UTC
From: Brian <houge@image.dk>
Message-ID: <930679$2vjp$1@news.cybercity.dk>
Source record: 55675

Hello.

Could someone help me with a diagram of a 2M preamp build with BF980?

Thanks in advantage

OZ1SKY, Brian.

73. Data on UPC1651 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-03 23:49:05 UTC
From: Steve <stephen.wilson@cmr.uq.edu.au>
Message-ID: <3A53BA71.469FB726@cmr.uq.edu.au>
Source record: 55670

I am seeking pinouts and basic circuit to confirm if the chip is alive.
Any pointers?

steve
s.wilson@cmr.uq.edu.au

74. Re: renewing silver plating?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 00:12:57 UTC
From: Chris <csnichol@netusa1.net>
Message-ID: <3A53C009.1565@netusa1.net>
Source record: 55669

Roy,
I read it in an ARRL reference one time. I know well that there are
mistakes in almost any text. If I ever see it again I will make note
of it for you.

Chris N9LLO

Roy Lewallen wrote:
>
> Silver oxide isn't a better conductor than silver. But tarnish is
> primarily silver sulfide, which is about 100,000 times less conductive
> than silver. The amount of loss it would introduce depends on the
> thickness and frequency.
>
> Where did you read that silver oxide is more conductive than silver? The
> writer would be an author to avoid.
>
> Roy Lewallen, W7EL
>
>

75. Wanted: NCL-2000

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 01:51:55 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <%GQ46.17953$Q9.4181761@ratbert.tds.net>
Source record: 55671
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap

Hi All,
I am in the mood for a new project. Anyone have an NCL-2000 they don't want anymore. Good OK, but BAD and ugly preferred.

Please contact me with info.

Regards,
Jeff W8CQ
w8cq@arrl.net

76. Re: Cleaning tarnish from silver - added comments

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 03:40:00 UTC
From: Marty <nfn04028@naples.net>
Message-ID: <kgS46.1280$3t2.44618@newsread1.prod.itd.earthlink.net>
Source record: 55672

Barry Ornitz <ornitz@usa.net> wrote in message
news:xcA46.3685$6K6.77309@news-east.usenetserver.com...
>
> The silver coating obtained from Cool-Amp powder is hardly
> pure and extremely thin. It helps a little for corrosion
> protection of bare copper, ...>

It is certainly quite thin, but I'm curious as to what the nature of the
impurity might be.

Marty K1FHR

77. Re: DSL Availability In Your Area? cpJzdnId7luM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 03:49:30 UTC
From: joeryahoocom@yahoo.com
Message-ID: <njS46.127$GI1.46930@den-news1.rmi.net>
Source record: 55673

In article <92o8skvsc0@63.90.193.227>, doug@ycsi.net wrote:
>To whomever wrote this story:
>
>Your complaints about DSL Service are somewhat true, but the reasons
>behind them are fraudulent. First off, Union contracts have nothing to do
>with the ability of a local phone company to provide DSL service. The
>baby bells have been activly courting DSL customers and poviding service
>in the big metro areas. Unfortuanately, there is little desire on their part
> to
>
>do the same in rural areas like Montana, where I live. How can you blame
>them when there isnt sufficient return on their investment to justify
>installation
>of the DSL equipment in the Central offices? As a stockholder, I wouldnt
>want them to invest large sums of capital into an area where they wont get
>an adequate return for that investment. It just dosent make good business
>sense.
>
<snip>

Well, don't come to Heyworth, Illinois. IF I ever had children (no plans!) and IF they had children, my grandchildren would be surfing the net with 56K dialup. IF we ever get anything faster here, most likely I'll be too old or dead by that time! And - we're only eleven miles from Bloomington/Normal, one of the fastest-growing urban areas in the Midwest.

It's a good thing electrification of this country wasn't left to "market forces" and "business decisions". Here in central Illinois, most likely we'd still be using oil lamps (maybe generators would've made it here by now).

My partner regularly chats with a friend in Tanzania. In that country, *any* home that wants DSL can get it easily. Funny how "the most technologically advanced country" can't say the same. But then, other countries don't have Verizon, SBC, Pac Bell, and the rest holding a death grip on their telecommunications. This is the country that put a man on the moon way back in 1969 and that invented the Internet (and no, I don't mean Al Gore. Let's retire that one, since it never happened and he *didn't* say it). And we can't roll out realistic-speed Net access to anywhere in the country? Pure USDA-grade BS.

Above all the noise, there's one thing that's clear. The Internet will *never* reach its potential as long as dialup is still so prevalent. How can e-commerce prosper when it takes so long to load a page? Sure, part of that has to do with web authors that put too much crap in their HTML, but on the other hand their designs shouldn't be needlessly restricted by dialup

deficiencies and ancient legacy technology.

I'm not interested in "business decisions", "return on investment", or any of that other get-the-telcos-off-the-hook nonsense. I am interested in being able to access the Internet at faster speeds than 1960s-era dialup. I don't care whose wire it is - the copper's been paid for many times over. And no, satellite "offerings" from Dish or DirecTV aren't an option, either, unless you want to pay for new equipment and installation, and high monthly prices.

Thank the Gods the telcos never got their hands on Amateur Radio. We'd still be in the spark-gap era, CW for the military, and voice for the business interests!

73, Joe W9TXU (who had to retype this since the ISP disconnected me yet again!)

Joe Reda
joeryahoocom@yahoo.com

'As for me and my house, the office of President becomes vacant
at noon 20 Jan 2001, and will be so until the lawful election
of or the appointment of a constitutionally identified successor.'

78. tuner questions for you

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 06:00:06 UTC
From: kf4toh@aol.com
Message-ID: <20010104010006.27402.00001655@ng-cj1.aol.com>
Source record: 55674

im going to build up a tuner here soon and was wondering
whats really the good and bad as far as
useing the ..T MATCH ...L...OR ....PI DESIGN

im leaning more to the good old PI . I HAVE TWO GOOD 500PF
VAC VAR CAPS and and nice heavy roller inducter

i would want to tune a 1250 ft h loop feed with 450 ladder line
160 thur 10 . maybe with a 4to1 balun and plus tune a coax feed dipole
cut for 75 meters and one for 40 . just as a touch up

the antenna switching isnt a problem.

design and balun placement are..4to1 before or after network?
ive seen it both ways

joe kf4toh

79. Re: tuner questions for you

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 11:48:02 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <SpZ46.103322$nM5.14743315@news02.optonline.net>
Source record: 55676

Joe,

Since you know what antennas you want to match I would start there. If the antennas are up already I'd measure them. If they are still in the planning stage I'd try one of the antenna analysis programs. Either way you can get the feed point impedances for what you are trying to match.

Once you have that and your feed line length(s) you will know what the tuner needs to do in your application. You may well find that some odd configuration of parts is needed to match what you have on the bands you want to work. It may save you a switch or some re-wiring of the tuner.

Do you know what the size of the coil you have is ? You can probably estimate it pretty accurately from it's physical dimensions. That would be the only other piece of information you would need to figure out what to do.

Hope this helps

Bob
KB8TQ

"kf4toh" <kf4toh@aol.com> wrote in message
news:20010104010006.27402.00001655@ng-cj1.aol.com...
>
> im going to build up a tuner here soon and was wondering
> whats really the good and bad as far as
> useing the ..T MATCH ...L...OR ....PI DESIGN
>
> im leaning more to the good old PI . I HAVE TWO GOOD 500PF
> VAC VAR CAPS and and nice heavy roller inducter
>
> i would want to tune a 1250 ft h loop feed with 450 ladder line
> 160 thur 10 . maybe with a 4to1 balun and plus tune a coax feed
dipole
> cut for 75 meters and one for 40 . just as a touch up
>
> the antenna switching isnt a problem.
>
> design and balun placement are..4to1 before or after network?
> ive seen it both ways
>
> joe kf4toh

80. G3SEK change of address... last call!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 15:16:52 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <WAZHcpBkPJV6EwK2@ifwtech.plus.net>
Source record: 55677

A final reminder to anyone who has my address and website bookmarked:

Please check that your entries are -

g3sek@ifwtech.com
http://www.ifwtech.com/g3sek

The old addresses at demon.co.uk will close in the next few days!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

81. 1691MHz downconverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 17:16:04 UTC
From: Ash <abuse@gravitywell.org>
Message-ID: <3A54B075.EDB2E693@gravitywell.org>
Source record: 55678

I'm looking for a design/schematics for a downconverter for 1691MHz
(meteosat)
down to anything below 1300MHz, guess most IF's is ~137.5 for APT
compability
though for me higher = less interference.
But any design is welcome..
Any suggestions? (yeah I'll problably end up buying one, but $100-$300
is more than
I want to spend if I can build one cheap :)

//Ash
--
< This is my actual email adress, hopefully the spam programs filter out
abuse@*!* adresses >

82. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 20:15:27 UTC
From: tom_bruhns@agilent.com
Message-ID: <932lkmtae1@nnrp1.deja.com>
Source record: 55681
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

So...what tells the relay to turn on and off now? It's hard to tell from your posting, but I suppose something from the relay circuit is getting back into the electronics (?) that drive the relay coil. My suspicion is that it could be noise from the current interrupted by the contacts opening. You might try putting a snubber network across the relay contacts; it's likely to make the relay contacts last longer anyway. As a wild guess, for mechanical contacts, you might try 100 ohms in series with 0.1uF or 0.05uF. STRONGLY recommend you use caps rated for AC service, assuming you're controlling power line levels to the fans. If that doesn't solve it, there are for sure other options...for example, a "non-retrigger" circuit in the relay coil drive electronics that definitely holds off the relay coil drive for a second or two when the turn-off occurs. Might be good to know also if the coil as it stands now is allowed to "fly back" to a high enough voltage to rapidly de-energize, or if there's a diode across it (assuming it's DC excitation) that might be slowing the release enough to increase contact arcing. Another option: use an opto-isolated triac (or a "solid-state relay") to control the fans instead of a relay.

Cheers,
Tom

In article <3A54FB70.E8B76E1@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> I built a simple circuit to control some fans. When the temperature goes
> up the fans come on. However when circuit is about to switch the fans
> off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> quickly for a second, sometimes longer. Its very loud and annoying.
>
> How can I stop the relay from "fluttering" like this? Do I just need to
> add the right value capacitor in series with the relay coil or something
> simple like that? If I am right, what sort of capacitor / value do I
> need?
>
> Thanks in advance.
>
> Scott.
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

83. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 20:23:00 UTC
From: K0HB <k0hb@my-deja.com>
Message-ID: <932m2p$tj2$1@nnrp1.deja.com>
Source record: 55680
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A54FB70.E8B76E1@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:

> However when circuit is about to switch the fans
> off (by de-energizing a 200 Ohm relay), the relay
> flutters on and off quickly for a second, sometimes
> longer.

I assume you are using some sort of transistor circuit
to switch current to the relay, and that the relay is a
DC relay.

The fluttering is caused because the current is being
reduced gradually rather than shut off "hard". In other
words, your circuit is operating more like a DC amplifier
than like a switch. You probably need to bias the transistor
in such a fashion that the crossover from "on" to "off" is
more abrupt.

73, Hans, K0HB

--
"1943 Poster Child for The National Precocious Little Bastard Campaign"

Sent via Deja.com
http://www.deja.com/

84. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 21:49:28 UTC
From: Dan/W4NTI <w4nti@my-deja.com>
Message-ID: <932r55$2gj$1@nnrp1.deja.com>
Source record: 55682
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <932m2p$tj2$1@nnrp1.deja.com>,
K0HB <k0hb@my-deja.com> wrote:
> In article <3A54FB70.E8B76E1@grove.iup.edu>,
> Scott McClements <yetbbwa@grove.iup.edu> wrote:
>
> > However when circuit is about to switch the fans
> > off (by de-energizing a 200 Ohm relay), the relay
> > flutters on and off quickly for a second, sometimes
> > longer.
>
> I assume you are using some sort of transistor circuit
> to switch current to the relay, and that the relay is a
> DC relay.
>
> The fluttering is caused because the current is being
> reduced gradually rather than shut off "hard". In other
> words, your circuit is operating more like a DC amplifier
> than like a switch. You probably need to bias the transistor
> in such a fashion that the crossover from "on" to "off" is
> more abrupt.
>
> 73, Hans, K0HB
>
> --
> "1943 Poster Child for The National Precocious Little Bastard
Campaign"
>
> Sent via Deja.com
> http://www.deja.com/
>
I agree with Hans. Another simple approach would be to put the output
of the electronics to a flip flop gate. If the ic can't handle the
current of the relay, put in a small relay to control the larger or use
a high current transistor circuit controlled by the ic. Just some
thoughts.

Dan/W4NTI

--
"Just tellin the truth, and they cain't stand it."

Sent via Deja.com
http://www.deja.com/

85. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 21:59:55 UTC
From: n2ey@aol.com
Message-ID: <932rol$345$1@nnrp1.deja.com>
Source record: 55683
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A54FB70.E8B76E1@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> I built a simple circuit to control some fans. When the temperature
goes
> up the fans come on.

Hello again Scott,

Seems like you got it to work! Great!

> However when circuit is about to switch the fans
> off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> quickly for a second, sometimes longer. Its very loud and annoying.

It buzzes then finally drops out.
>
> How can I stop the relay from "fluttering" like this? Do I just need
to
> add the right value capacitor in series with the relay coil or
something
> simple like that? If I am right, what sort of capacitor / value do I
> need?

Here's what's REALLY happening:

The switch/sensor circuit is essntially a sort of nonlinear DC amplifier, meant to turn on when the resistance of the temperature sensor changes enough. The trouble with the circuit used is that it is also somewhat sensitive to changes in supply voltage.

You probably have both the fans and the sensor circuit running off the same 12 volt supply. (Stop me if I'm off on this). If so, when the fans are running, they load down the 12 volt supply slightly. Not a big deal. But when the device cools off and the circuit deenergizes the relay, the load of the fans goes away and the supply voltage rises slightly. That rise is enough to change operating conditions in the temperature sensor circuit so that it reenergizes the relay for a moment. Then the supply voltage drops, and the relay deenergizes...you get the picture.

One solution is better regulation of the supply voltage. Another, simpler method is to put a diode or large capacitor in parallel with the relay coil to slow it down. Note polarity - the diode should have its cathode (the line part) going to the positive and its anode (the arrow part) going to the negative. In other words, the diode is installed "backwards" so that it doesn't conduct when the switching

transistor is turned on. If you use an electrolytic capacitor instead, it's plus to plus, minus to minus. I'd try whatever electrolytics I had lying around, as long as they had at least a 15 volt rating.

73 de Jim, N2EY

FISTS #4360
BIT #0001

Sent via Deja.com
http://www.deja.com/

86. How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 22:38:41 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A54FB70.E8B76E1@grove.iup.edu>
Source record: 55679
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

I built a simple circuit to control some fans. When the temperature goes up the fans come on. However when circuit is about to switch the fans off (by de-energizing a 200 Ohm relay), the relay flutters on and off quickly for a second, sometimes longer. Its very loud and annoying.

How can I stop the relay from "fluttering" like this? Do I just need to add the right value capacitor in series with the relay coil or something simple like that? If I am right, what sort of capacitor / value do I need?

Thanks in advance.

Scott.

87. Re: tuner questions for you

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 22:39:12 UTC
From: kf4toh@aol.com
Message-ID: <20010104173912.15861.00000061@ng-ct1.aol.com>
Source record: 55686

bob its a big roller about 32uh

both antennas are up. ill have to

put my 259b on the loop but the dipole

is 50 ohm at 3910.

tee or pi is my biggest question i guess

thanks joe

88. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 22:48:29 UTC
From: Alan Melia <Alan.Melia@btinternet.com>
Message-ID: <932umj$m6$1@uranium.btinternet.com>
Source record: 55687
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Have you got a snubbing diode across the relay??
Cheers Alan
Scott McClements wrote in message <3A54FB70.E8B76E1@grove.iup.edu>...
>I built a simple circuit to control some fans. When the temperature goes
>up the fans come on. However when circuit is about to switch the fans
>off (by de-energizing a 200 Ohm relay), the relay flutters on and off
>quickly for a second, sometimes longer. Its very loud and annoying.
>
>How can I stop the relay from "fluttering" like this? Do I just need to
>add the right value capacitor in series with the relay coil or something
>simple like that? If I am right, what sort of capacitor / value do I
>need?
>
>Thanks in advance.
>
>Scott.
>

89. Re: How do I smooth - try hysterisis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-04 23:02:52 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A552B65.B7F9696F@home.com>
Source record: 55688
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

This exact topic/similar application is covered in the Nov-Dec "Analogue Diagogue" -- http://www.analog.com

Scott McClements wrote:

> I built a simple circuit to control some fans. When the temperature goes
> up the fans come on. However when circuit is about to switch the fans
> off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> quickly for a second, sometimes longer. Its very loud and annoying.
>
> How can I stop the relay from "fluttering" like this? Do I just need to
> add the right value capacitor in series with the relay coil or something
> simple like that? If I am right, what sort of capacitor / value do I
> need?
>
> Thanks in advance.
>
> Scott.

90. DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 00:50:24 UTC
From: rfrench99@bigfoot.com
Message-ID: <87ae96ddq0.fsf@fulcrum.mignet.yi.org>
Source record: 55689
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hello,

I'm working on a synthesizer that will have a wide range (~30-50 MHz frequency range). Obviously I can't use a DDS to simply generate the whole thing. Now, the DDS's that are available can generate pretty small steps... so if I generate a low frequency range, I should be able to multiply up to the higher, wider range with a PLL, right?

Two main alternatives I'm looking at. I want to cover the range 80 to 110 MHz. I can use the DDS to generate 0.8 to 1.1 MHz, then use this as the reference for the PLL with a fixed division ratio of 100... so my final output range is 80 to 110 MHz. Or, I can use a much smaller range in the DDS, say 0.995 to 1.05 MHz, and use a variable division range in the PLL. A microprocessor would be used to compute exactly what DDS frequency and PLL division ratio to use for a given output frequency. I saw something along the lines of this in an article by Ulrich Rohde about modern receiver design in QST several years ago (which I seem to have lost unfortunately).

Is one better than the other, and if so, why? The first method, on the one hand, seems simplest to implement, since I only need to program one device (the DDS) to get a given frequency.

However, the first method uses the DDS to generate a wider range of frequencies. Will this be harder to filter to provide a good reference to the PLL? With the second method it would be possible to filter the DDS output with a fairly tight BP filter to minimize spurs, whereas with the first method, the second harmonic of the lowest frequency (0.8) is 1.6 MHz, which is only 500 KHz above the upper frequency (1.1) that the filter would have to pass.

Any thoughts? I appreciate any input. Thanks.

-Rob French
KC4UPR

91. Re: FOR SALE:Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 00:52:14 UTC
From: tom_bruhns@agilent.com
Message-ID: <9335rs$c94$1@nnrp1.deja.com>
Source record: 55690

In article <Unq46.16596$bU.1117810@bgtnsc04-news.ops.worldnet.att.net>,
"Leon Snider" <leons@worldnet.att.net> wrote:
> KILLER TRANSFORMER!!

OK, I just gotta know...whose estate are you selling this puppy for?
;-)

(Anyone out there with a serious interest in a 5kVA triple-shielded
120/240:120/240 isolation transformer?)

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

92. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 01:21:57 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A5521B5.2790C211@grove.iup.edu>
Source record: 55684
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

>
> I agree with Hans. Another simple approach would be to put the output of
> the electronics to a flip flop gate. If the ic can't handle the current
> of the relay, put in a small relay to control the larger or use a high
> current transistor circuit controlled by the ic. Just some thoughts.
>
> Dan/W4NTI
>
> --
> "Just tellin the truth, and they cain't stand it."
>
> Sent via Deja.com
> http://www.deja.com/

I'm no electronic genius. I am learning little by little by playing around though, on my own. The flip flop gate, does this just detect a rising or falling current and close/open another circuit based on the edge? The temperature sensor circuit is 100ma.

Scott.

93. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 01:31:29 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A5523F1.72ADEA64@grove.iup.edu>
Source record: 55685
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

n2ey@aol.com wrote:

>
> You probably have both the fans and the sensor circuit running off the
> same 12 volt supply. (Stop me if I'm off on this). If so, when the fans
> are running, they load down the 12 volt supply slightly. Not a big deal.
> But when the device cools off and the circuit deenergizes the relay, the
> load of the fans goes away and the supply voltage rises slightly. That
> rise is enough to change operating conditions in the temperature sensor
> circuit so that it reenergizes the relay for a moment. Then the supply
> voltage drops, and the relay deenergizes...you get the picture.

It certainly is wired to the same 12 volt source. The wires coming into the
circuit also feed the fans (.5 amps).

> One solution is better regulation of the supply voltage. Another, simpler
> method is to put a diode or large capacitor in parallel with the relay
> coil to slow it down. Note polarity - the diode should have its cathode
> (the line part) going to the positive and its anode (the arrow part)
> going to the negative. In other words, the diode is installed "backwards"
> so that it doesn't conduct when the switching transistor is turned on.
> If you use an electrolytic capacitor instead, it's plus to plus, minus to
> minus. I'd try whatever electrolytics I had lying around, as long as they
> had at least a 15 volt rating.
>
> 73 de Jim, N2EY

Thanks, I will try this soon.

Scott.

94. TS-1100/U: Looking for schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 02:13:25 UTC
From: " pfriedr"@NOSPAMazstarnet.com
Message-ID: <3A552DC5.75612ED2@NOSPAMazstarnet.com>
Source record: 55691
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I recently acquired a TS-1100/U military test set for transistors, circa mid 1950's. It appears to be in good condition, however, on examination, it requires a stack of unusual batteries to power it. I have no idea what they are, or what normal operating voltage is.

I would like to build a power supply so that I can use this instrument. Anyone have schematics?

Thanks,
Pete

(remove NOSPAM to reply)

95. Re: tuner questions for you

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 03:51:23 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <%wb56.223$bC.26812@news02.optonline.net>
Source record: 55692

Assuming both will match what you want to match then the pi is the obvious choice since you have two caps and one coil. Generally the caps are already set up to have one side grounded.

What I'm worried about is that you may not be able to match the antennas you have on the bands you want to use with either a normal T or a normal PI. Each will match over a different range of impedances. You may also need one of the odd configurations. It's generally better to know that before you start drilling holes than to find it out after ....

As an example using the 80 meter dipole:

At 3910 you don't need a tuner, it's already 50 ohms and probably is close enough to 50 ohms up to 4000.

If you want to tune the 80 meter dipole on the low end of 80 meters through a short run of coax that's different ....

Down there the antenna is to short to resonate so it will look like a capacitor. The output of the matching network will have to be inductive to make up for that. In addition the network will have to do an impedance transform from your low Z transmitter up to a higher impedance.

Assuming you build a PI with the two capacitors grounded and the coil in between them:

With the output capacitor set to zero and the coil set to a reasonable L you may or may not be able to do the match. (With the output capacitor set to zero you actually have an L network ...).

There are all kinds of neat tables and formulas in the various handbooks that you can check out to see if it will work or not.

It's a matter of matching the range of the tuner to the range of antennas.

You can also do things with the length(s) of your feed lines to work out a match as well. You can also simply clip lead the parts together and see if they will do a match into the antennas you have. Clip leads are easy to move around .... :)

Hope this helps rather than confuses the issue ....

Bob

"kf4toh" <kf4toh@aol.com> wrote in message
news:20010104173912.15861.00000061@ng-ct1.aol.com...
> bob its a big roller about 32uh
>
> both antennas are up. ill have to
>
> put my 259b on the loop but the dipole
>
> is 50 ohm at 3910.
>
> tee or pi is my biggest question i guess
>
> thanks joe

96. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 05:16:48 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A555A8F.9D1@pop.removethistomailme.net>
Source record: 55693
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

Robert A. French wrote:
>
> Any thoughts? I appreciate any input. Thanks.
>
> -Rob French
> KC4UPR

You have it pretty much nailed. Narrower DDS operating ranges are
generally better because they can be filtered more easily.

You could also use a varactor-based tracking filter driven by an 8-bit
DAC to filter the DDS output with a broader frequency range, of course.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

97. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 06:22:34 UTC
From: sktullgren@aol.com
Message-ID: <20010105012234.21782.00000335@ng-fy1.aol.com>
Source record: 55694

I have a data chart from a radio handbook dated 1946. I have not seen a schematic as of yet. The info just gives the characteristics of everything form voltages to base configurations.

shawn kd5hlm

98. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 13:20:17 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A55CA11.D13E3695@alltel.net>
Source record: 55695
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Just put about a 330mf electrolytic across the relay coil. That should
fix the flutter
problem.
73
bob
wb5apd

tom_bruhns@agilent.com wrote:
>
> So...what tells the relay to turn on and off now? It's hard to tell
> from your posting, but I suppose something from the relay circuit is
> getting back into the electronics (?) that drive the relay coil. My
> suspicion is that it could be noise from the current interrupted by the
> contacts opening. You might try putting a snubber network across the
> relay contacts; it's likely to make the relay contacts last longer
> anyway. As a wild guess, for mechanical contacts, you might try 100
> ohms in series with 0.1uF or 0.05uF. STRONGLY recommend you use caps
> rated for AC service, assuming you're controlling power line levels to
> the fans. If that doesn't solve it, there are for sure other
> options...for example, a "non-retrigger" circuit in the relay coil drive
> electronics that definitely holds off the relay coil drive for a second
> or two when the turn-off occurs. Might be good to know also if the coil
> as it stands now is allowed to "fly back" to a high enough voltage to
> rapidly de-energize, or if there's a diode across it (assuming it's DC
> excitation) that might be slowing the release enough to increase contact
> arcing. Another option: use an opto-isolated triac (or a "solid-state
> relay") to control the fans instead of a relay.
>
> Cheers,
> Tom
>
> In article <3A54FB70.E8B76E1@grove.iup.edu>,
> Scott McClements <yetbbwa@grove.iup.edu> wrote:
> > I built a simple circuit to control some fans. When the temperature
> goes
> > up the fans come on. However when circuit is about to switch the fans
> > off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> > quickly for a second, sometimes longer. Its very loud and annoying.
> >
> > How can I stop the relay from "fluttering" like this? Do I just need
> to
> > add the right value capacitor in series with the relay coil or
> something

> > simple like that? If I am right, what sort of capacitor / value do I
> > need?
> >
> > Thanks in advance.
> >
> > Scott.
> >
> >
>
> --
> Tom Bruhns -- K7ITM
>
> Sent via Deja.com
> http://www.deja.com/

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

99. AIRWX 1.0 MODIF GPS SIMUL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 14:35:07 UTC
From: F1LXJ SERGE <f1lxj@club-internet.fr>
Message-ID: <934m7p$en9$4@front7.grolier.fr>
Source record: 55696

```
73's dear OM

AIRWX v1.0 is exit with some novelties.

GMS SIMULE the device of acquirement has been modified
the speed is now in km/h
acquirement separated of degrees, minutes, seconds.

73's of f1lxj
```

100. FA: HP606A Signal Genaral Op and Service Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 14:57:44 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <Ihl56.87$N_6.19630@news1.news.adelphia.net>
Source record: 55547
Cross-posted to:
misc.industry.electronics.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

High quality spiral bound photocopy of Operator and Service Manual for HP606A Signal Generator. Includes operating instructions, theory of operation, troubleshooting, alignment, schematics, and parts lists. Shipping via book rate is estimated to be around $2 for US delivery.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1204594838

101. ? 8560 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 16:22:51 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3A55F4DB.EA9F5147@ieee.org>
Source record: 55567

I have this tube that I would like to find some info. on.
It was used in a VHF amplifier

Tube type 8560 (Conduction cooled)

I would like to know;

is this a triode or tetrode
what is the plate dissipation rating
what is the max. frequency
what are the typical operating voltages

Thanks for any information

Bill K7NOM

102. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 17:04:19 UTC
From: marsgal42@hotmail.com
Message-ID: <934uqc$pr7$1@nnrp1.deja.com>
Source record: 55548
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

In article <3A555A8F.9D1@pop.removethistomailme.net>,
jmiles@pop.removethistomailme.net wrote:
> Robert A. French wrote:
> >
> > Any thoughts? I appreciate any input. Thanks.
> >
> > -Rob French
> > KC4UPR
>
> You have it pretty much nailed. Narrower DDS operating ranges are
> generally better because they can be filtered more easily.
> ...

I've seen commercial radios that use a DDS followed by a
PLL multiplier. The designers examined the DDS output for
spurious levels, picked the frequency range they wanted,
then followed it by the right multiplier.

I could tell you more, but then I'd have to kill you. :-)

Laura Halkliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

103. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 17:31:57 UTC
From: cjX@hth.com
Message-ID: <3a560503.92399088@news.sverige.net>
Source record: 55549
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=========================================================================
- L.O.S.A Contribution Form -
=========================================================================
New Contribution [ ] Update [ ]
-------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-------------------------------------------------------------------------

Stamp model : BASIC Stamp/BS1-IC/BS2-IC/BS2SX-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=========================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

104. Open & Closed Impedance Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 19:29:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9357s4$i9p$3@plutonium.btinternet.com>
Source record: 55551

NEW PROGRAM: ZOC_ZSC.exe

Measure the input impedance of that unknown length of coax
or twin-line, first with the far end open-circuit and then
with the far end short-circuit, to obtain Roc + jXoc and
Rsc + jXsc. Then enter the measurements into program
ZOC_ZSC along with frequency and measured length of line.

Output data: Zo, Angle of Zo, Attenuation dBs, electrical
length in wavelengths, VF, wire loss, ohms/m, mhos/m, uH/m,
pF/m.

But to obtain more than just Zo and dBs accurately very
accurate measurements are needed. Best to avoid extremes of
impedance at whole numbers of 1/4-wavelengths. Measure at
frequencies where line length is approximately an odd number
of 1/8th wavelengths.

The Zoc/Zsc method can be used to determine the transmission
characteristics of any 4-terminal network used between its
image impedances.

Download ZOC_ZSC in a few seconds from website below. 41.4
kilobytes. Run immediately.

****
Regards from Reg, G4FGQ
For free radio modelling software go to:
http://www.btinternet.com/~g4fgq.regp

****

105. Squires-Sanders SS-1R - technical notes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 19:30:49 UTC
From: LA8AK@online.no
Message-ID: <3a55199b.191271392@news.online.no>
Source record: 55550

always found this receiver most interesting and downloaded the circuit diagrams from ftp://bama.sbc.edu/downloads/squires/ss1r/

suppose IF selectivity is somewhat marginal with only two xtal lattice filter for 0.35kc and LC-filter for 3.5kc

It was interesting to see the AGC detector circuit, have never seen this application of 6AV6 (6AT6, 6BF6, 6BJ8), will add it to my collection of unusual applications, see ftp://bama.sbc.edu/downloads/squires/ss1r/SS1Rsch5.gif

do not quite understand why 6BJ8 is used instead of 6BF6 in later Drake Model 1-A receivers

73
Jan-Martin
LA8AK

---
ide forum http://home.c2i.net/la2pj/ide/index.html

106. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 22:59:43 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A5653BA.36B8@pop.removethistomailme.net>
Source record: 55552
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

marsgal42@hotmail.com wrote:
>
> In article <3A555A8F.9D1@pop.removethistomailme.net>,
> jmiles@pop.removethistomailme.net wrote:
> > Robert A. French wrote:
> > >
> > > Any thoughts? I appreciate any input. Thanks.
> > >
> > > -Rob French
> > > KC4UPR
> >
> > You have it pretty much nailed. Narrower DDS operating ranges are
> > generally better because they can be filtered more easily.
> > ...
>
> I've seen commercial radios that use a DDS followed by a
> PLL multiplier. The designers examined the DDS output for
> spurious levels, picked the frequency range they wanted,
> then followed it by the right multiplier.
>

I've always wondered if it might make sense to cascade multiple DDSs,
each clocking the next in turn, allowing for numerous combinations of
division factors at each chip. The driver software would theoretically
be able to pick a set of division factors for any desired output
frequency that would minimize spurs.

Of course, achieving any improvement might be mathematically impossible;
i.e., you simply couldn't do any better than the
single-chip/single-clock case. Haven't really thought it through.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

107. AD831AP?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-05 23:53:47 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <58t56.4899$of7.240374@news1.atl>
Source record: 55553

Analog Devices AD831AP mixer used in several QRP projects on the web. Seems to be scarcer than good manners on Usenet. Anybody know where I can get a few in less than a year?

73
Rory N7CR

108. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 01:43:00 UTC
From: tom_bruhns@agilent.com
Message-ID: <935t73$le2$1@nnrp1.deja.com>
Source record: 55554
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

I think that you're asking for serious phase noise problems if you do
that. Even using a DDS output as the reference for a PLL has the
potential problem Laura alluded to: be careful about spurs in the DDS
output. And those spurs will in general be different for each and every
possible divisor...perhaps those who look for them know how to reduce
the search, but you wouldn't want to assume the DDS to be good in a band
just because it was good at one or two frequencies in that band.

DDS's are getting better...I believe you'll find ones that easily cover
the range the original poster is interested in. OTOH, in the 100kHz
region, you can use a 20-bit or even better DAC and get pretty darn
clean signals...to use for PLL multiplication.

There are some examples of really clean, fairly wide range LO
systems...the ones I'm aware of (in spectrum analyzers, for example) do
NOT use DDS anywhere. -100dBc @ 1Hz offset?? :-)

Cheers,
Tom

In article <3A5653BA.36B8@pop.removethistomailme.net>,
jmiles@pop.removethistomailme.net wrote:

> I've always wondered if it might make sense to cascade multiple DDSs,
> each clocking the next in turn, allowing for numerous combinations of
> division factors at each chip. The driver software would theoretically
> be able to pick a set of division factors for any desired output
> frequency that would minimize spurs.
>
> Of course, achieving any improvement might be mathematically impossible;
> i.e., you simply couldn't do any better than the
> single-chip/single-clock case. Haven't really thought it through.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

109. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 05:05:45 UTC
From: g0wmf@my-deja.com
Message-ID: <936937$uf4$1@nnrp1.deja.com>
Source record: 55555
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

A snubber (flyback) diode across the relay will protect the driving transistor from the reverse voltage spike (back-EMF) when the field of the relay inductor collapses. Although I am not an expert in this area - I don't think this will necessarily stop the chattering.

Relays normally chatter anyway to some extent (if you look at the manufacturer specs you will see they give guidelines) although for most purposes this would only be for a very short time span and unlikely to be noticable during usage.

The most likely cause I can think of is that there is insufficient decoupling between the transistor driving circuit and the line that energizes the relay inductor (in other words - when the relay coil switches off this reduces the loading, changes the operating conditions which switches the relay on again, and so on).

One way you could try to fix this is with a large decoupling capacitor between the supply lines. This might smooth out changes in operating conditions sufficiently to give the circuit more stability.

Since you mention you are interested in studying more about electronics, you might also consider the effects of the return current from the relay inductor on the voltage potential of the transmitter emitter terminal. Although we tend to think of the 'wiring' in circuits as equipotential (for example, all points connected to ground will be 0v) - this is actually an oversimplification. Wiring will have a small resistance.... and (from ohms law) any current through the wire will set up a voltage potential across the wire.

Look carefully at exactly how you have soldered the emitter and relay grounds to the power source ground with this in mind.

When the relay is energized a relatively large current will be flowing from the relay to ground and setting up a voltage difference across that path or trace.

If the emitter terminal grounding is connected mid-stream on the above path then the relay switching on/off is also creating a small but significant change in the voltage level at the emitter. This might be another cause of the problem.

This effect can be minimized to some extent by keeping the 2 ground lines separate to a point as close as conveniently possible to the battery terminal.

Hope this helps.

Best regards, Roy G0WMF / 7J1AUA

In article <3A54FB70.E8B76E1@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> I built a simple circuit to control some fans. When the temperature
goes
> up the fans come on. However when circuit is about to switch the fans
> off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> quickly for a second, sometimes longer. Its very loud and annoying.
>
> How can I stop the relay from "fluttering" like this? Do I just need
to
> add the right value capacitor in series with the relay coil or
something
> simple like that? If I am right, what sort of capacitor / value do I
> need?
>
> Thanks in advance.
>
> Scott.
>
>

Sent via Deja.com
http://www.deja.com/

110. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 05:40:09 UTC
From: W4JLE <Fred@w4jle.com>
Message-ID: <936b5j$1r8$1@iac5.navix.net>
Source record: 55556
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Nope, simply run the relay from a zener diode set at 12 volts. Now when you unload the supply from the fans shutting off, the rise in voltage won't cause the relay to pickup again. The snubber diode should be there in any case to remove the back emf.

<g0wmf@my-deja.com> wrote in message news:936937$uf4$1@nnrp1.deja.com...
> A snubber (flyback) diode across the relay will protect the driving
> transistor from the reverse voltage spike (back-EMF) when the field of
> the relay inductor collapses. Although I am not an expert in this area
> - I don't think this will necessarily stop the chattering.
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> manufacturer specs you will see they give guidelines) although for most
> purposes this would only be for a very short time span and unlikely to
> be noticable during usage.
>
> The most likely cause I can think of is that there is insufficient
> decoupling between the transistor driving circuit and the line that
> energizes the relay inductor (in other words - when the relay coil
> switches off this reduces the loading, changes the operating conditions
> which switches the relay on again, and so on).
>
> One way you could try to fix this is with a large decoupling capacitor
> between the supply lines. This might smooth out changes in operating
> conditions sufficiently to give the circuit more stability.
>
> Since you mention you are interested in studying more about
> electronics, you might also consider the effects of the return current
> from the relay inductor on the voltage potential of the transmitter
> emitter terminal. Although we tend to think of the 'wiring' in
> circuits as equipotential (for example, all points connected to ground
> will be 0v) - this is actually an oversimplification. Wiring will have
> a small resistance.... and (from ohms law) any current through the wire
> will set up a voltage potential across the wire.
>
> Look carefully at exactly how you have soldered the emitter and relay
> grounds to the power source ground with this in mind.
>
> When the relay is energized a relatively large current will be flowing
> from the relay to ground and setting up a voltage difference across
> that path or trace.
>
> If the emitter terminal grounding is connected mid-stream on the above

> path then the relay switching on/off is also creating a small but
> significant change in the voltage level at the emitter. This might be
> another cause of the problem.
>
> This effect can be minimized to some extent by keeping the 2 ground
> lines separate to a point as close as conveniently possible to the
> battery terminal.
>
> Hope this helps.
>
> Best regards, Roy G0WMF / 7J1AUA
>
>
> In article <3A54FB70.E8B76E1@grove.iup.edu>,
> Scott McClements <yetbbwa@grove.iup.edu> wrote:
> > I built a simple circuit to control some fans. When the temperature
> goes
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> > off (by de-energizing a 200 Ohm relay), the relay flutters on and off
> > quickly for a second, sometimes longer. Its very loud and annoying.
> >
> > How can I stop the relay from "fluttering" like this? Do I just need
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> > add the right value capacitor in series with the relay coil or
> something
> > simple like that? If I am right, what sort of capacitor / value do I
> > need?
> >
> > Thanks in advance.
> >
> > Scott.
> >
> >
>
>
> Sent via Deja.com
> http://www.deja.com/

111. Home Brew PSK31

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 07:11:16 UTC
From: Graeme Zimmer <gzimmer@bigpond.com>
Message-ID: <Enz56.1086$mO2.4675@newsfeeds.bigpond.com>
Source record: 55557

Hi Folks,

If you are interested in Home Brew PSK31 you may wish to visit my Web Page
at..

http://www.users.bigpond.com/gzimmer/

Cheers ..... Zim VK3GJZ

112. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 10:32:24 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <ctsd5t4rpvs0e27vr0isqgoom3d1j04je4@4ax.com>
Source record: 55565

troglodite@aol.com (Troglodite)
shared these priceless pearls of wisdom:

->
->>Does anyone ahve any plans or at least ideas on omnidirectional antennas for
->>220 or 440? Something beyond a simple ground plane. Thanks.
->
->A colinear is fairly easy to construct, is omnidirectional,

Maybe I'm being a bit pedantic here, but neither a ground plane nor a collinear
is omnidirectional. They both have gain in the horizontal direction by
suffering a loss in the vertical direction. "There ain't no isotropic
radiators."

Perhaps the original poster could be a little more specific? Like specifying
if he means horizontally omnidirectional while allowing the vertical pattern to
squish down?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

113. Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 11:34:17 UTC
From: w1eof@aol.com
Message-ID: <20010106063417.19614.00000157@ng-fy1.aol.com>
Source record: 55558

Does anyone ahve any plans or at least ideas on omnidirectional antennas for 220 or 440? Something beyond a simple ground plane. Thanks.

73,

Mark W1EOF

114. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 13:23:33 UTC
From: troglodite@aol.com
Message-ID: <20010106082333.13545.00000217@ng-md1.aol.com>
Source record: 55559

>Does anyone ahve any plans or at least ideas on omnidirectional antennas for
>220 or 440? Something beyond a simple ground plane. Thanks.

A colinear is fairly easy to construct, is omnidirectional, and has between 1.5 and 6Db of gain depending on the number of elements. You'll find it in most of the ARRL handbooks. You need a balun loop to match the feedpoint, but at 220 or 440, this is quite small. There is an example of a 144Mhz design in the handbook, with the info needed to calculate other sizes. For the elements, I've used brazing rod, aluminum grounding wire, etc.

Doug Moore KB9TMY

115. Re: Digital Transmitter Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 13:40:57 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A57217C.58041CB3@att.net>
Source record: 55560

FWIW - Another approach:
Although more complex and expensive, you might consider a PLL VCO and sum the modulation signal into the control port. Have no experience with VCOs in the 50 MHz area, but from your info you are going to at least 150... The bandwith of many UHF VCOs is several MHz. For example: I have built a 900MHZ FM ATV TX (Speak acronym? :) that is modulated by NTSC video summed to the control port. Sure is broad, but works well for the color TV signal. Receive the wide FM using the indoor portion of an old Sat-A satellite receiver (70 MHz input - Video out, whose input is driven by a downconverter). I scrounged the parts from an older 800-900 MHz 3 watt 2-way RF deck.
73, Woody

Kelvyn Shaw wrote:
>
> I am planning to use this oscillator for a transmitter to transmit data. Has
> anyone any ideal of the maximum data rate that this circuit could be used
> for. I am hoping for 100Kbps.
>
> [Image]

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

116. Re: Ceramic/Crystal filter pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 13:43:02 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A5721FA.F44F7C67@att.net>
Source record: 55561

Have a part number? I have some MuRata catalogs that are a few years
old and have pin-out drawings. Just maybe???...
Woody

Murray Lang wrote:
>
> Can anyone point me to pinout data for muRata and/or Toyocom crystal
> filters?
> The numbering of the pins is easy to find on the web but not what those pins
> actually do.
> I get the impression that there's a well known convention for pin numbering
> of these filters but at this stage I'm not privy to it.
>
> Thanks in advance.
>
> Murray Lang - VK6HL

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

117. Re: Source for Z80A CPU

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 13:58:48 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A5725AA.AEFC23CA@att.net>
Source record: 55562

If you haven't yet procured the CPU... I have 2.
1) Zilog Z80A P10
2) Mostek MK3880N Z80
The were ok when pulled, but the warrenty is as good as the price...
Let me know which you would like and I will mail (need address).
73, Woody - The packrat :)

John wrote:
>
> Hi
> I looking for a Z80A Cpu for one of my rig's. The original part was a
> Sharp LH0080A. I believe this is a copy of the Zilog Z80A. Any info on
> were I can buy one of these chips ??
>
> Thanks John

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

118. cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 15:57:46 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t5eg3vmdnmpk06@corp.supernews.com>
Source record: 55563

has anyone used the xtal osc out of a cell fone for a frequency std??
they should be pretty stable at room temp?
i wonder what the base frequency is?
i see quite a few digital phones at garage sales for a 2 or 3 dollars..
i wonder what the diff is between analog and digital phone xtal oscillators
is??
tnx
hank wd5jfr

119. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 16:40:12 UTC
From: kg9qm@nomail.net
Message-ID: <MTH56.628$iV1.363132@news1.iquest.net>
Source record: 55564

Probably not as stable as a xtal designed for freq std use. All xtal oscillators are going to be analog, with schmitt triggers and flipflops shaping and scaling the waveform into something we call "digital".

You also have to consider the axis on which the xtal is cut, which affects the resonant frequency, stablity and oscillation characteristics it exhibits.

don

In article <t5eg3vmdnmpk06@corp.supernews.com>, wd5jfr@oklahoma.net was of the opinion...
>
>has anyone used the xtal osc out of a cell fone for a frequency std??
>they should be pretty stable at room temp?
>i wonder what the base frequency is?
>i see quite a few digital phones at garage sales for a 2 or 3 dollars..
> i wonder what the diff is between analog and digital phone xtal oscillators
>is??
>tnx
>hank wd5jfr
>
>

120. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 17:34:45 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <VGI56.12359$9C.911602@news02.optonline.net>
Source record: 55566

Henry:

Depending on who's phone you get it out of the TCXO in a cell phone is going to be roughly +/-2.5 ppm over the 0 to 60 C temperature range. If you get one with a bare crystal in it they usually run about +/- 10 ppm over the same range. The TCXO's are fairly flat in the region of room temperature, generally below 0.1 ppm per degree C. The crystals are not as flat ...

Frequencies vary from phone to phone. 12.8 MHz is common as are a couple of other frequencies. They are all odd numbers though. No 5 or 10 MHz even type stuff.

Output from the TCXO will probably be a clipped sine wave. Typical load impedance is something like 1K ohm in parallel with 4 pf. Again, different units have different loads.

Most have a trim adjust on them. As you pull the oscillator out of the radio it will probably be about 3 ppm off frequency and you will have to adjust it against a good standard to get it back on frequency. If you adjust it plan on coming back about two weeks later to re-set it. The tiny little trimmers tend to move on occasion.

Supply voltage to the TCXO will probably be 5 volts in the older phones and 3.3 volts (or below) in the newer phones.

The main difference between the analog and digital phones is that the digital phones are more likely to have a bare crystal in them and no TCXO at all. Again, it's not a hard and fast rule different brands do it different ways.

All in all the TCXO's are useful if you are doing a synthesizer project or something similar. You can't beat them for the price. They are not as useful if you are trying to run a master standard setup.

Probably the best bet for a master standard would be a surplus 10 MHz OCXO. You see them on the auctions and at flea markets for $50 or less. Any OCXO as long as it still works will blow the cell phone TCXO away as a frequency standard. Even if you get a crummy one it should do +/- 0.05 ppm or less.

Hope this helps

Bob
KB8TQ

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message news:t5eg3vmdnmpk06@corp.supernews.com...

> has anyone used the xtal osc out of a cell fone for a frequency
std??
> they should be pretty stable at room temp?
> i wonder what the base frequency is?
> i see quite a few digital phones at garage sales for a 2 or 3
dollars..
> i wonder what the diff is between analog and digital phone xtal
oscillators
> is??
> tnx
> hank wd5jfr
>
>

121. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 17:55:55 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3A575C2B.295D446D@ieee.org>
Source record: 55568

Jim Weir wrote:
>
> troglodite@aol.com (Troglodite)
> shared these priceless pearls of wisdom:
>
> ->
> ->>Does anyone ahve any plans or at least ideas on omnidirectional antennas for
> ->>220 or 440? Something beyond a simple ground plane. Thanks.
> ->
> ->A colinear is fairly easy to construct, is omnidirectional,
>
> Maybe I'm being a bit pedantic here, but neither a ground plane nor a collinear
> is omnidirectional. They both have gain in the horizontal direction by
> suffering a loss in the vertical direction. "There ain't no isotropic
> radiators."
>
> Perhaps the original poster could be a little more specific? Like specifying
> if he means horizontally omnidirectional while allowing the vertical pattern to
> squish down?
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

Also do you want horz. or vert. polarization?

Bill K7NOM

122. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 18:50:57 UTC
From: rfrench99@bigfoot.com
Message-ID: <873dew5xc2.fsf@fulcrum.mignet.yi.org>
Source record: 55569
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

```
Hrm, and somehow I don't think I've quite the time, money, or expertise
to make a multi-loop PLL with -100dBc @ 1Hz!!! :-P
```

123. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 19:57:27 UTC
From: Dan/W4NTI <w4nti@my-deja.com>
Message-ID: <937tb4$3nh$1@nnrp1.deja.com>
Source record: 55570
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A5521B5.2790C211@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> >
> > I agree with Hans. Another simple approach would be to put the
output of
> > the electronics to a flip flop gate. If the ic can't handle the
current
> > of the relay, put in a small relay to control the larger or use a
high
> > current transistor circuit controlled by the ic. Just some
thoughts.
> >
> > Dan/W4NTI
> >
> > --
> > "Just tellin the truth, and they cain't stand it."
> >
> > Sent via Deja.com
> > http://www.deja.com/
>
> I'm no electronic genius. I am learning little by little by playing
around
> though, on my own. The flip flop gate, does this just detect a rising
or
> falling current and close/open another circuit based on the edge? The
> temperature sensor circuit is 100ma.
>
> Scott.
>
>
You could hook up the flip/flop and set the following stage to flip or
flop on the edge or not. But the gate is basically a on/off switch.
It turns 5v on or 5v off. If properly set-up there should be no 'in
between'. Its either on or off.

Take the output of the gate. To the following stage transistor or
relay. Simple as that.

Dan/W4NTI

--
"Just tellin the truth, and they cain't stand it."

Sent via Deja.com
http://www.deja.com/

124. AIRWX BUG

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 20:19:45 UTC
From: F1LXJ SERGE <f1lxj@club-internet.fr>
Message-ID: <937uqd$1c$4@front6m.grolier.fr>
Source record: 55571

73's dear OM

AIRWX v1.1 corrects a thick bug of plot gprmc of GPS SIMULE.

http://perso.club-internet.fr/f1lxj

73's de f1lxj

125. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 21:37:27 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101061621190.8911-100000@Gloria.CAM.ORG>
Source record: 55572

On Sat, 6 Jan 2001, Henry Kolesnik wrote:

> has anyone used the xtal osc out of a cell fone for a frequency std??
> they should be pretty stable at room temp?
> i wonder what the base frequency is?
> i see quite a few digital phones at garage sales for a 2 or 3 dollars..
> i wonder what the diff is between analog and digital phone xtal oscillators
> is??
> tnx
> hank wd5jfr
>
>
FOr a few dollars each, it's worth just buying one and taking a look
yourself. There should be other interesting parts in side besides
a crystal.

One thing worth doing is looking for older phones. The older they are,
the bigger they were. Not only will they be likely to carry a lower
price, since nobody seems to want those old clunky phones, but you
are much more likely to find parts that are re-useable. I've picked
up a number of old cellphones, the first one cost all of fifty cents
at a church rummage sale. That first one was reasonably old, and
while there were surface mount components, they weren't all that kind.
I picked up an even bigger, and presumably older, cellphone after
that, and most of the devices were DIP. I imagine older phones
have the advantage also that integration hadn't become so extensive,
so you could pull ICs out that were useable in other applications,
while the smaller they phones get, the more likely the ICs are
specifically for cellphone use and incorporate all kinds of functions
in larger pin packages.

The 3 or 4 cellphones I've bought at garage sales ahve all had
TXCO's in nice little modules. They all have "odd" frequencies,
intended for binary counters rather than adjusting to match WWV.

But they are also a source of "roofing" filters in the 45Mhz or even
higher range. And since they all convert down to a lower frequency
to demodulate the signal, there will be a crystal to bring that frequency
down to 10.7Mhz or 455KHz, and afilter at that ultimate IF suitable
for narrow-deviation FM. THe FM IF strip is usually a signal IC,
and if one needed such a thing, the whole thing could be extracted
as a module.

There should also be a prescaler or two. And if you find an old enough
phone, a nice and common synthesizer IC.

I think all the phones I've taken apart have an NE570 or derivative compander IC.

They seem to use what appear to be diode-ring mixers, complete in little metal cases.

The cases always seem intriguing, though since they are built to match the circuitry rather than a general purpose box, fitting your own circuitry into the box may take effort.

There will be various CPUs, again the older the more likely to find a general purpose unit, and plenty of CMOS logic, though that may not be of real temptation to someone looking useful scrap.

Michael VE2BVW

126. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 22:35:55 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t5f7ef97cg2j2f@corp.supernews.com>
Source record: 55573

hmmm?
i wonder if anyone has made a scanner out of a junked out cell phone?

"Michael Black" <blackm00@Gloria.CAM.ORG> wrote in message
news:Pine.LNX.4.10.10101061621190.8911-100000@Gloria.CAM.ORG...
>
>
> On Sat, 6 Jan 2001, Henry Kolesnik wrote:
>
> > has anyone used the xtal osc out of a cell fone for a frequency std??
> > they should be pretty stable at room temp?
> > i wonder what the base frequency is?
> > i see quite a few digital phones at garage sales for a 2 or 3 dollars..
> > i wonder what the diff is between analog and digital phone xtal
oscillators
> > is??
> > tnx
> > hank wd5jfr
> >
> >
> FOr a few dollars each, it's worth just buying one and taking a look
> yourself. There should be other interesting parts in side besides
> a crystal.
>
> One thing worth doing is looking for older phones. The older they are,
> the bigger they were. Not only will they be likely to carry a lower
> price, since nobody seems to want those old clunky phones, but you
> are much more likely to find parts that are re-useable. I've picked
> up a number of old cellphones, the first one cost all of fifty cents
> at a church rummage sale. That first one was reasonably old, and
> while there were surface mount components, they weren't all that kind.
> I picked up an even bigger, and presumably older, cellphone after
> that, and most of the devices were DIP. I imagine older phones
> have the advantage also that integration hadn't become so extensive,
> so you could pull ICs out that were useable in other applications,
> while the smaller they phones get, the more likely the ICs are
> specifically for cellphone use and incorporate all kinds of functions
> in larger pin packages.
>
> The 3 or 4 cellphones I've bought at garage sales ahve all had
> TXCO's in nice little modules. They all have "odd" frequencies,
> intended for binary counters rather than adjusting to match WWV.
>
> But they are also a source of "roofing" filters in the 45Mhz or even

> higher range. And since they all convert down to a lower frequency
> to demodulate the signal, there will be a crystal to bring that frequency
> down to 10.7Mhz or 455KHz, and afilter at that ultimate IF suitable
> for narrow-deviation FM. THe FM IF strip is usually a signal IC,
> and if one needed such a thing, the whole thing could be extracted
> as a module.
>
> There should also be a prescaler or two. And if you find an old enough
> phone, a nice and common synthesizer IC.
>
> I think all the phones I've taken apart have an NE570 or derivative
> compander IC.
>
> They seem to use what appear to be diode-ring mixers, complete in
> little metal cases.
>
> The cases always seem intriguing, though since they are built to
> match the circuitry rather than a general purpose box, fitting your
> own circuitry into the box may take effort.
>
> There will be various CPUs, again the older the more likely to find
> a general purpose unit, and plenty of CMOS logic, though that may
> not be of real temptation to someone looking useful scrap.
>
> Michael VE2BVW
>
>

127. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 22:45:40 UTC
From: Joe McElvenney <joemac@xic.demon.co.uk>
Message-ID: <VA.0000014e.00082369@xic.demon.co.uk>
Source record: 55574

Hello,

Staying on the subject of oven-ed oscillators - I have a project on the go where I need to control a 10MHz VCXO in a phase-locked loop via a DAC. To help achieve this the voltage range needs to be as narrow as possible and so I intend to use a home-brew OCXO to eliminate that portion of the control voltage change required by moves in temperature.

As a series of these may be produced I will also be using cheap computer xtals. These I believe are AT cut and designed for room temperature operation but to have a fair control over them I'll have to move the oven turnover point up to around 50C.

Any thoughts or suggestions on the above would be most welcome. Seen through my ever-optimisic eyes it all appears to be straightforward but I fear that Murphy will get his fingers in there somehow.

73 de Joe, G3LLV

128. Suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 22:55:10 UTC
From: rfrench99@bigfoot.com
Message-ID: <878zooguk2.fsf@fulcrum.mignet.yi.org>
Source record: 55576

I need suppliers for Analog Devices stuff (DDS, PLL, and
mixer chips primarily), as well as for the Mini Circuits
mixer modules. Preferably suppliers that will sell in
small batches (ie << 100 :-).
Thanks
Rob

129. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 22:59:10 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A57A33E.18A35CF5@dialpoint.net>
Source record: 55575

The omnidirectional term applied to antennas is usually understood to
mean that the antenna is mounted near the earth and you are talking to
earth stations. As there were no reasons to send the signals out in
space Untuil the late 1950's) and the signals do not penetrate the earth
to any extend the omnidirectional term applied to the earths surface.
The omnidirectiona term is used in many publications in that sense.
The omnidirectiona term is often used for the patern of a ground plane
or colinear mounted in the clear. Phellps Dodge (the book nearest me)
lists the patern as omnidirectiona for their vertical GP and colinear
antennas , or offset and elliptical to describe paterns if the antenna
is mounted on the side of the tower.

Maybe you should eat the soup instead of spreading it on the page :-)

> ->
> ->>Does anyone ahve any plans or at least ideas on omnidirectional antennas for
> ->>220 or 440? Something beyond a simple ground plane. Thanks.
> ->
> ->A colinear is fairly easy to construct, is omnidirectional,
>
> Maybe I'm being a bit pedantic here, but neither a ground plane nor a collinear
> is omnidirectional. They both have gain in the horizontal direction by
> suffering a loss in the vertical direction. "There ain't no isotropic
> radiators."
>
> Perhaps the original poster could be a little more specific? Like specifying
> if he means horizontally omnidirectional while allowing the vertical pattern to
> squish down?
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

130. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-06 23:46:34 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <vdbf5tog7t6uopeac24upva202s7n1b5s2@4ax.com>
Source record: 55577

Ralph Mowery <rmowery@dialpoint.net>
shared these priceless pearls of wisdom:

->The omnidirectional term applied to antennas is usually understood to
->mean that the antenna is mounted near the earth and you are talking to
->earth stations.

A thousand pardons. My field of specialization is antennas, and aircraft antennas in particular. We are pretty careful in that arena what we mean by "omnidirectional". My only intent was to clarify what the original poster was intending. Then I can make an intelligent comment.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

131. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 00:22:30 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101061918130.9438-100000@Gloria.CAM.ORG>
Source record: 55578

On Sat, 6 Jan 2001, Henry Kolesnik wrote:

> hmmm?
> i wonder if anyone has made a scanner out of a junked out cell phone?
>
If you find one old enough, where the parts are fairly generic, you'll
end up with a good portion of the parts to build a scanner, ie the
IF strip, a front end mixer, and some of the synthesizer. But since
the cellphone is only intended to cover a very small segment of
the spectrum, you'll have to come up with a VCO for the synthesizer
and all the front end filtering needed. You won't be able
to make a scanner by a "few simple mods" of a cellphone.

On the other hand, a 45Mhz IF strip out of a cellphone would
pretty much match the output of a tuner from a TV set, so one
could fairly easily make a wide band receiver, albeit with analog
tuning.

Michael VE2BVW

132. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 00:58:20 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <cve839.b12.ln@localhost.localdomain>
Source record: 55579

In article <t5eg3vmdnmpk06@corp.supernews.com>, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

> has anyone used the xtal osc out of a cell fone for a frequency std??
> they should be pretty stable at room temp? i wonder what the base
> frequency is?

I use an NDK 12.8MHz oscillator to control the frequency of
my HB rig. I have also used the Toyocom 14.400MHz oscillator
modules from old Motorola phones. Frequency stability is very
good, about +/- 1ppm, even in my outdoor shack.

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.

http://www.qsl.net/ei9gq
Linux 2.4.0-test12

133. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 01:31:45 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <5GP56.21680$9C.1297647@news02.optonline.net>
Source record: 55580

Joe,

More or less in order:

1) Do a quick sort on your crystals - rig them in a simple plug in oscillator hooked to a frequency counter. Once the oscillator is going, grab the crystal with your fingers. This will heat the crystal. You only want to keep the crystals that drop in frequency when you heat them up.

2) A simple way to check turn point without a lot of weird test gear - dump the plug in oscillator crystal and all in a glass of very hot water. Works better if you put the gizmo in a plastic bag first :) . As the glass of water cools you can monitor the frequency. You are looking for a frequency dip. A kitchen thermometer will give you some idea of what temperature the whole thing is at. You want to keep the crystals with turn temperatures above about 60C or so.

3) Glue a heater on to the crystal package and match it's temperature to the crystal. Generally this is done by adjusting the temperature of the heater while monitoring the frequency of the crystal.

4) Glue the varicap diode to the heater next to the crystal. It needs to be heated to give you reasonable temperature stability.

If everything is fairly well insulated you should get stability in the low parts in 10-7 range over a 20C change in temperature.

Hope this helps ...

Bob

"Joe McElvenney" <joemac@xic.demon.co.uk> wrote in message news:VA.0000014e.00082369@xic.demon.co.uk...
> Hello,
>
> Staying on the subject of oven-ed oscillators - I have a
> project on the go where I need to control a 10MHz VCXO in a
> phase-locked loop via a DAC. To help achieve this the voltage
> range needs to be as narrow as possible and so I intend to use a
> home-brew OCXO to eliminate that portion of the control voltage
> change required by moves in temperature.
>
> As a series of these may be produced I will also be using
> cheap computer xtals. These I believe are AT cut and designed for
> room temperature operation but to have a fair control over them
> I'll have to move the oven turnover point up to around 50C.

>
> Any thoughts or suggestions on the above would be most
> welcome. Seen through my ever-optimisic eyes it all appears to be
> straightforward but I fear that Murphy will get his fingers in
> there somehow.
>
>
> 73 de Joe, G3LLV
>
>

134. Re: Suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 01:34:23 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <zIP56.21716$9C.1299397@news02.optonline.net>
Source record: 55581

Robert,

Right now Analog Devices is back ordered on almost every useful part they make. Even if you are buying 250,000 and up type quantities you are having a hard time finding parts ....

Mini Circuits is getting better recently. They are only out in the 6 week time frame on the stuff that was out 16 weeks last summer.

Good luck ...

Bob

"Robert A. French" <rfrench99@bigfoot.com> wrote in message news:878zooguk2.fsf@fulcrum.mignet.yi.org...
> I need suppliers for Analog Devices stuff (DDS, PLL, and
> mixer chips primarily), as well as for the Mini Circuits
> mixer modules. Preferably suppliers that will sell in
> small batches (ie << 100 :-).
> Thanks
> Rob

135. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 02:46:41 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A57DA80.3572@pop.removethistomailme.net>
Source record: 55582
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

tom_bruhns@agilent.com wrote:
>
> There are some examples of really clean, fairly wide range LO
> systems...the ones I'm aware of (in spectrum analyzers, for example) do
> NOT use DDS anywhere. -100dBc @ 1Hz offset?? :-)

Zounds! Who's doing that?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

136. Need HV DC Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 03:03:21 UTC
From: James Hurry <jdhurry@austin.rr.com>
Message-ID: <Z%Q56.8053$fO.271809@typhoon.austin.rr.com>
Source record: 55583

I am in need of at least 40mf @4500 to 5000 volt oil caps.. Please email
me with your description and price..
Thanks and 73's,
Dudley
WA5QPZ
jhurry@austin.rr.com

137. Re: Suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 03:56:07 UTC
From: rfrench99@bigfoot.com
Message-ID: <874rzcqall.fsf@fulcrum.mignet.yi.org>
Source record: 55584

Ah crikes! ;-) Ok, what about suppliers of Motorola chips? (eg PLLs and such)

138. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 12:29:40 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <UiZ56.146998$iy3.32884966@news1.rdc1.tn.home.com>
Source record: 55585

The ATV community uses an omni directional (horiz. polarized) antenna called a skeleton slot. This is a 440 antenna with some gain, as I recall about 5 dbi. It is not easy to build and a two man job to tune. It may be described somewhere on the net. We used two of them on our ATV repeater.

jim K4KAE

"W1eof" <w1eof@aol.com> wrote in message news:20010106063417.19614.00000157@ng-fy1.aol.com...
>
> Does anyone ahve any plans or at least ideas on omnidirectional antennas for
> 220 or 440? Something beyond a simple ground plane. Thanks.
>
> 73,
>
> Mark W1EOF

139. Re: Coherent CW Anyone?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 16:18:20 UTC
From: Gary Coffman <ke4zv@bellsouth.net>
Message-ID: <fr1h5toqo28cn0loqpm2ngbdstesd9kalk@4ax.com>
Source record: 55586

On Sat, 16 Dec 2000 03:35:11 GMT, "ZL4PY" <ZL4PY@mail.com> wrote:
>I went to the site and read up about ccw but still do not get it. Is it just
>pc generated clinically generated regular cw or is it recoded as data to
>produce speech or what?

CCW synchronizes the clock edges (ON/OFF transitions) at the
transmitter and receiver. This allows the receiver to use an integrate
and dump filter design. The integrator integrates all received energy
during each possible symbol time then uses an adaptive slicer to
decide if the transmitter was on or off during that interval. The
integrator is then dumped, and a new integration started for the
next possible symbol time.

The benefit of this is that it effectively synthesizes an extremely
narrow filter fitted to the exact transmit signal. This offers the best
possible SNR improvement for a on-off keyed (OOK) AM Morse
signal. This allows good weak signal operation.

You can't normally do this sort of optimum filtering with an OOK
AM Morse signal because you don't know when the bit intervals
can occur. So you have to use a wider filter to let in all the possible
modulation sideband frequencies that could exist in the transmitted
signal instead of tailoring the filter for only the particular sideband
frequencies that can exist for any given symbol time.

(The effective filter bandwidth for 12 WPM CCW is 28.8 Hz.
Ordinary manual 12 WPM Morse would need a 66 Hz filter.
This gives CCW a better than 3 dB advantage in noise.)

This sort of synchronous clocking is inherent in some forms of
digital signaling, but not in manual OOK Morse. That's one of the
reasons that the other sorts of signaling often perform better in
noise than manual Morse. CCW levels the playing field a bit.

The output of the slicer can key a local tone oscillator to let you
decode the Morse manually, or it can feed a machine decoder
to convert the Morse to visually or aurally presented text. (The
latter requires text to speech synthesis software on your computer.)

Normally, machine decoding of manual Morse doesn't work very
well. But because CCW is synchronous, machine decoding can
be made to work about as well as is possible for a non-uniform
Code like Morse. It isn't up to the standard of a fully voiced
modulation using a uniform code, but it is quite good compared
to by ear decoding of OOK Morse.

Note that the original version of CCW synchronized the master oscillators of the transmitter and receiver to a common external standard (for example WWV) as well as synchronizing the data bit times. This has been abandoned today because it requires specially modified radios.

It did offer another 3 dB of SNR improvement under stable ionospheric conditions (which puts it only 3 dB down from FSK). It didn't help much under the more usual multipath fading conditions of the 40m and 80m bands, however, and the requirement to modify radios limited the number of amateurs willing to use it.

The instability of the ionosphere is also the reason MFSK can work better than PSK on lower HF (or on polar paths at upper HF). RF phase coherence gets too distorted on such paths for reliable RF phase coherent operation. Baseband coherence is still an advantage, of course, as are the use of fully voiced modulations and use of uniform codes.

Gary
Gary Coffman KE4ZV | You make it |mail to ke4zv@bellsouth.net
534 Shannon Way | We break it |
Lawrenceville, GA | Guaranteed |

140. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 17:38:29 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <pQ166.3878$bR3.1128738@typhoon2.ba-dsg.net>
Source record: 55587
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

```
"> You could hook up the flip/flop and set the following stage to flip or
> flop on the edge or not. But the gate is basically a on/off switch.
> It turns 5v on or 5v off. If properly set-up there should be no 'in
> between'. Its either on or off.
>
> Take the output of the gate. To the following stage transistor or
> relay. Simple as that.
>

Not true. Although a digital gate or inverter might seem to have switch-like
properties, the transfer function from input voltage to output voltage
actually has a substantial linear range. It just seems like it's a switch
because the 'gain' is so high. If you put a 'noisy' voltage into the input
at just the transition point (~1/2 Vcc for CMOS), you'll get a much noisier
output....therein lies the problem.

The best solution is to incorporate hysteresis. Hysteresis will turn a slow
changing and/or noisy input voltage into a cleanly switched output voltage
with no chatter. This can be accomplished with a pair of cascaded CMOS
inverters, with positive feedback from output of the second stage to the
input of the first stage. Drive the input to the first inverter with a
resistor, say 10k. Put a feedback resistor from the output of the second
inverter to the input of the first inverter of say 300k.

Joe
W3JDR
```

141. Re: How do I smooth out this relay operation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 19:41:38 UTC
From: k6jq@pacbell.net
Message-ID: <AC366.344$I41.34310@news.pacbell.net>
Source record: 55588
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <pQ166.3878$bR3.1128738@typhoon2.ba-dsg.net>, "W3JDR"
<j.r@usa.com> wrote:

[Discussion of using a digital to clean up a noisy signal]

> The best solution is to incorporate hysteresis. Hysteresis will turn a
> slow changing and/or noisy input voltage into a cleanly switched output
> voltage with no chatter. This can be accomplished with a pair of
> cascaded CMOS inverters, with positive feedback from output of the
> second stage to the input of the first stage. Drive the input to the
> first inverter with a resistor, say 10k. Put a feedback resistor from
> the output of the second inverter to the input of the first inverter of
> say 300k.

Is this easier than using a Schmitt trigger like an 'HC14?

Alternatively, it may be more convenient to use a comparator
(like an LM311 or more modern variant) with hysteresis.

Dana K6JQ
dana@dioxine.com

142. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 21:46:45 UTC
From: rfrench99@bigfoot.com
Message-ID: <87ofxjxcfw.fsf@fulcrum.mignet.yi.org>
Source record: 55589
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

How many PLL loops does something like that take? I would think that 5 or 7 loop synthesizers would be really difficult to build without having all sorts of weirdness happening.

143. AR88 Trimming Refurbishment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 22:45:04 UTC
From: g4gjl@aol.com
Message-ID: <20010107174504.28761.00000400@ng-fk1.aol.com>
Source record: 55590

I have an AR88 LF with badly damaged trimming strips adorning its front panel.

They show only small fragments of the silvery plating left on them. The base metal is copper coloured, and is showing through.

Can anyone confirm the types of base metal and plating for the trim strips?

Has anyone got tips for the restoration of these strips? The radio is worth some effort to restore it cosmetically, as it plays well since I re-capped it last year.

Any constructive help greatly appreciated.

Pete

G4GJL

144. Re: DDS-driven PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 22:50:33 UTC
From: tom_bruhns@agilent.com
Message-ID: <93arro$8n2$1@nnrp1.deja.com>
Source record: 55592
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

The particular one I'm thinking of is in the HP-3588 (and 3589, too, I'm sure). I picked one up at an employee auction. Somehow though we made them where I work, I'd never used one for anything other than a casual measurement. So...I hosed a good reference oscillator into it (HP-10811) to see how good its resolution was. The whole system of the reference osc and the analyzer showed -100dBc at 1Hz offset. I was surprised...but on talking with a couple of the designers who had worked on that instrument, I was assured that my measurement was "real." AFAIK, it is a two-loop system, designed by a pretty darn sharp guy.

I suppose we have some signal generators that are similarly clean. I haven't measured it (with an independent analyzer) but suppose the source output of the 3588 is also clean. But I also expect that it doesn't go terribly much further down that 100dB since that's the range of the analyzer, nominally.

Cheers,
Tom

In article <3A57DA80.3572@pop.removethistomailme.net>,
jmiles@pop.removethistomailme.net wrote:
> tom_bruhns@agilent.com wrote:
> >
> > There are some examples of really clean, fairly wide range LO
> > systems...the ones I'm aware of (in spectrum analyzers, for example)
do
> > NOT use DDS anywhere. -100dBc @ 1Hz offset?? :-)
>
> Zounds! Who's doing that?
>
> -- jm
>
> ----------
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> ----------
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

145. Motorola programming software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-07 22:52:32 UTC
From: alec_wood <alec_wood@ntlworld.com>
Message-ID: <Ap666.48785$Yy.1183412@news2-win.server.ntlworld.com>
Source record: 55591

Anyone know where I can download programming software for GP300 handheld and GP100 radius mobile

Alec M1BNK

146. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 01:20:54 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <WB866.147740$iy3.34094220@news1.rdc1.tn.home.com>
Source record: 55593

OOPs.... it wasn't a skeleton slot....it was called a rib cage slot. I think WA4UMU wrote about it.

jim K4KAE

"jim bennett" <jimbennett@home.com> wrote in message news:UiZ56.146998$iy3.32884966@news1.rdc1.tn.home.com...
> The ATV community uses an omni directional (horiz. polarized) antenna called
> a skeleton slot. This is a 440 antenna with some gain, as I recall about 5
> dbi. It is not easy to build and a two man job to tune. It may be described
> somewhere on the net. We used two of them on our ATV repeater.
>
> jim K4KAE
>
> "W1eof" <w1eof@aol.com> wrote in message
> news:20010106063417.19614.00000157@ng-fy1.aol.com...
> >
> > Does anyone ahve any plans or at least ideas on omnidirectional antennas
> for
> > 220 or 440? Something beyond a simple ground plane. Thanks.
> >
> > 73,
> >
> > Mark W1EOF
>
>

147. Re: ? 8560 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 01:50:56 UTC
From: Bob Weiss <bob.weiss@mail.verizon.net>
Message-ID: <3A591D17.E75A2AB6@mail.verizon.net>
Source record: 55594

Tetrode, 200W, 500 MHz

Bob Weiss N2IXK

Bill Janssen wrote:

> I have this tube that I would like to find some info. on.
> It was used in a VHF amplifier
>
> Tube type 8560 (Conduction cooled)
>
> I would like to know;
>
> is this a triode or tetrode
> what is the plate dissipation rating
> what is the max. frequency
> what are the typical operating voltages
>
> Thanks for any information
>
> Bill K7NOM

148. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 03:53:26 UTC
From: budgie <budgie@cantech.net.au>
Message-ID: <3a5938e4.2349087@news.cantech.net.au>
Source record: 55595

On Mon, 08 Jan 2001 01:20:54 GMT, "jim bennett" <jimbennett@home.com>
wrote:

>OOPs.... it wasn't a skeleton slot....it was called a rib cage slot. I think
>WA4UMU wrote about it.

Jim

A long shot here - are you aware of any "substantially omni" (in the
horizontal plane) horizontally polarised antenna capable of 60-600
MHz? We have a problem situation with TV transmitters subtending >120
deg and no conventional TV ant is worth a rats a####. The local TV ant
floggers have no ideas, as is the case with the broadcast engineering
firms. As a recently retired comms engineer, I have not come up with
any ideas, and would welcome any comments.

Peter
VK6ZEG

149. Looking for 4:1 toroid balun

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 04:14:54 UTC
From: kk7ho@aol.communicate
Message-ID: <20010107231454.05465.00000421@ng-ct1.aol.com>
Source record: 55596

Looking for 4:1 toroid balun for Swan St-1 antenna tuner

150. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 05:24:33 UTC
From: James Hurry <jdhurry@austin.rr.com>
Message-ID: <lac66.9870$fO.369763@typhoon.austin.rr.com>
Source record: 55597

I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
Transmitting Tube Manual if that helps... I can make a copy and send to you
of that data..
--
73's,
Dudley
WA5QPZ
jhurry@austin.rr.com

"W4pqw HS" <w4pqwhs@aol.com> wrote in message
news:20001228151523.05852.00000183@ng-cu1.aol.com...
> anyone have data sheets on 813 in SSB GG service.. schematics of
working
> pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW

151. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 07:38:09 UTC
From: w1eof@aol.com
Message-ID: <20010108023809.29958.00000497@ng-cb1.aol.com>
Source record: 55598

Ultimately I am looking to build a vertically polarized omnidirectional multiband antenna similiar to the commercial versions like the Comet. They seem to be some sort of colinear array that acts like a ground plane on the highest band. This is for casual repeater use on 2m/220/440 with one coax running down into the shack.

Less desireable although still of interest would be single band antennas.

Thanks

Mark W1EOF

152. EI core transformer parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 11:34:57 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <mSUBUGAhXaW6EwIF@invest.fsbusiness.co.uk>
Source record: 55599

Does anyone know of a UK manufacturer of bobbins, end cheeks etc for the above transformer type?

Many thanks

Phil G4ZOW

153. CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 16:28:44 UTC
From: Marty <nfn04028@naples.net>
Message-ID: <0Vl66.2871$MX.90404@newsread1.prod.itd.earthlink.net>
Source record: 55600

Some time ago someone said that CoolAmp, a powder used for rubbing on a thin silver coating, would yield an impure silver coating. Does anyone know what the impurity would be? Would it affect the conductivity?

154. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 17:26:50 UTC
From: troglodite@aol.com
Message-ID: <20010108122650.09743.00000924@ng-ch1.aol.com>
Source record: 55601

>Some time ago someone said that CoolAmp, a powder used for rubbing on a thin
>silver coating, would yield an impure silver coating. Does anyone know
>what the impurity would be? Would it affect the conductivity?
>

I can't tell you what the specific impurity is, but I can tell you that the stuff works very well. I had a circuit with a fuse in clips on a circuit board, and the current drain was such that the fuse got hot enough to unsolder itself on it's end. This was due to the voltage drop in the clip. I coated the clips with CoolAmp and the problem disappeared.

Doug Moore KB9TMY

155. TO-220

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 17:43:52 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3a59f74d.3448802@netnews.worldnet.att.net>
Source record: 55602

I am building W1FB - 5watt amp and have a question on the heat sink -
The PA needs to have a heat sink which is normally screwed flat to the
board. My question - Radio Shack has a nice looking heat sink
rs276-1368 but to use it the pa (q1) will have to stand straight
rather then be screwed flat to board -- is this ok ?? pse ans at
geokf4ucc@yahoo.com. thanks. george

156. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 21:10:14 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A5A2EB1.4F9E@pop.removethistomailme.net>
Source record: 55603

Troglodite wrote:
>
> >Some time ago someone said that CoolAmp, a powder used for rubbing on a thin
> >silver coating, would yield an impure silver coating. Does anyone know
> >what the impurity would be? Would it affect the conductivity?
> >
>
> I can't tell you what the specific impurity is, but I can tell you that the
> stuff works very well. I had a circuit with a fuse in clips on a circuit board,
> and the current drain was such that the fuse got hot enough to unsolder itself
> on it's end. This was due to the voltage drop in the clip. I coated the clips
> with CoolAmp and the problem disappeared.
>
> Doug Moore KB9TMY

Yessiree Bob, CoolAmp, plus a good fire-insurance policy, should be all
a fellow needs!

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

157. Re: AR88 Trimming Refurbishment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 21:35:41 UTC
From: Robin Birch <robin@ruffnready.co.uk>
Message-ID: <5kpPZiAtKjW6EwUx@ruffnready.co.uk>
Source record: 55605

In article <20010107174504.28761.00000400@ng-fk1.aol.com>, G4GJL
<g4gjl@aol.com> writes
>I have an AR88 LF with badly damaged trimming strips adorning its front panel.
>
> They show only small fragments of the silvery plating left on them. The base
>metal is copper coloured, and is showing through.
>
>Can anyone confirm the types of base metal and plating for the trim strips?
>
Looking at mine it appears to be copper with soft chrome finish. Copper
is suitable for direct chrome plating so this makes sense.
>Has anyone got tips for the restoration of these strips? The radio is worth
>some effort to restore it cosmetically, as it plays well since I re-capped it
>last year.
>
It would be expensive, say ï¿½20 - ï¿½30 quid but clean the strips up and
take them to a platers and get him to do them. The reason for the
expense is that these guys normally have a min order quantity, even for
back pocket cash.
>Any constructive help greatly appreciated.
>
>Pete
>
>G4GJL
Hope this helps

Robin

--
Robin Birch robin@ruffnready.co.uk

M1ASU/2E0ARJ/M5ABD Old computers and radios always welcome

158. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 22:46:00 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <Iqr66.150642$iy3.34554378@news1.rdc1.tn.home.com>
Source record: 55606

"budgie" <budgie@cantech.net.au> wrote in message
news:3a5938e4.2349087@news.cantech.net.au...
> On Mon, 08 Jan 2001 01:20:54 GMT, "jim bennett" <jimbennett@home.com>
> wrote:
>
> >OOPs.... it wasn't a skeleton slot....it was called a rib cage slot. I
think
> >WA4UMU wrote about it.
>
> Jim
>
> A long shot here - are you aware of any "substantially omni" (in the
> horizontal plane) horizontally polarised antenna capable of 60-600
> MHz? We have a problem situation with TV transmitters subtending >120
> deg and no conventional TV ant is worth a rats a###. The local TV ant
> floggers have no ideas, as is the case with the broadcast engineering
> firms. As a recently retired comms engineer, I have not come up with
> any ideas, and would welcome any comments.
>
> Peter
> VK6ZEG

No not really, our efforts to come up with a decent Omni horiz antenna met with poor results at best. Not having a true antenna test range to test the rib cage design I would say it did give us Omni coverage but little if any gain and the bandwidth was very narrow.

jim K4KAE

159. Re: cell phone xtals??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 23:15:22 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A5A4A0A.43CD1DBA@clifto.com>
Source record: 55607

Michael Black wrote:
> On the other hand, a 45Mhz IF strip out of a cellphone would
> pretty much match the output of a tuner from a TV set, so one
> could fairly easily make a wide band receiver, albeit with analog
> tuning.

Now there might be possibilities in the right TV tuner hooked to that
cellphone IF strip. The only problem I see is a frequency readout.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

160. Re: Suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 23:23:33 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A5A4BF5.608546D7@clifto.com>
Source record: 55608

Bob Camp wrote:
> Right now Analog Devices is back ordered on almost every useful part
> they make. Even if you are buying 250,000 and up type quantities you
> are having a hard time finding parts ....

By "right now" I assume you mean the time period since AD opened their doors. :-)

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

161. Re: Motorola programming software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-08 23:24:28 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A5A4C2C.A47E9F@clifto.com>
Source record: 55609

alec_wood wrote:
> Anyone know where I can download programming software for GP300 handheld and
> GP100 radius mobile

You wish. (For that matter, so do I.)

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

162. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 00:11:13 UTC
From: no_spam_n7ws@azstarnet.com
Message-ID: <3a5a567d.30011732@news.azstarnet.com>
Source record: 55610

On 08 Jan 2001 17:26:50 GMT, troglodite@aol.com (Troglodite) wrote:

>>Some time ago someone said that CoolAmp, a powder used for rubbing on a thin
>>silver coating, would yield an impure silver coating. Does anyone know
>>what the impurity would be? Would it affect the conductivity?
>>
>
>I can't tell you what the specific impurity is, but I can tell you that the
>stuff works very well. I had a circuit with a fuse in clips on a circuit board,
>and the current drain was such that the fuse got hot enough to unsolder itself
>on it's end. This was due to the voltage drop in the clip. I coated the clips
>with CoolAmp and the problem disappeared.
>
>Doug Moore KB9TMY

Couldn't have been all that rubbing you did to apply the CoolAmp?
>

163. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 01:03:37 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <hrt66.1267$gN3.60240@news1.atl>
Source record: 55611

There are two Cool-Amp products, one is the silver plating powder, applied with a moist rag and lots of buffing, and the other is the paste form, which looks like silver powder suspended in a light oil. I have used both, and suspect what Doug was using is the paste. That doesn't take much rubbing.

Rory N7CR

"Wes Stewart" <no_spam_n7ws@azstarnet.com> wrote in message
> On 08 Jan 2001 17:26:50 GMT, troglodite@aol.com (Troglodite) wrote:
>
> >>Some time ago someone said that CoolAmp, a powder used for rubbing on a thin
> >>silver coating, would yield an impure silver coating. Does anyone know
> >>what the impurity would be? Would it affect the conductivity?
> >>
> >
> >I can't tell you what the specific impurity is, but I can tell you that the
> >stuff works very well. I had a circuit with a fuse in clips on a circuit board,
> >and the current drain was such that the fuse got hot enough to unsolder itself
> >on it's end. This was due to the voltage drop in the clip. I coated the clips
> >with CoolAmp and the problem disappeared.
> >
> >Doug Moore KB9TMY
>
> Couldn't have been all that rubbing you did to apply the CoolAmp?
> >
>

164. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 01:52:06 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a5a6e20.2689347@news.cantech.net.au>
Source record: 55612

Hi Jim

On Mon, 08 Jan 2001 22:46:00 GMT, "jim bennett" <jimbennett@home.com>
wrote:

>
>"budgie" <budgie@cantech.net.au> wrote in message
>news:3a5938e4.2349087@news.cantech.net.au...
>>
>> Jim
>>
>> A long shot here - are you aware of any "substantially omni" (in the
>> horizontal plane) horizontally polarised antenna capable of 60-600
>> MHz? We have a problem situation with TV transmitters subtending >120
>> deg and no conventional TV ant is worth a rats a###. The local TV ant
>> floggers have no ideas, as is the case with the broadcast engineering
>> firms. As a recently retired comms engineer, I have not come up with
>> any ideas, and would welcome any comments.
>>
>> Peter
>> VK6ZEG
>
>No not really, our efforts to come up with a decent Omni horiz antenna met
>with poor results at best. Not having a true antenna test range to test the
>rib cage design I would say it did give us Omni coverage but little if any
>gain and the bandwidth was very narrow.

Thanks for that - it was pretty much what I expected :-((

Bandwidth I need, of course. Gain I don't - all the Tx are within
1.5 miles and I can see them all without obstruction. In fact, I have
to look UP to see the arrays. Tnx anyway.

Peter
VK6ZEG

165. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 01:56:13 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A5A6FBD.FA718896@coqui.net>
Source record: 55613

budgie wrote:
>
> Hi Jim
>
> On Mon, 08 Jan 2001 22:46:00 GMT, "jim bennett" <jimbennett@home.com>
> wrote:
>
> >
> >"budgie" <budgie@cantech.net.au> wrote in message
> >news:3a5938e4.2349087@news.cantech.net.au...
> >>
> >> Jim
> >>
> >> A long shot here - are you aware of any "substantially omni" (in the
> >> horizontal plane) horizontally polarised antenna capable of 60-600
> >> MHz? We have a problem situation with TV transmitters subtending >120
> >> deg and no conventional TV ant is worth a rats a###. The local TV ant
> >> floggers have no ideas, as is the case with the broadcast engineering
> >> firms. As a recently retired comms engineer, I have not come up with
> >> any ideas, and would welcome any comments.
> >>
> >> Peter
> >> VK6ZEG
> >
> >No not really, our efforts to come up with a decent Omni horiz antenna met
> >with poor results at best. Not having a true antenna test range to test the
> >rib cage design I would say it did give us Omni coverage but little if any
> >gain and the bandwidth was very narrow.
>
> Thanks for that - it was pretty much what I expected :-((
>
> Bandwidth I need, of course. Gain I don't - all the Tx are within
> 1.5 miles and I can see them all without obstruction. In fact, I have
> to look UP to see the arrays. Tnx anyway.
>
> Peter
> VK6ZEG

I still don't follow exactly what is needed here, but here's a
thought...
What about four real cheapie (ie low gain/broad pattern) VHF/UHF
TV antennas each pointing at 90 degrees from the next one? I've
seen some low-power TV installations using this scheme.

Bill Meacham
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

166. help with wiring ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 02:31:21 UTC
From: ccom2@socket.net
Message-ID: <3a5a77e5.26892740@news.socket.net>
Source record: 55614

I have a Midland Model 18-143D Looks like a pwr source 1amp and a
charging circuit. It has several wires unattached and looks like put
in the wrong place .
Does anyone have any wiring diagrams for this
Mike
AB0IV

167. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 03:11:38 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a5a7f83.7140634@news.cantech.net.au>
Source record: 55615

On Mon, 08 Jan 2001 21:56:13 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:

>budgie wrote:
>>
>> Hi Jim
>>
>> On Mon, 08 Jan 2001 22:46:00 GMT, "jim bennett" <jimbennett@home.com>
>> wrote:

>> >No not really, our efforts to come up with a decent Omni horiz antenna met
>> >with poor results at best. Not having a true antenna test range to test the
>> >rib cage design I would say it did give us Omni coverage but little if any
>> >gain and the bandwidth was very narrow.
>>
>> Thanks for that - it was pretty much what I expected :-((
>>
>> Bandwidth I need, of course. Gain I don't - all the Tx are within
>> 1.5 miles and I can see them all without obstruction. In fact, I have
>> to look UP to see the arrays. Tnx anyway.
>>
>> Peter
>> VK6ZEG
>
>I still don't follow exactly what is needed here, but here's a
>thought...
>What about four real cheapie (ie low gain/broad pattern) VHF/UHF
>TV antennas each pointing at 90 degrees from the next one? I've
>seen some low-power TV installations using this scheme.

Bill. In the "old days" that was the type of approach used, through a
master system with individual channel filters to avoid significant
ghost (etc) addition. That was feasible - albeit expensive for
domestic use - because our TV channel allocation plan deliberately
avoided adjacent channels in any service area, and filter cutoff (er,
rolloff) was not a major issue.

As of 1/1/2001 (hey, that translates into US just fine) all that has
gone west. All the vacant "buffer" channels are now used for parallel
digital transmissions, so everyone's IF has an adjacent channel
rejection problem which tey were never designed to handle. This
complicates the reception of EITHER analog PAL or digital. As a first
step towards getting the reception quality backup a bit, I was
starting at the input where a set of rabbit-ears have worked
acceptably in the past.

Please don't tell me that antennae won't address an ACR problem - I'm only too well aware of that. But the ACR and the original levels of ghosting etc caused by antenna azimuth alignment problems are together making the picture substandard. I can't readily fix the ACR but I can focus on the az problem. I hope that explains where I am coming from.

168. LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 03:15:41 UTC
From: ve6xtc@ecn.ab.ca
Message-ID: <3a5a825d@ecn.ab.ca>
Source record: 55616

Dear folks;
I'm writing an article about white LEDs and how they will
be replacing filament bulbs. Are there any other companies, besides
LedTronics, who are manufacturing replacements for the old fashioned
filament lamps. I also want to replace those energy-sucking lights in my
house since the power bills are getting outrageously high here in VE6
land. 73!
Yours,

Bruce Atchison, electronic musician, writer, Jesus freak, and rabbit
fanatic. P.O. Box 188, Radway, Alberta, T0A 2V0, Canada
http://gideon.www2.50megs.com
ve6xtc@freenet.edmonton.ab.ca

169. Re: Add Woodgate the Anti-Hispanic racist troll to your killfile!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 04:11:52 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <xmw66.14920$2R3.146943@e420r-sjo2.usenetserver.com>
Source record: 55617
Cross-posted to: rec.radio.amateur.homebrew,alt.electronics.manufacture.circuitboard,sci.lang.translation

"Enrique Molina" <enrique@ctv.es> wrote ...
> The abuse report attached below shows the net-abuse
> performed by the user Phil Dragoman (Road Runner).
> --
> A Spanish Citizen
> SPAIN

Sr. Molina appears to be the net-abuser here. This excrement has been posted widely to dozens of newsgroups which heretofore have never seen any evidence of Mr. Dragoman's alleged "abuse".

170. Up-convert 400MHz to 800MHz?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 05:23:30 UTC
From: jiminstarkville@webtv.net
Message-ID: <23627-3A5AA052-41@storefull-154.iap.bryant.webtv.net>
Source record: 55618

Anyone have a suggestion for a simple way to use heterodyning to achieve a difference frequency whereby 800 MHz signals would then appear in the 400-500 MHz range? As a real newbie, I am hoping that some simple oscillator can be bought or made, one which would produce the requisite frequency. I'm not looking for anything sophisticated, because the kind of things I consider fun have been listening to shortwave broadcasts by intermodulation on my AM radio by just wrapping a long wire around the set. Also, I've used a scanner with a 10.8 MHz IF which picked up both upper and lower images very comfortably, so I would think the idea should be fairly simple.

171. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 06:25:50 UTC
From: Barry Ornitz <ornitz@usa.net>
Message-ID: <cd376.385$nd1.27162@news-east.usenetserver.com>
Source record: 55641

"Marty" <nfn04028@naples.net> wrote in message
news:0Vl66.2871$MX.90404@newsread1.prod.itd.earthlink.net...
> Some time ago someone said that CoolAmp, a powder used for rubbing on a
thin
> silver coating, would yield an impure silver coating. Does anyone know
> what the impurity would be? Would it affect the conductivity?

There are various copper salts produced in the plating reaction than can be trapped in the layer. They will decrease the conductivity slightly. For best results, the silvered surface should be rinsed thoroughly in clean water to remove most of these salts.

Cool-Amp puts down such a thin layer of silver it hardly improves the RF conductivity of clean copper. However the silver surface does not oxidize or corrode as readily as copper so it maintains its RF conductivity longer.

One thing that has not been mentioned about silver in switch contacts and such is that the silver oxides and sulfides are easily rubbed off the silver surface by mechanical contact (you could not polish silverware with a cloth if the tarnish clung as tenaciously as copper oxide does to copper).

If you have a clean copper conductor that you can protect mechanically from surface oxidation and corrosion (like with a coating of clear acrylic spray lacquer), silver plating with Cool-Amp will do little to improve the situation.

Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

172. RE: Add Woodgate the Anti-Hispanic racist troll to your killfile!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 07:36:16 UTC
From: Enrique Molina <enrique@ctv.es>
Message-ID: <3a5a2515@news.arrakis.es>
Source record: 55604
Cross-posted to: rec.radio.amateur.homebrew,alt.electronics.manufacture.circuitboard,sci.lang.translation

The abuse report attached below shows the net-abuse performed by the user
Phil
Dragoman (Road Runner).
--
A Spanish Citizen
SPAIN

----- Mensaje original -----
De: RAC
Para: abuse@rr.com
CC: security@rr.com ; busdevel@va.rr.com ; advertising@va.rr.com ;
bussol@va.rr.com ; customercare@va.rr.com ; postmaster@mediaone.net ;
abuse@mediaone.net
Enviado: martes 2 de enero de 2001 12:21
Asunto: Net-abuse from your user PHIL DRAGOMAN

##
For the Attention of the Net-Abuse Service.
##

The user Phil Dragoman (Road Runner) is commiting net-abuse again and
infringing the Acceptable Use Policy for AT&T Road Runner Newsgroups.

He keeps sending libellous, sexual, offensive and racist Usenet posts.

Please find enclosed his last offensive posts (these posts are about
fucking the mother and father of Spanish citizens, and he use to employ
terms like: whore mother, asshole, bitch, fuck, etc. This is a sample of his
Usenet post using Road Runner:

Phil Dragoman <phil.dragoman@literally.com> escribi&#65533; en el mensaje de
noticias 6kv26.21303$1M.4882122@typhoon.ne.mediaone.net...
>Vete tomar por el culo, tu hijo de la chingada. Chupa la polla de tu
> padre. Vete darle el beso negro a tu madre, t&#65533; mula. T&#65533; cobarde
> sin pelotas. Perro sin honor. Mr. Nobody.
>
> Phil
>

The translation into English is:
"Put it up your rear end, you son of an indecent woman. Perform fellatio
with your father. Lick your mother's anus, you she-mule. You are a coward
without testicles. Dishonourable dog."

Another post attached below says:

Phil Dragoman wrote: CHINGA TU PUTA MADRE
(Translation into English: FUCK YOUR WHORE MOTHER)

Yet another post attached below against a Spanish citizen below says:

>Phil Dragoman wrote: "Ahora puedes hacerse puta tu mismo. Viene de
familia, &#65533;no?"

Translation into English: You can become a whore now, since all the women of
your family are whores.

##
I have informed of this NET-ABUSE
against Spanish Citizens to the Spanish Government
and to the Spanish Authorities.
##

Please, take the proper action against this deranged user, he use to call
himself a "former politician" in his posts to Usenet.

Regards,

RAC
SPAIN

==========
Phil Dragoman <phil.dragoman@literally.com> escribi&#65533; en el mensaje de
noticias 6kv26.21303$1M.4882122@typhoon.ne.mediaone.net...

>Vete tomar por el culo, tu hijo de la chingada. Chupa la polla de tu
> padre. Vete darle el beso negro a tu madre, t&#65533; mula. T&#65533; cobarde
> sin pelotas. Perro sin honor. Mr. Nobody.
>
> Phil
>
==========
From: "Phil Dragoman" <phil.dragoman@literally.com>
Newsgroups: sci.lang.translation
References:
<3a3e8f01_3@news.arrakis.es><91mju5$67l$3@newsflood.tokyo.att.ne.jp>
<CzalaFABFxP6EwbZ@jmwa.demon.co.uk> <3a3f67ed_4@news.arrakis.es>
<L7306.639$4g4.6517@tengri.easynet.fr> <91qlnq$68r$1@nnrp1.deja.com>
<3a4103f0_3@news.arrakis.es>
Subject: Re: Espa&#65533;a es estrictamente la PROVINCIA de la imprevisible
INQUISICION-1
Lines: 32
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 8bit
X-Newsreader: Microsoft Outlook Express 4.72.3110.1
X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3
Message-ID: <Qao06.11766$1M.3122828@typhoon.ne.mediaone.net>

Date: Thu, 21 Dec 2000 14:09:52 GMT
NNTP-Posting-Host: 24.218.180.117
X-Complaints-To: abuse@mediaone.net
X-Trace: typhoon.ne.mediaone.net 977407792 24.218.180.117 (Thu, 21 Dec 2000
09:09:52 EST)
NNTP-Posting-Date: Thu, 21 Dec 2000 09:09:52 EST
Organization: Road Runner
Path:
caladan.arrakis.es!news.bt.es!newsfeed.bt.es!btnet-peer!btnet!news.maxwell.s
yr.edu!newsfeed.cwix.com!chnws02.mediaone.net!chnws05.ne.mediaone.net!24.91.
0.34!typhoon.ne.mediaone.net.POSTED!not-for-mail
Xref: caladan.arrakis.es sci.lang.translation:60663

Marta Oribe wrote in message <3a4103f0_3@news.arrakis.es>...
>Phil Dragoman te llamas �no? �Dragoman es un apodo?
>Perdona que te diga, pero tu mensaje en ingl�s me ha costado bastante
>entenderlo, sobre todo los insultos, �no ser�s otro de esos racistas de los
>que se queja RAC?, este grupo es muy tranquilo y la pelea ya parec�a que
>hab�a terminado, ahora apareces tu insultando y diciendo todo tipo de
>estupideces a un espa�ol; por favor, para este tipo de cosas es mejor que
no
>vuelvas a este grupo.
>

Oye, Se�orita Ramiro alias Se�or Marta,

�Ya eres una mujer? �La cirug�a era exitosa? �Bi�n hecho!
Ahora puedes hacerse puta tu mismo. Viene de familia, �no?
Aqui tienes un nombre mejor para ti, Ramera Almeja Culera.
Di me, �d�nde guardas tus cojones, en el bote de mayonesa?

Ramiro quijote marta fernando no user - �personalidades multiples?
o mejor dicho, un sm�rg�sbord esquizofr�nico.

Hasta luego, Ramona, o cualquiera personalidad que eres hoy.

Phil

==========

From: Phil Dragoman <phil.dragoman@literally.com>
Newsgroups: sci.lang.translation
Subject: RE: qualifiziert
Date: Fri, 15 Dec 2000 21:19:04 GMT
Organization: Deja.com
Lines: 19
Message-ID: <91e1s0jog1@nnrp1.deja.com>
References: <3a3a56f5.0@d2o313.teliauk.com> <91do9ranr1@nnrp1.deja.com>
<3a3a7c23_3@news.arrakis.es>
NNTP-Posting-Host: 24.218.180.117
X-Article-Creation-Date: Fri Dec 15 21:19:04 2000 GMT
X-Http-User-Agent: Mozilla/4.73 [en] (Win98; U)

X-Http-Proxy: 1.0 x51.deja.com:80 (Squid/1.1.22) for client 24.218.180.117
X-MyDeja-Info: XMYDJUIDphil_dragoman
Path:
caladan.arrakis.es!news.bt.es!newsfeed.bt.es!btnet-peer!btnet!news.maxwell.s
yr.edu!nntp2.deja.com!nnrp1.deja.com!not-for-mail
Xref: caladan.arrakis.es sci.lang.translation:60229

RAC wrote:
>
> En Espa&#65533;ol decimos antes estas situaciones:
>
> NO TENEIS NI PUTA IDEA.
>

En Ingl&#65533;s decimos antes los capullos como t&#65533;

CHINGA TU PUTA MADRE

Phil

Get free email and a permanent address at http://www.netaddress.com/?N=1

--
Posted from nwcst282.netaddress.usa.net [204.68.23.27]
via Mailgate.ORG Server - http://www.Mailgate.ORG
<.> escribi&#65533; en el mensaje de noticias 3a58682f$1@news.arrakis.es...
>
> <.> escribi&#65533; en el mensaje de noticias 3a58665a@news.arrakis.es...
> >
> > <.> escribi&#65533; en el mensaje de noticias 3a5863b5@news.arrakis.es...
> > >
> > > No User <no.user@anon.xg.nu> escribi&#65533; en el mensaje de noticias
> > > 21fc34e1984d308ab1ff422418bca478@anon.xg.nu...
> > > > Hi all,
> > > >
> > > > You know, when I added the lonesome schizophrenic troll JOHN
WOODGATE
> > > jmwa@jmwa.demon.co.uk from JMWA & Associates, ESSEX, UK,
> > > > should I say) to my killfile, I expect it to be the end of that kind
> of
> > > > pollution against al the Spanish citizens in the newsgroup.
> > > > But you all keep feeding this BRITISH FLYING MAD PIG troll, and the
> > > killfile becomes pointless if you do so. ALl Iget now are replies to
> > > messages I avoid.
> > > > Just ignore him, for heaven's sake. I think it's been clearly said
> > before
> > > > that whatever he/they are writing about others is, quite simply,
> > bullshit.
> > > > And no one's going to take him/them for granted.
> > > >

> > > > So let him/them starve.
> > > >
> > > > Otherwise he'd become more of a nuisance than expected.
> > > >
> > > > Lionel
> > > >
> > > >
> > > >
> > > >
> > >
> > >
> >
>
> ---
> > --
> > > ----
> > >
> > >
> > > >
> > > >
> > > > ---
> > > > This message did not originate from the Sender address above.
> > > > It was posted with the use of anonymizing software at
> > > > http://anon.xg.nu
> > > > ---
> > > >
> > > >
> > >
> > >
> >
> >
>
>

173. Re: Up-convert 400MHz to 800MHz?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 12:16:43 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <LiD66.44681$9C.3671699@news02.optonline.net>
Source record: 55619

Jim,

It's cheaper to buy an unblocked scanner from Europe or Canada and
listen to analog cell phone calls that way.

Bob

"Jim" <jiminstarkville@webtv.net> wrote in message
news:23627-3A5AA052-41@storefull-154.iap.bryant.webtv.net...
> Anyone have a suggestion for a simple way to use heterodyning to
achieve
> a difference frequency whereby 800 MHz signals would then appear in
the
> 400-500 MHz range? As a real newbie, I am hoping that some simple
> oscillator can be bought or made, one which would produce the
requisite
> frequency. I'm not looking for anything sophisticated, because the
kind
> of things I consider fun have been listening to shortwave broadcasts
by
> intermodulation on my AM radio by just wrapping a long wire around
the
> set. Also, I've used a scanner with a 10.8 MHz IF which picked up
both
> upper and lower images very comfortably, so I would think the idea
> should be fairly simple.
>

174. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 12:29:42 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A5B0436.4E01E110@coqui.net>
Source record: 55620

budgie wrote:
>
> On Mon, 08 Jan 2001 21:56:13 -0400, Bill Meacham
> <NOSPAMexray@coqui.net> wrote:
>
> >budgie wrote:
> >>
> >> Hi Jim
> >>
> >> On Mon, 08 Jan 2001 22:46:00 GMT, "jim bennett" <jimbennett@home.com>
> >> wrote:
>
> >> >No not really, our efforts to come up with a decent Omni horiz antenna met
> >> >with poor results at best. Not having a true antenna test range to test the
> >> >rib cage design I would say it did give us Omni coverage but little if any
> >> >gain and the bandwidth was very narrow.
> >>
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> >>
> >> Bandwidth I need, of course. Gain I don't - all the Tx are within
> >> 1.5 miles and I can see them all without obstruction. In fact, I have
> >> to look UP to see the arrays. Tnx anyway.
> >>
> >> Peter
> >> VK6ZEG
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> >seen some low-power TV installations using this scheme.
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> Bill. In the "old days" that was the type of approach used, through a
> master system with individual channel filters to avoid significant
> ghost (etc) addition. That was feasible - albeit expensive for
> domestic use - because our TV channel allocation plan deliberately
> avoided adjacent channels in any service area, and filter cutoff (er,
> rolloff) was not a major issue.
>
> As of 1/1/2001 (hey, that translates into US just fine) all that has
> gone west. All the vacant "buffer" channels are now used for parallel
> digital transmissions, so everyone's IF has an adjacent channel
> rejection problem which tey were never designed to handle. This
> complicates the reception of EITHER analog PAL or digital. As a first

> step towards getting the reception quality backup a bit, I was
> starting at the input where a set of rabbit-ears have worked
> acceptably in the past.
>
> Please don't tell me that antennae won't address an ACR problem - I'm
> only too well aware of that. But the ACR and the original levels of
> ghosting etc caused by antenna azimuth alignment problems are together
> making the picture substandard. I can't readily fix the ACR but I can
> focus on the az problem. I hope that explains where I am coming from.

Budgie...
I'm still not sure what the application is. I'm guessing its home TV reception and from what you describe, the transmitting towers are scattered about on hilltops around your location which apparently is in a valley.
BTW, I'm a cable television engineer by trade, with 27 years experience.
First question would be, why don't you simply use a rotatable antenna, but I suspect your answer is going to say that ACR is still the bigger problem.
Here in the states, and I would assume in VK also, since our TVs come from the same source, adjacent channel capability is not normally a problem. It was up until about 10 years ago, tho. If the tuner is being hit too hard with RF, any number of things can occur and adjacent channel interference would most likely be occuring there, not in the IF. Similarly, if the adjacent channels are drastically different in levels, bleedover (cross-mod) could be expected. If you're only a mile or two from the transmitters, overload across the board is a very likely possibility.
Take the typical cable TV scenario where you dump 100 adjacent channels into a TV set. It works because the individual signal strength on each channel are somewhat equal, and the total power being delivered is within the range of what the TV tuner can handle.
Now, the approach to deal with with your 'all-adjacent' off-air situation will vary depending on who you are...a normal domestic viewer or some kind of commercial installation.
The obvious first step would be to see if a simple attenuator, maybe 20db or so, would improve the situation. And I would be re-miss to not mention the possibility of a faulty tuner creating these problems for you. If not...
The least expensive way to deal with it would be to simply install traps inline to notch out the new digital channels, unless you have a current need for them. These traps cost about US$8 each.
If you do want to receive ALL the channels, the approach would be to simply split the incoming line via a 2-way splitter, use traps to the digital channels on one side, and the PAL channels on the other. Then you could use a A-B switch to feed the TV set.
Even that is a bit much for the average TV customer, but it seems

you have a very unique situation there. They are dropping in the digital channels in a similar way in the US but I don't hear much about the problems created by it...yet.
If its a commercial installation, single channel bandpass filters are readily available that will reject adjacent signals. In that case, split the antenna(s) feeds accordingly, use the filters to isolate each one, attenuate to get equal levels and mix'em back together. Actaully simpler, but considerably more expensive than the 'home' version mentioned earlier since decent bandpass filters start at around US$125 each.
If you can beg, borrow or steal a cable tv signal level meter you can better see what you're up against. You could have something like one single channel being present at a significantly higher signal strength that is driving the tuner into distortion and that could be the only one that needs attenuation. I had a situation like this where a local FM station drove our equipment nuts.
Its an interestion scenario. The powers-that-be made the decision to occupy adjacent channels based on the concept that TV receivers are now capable of dealing with the problem. But, I suspect these decision-makers get free cable service and haven't had to mess with a TV antenna in many years. Which is another good option!
Good luck,
Bill Meacham

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

175. Counterpoise Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 13:09:54 UTC
From: J Titcomb <kimoloka@hawaii.rr.com>
Message-ID: <C4E66.61170$Z36.434779@typhoon.hawaii.rr.com>
Source record: 55621

This is going to sound dumb, but here goes anyway. Are the radials supposed to be connected to the base of a vertical antenna, or do they just radiate out from around the base, but are not actually physically connected? Its hard to tell from a schematic diagram. Sometimes it looks as if they are actually connected to the base of the antenna. If the radial system were to be connected to the base of the vertical, and if one were to make a homebrew vertical antenna fed with coax, would one solder the shield to the radial system, and the center connector to the vertical portion of the antenna? That seems like a short to me. Thanks

176. Re: Counterpoise Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 13:29:41 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A5B1245.C190EFBB@coqui.net>
Source record: 55622

J Titcomb wrote:
>. If the radial system were to
> be connected to the base of the vertical, and if one were to make a homebrew
> vertical antenna fed with coax, would one solder the shield to the radial
> system, and the center connector to the vertical portion of the antenna?
> That seems like a short to me. Thanks

The radials aren't connected to the "antenna". The quarter-wave
element is connected to the center of the coax, and the radials to
the shield.

Bill Meacham WX4A
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

177. Re: Ceramic/Crystal filter pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 13:56:43 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <mDE66.4$n%2.692@wa.nnrp.telstra.net>
Source record: 55623

Thanks Woody

I have already been pointed in the right direction. The Japanese muRata site had the information I needed. Actually the USA site had the info as well but in a very unobvious place.

Regards
Murray

Woody <woody.white@att.net> wrote in message news:3A5721FA.F44F7C67@att.net...
> Have a part number? I have some MuRata catalogs that are a few years
> old and have pin-out drawings. Just maybe???...
> Woody
> --------
>
> Murray Lang wrote:
> >
> > Can anyone point me to pinout data for muRata and/or Toyocom crystal
> > filters?
> > The numbering of the pins is easy to find on the web but not what those pins
> > actually do.
> > I get the impression that there's a well known convention for pin numbering
> > of these filters but at this stage I'm not privy to it.
> >
> > Thanks in advance.
> >
> > Murray Lang - VK6HL
>
> --
> Woody, WB4QXE
> For Ham Radio homebrewing and
> Scanning Electron Microscope Images,
> visit: http://woody.white.home.att.net

178. Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 19:11:40 UTC
From: rcnixon@mindspring.com
Message-ID: <3a5b60e3.15705188@news.mindspring.com>
Source record: 55624

I have come into posession of some 14,000 ceramic disc capacitors. They are all 50 VDC, 5% units ranging from 1 pf to 880 pf from the same manufacturer, KCK. They are neatly put up in bags of 150 but one thing puzzles me. The label for each bag specifies a "Char." which I guess means characteristic. For instance, I am looking at a bag of 470pf, 5%, 50 VDC with "Char." VK. There are other "Char."s as well but I am too lazy right now to go look.

Does anyone have any idea what this means? If necessary, I'll get the other types of "Char." for comparison.

Russ Nixon - KF4WXD

179. ISO CES Repeatermaker and DTMF Mike Schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 19:23:22 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3A5B652A.B7B5E134@innercite.com>
Source record: 55625
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc,rec.radio.amateur.fm,rec.radio.amateur.hf

Good Morning. I am searching for manuals and/or schematics for the CES Repeatermaker (not plus) and for the CES 640 and 630 DTMF Microphones. They do not seem to have information on them at the factory. Will gladly pay any costs for copying, postage, etc. Please respond by email. Thanks and 73's Don Smith KB6GQA

180. Re: EI core transformer parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 21:21:51 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <t5n07sib4q0541@corp.supernews.com>
Source record: 55626

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:mSUBUGAhXaW6EwlF@invest.fsbusiness.co.uk...
> Does anyone know of a UK manufacturer of bobbins, end cheeks etc for the
> above transformer type?

You need to specify if you are looking for ferrite material, or iron
laminations. That should help narrow down who to recommend.

--
Leland C. Scott
KC8LDO

181. Re: Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 21:23:12 UTC
From: "Charles H. Reichert" <qa2696@email.mot.com>
Message-ID: <3A5B8140.429A61D9@email.mot.com>
Source record: 55627

Possibly a Temp Coefficient or "Q" range.

Chuck KD9JQ

"Russell C. Nixon" wrote:

> I have come into posession of some 14,000 ceramic disc capacitors.
> They are all 50 VDC, 5% units ranging from 1 pf to 880 pf from the
> same manufacturer, KCK. They are neatly put up in bags of 150 but one
> thing puzzles me. The label for each bag specifies a "Char." which I
> guess means characteristic. For instance, I am looking at a bag of
> 470pf, 5%, 50 VDC with "Char." VK. There are other "Char."s as well
> but I am too lazy right now to go look.
>
> Does anyone have any idea what this means? If necessary, I'll
> get the other types of "Char." for comparison.
>
> Russ Nixon - KF4WXD

--
Regards,

Charles Reichert

Motorola NSS ACE phone: 847-632-6669 Work
IL-82 3436S fax: 847-632-7428 Work
1501 W. Shure Drive email: qa2696@email.mot.com
Arlington Hgts, IL. 60004
---

182. RF amplifier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 22:35:29 UTC
From: Justin Fielding <j.fielding@btinternet.com>
Message-ID: <MmM66.163821$eT4.12348587@nnrp3.clara.net>
Source record: 55628

Does anyone have the design for a simple 2.4GHZ RF amplifier? I want to modify my Xcam2 unit to give about 2 - 3 miles range (with dipole antenna not the crappy one included).

Thanks.

Justin.

183. FA Johnson Var. Cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-09 23:07:53 UTC
From: wa4uso@aol.com
Message-ID: <20010109180753.08544.00000763@ng-cd1.aol.com>
Source record: 55629

I have a Johnson type with 3/16" spacing, each section 250pf, and 3/16" shaft drive. The overall length is 21." Willing to trade for National Dials or will sell. Please email if interested WA4USO@aol.com TNX Darrell Darby

184. High grid curernt on sb-220---help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 00:58:57 UTC
From: antennas_ca@my-deja.com
Message-ID: <93gc4fkeg1@nnrp1.deja.com>
Source record: 55630

I have an sb-220 that seems to have had the bandswitch in wrong
position. Only worked well on 10M. Then as you go down in freq it
worked worse and tubes would get red really fast on lower bands. SO I
was looking at the switch from the schematic and it wasn't right. So
moved it so it was same as schematic on 80M posn. Ok now seems better
but have very high grid current on all bands.
Is there another mismatch in the oputput circuit? What would cause the
high grid current??
Thanks for all replys. PLease email to me at antennas@yahoo.com

Andrew
VE1VVV

Sent via Deja.com
http://www.deja.com/

185. FA components

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 01:19:06 UTC
From: Max <codtrap@usa.net>
Message-ID: <3A5BB88A.6A6C5DC6@usa.net>
Source record: 55632

Take a look, there may be something of interest:

http://cgi6.ebay.com/aw-cgi/eBayISAPI.dll?ViewListedItems&userid=newfoundlander

Thanks, Max

186. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 02:06:05 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a5bbe47.3291380@news.cantech.net.au>
Source record: 55631

On Tue, 09 Jan 2001 08:29:42 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:
>Budgie...
>I'm still not sure what the application is. I'm guessing its home
>TV reception and from what you describe, the transmitting towers
>are scattered about on hilltops around your location which
>apparently is in a valley.

Fairly close - I'm actually on the same escarpment, elevation here is
about 20m less than the Tx sites. I look UP because theya re tall
masts and towers :-)

>BTW, I'm a cable television engineer by trade, with 27 years
>experience.

Somewhat similar - a (just retired) RF systems engineer of over 30
years, mainly from two-way radio areas.

>First question would be, why don't you simply use a rotatable
>antenna, but I suspect your answer is going to say that ACR is
>still the bigger problem.

Rotatable will address the ghosting issues due to a single-azimuth
antenna, but yes ACR is the (new) problem. For example (and I'm not
sure of your bandplan) we have 6 174-181 MHz thru 12 as contiguous 7
Mhz slots. Our analog bandplan had 7, 9 & 10 in common service areas
with 6,8,11 in low population areas, as well as some in 88-108 before
FM. Most of these 6/8/11 services have migrated to UHF over the
years. Between 9 & 10 was a 2MHz buffer to avoid ACR. The designed
ACR of TV/VCR presumably degenerated to the minimum required in this
environment.

Now we have digital duplication of existing PALs - 6D=7A, 8D=9A,
10A=11D and 12D = 2A if that's clear. So every PAL now has an
occupied channel each side.

>Here in the states, and I would assume in VK also, since our TVs
>come from the same source, adjacent channel capability is not
>normally a problem. It was up until about 10 years ago, tho. If
>the tuner is being hit too hard with RF, any number of things can
>occur and adjacent channel interference would most likely be
>occuring there, not in the IF. Similarly, if the adjacent
>channels are drastically different in levels, bleedover
>(cross-mod) could be expected. If you're only a mile or two from
>the transmitters, overload across the board is a very likely
>possibility.

>Take the typical cable TV scenario where you dump 100 adjacent
>channels into a TV set. It works because the individual signal
>strength on each channel are somewhat equal, and the total power
>being delivered is within the range of what the TV tuner can
>handle.
>Now, the approach to deal with with your 'all-adjacent' off-air
>situation will vary depending on who you are...a normal domestic
>viewer or some kind of commercial installation.

Domestic

>The obvious first step would be to see if a simple attenuator,
>maybe 20db or so, would improve the situation. And I would be
>re-miss to not mention the possibility of a faulty tuner creating
>these problems for you. If not...

Two TV's, two VCR's - all have same problem whether external or
internal antennae used. Have tried 20dB and 40dB pads to no avail -
it only avoids the herringbone which was visible on one channel under
one circumstance.

>The least expensive way to deal with it would be to simply install
>traps inline to notch out the new digital channels, unless you
>have a current need for them. These traps cost about US$8 each.

I'd like to find traps at that sort of price to notch out a single
channel without adjacent degradation. Nothing like that seen here.

At the indicative price of DTV's here (~$A5K up) and identical program
content, I can't see me wanting digital channels until the parallel
period ends on 1/1/2008, and then the analogs shut down overnight. I
mean. the only benefit (apart from a ?crisper pic) is 16:9 aspect
instead of our PAL 4:3. Big deal :-)

>If you do want to receive ALL the channels, the approach would be
>to simply split the incoming line via a 2-way splitter, use traps
>to the digital channels on one side, and the PAL channels on the
>other. Then you could use a A-B switch to feed the TV set.
>Even that is a bit much for the average TV customer, but it seems
>you have a very unique situation there. They are dropping in the
>digital channels in a similar way in the US but I don't hear much
>about the problems created by it...yet.
>If its a commercial installation, single channel bandpass filters
>are readily available that will reject adjacent signals. In that
>case, split the antenna(s) feeds accordingly, use the filters to
>isolate each one, attenuate to get equal levels and mix'em back
>together. Actaully simpler, but considerably more expensive than
>the 'home' version mentioned earlier since decent bandpass filters
>start at around US$125 each.

Yes, I have used that sort of system here in the past for MATV
distribution systems. Definitely overkill for the domestic situation
though.

>If you can beg, borrow or steal a cable tv signal level meter you
>can better see what you're up against. You could have something
>like one single channel being present at a significantly higher
>signal strength that is driving the tuner into distortion and that
>could be the only one that needs attenuation. I had a situation
>like this where a local FM station drove our equipment nuts.
>Its an interestion scenario. The powers-that-be made the decision
>to occupy adjacent channels based on the concept that TV receivers
>are now capable of dealing with the problem. But, I suspect these
>decision-makers get free cable service and haven't had to mess
>with a TV antenna in many years. Which is another good option!

I have a decent spec-an ex my RF work here, and levels are not
dramatically different. After years of looking at analog Tv on the
spec-an, it's interesting to see the digital signals - just an
elevated noise floor.

>Good luck,

Thanks, I may need it.

187. Looking for info on TS-1100/U Transistor Tester

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 05:10:25 UTC
From: "pfriedr@NOSPAMazstarnet.com" <pfriedr@NOSPAMazstarnet.com>
Message-ID: <3A5BEEC1.ABDF7D69@NOSPAMazstarnet.com>
Source record: 55633

Hello:

I recently picked up a TS-1100/U military transistor tester (circa 50's?). It looks to be in good shape, except that it appears to use some strange batteries.

I would like to rig up a supply for it, but I need schematics. Anybody know where I could find 'em?

Thanks,
Pete
(remove NOSPAM from email address to reply)

188. Re: EI core transformer parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 10:15:11 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <hrmQ6mAvYDX6Ewfq@invest.fsbusiness.co.uk>
Source record: 55634

Hello Leland,

>> Does anyone know of a UK manufacturer of bobbins, end cheeks etc for the
>> above transformer type?
>
>You need to specify if you are looking for ferrite material, or iron
>laminations. That should help narrow down who to recommend.
Iron laminations.

In fact I'm interested in winding some transformers for an all s/s AM
modulator.

A local company suggested my prototype 25-30w audio power handling
tranny would weigh-in at around 25 lb, (10Kg). Ouch!

I did not ask the cost.

(((73)))

Phil G4ZOW

189. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 14:00:52 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A5C6B14.446B9B3D@rupert.tds-az.lmco.com>
Source record: 55635

Troglodite wrote:
>
> >Some time ago someone said that CoolAmp, a powder used for rubbing on a thin
> >silver coating, would yield an impure silver coating. Does anyone know
> >what the impurity would be? Would it affect the conductivity?
> >
>
> I can't tell you what the specific impurity is, but I can tell you that the
> stuff works very well. I had a circuit with a fuse in clips on a circuit board,
> and the current drain was such that the fuse got hot enough to unsolder itself
> on it's end. This was due to the voltage drop in the clip. I coated the clips
> with CoolAmp and the problem disappeared.
>
> Doug Moore KB9TMY

I'm not doubting your experience but I find it hard to believe
that simply silver coating the fuse clips fixed the problem.

The reason I have a hard time with this is that I had a similar
problem with a power supply, some years ago. The power supply
was 10 Volts at 500 Amps and ran from a 208 - 3 Phase power
source. It had three 20 Amp fuses on the power input, that
would burn up regularly. The fuses were the common BUSS type.
It turned out that the problem was fixed by replacing the
fuse holder with a different type. On the original fuse holder,
each end piece was made of two parts, the clip and the solder
lug. They were bound together with a brass eyelet. The eyelet
connection presented a small resistance and caused the fuse
holder to heat up. The fuse holders were replaced with ones
that had a single clip/lug construction and the problem
went away.

It just may have been that your fuse holders were the two part
clip/lug construction and the silver coating fixed the junction
resistance problem.

Well, just my $0.02.

Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to

be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

190. Re: Plans for onidirectional antenna for 220/440

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 15:28:43 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A5C7FAB.E331E14E@coqui.net>
Source record: 55636

budgie wrote:
>
> On Tue, 09 Jan 2001 08:29:42 -0400, Bill Meacham
> <NOSPAMexray@coqui.net> wrote:
> >Budgie...
> >I'm still not sure what the application is. I'm guessing its home
> >TV reception and from what you describe, the transmitting towers
> >are scattered about on hilltops around your location which
> >apparently is in a valley.
>
> Fairly close - I'm actually on the same escarpment, elevation here is
> about 20m less than the Tx sites.

Drop me a private email...I don't want to aggravate the boatanchor
folks too much with TV reception problems. I can't discern if
your email address as shown is any good.

-BM

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

191. Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 15:54:31 UTC
From: JB Hall <lugehall@hotmail.com>
Message-ID: <93i0jh$u33$1@nnrp1.deja.com>
Source record: 55637

I am trying to match some crystals for a crystal filter. Since my frequency counter doesn't have adequate resolution (10Hz), I was thinking I could tune my transceiver to the frequency of my test osicllator and then measure the audio output frequency as I test the crystals.

Can anyone recommend a sound card frequency counter that can offer 1hz or better resolution? There are lots of great programs that provide spectrum analysis but I have not found anything that has adequate frequency resolution for my needs. Thanks.
73
JB

Sent via Deja.com
http://www.deja.com/

192. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 16:26:29 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A5C8D35.FAE2D59D@alltel.net>
Source record: 55638

Try SPECTRAN softwr. U can set as low as .031 per div readout...
http://www.weaksignals.com/

73 bob wb5apd

JB Hall wrote:
>
> I am trying to match some crystals for a crystal filter. Since my
> frequency counter doesn't have adequate resolution (10Hz), I was
> thinking I could tune my transceiver to the frequency of my test
> osicllator and then measure the audio output frequency as I test the
> crystals.
>
> Can anyone recommend a sound card frequency counter that can offer 1hz
> or better resolution? There are lots of great programs that provide
> spectrum analysis but I have not found anything that has adequate
> frequency resolution for my needs. Thanks.
> 73
> JB
>
> Sent via Deja.com
> http://www.deja.com/

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

193. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 16:31:00 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <od3p5t4chbs6tt0tu7e0an9ur7e2dhipac@4ax.com>
Source record: 55639

K7MEM <jda@rupert.tds-az.lmco.com>
shared these priceless pearls of wisdom:

. I coated the clips
->> with CoolAmp and the problem disappeared.
->>
->> Doug Moore KB9TMY
->
->I'm not doubting your experience but I find it hard to believe
->that simply silver coating the fuse clips fixed the problem.
->

The solvent in CoolAmp to keep the silver in suspension also acts as a marvelous cleaning agent. My suspicion is that it cleaned enough of the hi-resistance crud off the fuse clips to account for the miracle. A can of Rat Shack tuner cleaner would probably have done every bit as much to solving the problem.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

194. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 16:47:07 UTC
From: marsgal42@hotmail.com
Message-ID: <93i3ma$1e8$1@nnrp1.deja.com>
Source record: 55640

In article <93i0jh$u33$1@nnrp1.deja.com>,
JB Hall <lugehall@hotmail.com> wrote:
> (snip)
> Can anyone recommend a sound card frequency counter that can offer 1hz
> or better resolution? There are lots of great programs that provide
> spectrum analysis but I have not found anything that has adequate
> frequency resolution for my needs. Thanks.

Perhaps you could write one? It sounds like an interesting project.

I can think of two approaches, and I'm sure there are others.
Either use progressively longer FFTs to zero in on the frequency
you want, or count zero crossings.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

195. Penta 572b's & 6mtr.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-10 22:02:33 UTC
From: Doo'g <farver_teds@yahoo.com>
Message-ID: <3a5cdbfa$0$15492$7f31c96c@news01.syd.optusnet.com.au>
Source record: 55642

anyone know where I can find a 50mHz linear amp design using these tubes?

Thanks
Glenn

196. PCB's again

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 01:54:44 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A5D3CB8.CE676CDC@home.com>
Source record: 55643

I saw an interesting article in Science Magazine, Dec 15th, (Am Assn for the Advancement of Science)

http://www/sciencemag.org

Relating to the the use of InkJet printers for 5um conductive organic polymers. The authors were from the Cavendish Lab at Cambridge.

Now, how can I get my conductive ink pen hooked up to the 7475a?

Jack
exWA8PZL

197. Omnidirectional 146/220/440 antenna (trying again)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 09:14:33 UTC
From: w1eof@aol.com
Message-ID: <20010111041433.00981.00001108@ng-cu1.aol.com>
Source record: 55644

I'll try this again... last message somehow got into TV antennas, etc. Amazing how posts get off-subject so quickly!

I'm looking for information on how to build a simple vertical for 146/220/440, or at least two of those bands. I know there are commerical antennas available, I'd like to build my own. Any information or pointers/URLs to information would be appreciated.

73,

Mark W1EOF

198. Re: Omnidirectional 146/220/440 antenna (trying again)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 10:07:57 UTC
From: Peter Parker <parkerp@alphalink.com.au>
Message-ID: <3a5e20ce@news.alphalink.com.au>
Source record: 55645

If you really want all three bands on the one antenna, it's hard to go past a discone.

But broadbandedness is about the only virtue that the discone has - it probably uses
as much metal as an antenna for each band.

A 1/4 wave for 2 metres will work in a pinch on 70cm, but if you want something that's
not a compromise, monoband antennas are the way to go, especially for the home constructor.

Though I've never built one, I'd suggest some form of coaxial cable collinear.

Peter

W1eof <w1eof@aol.com> wrote in message news:20010111041433.00981.00001108@ng-cu1.aol.com...
>
> I'll try this again... last message somehow got into TV antennas, etc. Amazing
> how posts get off-subject so quickly!
>
> I'm looking for information on how to build a simple vertical for 146/220/440,
> or at least two of those bands. I know there are commerical antennas available,
> I'd like to build my own. Any information or pointers/URLs to information would
> be appreciated.
>
> 73,
>
> Mark W1EOF

199. Source for coil inductor tap clips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 15:59:37 UTC
From: Jim Kauppila <removeae4hl@earthlink.net>
Message-ID: <JLk76.5301$N37.212590@newsread1.prod.itd.earthlink.net>
Source record: 55646

I'm looking for the spring clips that were used to tap an inductor coil.
The clips do not have screws in them but you can squeeze and open it like an
alligator clip and place on inductor wire. Mueller used to make them but
apparently hasn't for several decades!

Also does anyone know of a source for roller inductor center forms/insulator
and the associated hardware?

Thanks...

200. Re: Omnidirectional 146/220/440 antenna (trying again)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 19:11:34 UTC
From: Tom Repstad <tr@zoo.uvm.edu>
Message-ID: <3A5E0566.ED697AC7@zoo.uvm.edu>
Source record: 55497

Check out the Arrow J-Pole, http://hometown.aol.com/Arrow146/j-pole.html

he give's the dimensions right on his page... he offers a 220 and 144/440 version.
I'm not sure about combining them into a single tri-bander though. They are simple enough to build from aluminum stock available at home depot.
But at his prices, you won't save that much.

I have the 144/440 dual bander, it works great.

--Tom
K1VG

W1eof wrote:

> I'll try this again... last message somehow got into TV antennas, etc. Amazing
> how posts get off-subject so quickly!
>
> I'm looking for information on how to build a simple vertical for 146/220/440,
> or at least two of those bands. I know there are commerical antennas available,
> I'd like to build my own. Any information or pointers/URLs to information would
> be appreciated.
>
> 73,
>
> Mark W1EOF

201. Re: Source for coil inductor tap clips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 19:32:30 UTC
From: tom_bruhns@agilent.com
Message-ID: <93l1oe$kk1$1@nnrp1.deja.com>
Source record: 55498

In a pinch (oooh, sorry), you should be able to modify standard alligator clips. You could file or grind the "teeth" down, and leave a notch for the wire out toward the tip of the clip.

Another device that should work is something like the "minigrabber" from Pomona, or the really cool clips that you see at http://www.parrot-invent.ro/ (I have some of the latter as voltmeter leads that I like a lot, though I caution about some safety issues using them at high voltage.) I guess it depends on how big the coil wire is and its spacing, and how short you need to keep the wire going to the clip.

Cheers,
Tom

In article <JLk76.5301$N37.212590@newsread1.prod.itd.earthlink.net>, "Jim Kauppila" <removeae4hl@earthlink.net> wrote:
> I'm looking for the spring clips that were used to tap an inductor coil.
> The clips do not have screws in them but you can squeeze and open it like an
> alligator clip and place on inductor wire. Mueller used to make them but
> apparently hasn't for several decades!
>
> Also does anyone know of a source for roller inductor center forms/insulator
> and the associated hardware?
>
> Thanks...
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

202. WTB: Vernier dials & variable caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 20:13:28 UTC
From: Jack Hardin <jhardin@hal-pc.org>
Message-ID: <93l3t6$cg5$1@news.hal-pc.org>
Source record: 55499

Need small vernier dials and 365 pf variable
capacitors for receiver projects. Need up to
6 of each. Cheap, functioning parts, please.
Email direct with quantity, condition and price.
Jack, W5EB
w5eb@arrl.net

203. Re: LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 20:23:16 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <93lbsi$n65$1@news8.svr.pol.co.uk>
Source record: 55504

> I'm writing an article about white LEDs and how they will
> be replacing filament bulbs. Are there any other companies, besides
> LedTronics, who are manufacturing replacements for the old fashioned
> filament lamps. I also want to replace those energy-sucking lights in my
> house since the power bills are getting outrageously high here in VE6
> land. 73!
=======
Bruce , Fluorescent bulbs with an electronic starter are readily available
as instant replacement for normal filament bulbs , 230 V in Europe ,Africa,
Asia ,Autralasia and 117 V for the Americas.
They are obviously more expensive than normal light bulbs ,but consume a
fraction of the power.
A 13 W fluorescent bulb gives the same light output as a 75 W filament bulb.
The life time is approx 8000 hrs versus 1000 hrs for a filament bulb.
I can imagine that the equivalent LED bulb (for AC voltages) is much more
expensive at this time, but would be an excellent alternative for 12-24 V DC
systems resulting from Wind and Solar Power.

So the solution for your high cost power ,at this time ,would be the
instantly available Fluorescent Bulb .
I have have seen models from General Electric in the USA.

73 Frank gm0csz.kn6wh@ukrs.org located in Scotland

204. Re: ? 8560 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 20:40:26 UTC
From: Franz Hamberger <franz.hamberger@gmx.de>
Message-ID: <93l5vt$k1b$07$1@news.t-online.com>
Source record: 55500

"Bill Janssen" <billj@ieee.org> schrieb im Newsbeitrag
news:3A55F4DB.EA9F5147@ieee.org...
> I have this tube that I would like to find some info. on.
> It was used in a VHF amplifier
>
> Tube type 8560 (Conduction cooled)
>
> I would like to know;
>
> is this a triode or tetrode
> what is the plate dissipation rating
> what is the max. frequency
> what are the typical operating voltages

Data sheet can be found at

<http://www.svetlana.com/graphics/products/pdf/8560AS.pdf>

73, Franz DL7AVF

--
Franz Hamberger, Berlin, Germany, eMail: dl7avf@qsl.net
My European tube online database and downloadable stuff:
The Electron Tubes and Valves - Charts
http://www.qsl.net/dl7avf/index.html

205. Re: BC238 transistor substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 20:56:57 UTC
From: Franz Hamberger <franz.hamberger@gmx.de>
Message-ID: <93l7nu$jf7$01$1@news.t-online.com>
Source record: 55501

"Robert John" <RAJohnGM@worldnet.att.net> schrieb im Newsbeitrag
news:Xfz36.12206$bU.840946@bgtnsc04-news.ops.worldnet.att.net...
> Can anyone provide a substitute transistor to use in place of a BC238.
> Tnx. Bob
>
>

A 2N3904 will do the job.

Franz, DL7AVF

--
Franz Hamberger, Berlin, Germany, eMail: dl7avf@qsl.net
My European tube online database and downloadable stuff:
The Electron Tubes and Valves - Charts
http://www.qsl.net/dl7avf/index.html

206. Re: WTB: Vernier dials & variable caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 22:29:09 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A5E33B5.B6120F9@win.bright.net>
Source record: 55502

A very good place to start is http://www.fix.net/dans.html and they have the variable caps and also Ball reduction drives (but the reduction units aren't cheap)...but the other parts are so cheap and he has many values available. It's where I do at least 90% of my homebrew project shopping.

Scott
N0EDV

Jack Hardin wrote:
>
> Need small vernier dials and 365 pf variable
> capacitors for receiver projects. Need up to
> 6 of each. Cheap, functioning parts, please.
> Email direct with quantity, condition and price.
> Jack, W5EB
> w5eb@arrl.net

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

207. Repeater Plans Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-11 23:52:12 UTC
From: alec_wood <alec_wood@ntlworld.com>
Message-ID: <pFr76.2736$XC4.46592@news6-win.server.ntlworld.com>
Source record: 55505

Anyone got any plans for building a 2m repeater.

Alec M1BNK

208. Henry Radio 3000D FS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 00:56:58 UTC
From: Neil L Chavigny <neil@radioranch.com>
Message-ID: <neil-D2F8FF.16565811012001@news.swbell.net>
Source record: 55503

I have one Henry Radio model 3000D RF supply that is surplus to my needs.

Includes one Eimac 3CX3000A7.

Available on EBAY:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1206822972

Thanks for looking.

Neil L. Chavigny

--
Radio Ranch
Neil L. Chavigny
Austin, Texas
512 459 6855

209. DDS board and parts.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 01:34:07 UTC
From: novatech@eskimo.com
Message-ID: <93lmuf$as8$1@eskinews.eskimo.com>
Source record: 55506
Cross-posted to: sci.electronics.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

We did our annual inventory and decided that we have too many of our DDS3 boards and parts. These older DDS solutions are now rather mundane compared to the 100MHz newer parts.

We are going to sell off the boards, a kit of passive parts (plus voltage reference and high speed DAC) and the 33.554432MHz crystal. It looks like $35 ppd. in the USA would be the right price.

You will have to furnish a Qualcomm DDS chip (Q2240I-1N) and a smattering of other parts.

The data sheet is at: http://www.novatech-instr.com/dds3.html

Anyone interested?

Thanks,

Steve.

--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

210. WB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 01:44:12 UTC
From: Elmer Colon <ecolon@bellsouth.net>
Message-ID: <9mt76.970$Dd.5781112@news1.mia>
Source record: 55507

MIRAGE PAC 30-130-B
150-174MHZX6MHZ
PLUS POWER SUPPLY TO SUPPORT.
E-MAIL.

--
Captain Elmer Colon
Atlantis Marine Towing & Salvage
Vessel Assist Black Point
ecolon@bellsouth.net
colone@co.miami-dade.fl.us

211. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 01:49:50 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <086q5to1rd1a2fa76i0k5co9vm8irdforq@4ax.com>
Source record: 55508

JB Hall <lugehall@hotmail.com> wrote:

>I am trying to match some crystals for a crystal filter. Since my
>frequency counter doesn't have adequate resolution (10Hz), I was
>thinking I could tune my transceiver to the frequency of my test
>osicllator and then measure the audio output frequency as I test the
>crystals.

What frequency are you trying to work at? I have several excellent HP
counters available for less than $100 that offer resolutions less than
1 Hz.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA
---

212. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 02:04:05 UTC
From: Sam <aa8wl@home.com>
Message-ID: <3A5E908F.ED32BD12@home.com>
Source record: 55509

Hi, name is Sam and I was wondering if I might beable to get a copy of that
813 GG Schematic as I have some of those tubes around the basement and that
might be a neat winter project. Thanks in advance. 73' DE AA8WL

James Hurry wrote:

> I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
> Transmitting Tube Manual if that helps... I can make a copy and send to you
> of that data..
> --
> 73's,
> Dudley
> WA5QPZ
> jhurry@austin.rr.com
>
> "W4pqw HS" <w4pqwhs@aol.com> wrote in message
> news:20001228151523.05852.00000183@ng-cu1.aol.com...
> > anyone have data sheets on 813 in SSB GG service.. schematics of
> working
> > pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW

213. Re: Repeater Plans Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 05:03:20 UTC
From: Keith McQueen <kb7m@arrl.net>
Message-ID: <pew76.3639$dy.677738@news.uswest.net>
Source record: 55510

Most amateurs go one of three routes when building a repeater: Convert an older commercial rig such as a GE Mastr II, Motorola Micor, or Mitrek. This is the most popular method if the machine is destined for a crowded hilltop site that requires a high degree of RF immunity. There are instructions on the web. Check out the SEITS site at http://www.seits.org/ but there are others. Punch "repeater building" into your favorite search engine.
Another common method is putting together modules from advertizers in the back pages of QST etc. This is a lot of fun, but don't generally end up being as robust as commercial gear. The final and most expensive method is to buy a commercial repeater from ICOM, YAESU, Motorola, GE etc.

Keep in mind that that the repeater itself is the easy part. You must also add duplexers (or significant vertical separation...not a method for the faint at heart), power supplies, feedline, antenna, and the most important part: The SITE. The whole thing goes together to make a repeater SYSTEM. Remember that the system is only as good as its weakest part.

Have fun, and be prepared to learn A LOT!

73 - Keith, KB7M.

"alec_wood" <alec_wood@ntlworld.com> wrote in message
news:pFr76.2736$XC4.46592@news6-win.server.ntlworld.com...
> Anyone got any plans for building a 2m repeater.
>
> Alec M1BNK
>
>

214. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 06:37:19 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3A5EA61E.7EF21BED@snet.net>
Source record: 55511

I went through this about 10 years ago when I uncovered an old HP8551 hybrid spectrum analyzer. It of course had a blown mixer diode among other problems that I managed to repair. It is a very old clunker, tubes, backwave oscillator, which was converted to a YIG oscillator though which was nice. It had a range of 10 mhz to 40 ghz with the proper waveguide mixers.
But I still had to solve the mixer diode problem as the original diode , I am not sure it exists on the face of the Earth anymore.

I ended up stuffing a modern day 1n5817 ($1.00 Digikey) shottkey diode (spelling). Believe it or not it worked very well up to at least 4 ghz or so. Beyond that range, like around 10 ghz, I used waveguide mixers and didn't need the diode up there. I am sure other shottkey diodes would work fine also.

No, it was not accurate to the a flat 1/2 db as the original spec., but for amateur radio uses it worked out just fine for me.
I still have it!

Good Luck,

Vince N1VC

Bob Camp wrote:

> My homebrew spectrum analyzer project took an odd twist about a week
> ago. My employer tossed out a HP 8590A and I happened to fish it out
> of the trash ....
>
> It seems to have all the basic parts one would want to use to build a
> spectrum analyzer out of save for a pair of good diodes in the mixer.
> The HP service manual lists an in-house part number (5062-0785) for
> them that is on the "no longer available" list (or so I am told ....).
>
> So the first question - given that this is ham radio and not NASA and
> that the objective is a spectrum analyzer in the basement and not in a
> cal lab ..... what's a good pair of mixer diodes to try ?
>
> The second question - any body out there have any experience with
> these gizmos ? If so I've got a couple of questions ....
>
> Thanks !

215. TDA7330B distributors? (NA)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 06:55:27 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn95tag9.gvp.w9wi@linux1.localdomain>
Source record: 55512

I'm trying to find someone who's willing to sell TDA7330B (RDS decoder)
chips in small quantities. I've found two distributors here in the U.S. but
both have a minimum order of 100 units...
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

216. Re: WTB: Vernier dials & variable caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 07:01:05 UTC
From: cooperjim@aol.com
Message-ID: <20010112020105.24273.00001009@ng-fe1.aol.com>
Source record: 55513

RF PARTS in San Marcos CA has a dual 365 pF variable with a built in 6:1 drive for about $15 each. They are new and pretty well built.

www.rfparts.com

73
Jim NE6O

217. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 07:52:49 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <hmat5tkgbaccve123tlk0cibd715q29lvi@4ax.com>
Source record: 55514

On Thu, 11 Jan 2001 19:49:50 -0600, Jim Adney <jadney@vwtype3.org>
wrote:

>JB Hall <lugehall@hotmail.com> wrote:
>
>>I am trying to match some crystals for a crystal filter. Since my
>>frequency counter doesn't have adequate resolution (10Hz), I was
>>thinking I could tune my transceiver to the frequency of my test
>>osicllator and then measure the audio output frequency as I test the
>>crystals.

When taking multiple readings of the same signal, the display may
flicker between say 630 and 640 Hz and if about 1/3 of the readings
are 640 Hz and the rest are 630 Hz, you could (g)estimate that the
true frequency is little over 633 Hz.

>What frequency are you trying to work at? I have several excellent HP
>counters available for less than $100 that offer resolutions less than
>1 Hz.

These counters must either use a counting time much longer than 1 s or
they are measuring the period and calculate the inverse in order to
display the frequency.

For low frequency measurements any counter capable of counting
impulses can be used. A simple circuit is needed that will isolate a
single full cycle (e.g. falling edge to falling edge) and this signal
can be used to gate e.g. a 10 MHz oscillator into an impulse counter.
From the impulse count the frequency can be calculated. The frequency
can be measured to a large number of decimals in one signal period
time, while using an ordinary frequency counter would require minutes
or hours to get the same accuracy.

Paul OH3LWR

218. Re: Repeater Plans Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 11:49:17 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A5EEF3D.4FFF4111@win.bright.net>
Source record: 55515

Are you looking for schematics to build the transmitter, receiver, controller, etc. or are you looking for a diagram of how to hook everything together? If the latter, you need to know what transmitter, receiver, controller, etc. you will be using and schematics for those so that you can find points to activate the COR, etc. I would start in the ARRL handbook for general info. You might also try Hamtronics at http://www.hamtronics.com/ to see what they have.

Scott
N0EDV

alec_wood wrote:
>
> Anyone got any plans for building a 2m repeater.
>
> Alec M1BNK

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

219. Re: LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 13:09:51 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A5F2C78.816C65F0@home.com>
Source record: 55516

But the spectrum of fluorescents - even daylight bulbs (5500K)- is just awful, and I mean awful. Don't believe me? Take a picture of your workshop with ordinary film. You need a lot of magenta correction and even that doesn't get it right.

UltraBrite LED's -- a 3000mcd Agilent blue LED still costs around $1.50, greens are a little cheaper. I don't like the spectra of the white LED's I've seen, so RGB would be the way to go. It would probably cost around $100 USD.

Frank Dinger wrote:

> > I'm writing an article about white LEDs and how they will
> > be replacing filament bulbs. Are there any other companies, besides
> > LedTronics, who are manufacturing replacements for the old fashioned
> > filament lamps. I also want to replace those energy-sucking lights in my
> > house since the power bills are getting outrageously high here in VE6
> > land. 73!
> =======
> Bruce , Fluorescent bulbs with an electronic starter are readily available
> as instant replacement for normal filament bulbs , 230 V in Europe ,Africa,
> Asia ,Autralasia and 117 V for the Americas.
> They are obviously more expensive than normal light bulbs ,but consume a
> fraction of the power.
> A 13 W fluorescent bulb gives the same light output as a 75 W filament bulb.
> The life time is approx 8000 hrs versus 1000 hrs for a filament bulb.
> I can imagine that the equivalent LED bulb (for AC voltages) is much more
> expensive at this time, but would be an excellent alternative for 12-24 V DC
> systems resulting from Wind and Solar Power.
>
> So the solution for your high cost power ,at this time ,would be the
> instantly available Fluorescent Bulb .
> I have have seen models from General Electric in the USA.
>
> 73 Frank gm0csz.kn6wh@ukrs.org located in Scotland

220. Re: LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 14:16:09 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <93n3j9$f8g$1@ausnews.austin.ibm.com>
Source record: 55517

In <3A5F2C78.816C65F0@home.com>, JW <jdwalton@home.com> writes:
>But the spectrum of fluorescents - even daylight bulbs (5500K)- is just awful,
>and I mean awful. Don't believe me? Take a picture of your workshop with
>ordinary film. You need a lot of magenta correction and even that doesn't get
>it right.
>
>UltraBrite LED's -- a 3000mcd Agilent blue LED still costs around $1.50, greens
>are a little cheaper. I don't like the spectra of the white LED's I've seen, so
>RGB would be the way to go. It would probably cost around $100 USD.
>
>Frank Dinger wrote:
>
>> > I'm writing an article about white LEDs and how they will
>> > be replacing filament bulbs. Are there any other companies, besides
>> > LedTronics, who are manufacturing replacements for the old fashioned
>> > filament lamps. I also want to replace those energy-sucking lights in my
>> > house since the power bills are getting outrageously high here in VE6
>> > land. 73!
>> =======
>> Bruce , Fluorescent bulbs with an electronic starter are readily available
>> as instant replacement for normal filament bulbs , 230 V in Europe ,Africa,
>> Asia ,Autralasia and 117 V for the Americas.
>> They are obviously more expensive than normal light bulbs ,but consume a
>> fraction of the power.
>> A 13 W fluorescent bulb gives the same light output as a 75 W filament bulb.
>> The life time is approx 8000 hrs versus 1000 hrs for a filament bulb.
>> I can imagine that the equivalent LED bulb (for AC voltages) is much more
>> expensive at this time, but would be an excellent alternative for 12-24 V DC
>> systems resulting from Wind and Solar Power.
>>
>> So the solution for your high cost power ,at this time ,would be the
>> instantly available Fluorescent Bulb .
>> I have have seen models from General Electric in the USA.
>>
>> 73 Frank gm0csz.kn6wh@ukrs.org located in Scotland

There are a couple of issues to consider here. Firstly, beware of
comparing the results of taking a picture with what is seen with the
human eye. While some film may approximate the spectral response of
the human eye, often the film is sensitive to light wavelengths
outside the response of the human eye. Thus, if the light has a
strong ultraviolet or infrared component, then the film may record
an image totally different than what the eye sees.

Now, having said that, there's also the issue of the spectral response of film inside the passband of the human eye's response, and the issue of the spectrum produced by fluorescent lamps. While the light produced by a incadescent filament is roughtly flat, although more intense at the red (and, especially infrared) end of the spectrum, the light produced by a fluorescent tube may have significant nonlinearities in the light output spectrum. For example, a fluorescent tube may have emission spikes in the red, blue, and green portions of the spectrum, instead of having a relatively flat emission as an incadescent filament would. One of the reasons for this is that a fluorescent light operates by electrically exciting mercury vapor, which emits ultraviolet light (I used to be able to quote the predominant wavelengths emitted, but it's been too long since I've worked in the optics lab.). The ultraviolet light is then used to excite a mixture of phosphors which line the inside of the tube. These phosphors then emit light. The problem is that the phosphors typically emit only a certain specific band of wavelengths. The usual approach is to blend different phosphors together to approximate a white light. But, this is only an approximation.

Some of the problems with the mixed phosphor approach is that the appearance of objects which have a sharply defined spectral reflectance may appear different under fluorescent light. I'm sure we've all heard about clothes that look one colour under incadescent light, yet look different under fluorescent light. Another problem is that as the phosphors age, their efficiency may change. Thus, the spectral output from a fluorescent tube may shift with time. And, finally, the spectral response from a fluorescent tube driven from the AC line varies at 120 Hz (twice the line frequency). Not only does the light output vary (e.g., flicker), but the spectral response varies, too, due to the varying persistences of the different phosphors in the mix. Try placing a rotating object (e.g., variable speed fan) under a fluorescent light and observe the colour bands that appear at certain rotational speeds.

Note, of course, that the spectral output from a fluorescent tube may be varied by changing the mix of phosphors. The major manufacturers have several standard blends, some of which have names like "Cool White", "Daylight", etc. But, they can also make custom phosphor blends. I've seen fluorescent lamps which produce a variety of colours (green, yellow, red, blue, etc.).

Personally, I tend to like a 'blueish' fluorescent (I have a 'pinkish' one on my desk, and I severely dislike it.). Plus, I've not been overly impressed by the fluorescent screw-in replacements for incadescent bulbs. I think the manufacturers have opted for a phosphor blend which approximates the red-ish hue from an incadescent lamp, while I'd much prefer a bluer spectral emission. But, that's just my personal opinion.

However, having said this, I'm not sure that a white LED will be any different than a fluorescent tube. The way white LEDs operate is very similar to the way fluorescent tubes operate. In operation, the LED chip produces an ultraviolet light. This ultraviolet light is used to excite a mix of phosphors, which then produce the 'white' light. Thus, the white LED has the same limitation as fluorescent tubes with regards to spectral purity.

Plus, I'm not sure the light produced by an array of RGB LEDs would be that much better than a fluorescent tube. One advantage is that you could control the RGB spectral components dynamically. However, given that the emission spectra for LEDs tend to be even narrower than for phosphors, I'm not sure the spectral response would be desirable for use as general illumination. Plus, given that the response time of LEDs is much faster than the persistence of phosphors, the flicker problem may be much worse if the illumination device is operated from anything except pure DC.

I haven't addressed efficiency issues at all here. I do remember that incadescent lamps are extremely inefficient (I want to say the visible light amounts to about 4 percent of the energy put into the device, but it's been a LONG time since I've studied this.). Of course, the efficiency can be improved by running the filament hotter so that it produces more visible light, but at the expense of a severely reduced life. Fluorescent lamps are significantly more efficient in general, but a lot of this depends upon the particular mix of phosphors as well as many other issues. I don't remember the efficiency of LEDs, although I think it's improved in recent years. Of course, there are also mercury vapor and sodium vapor lamps which have rather high efficiencies if you can stand the spectral issues associated with them.

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

221. Macrovision Removal Device

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 14:29:25 UTC
From: Matt Donohoe <m_donohoe@dingoblue.net.au>
Message-ID: <3a5f1550$0$15461$7f31c96c@news01.syd.optusnet.com.au>
Source record: 55518

Hi,

I am wondering if anybody has come accross any type of circuit/schematic for Macrovision Removal (It's in Australia Videos.... When the video is recorded the Auto Gain Control is changed fast or something like that and the TV is too slow to see it off the original video but when you record the video changes with it and blurs the picture)

I know this must be an old circuit by now, but could somebody email me any links/circuits etc to do with this?

Matt Donohoe
M_donohoe@nospam.dingoblue.net.au

Remove Nospam from Email address.

222. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 15:00:05 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <93n6at0293r@news2.newsguy.com>
Source record: 55519

Another approach is to build a counter. There are quite a number of PIC based counter plans on the net. These typically take only $10-15 in parts, and can count into the 60 MHz neighborhood. Most can either count for a full second or have their software modified to do so, giving 1Hz resolution.

I recently built one of these critters and was surprised how painless it was. I wanted a counter for decades but kept putting it off. I actually ripped off ideas from several circuits and put together my own, but most are pretty similar. For your purposes, any one of them would work. Check out http://www.qsl.net/om3cph/new.html or look through some of the PIC project pages - there are many choices out there.

didleydadidah

"JB Hall" <lugehall@hotmail.com> wrote in message
news:93i0jh$u33$1@nnrp1.deja.com...
> I am trying to match some crystals for a crystal filter. Since my
> frequency counter doesn't have adequate resolution (10Hz), I was

[clip]

223. Re: LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 16:22:12 UTC
From: HGE <hg.enqvist@BLOCKsympatico.ca>
Message-ID: <UaG76.54174$n%.2531600@news20.bellglobal.com>
Source record: 55520

Fluorescent lights for replacing a regular bulb look very good on paper. They have a long lifetime, low energy consumption. I tried a couple of those. They were very expensive too. First problem was radio interference across the spectrum. Had to turn lights off for dxing. Second problem, the lights failed after two months. (GE brand). So much for the efficiency and greatness of these things. VE3MAL

JW wrote in message <3A5F2C78.816C65F0@home.com>...
>But the spectrum of fluorescents - even daylight bulbs (5500K)- is just awful,
>and I mean awful. Don't believe me? Take a picture of your workshop with
>ordinary film. You need a lot of magenta correction and even that doesn't get
>it right.
>
>UltraBrite LED's -- a 3000mcd Agilent blue LED still costs around $1.50, greens
>are a little cheaper. I don't like the spectra of the white LED's I've seen, so
>RGB would be the way to go. It would probably cost around $100 USD.
>
>>> =======
>> Bruce , Fluorescent bulbs with an electronic starter are readily available
>> as instant replacement for normal filament bulbs , 230 V in Europe ,Africa,
>> Asia ,Autralasia and 117 V for the Americas.
>> They are obviously more expensive than normal light bulbs ,but consume a
>> fraction of the power.
>> A 13 W fluorescent bulb gives the same light output as a 75 W filament bulb.
>> The life time is approx 8000 hrs versus 1000 hrs for a filament bulb.
>> I can imagine that the equivalent LED bulb (for AC voltages) is much more
>> expensive at this time, but would be an excellent alternative for 12-24 V DC
>> systems resulting from Wind and Solar Power.
>>
>> So the solution for your high cost power ,at this time ,would be

the
>> instantly available Fluorescent Bulb .
>> I have have seen models from General Electric in the USA.
>>
>> 73 Frank gm0csz.kn6wh@ukrs.org located in
Scotland
>

224. Re: Repeater Plans Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 16:48:06 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3A5F3546.122ED921@ix.netcom.com>
Source record: 55521

Hi Alec -- try URL:
http://ac6v.com/repeaters.htm#bandplan
Has:

The Repeater Builders Technical Information Page -- Loaded With Info
Repeater Technical Info -- From SHARKK
Repeater Builder's Technical Information Page -- Via Kevin K Custer
W3KKC
Amateur Repeater Builders Home Page -- From N6NMZ
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

alec_wood wrote:

> Anyone got any plans for building a 2m repeater.
>
> Alec M1BNK

225. Revised Swan - Siltronix 1011 Manual Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 20:04:31 UTC
From: Skipp is a Siltronix type <skipp@pilot.ucdavis.edu>
Message-ID: <93no0f$m6d$1@woodrow.ucdavis.edu>
Source record: 55522
Cross-posted to: rec.radio.cb,rec.radio.swap,rec.radio.amateur.homebrew

re: Manual Down load on the Swan - Siltronix 1011 web page

Hello there,

I've revised the free Owners Service Manual file formats to provide jpg
gif and pdf down loads. If you've tried without luck to down load the
large original file, these smaller zips will do the trick much better.

Also have a look at the killer new pictures of the original 1011 prototype
tranceiver.

cheers
skipp

http://sonic.ucdavis.edu/siltronix

226. Re: FOR SALE:Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 23:46:15 UTC
From: Leon Snider <leons@worldnet.att.net>
Message-ID: <bHM76.1210$5y1.81829@bgtnsc06-news.ops.worldnet.att.net>
Source record: 55523

No estate. Just wanted to move a piece. Have since changed my mind. Gonna keep. Leon

227. WANTED: 4-1000 and chimney

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-12 23:50:41 UTC
From: Leon Snider <leons@worldnet.att.net>
Message-ID: <lLM76.1213$5y1.82115@bgtnsc06-news.ops.worldnet.att.net>
Source record: 55524

Need an "as-new" 4-1000 and chimney.Also,info. A 7000 volt p/supply should use ? bleeder resistors of ? value. Thanks,from a dummy. Leon

228. Re: Revised Swan - Siltronix 1011 Manual Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 00:16:49 UTC
From: "Mr. Aaron H. Voobner" <aaronvoobner@my-deja.com>
Message-ID: <93o6pb$d27$1@nnrp1.deja.com>
Source record: 55525
Cross-posted to: rec.radio.cb,rec.radio.swap,rec.radio.amateur.homebrew

In article <93no0f$m6d$1@woodrow.ucdavis.edu>,
Skipp is a Siltronix type <skipp@pilot.ucdavis.edu> wrote:
>
> re: Manual Down load on the Swan - Siltronix 1011 web page
>
> Hello there,
>
> I've revised the free Owners Service Manual file formats to provide
jpg
> gif and pdf down loads. If you've tried without luck to down load the
> large original file, these smaller zips will do the trick much better.
>
> Also have a look at the killer new pictures of the original 1011
prototype
> tranceiver.
>
> cheers
> skipp
>
> http://sonic.ucdavis.edu/siltronix
>

Of course this transceiver is illegal to operate on CB.

-Aaron-

--
NOTE: The rights of individuals to express opinions in favor of breaking
FCC Law is protected under the Constitution, as are the rights of those
who express opinions in opposition to them.

Sent via Deja.com
http://www.deja.com/

229. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 00:18:25 UTC
From: JB Hall <lugehall@hotmail.com>
Message-ID: <93o6sa$d37$1@nnrp1.deja.com>
Source record: 55526

Thanks everyone for the great ideas. I got the information I needed and many ideas that I will use in the future. For what I am trying to do right now Spectran worked great! From my batch of 10 crystals I found 3 that are within one HZ of each other and my project can proceed. Thanks again for all the suggestions.
JB

Sent via Deja.com
http://www.deja.com/

230. Re: WANTED: 4-1000 and chimney

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 01:00:19 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a5fa848.288264619@news.azstarnet.com>
Source record: 55527

On Fri, 12 Jan 2001 23:50:41 GMT, "Leon Snider" <leons@worldnet.att.net> wrote:

>Need an "as-new" 4-1000 and chimney.Also,info. A 7000 volt p/supply should
>use ? bleeder resistors of ? value. Thanks,from a dummy. Leon

If you are a dummy, I recommend a zero ohm bleeder resistor.

N7WS
>
>

231. Re: WANTED: 4-1000 and chimney

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 02:04:21 UTC
From: Leon Snider <leons@worldnet.att.net>
Message-ID: <FIO76.1555$Ep3.91985@bgtnsc04-news.ops.worldnet.att.net>
Source record: 55528

hihi and thanks. Leon

232. Re: Macrovision Removal Device

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 03:48:44 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a5fcfe2.5619871@news.cantech.net.au>
Source record: 55529

On Sat, 13 Jan 2001 00:29:25 +1000, "Matt Donohoe"
<m_donohoe@dingoblue.net.au> wrote:

>Hi,
>
>I am wondering if anybody has come accross any type of circuit/schematic for
>Macrovision Removal (It's in Australia Videos.... When the video is recorded
>the Auto Gain Control is changed fast or something like that and the TV is
>too slow to see it off the original video but when you record the video
>changes with it and blurs the picture)
>
>I know this must be an old circuit by now, but could somebody email me any
>links/circuits etc to do with this?

Matt

Try posting in aus.electronics - this comes up periodically, and there
is (was) an EA kit IIRC which "enhanced" video (wink,wink). HTH

233. Re: Need Audio Freq. Counter using Sound Card

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 14:40:50 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <idpp39.qpi.ln@localhost.localdomain>
Source record: 55530

In article <93o6sa$d37$1@nnrp1.deja.com>, "JB Hall" <lugehall@hotmail.com>
wrote:

> Thanks everyone for the great ideas. I got the information I needed and
> many ideas that I will use in the future. For what I am trying to do
> right now Spectran worked great! From my batch of 10 crystals I found 3
> that are within one HZ of each other and my project can proceed. Thanks
> again for all the suggestions. JB

This sounds like an interesting project, I hope you will keep us informed
about the results. Do you really need to match the crystals to within
1Hz ? what is the Q of the crystals ?, what is the filter BW ? will a
1Hz error have any effect on the filter performance ?.

If you intend to use this filter in receiver, you can use a spectrum
analyser program and a broad band noise source (reverse biased
Zener diode) to make a nice plot of the filter pass-band. I use
the excellent, 'Xanalyzer' program for Linux. I'm sure there
are similar programs for Windows and the Apple Mac.

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.

http://www.qsl.net/ei9gq
Linux 2.4.0

234. VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 15:44:23 UTC
From: rfrench99@bigfoot.com
Message-ID: <87itnjfodl.fsf@fulcrum.mignet.yi.org>
Source record: 55531

How wide (MHz) could one reasonably make a VCO in the
100 to 150 MHz region? I need to cover a 30 MHz bandwidth
around 110 MHz or so. Is it better to use several VCOs?
Could three 10 MHz bandwidth VCO's cover this region with
reasonable Q and noise? Thanks.

Rob

235. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 15:46:52 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A60786C.1C7C4AF8@erols.com>
Source record: 55532

Bob Camp wrote:
>
> My homebrew spectrum analyzer project took an odd twist about a week
> ago. My employer tossed out a HP 8590A and I happened to fish it out
> of the trash ....
>
It would seem a simple problem if you can get the specs of the old mixer diodes. Just look up the specs of a new diode type!

However, since you say "this is only ham radio", why not replace them with some fast mixer diodes from someplace like Dan's Small Parts?

73

236. Re: Counterpoise Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 15:49:33 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A60790D.35F1CEB5@erols.com>
Source record: 55533

Radials are supposed to be connected to the base of the antenna. They act to complete the RF circuit at the antenna. The antenna will still work without radials for receiving purposes, but it will not work for transmitting!

73

237. 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 16:37:25 UTC
From: k8bvj@webtv.net
Message-ID: <20171-3A608445-17@storefull-233.iap.bryant.webtv.net>
Source record: 55534

Is it possible to run 807's grounded grid zero bias??? I bought an old amp called P&H normally uses modified 1625's or 837's but it has 807's in it....I dont want to power up just yet...need to get info first...

tnx Jack K8BVJ

238. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 16:59:58 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn96129c.5gf.w9wi@linux1.localdomain>
Source record: 55535

On Sat, 13 Jan 2001 11:37:25 -0500 (EST), Jack <k8bvj@webtv.net> wrote:
>Is it possible to run 807's grounded grid zero bias??? I bought an old
>amp called P&H normally uses modified 1625's or 837's but it has 807's
>in it....I dont want to power up just yet...need to get info first...

I'm pretty sure a 1625 is just an 807 with a different heater voltage, but
I'd verify that with someone else first...
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

239. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 17:21:43 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <F8086.201336$IP1.7333207@news1.giganews.com>
Source record: 55536

The 1625 is indeed identical to the 807 except for 12.6 instead of 6.3 V heater and a different base. Swapping requires surgery to change the socket.

73, Bob K6DDX

240. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 17:22:17 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a6087f1.345529866@news.azstarnet.com>
Source record: 55537

On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack) wrote:

>Is it possible to run 807's grounded grid zero bias??? I bought an old
>amp called P&H normally uses modified 1625's or 837's but it has 807's
>in it....I dont want to power up just yet...need to get info first...
>
>tnx Jack K8BVJ

This goes way back so this is all from my fuzzy memory and could be wrong.

The 1625s are "beam-power tubes" and have beam forming plates connected to the cathode. As I recall, the leads were connected together outside of the envelope, inside the base. The modification involved removing the base and disconnecting the beam forming plates from the cathode and (I think) connecting them to the screen.

If this was not done, there was significant coupling from cathode to plate when the tubes were operated g-g.

The 807s didn't have the beam forming so they should work unmodified. Just be sure the heater voltage is 6.3 and not 12.6.

That said, I question what the intermodulation distortion performance of these tubes would be and the advisibility of operating the amp in today's crowded bands.

73,

Wes N7WS
>

241. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 18:17:31 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101131307430.1197-100000@Gloria.CAM.ORG>
Source record: 55539

On Sat, 13 Jan 2001, Wes Stewart wrote:

> On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack) wrote:
>
> >Is it possible to run 807's grounded grid zero bias??? I bought an old
> >amp called P&H normally uses modified 1625's or 837's but it has 807's
> >in it....I dont want to power up just yet...need to get info first...
> >
> >tnx Jack K8BVJ
>
> This goes way back so this is all from my fuzzy memory and could be wrong.
>
> The 1625s are "beam-power tubes" and have beam forming plates connected to the
> cathode. As I recall, the leads were connected together outside of the
> envelope, inside the base. The modification involved removing the base and
> disconnecting the beam forming plates from the cathode and (I think) connecting
> them to the screen.
>
> If this was not done, there was significant coupling from cathode to plate when
> the tubes were operated g-g.
>
> The 807s didn't have the beam forming so they should work unmodified. Just be
> sure the heater voltage is 6.3 and not 12.6.
>
> That said, I question what the intermodulation distortion performance of these
> tubes would be and the advisibility of operating the amp in today's crowded
> bands.
>
> 73,
>
> Wes N7WS
>

This whole thing was mentioned in QST for July 1968, which was reprinted
in the last ARRL SSB manual. "Sweep Tube Linear-Amplifier Design" by
Doug DeMaw.

It's about other things, but it starts:

"It wasn't too many years ago that some of us who were ssb experimenters
learned that a buck could be saved by "operating" on certain brands of
1625-type tubes, thus making them suitable for use in grounded-grid
amplifiers. It was necessary to saw a window in the tube base, locate
and separate the cathode and beam-forming plate leads, and bring them out
to individual base pins. At roughly 25 cents apiece, surplus prices, it

was no strain on the pin-money fund to put four of them to work in parallel and run them at approximately 500 watts DC input."

Michael VE2BVW

242. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 18:19:31 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <T_086.6078$jk6.1566606@typhoon2.ba-dsg.net>
Source record: 55538

An octave (2:1) is easily doable with the proper circuit topology and varactors, but the limiting factor might be noise. The larger the tuning range, the bigger a problem you'll have with noise. This will be especially important in receiver applications.

Joe
W3JDR

"Robert A. French" <rfrench99@bigfoot.com> wrote in message news:87itnjfodl.fsf@fulcrum.mignet.yi.org...
> How wide (MHz) could one reasonably make a VCO in the
> 100 to 150 MHz region? I need to cover a 30 MHz bandwidth
> around 110 MHz or so. Is it better to use several VCOs?
> Could three 10 MHz bandwidth VCO's cover this region with
> reasonable Q and noise? Thanks.
>
> Rob

243. DAC in a PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 20:09:00 UTC
From: rfrench99@bigfoot.com
Message-ID: <873den1ag4.fsf@fulcrum.mignet.yi.org>
Source record: 55540

This is a little broad I know, but... I heard brief mention
of using a DAC in a PLL. What's the theory behind this? Does
the DAC replace or augment the loop filter somehow? Thanks.

-Rob

244. 2m dedicated packet radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 20:14:29 UTC
From: rfrench99@bigfoot.com
Message-ID: <87wvbzyztn.fsf@fulcrum.mignet.yi.org>
Source record: 55541

I'm contemplating building a 2M dedicated packet radio
(ie, the modem would be internal). It would probably just
use a crystal (although I guess for FM step sizes a simple
PLL wouldn't be too tough), and possibly one of the receiver
IC's that have onboard FSK demodulators. Does anyone have
any experience using these sorts of ICs?

245. Re: 2m dedicated packet radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 20:19:56 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <93qkoh$rm8$1@news7.svr.pol.co.uk>
Source record: 55543

> I'm contemplating building a 2M dedicated packet radio
> (ie, the modem would be internal). It would probably just
> use a crystal (although I guess for FM step sizes a simple
> PLL wouldn't be too tough), and possibly one of the receiver
> IC's that have onboard FSK demodulators. Does anyone have
> any experience using these sorts of ICs?
==========
Bob ,If you build a dedicated VHF -FM radio for Packet ,go for a direct varactor modulator and tap the rx signal directly from the rx discriminator . In this way you will be able to achieve comms of 9600 Baud (and higher). Even if you intend starting with 1200 Baud , make your home brew trx suitable for 9.6K from the onset. You won't regret it.

Good Luck

73 Frank gm0csz.kn6wh@ukrs.org located in Scotland.

246. Re: DAC in a PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 22:11:09 UTC
From: novatech@eskimo.com
Message-ID: <93qjpt$r6h$1@eskinews.eskimo.com>
Source record: 55542

rfrench99@bigfoot.com (Robert A. French) writes:

>This is a little broad I know, but... I heard brief mention
>of using a DAC in a PLL. What's the theory behind this? Does
>the DAC replace or augment the loop filter somehow? Thanks.

Any sort of feedback is legal. Dacs are often used-- somethings
for coarse steering-- and then an analog loop takes over, but it
can be all digital if the "granularity" is okay in the situation.
DACs are often used in slow tracking loops also, like GPS 1pps
loops.

>-Rob
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

247. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 22:18:06 UTC
From: k6mhe@arrl.net
Message-ID: <3a60d2a9.10828047@news.mcn.org>
Source record: 55545

On Sat, 13 Jan 2001 17:22:17 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

J
>
>This goes way back so this is all from my fuzzy memory and could be wrong.
>
>The 1625s are "beam-power tubes" and have beam forming plates connected to the
>cathode. As I recall, the leads were connected together outside of the
>envelope, inside the base. The modification involved removing the base and
>disconnecting the beam forming plates from the cathode and (I think) connecting
>them to the screen..

[snip]

Hi Wes,

Pretty good memory Wes, but the some of the old surplus 1625s were
constructed as you say, but some were not...T here was a way to tell
which was which without disassembling, It's been too long and I have
forgoten... The only reason I recall at all is I built one of those
amps. However, that was in 1958 and old age has set in.

73
Danny

>

248. Tube website updated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 22:29:31 UTC
From: jan <wuesten@hrz1.hrz.tu-darmstadt.de>
Message-ID: <3A60D6CB.5E2058AA@hrz1.hrz.tu-darmstadt.de>
Source record: 55544

Hello,
if you are interested in tubes and related parts, check

http://www.askjanfirst.com

regards
Jan

249. Power Transformers 1 KW+

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 23:03:16 UTC
From: paul332@iwvisp.com
Message-ID: <t61nlk9requtab@corp.supernews.com>
Source record: 55546

Great for heavy duty power supplies. See my web page:
http://www1.iwvisp.com/cinnabar/page4.html
Paul N6GBV

250. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-13 23:46:13 UTC
From: Mike Silva <mjsilva@my-deja.com>
Message-ID: <93qpc4$9jo$1@nnrp1.deja.com>
Source record: 55447

In article <3a6087f1.345529866@news.azstarnet.com>,
nospam_n7ws@arrl.net (Wes Stewart) wrote:
> On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack)
wrote:
>
>>Is it possible to run 807's grounded grid zero bias??? I bought an
old
>>amp called P&H normally uses modified 1625's or 837's but it has 807's
>>in it....I dont want to power up just yet...need to get info first...
>
>>tnx Jack K8BVJ
>
> This goes way back so this is all from my fuzzy memory and could be
wrong.
>
> The 1625s are "beam-power tubes" and have beam forming plates
connected to the
> cathode. As I recall, the leads were connected together outside of
the
> envelope, inside the base. The modification involved removing the
base and
> disconnecting the beam forming plates from the cathode and (I think)
connecting
> them to the screen.
>
> If this was not done, there was significant coupling from cathode to
plate when
> the tubes were operated g-g.
>
> The 807s didn't have the beam forming so they should work unmodified.

No, they had the BFPs as well, since they were identical other than
heater voltage to the 1625 (actually the 807 came first). -- don't know
if there were also 807s that brought the BP lead out of the press
separately and joined it with the cathode lead in the base. If so then
they should be useable (modified) just like the 1625s. I do have one
807 that has a large hole drilled in the bottom of the base, as if
somebody were exploring the wiring inside.

73,
Mike, KK6GM

Sent via Deja.com
http://www.deja.com/

251. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 01:56:03 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a6105aa.377719716@news.azstarnet.com>
Source record: 55448

On Sat, 13 Jan 2001 23:46:13 GMT, Mike Silva <mjsilva@my-deja.com> wrote:

>In article <3a6087f1.345529866@news.azstarnet.com>,
> nospam_n7ws@arrl.net (Wes Stewart) wrote:
>> On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack)
>wrote:
[snip]
>>
>> The 807s didn't have the beam forming so they should work unmodified.
>
>No, they had the BFPs as well, since they were identical other than
>heater voltage to the 1625 (actually the 807 came first). -- don't know
>if there were also 807s that brought the BP lead out of the press
>separately and joined it with the cathode lead in the base. If so then
>they should be useable (modified) just like the 1625s. I do have one
>807 that has a large hole drilled in the bottom of the base, as if
>somebody were exploring the wiring inside.

Well, that's what it remembered too until I looked in my 1962 ARRL handbook. It shows two different pinouts, one (5AW) for the 807 and another (5AZ) for the 1625. The 807 doesn't show a suppressor grid (beam former) as does the 1625.

I guess that's why we drank 807s but not 1625s.

Wes N7WS

>
>73,
>Mike, KK6GM
>
>
>Sent via Deja.com
>http://www.deja.com/

252. Pi_L PA Output Network Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 02:32:51 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <93r3gcegq4@plutonium.btinternet.com>
Source record: 55449

NOW AVAILABLE:

NEW Program "Pi_L_NET.exe"

Pi & Pi-L OUTPUT NETWORKS FOR RF POWER AMPLIFIERS.

The program is in two parts. For given RF power output, RF plate/anode/collector volts and external load resistance, the first part computes either the L and C component values of a Pi-L network or of a simple Pi network.

The second part allows the L and C values to be varied in fine increments while observing how the input impedance of the network varies. The network input impedance is the load presented to the amplifying device: triode, tetrode, bipolar transistor, FET, etc.

In particular the input impedance can be observed as the tune and load capacitors are varied as in an actual amplifier. Or as frequency is varied off-resonance up to harmonics of the carrier frequency.

The program can also be used to compute L and C component values of Pi or Pi-L impedance matching networks between any two resistances. The phase delay through the network can be specified if needed for particular applications.

File size = 50 Kbytes. Download from website below in a few seconds. Not zipped up. Run immediately. Absolute bargain.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

253. IC-245 Pinout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 03:43:29 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <93r7ch09df@news1.newsguy.com>
Source record: 55450

Does anyone have (or better yet have a link to) the pinout for the 24 pin
Molex connector on the rear of the IC-245?

Many thanx
didleydadidah

254. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 04:47:16 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <oba86.34267$nj5.2511338@news02.optonline.net>
Source record: 55451

Bruce,

I wish I could get a spec sheet on the old diodes. If I could then as you point out the problem of substituting for them would be a lot easier.

The consensus seems to be that almost any microwave shottkey mixer diode will probably work. Most have reported a couple of db or so degradation in performance.

What I keep hoping for is somebody who is/was involved with the instrument and who just might have the "silver bullet" answer (as in "use a HSMP XXXX it's exactly the same die ...").

As you point out the cost of the diodes is pretty darn small compared to the cost of the analyzer. The real cost is in my shaky old hands butchering the job of swapping the diodes out. If I was better at fiddling duroid boards I'd probably just try a dozen or so different types and see what happens.

Thanks!

Bob

"Bruce Muscolino" <w6toy@erols.com> wrote in message news:3A60786C.1C7C4AF8@erols.com...
>
>
> Bob Camp wrote:
> >
> > My homebrew spectrum analyzer project took an odd twist about a week
> > ago. My employer tossed out a HP 8590A and I happened to fish it out
> > of the trash ....
> >
> It would seem a simple problem if you can get the specs of the old mixer
> diodes. Just look up the specs of a new diode type!
>
> However, since you say "this is only ham radio", why not replace them
> with some fast mixer diodes from someplace like Dan's Small Parts?
>
> 73

255. MAX712 NiMH Charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 05:00:13 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <93rbot$479$2@agate.berkeley.edu>
Source record: 55452

I'm trying to put together a fast NiMH charger using the MAX712 controller, pretty much following the Maxim data sheet.

The charger works in trickle mode only, and will not fast-charge. I can't figure out why, but I'm pretty sure that I've double-checked the wiring carefully.

I have a couple of suspects: according to Table 4 of the MAX712/MAX713 data sheet, "trickle-to-fast transition" is inhibited if either HOT* or COLD* is true. Also, it seems that (this is unclear) possibly unless GND < BATT-, it may not fast charge.

Well, for one, it seems that BATT- is always equal to GND.

As for the hot/cold issue, according to the data sheet they have THI (temp HI setpoint) tied to V+ (which is 5V) but in the characteristics table they say that the max input range for THI is 2V. Not sure if this could cause the problem.

Does anyone have any experience and/or suggestions with using the MAX712?

For what it's worth, I am using a pack of 10 NiMH AA cells, so PGM0=Ref and PGM1=nc. PGM2=PGM3=Ref. R(sense) = 0.2 ohm.

Thanks!

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

256. Rt176/ PRC-10

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 05:17:41 UTC
From: deepsouth2001@cs.comNOSPAM
Message-ID: <20010114001741.28934.00001711@ng-mj1.news.cs.com>
Source record: 55453

I have a few.

Cannot confirm if working, fair condition.

Anyone interested??

Danny Johnson
deepsouth2001@cs.com
Danny Johnson
Coastal AL

Deepsouth2001@cs.com

"If I was the shark, I'd be scared too."

257. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 05:42:07 UTC
From: Barry Ornitz <ornitz@usa.net>
Message-ID: <qXa86.20407$nd1.459980@news-east.usenetserver.com>
Source record: 55454

"Jack" <k8bvj@webtv.net> wrote in message
news:20171-3A608445-17@storefull-233.iap.bryant.webtv.net...
> Is it possible to run 807's grounded grid zero bias??? I bought an old
> amp called P&H normally uses modified 1625's or 837's but it has 807's
> in it....I dont want to power up just yet...need to get info first...
>
> tnx Jack K8BVJ

This is discussed in the 1957 ARRL Handbook and at the time P & H sold the modified tubes. An 807 and a 1625 are identical except for heater ratings and a different base.

Some manufacturers brought the lead to the beam forming plates out the bottom of the glass envelope where it was connected to the cathode internal to the base of the tube. In these tubes, you can unsolder the base and break this connection. For cathode driven use, the beam forming plate needs to be connected to the screen.

Other manufacturers did not bring the lead to the beam forming plates out of the envelope. It is internally connected to the cathode. These tubes, naturally, cannot be modified (unless you are a good glassblower with a multikilobuck vacuum system).

You may be able to visually see the internal connection with the latter brand of tubes.
If you do unsolder the base, be careful about cracking the glass since the base is glued to the glass envelope. Fortunately the glue is brittle and it can usually be removed from the glass rather easily. After you do the surgery, epoxy or cyanoacrylate glue can be used to glue the base back on before soldering. It helps to clean out the old base pins thoroughly as well as to use sandpaper to polish the pins. Tinning the base pins and the leads before final soldering is a good idea.

The 1957 Handbook discussed the entire amplifier design and gave the needed operating and bias voltages.

73, Barry WA4VZQ ornitz@usa.net

258. Re: DAC in a PLL?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 09:00:41 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <93rpro$1a0$1@nnrp1.deja.com>
Source record: 55455

In article <873den1ag4.fsf@fulcrum.mignet.yi.org>,
rfrench99@bigfoot.com (Robert A. French) wrote:
> This is a little broad I know, but... I heard brief mention
> of using a DAC in a PLL. What's the theory behind this? Does
> the DAC replace or augment the loop filter somehow? Thanks.

Fine-tuning between the synthesiser steps is sometimes achieved with a
DAC.

73, Leon

--
Leon Heller, G1HSM
Tel: (Mobile) 079 9098 1221 (Work) +44 1327 357824
Email: leon_heller@hotmail.com
Web: http://www.geocities.com/SiliconValley/Code/1835

Sent via Deja.com
http://www.deja.com/

259. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 09:10:44 UTC
From: Ash <abuse@uu.net>
Message-ID: <3A616D11.9ED65B0C@uu.net>
Source record: 55456

Barry Ornitz wrote:

> "Jack" <k8bvj@webtv.net> wrote in message
> news:20171-3A608445-17@storefull-233.iap.bryant.webtv.net...
> > Is it possible to run 807's grounded grid zero bias??? I bought an old
> > amp called P&H normally uses modified 1625's or 837's but it has 807's
> > in it....I dont want to power up just yet...need to get info first...
> >
> > tnx Jack K8BVJ
>
> This is discussed in the 1957 ARRL Handbook and at the time P & H sold the
> modified tubes. An 807 and a 1625 are identical except for heater ratings
> and a different base.
>
> Some manufacturers brought the lead to the beam forming plates out the
> bottom of the glass envelope where it was connected to the cathode internal
> to the base of the tube. In these tubes, you can unsolder the base and
> break this connection. For cathode driven use, the beam forming plate
> needs to be connected to the screen.
>
> Other manufacturers did not bring the lead to the beam forming plates out
> of the envelope. It is internally connected to the cathode. These tubes,
> naturally, cannot be modified (unless you are a good glassblower with a
> multikilobuck vacuum system).
>
> You may be able to visually see the internal connection with the latter
> brand of tubes.
> If you do unsolder the base, be careful about cracking the glass since the
> base is glued to the glass envelope. Fortunately the glue is brittle and
> it can usually be removed from the glass rather easily. After you do the
> surgery, epoxy or cyanoacrylate glue can be used to glue the base back on
> before soldering. It helps to clean out the old base pins thoroughly as
> well as to use sandpaper to polish the pins. Tinning the base pins and the
> leads before final soldering is a good idea.
>
> The 1957 Handbook discussed the entire amplifier design and gave the needed
> operating and bias voltages.
>
> 73, Barry WA4VZQ ornitz@usa.net

--
< This is my actual email adress, hopefully the spam programs filter out abuse@*!* adresses
>

260. Yaesu FT-101 ACC plug pinout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 13:11:54 UTC
From: BV <bv@mailme.dk_AntiSpam>
Message-ID: <97D1CEBCF1ABD41195030020AFD37869067A9B@EQA1B>
Source record: 55457

Hello !

Can't find my manual to my FT-101, and I need to interface to my radio via the ACC plug. Could anybody help me ?

Vy 73 de OX3IO, Brian

261. ultrasonic transducer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 16:42:11 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t63ln7riuoljbd@corp.supernews.com>
Source record: 55458

anyone have a source or a suggestion for a decent ultrasonic mike or
transducer good for 33kHz??
tnx
hank
wd5jfr

262. Re: Divider/Prescaler chip...Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 16:43:03 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3A61D717.BA167630@toast.net>
Source record: 55459
Cross-posted to: rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.misc

Barry wrote:

> I am looking for a 1.3 Ghz, divide by 64/256 prescaler chip in an
> 8-pin DIP package. I have combed the internet in search of this chip.
> The Philips part number is SAB6456 and has the following equivalents
> (any of these would suffice) :
>
> (Motorola) MC12066
> (Plessy) SP4666
> (?) SDA4212
>
> I found that there are literally thousands of these sitting in
> distributor warehouses. However, they all want me to buy $100 worth or
> none at all!
>
> I am open for suggestions of other equivalent chips (if they exist) or
> if anyone can point me in the direction of a REAL business person
> willing to sell at hobbyist prices, I would be most greatful.
>
> I have contacted Philips directly and I am still awaiting a reply. I
> sincerely appreciate any help anyone could provide.

You might try making yourself some letterhead, and requesting engineering samples for evaluation for your new product. If the chip seems meets your needs, you _might_ need 20,000 or so for the production run.

john

263. Re: Divider/Prescaler chip...Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 17:20:10 UTC
From: novatech@eskimo.com
Message-ID: <93sn4afmt1@eskinews.eskimo.com>
Source record: 55460
Cross-posted to: rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.misc

Barry <Barry@nospam.com> writes:

>I am looking for a 1.3 Ghz, divide by 64/256 prescaler chip in an
>8-pin DIP package. I have combed the internet in search of this chip.
>The Philips part number is SAB6456 and has the following equivalents
>(any of these would suffice) :

Do you need a divide by 64/256 switchable or would one or the other do?
Also, are these for home projects? Novatech has a pile of old (now
obsolete) equivalent to the SAB1165. The actual part is the U264B from
Telefunken and is /64.

These are spec'd only to 1GHz, but they can be pushed. I am sure I
have a few-- maybe ten or so of faster /64.

>I am looking for a 1.3 Ghz, divide by 64/256 prescaler chip in an
>8-pin DIP package. I have combed the internet in search of this chip.
>The Philips part number is SAB6456 and has the following equivalents
>(any of these would suffice) :

>(Motorola) MC12066
>(Plessy) SP4666
>(?) SDA4212

>(Motorola) MC12066
>(Plessy) SP4666
>(?) SDA4212

>I found that there are literally thousands of these sitting in
>distributor warehouses. However, they all want me to buy $100 worth or
>none at all!

>I am open for suggestions of other equivalent chips (if they exist) or
>if anyone can point me in the direction of a REAL business person
>willing to sell at hobbyist prices, I would be most greatful.

>I have contacted Philips directly and I am still awaiting a reply. I
>sincerely appreciate any help anyone could provide.

>Thanks,

>Barry
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

264. Design help neede on RF AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 18:11:17 UTC
From: szinn6_SKI@home.net
Message-ID: <3a61e82b.1695804@news>
Source record: 55461

I have built an RF Class C RF amp using a 2E26.
The speciifics are:
freq: 160 mtrs
Ep = 400 V Ip=50ma
Eg = -80 volt Ig= 2.5 ma

Input: Tuned LC cap feed into grip. Bias through RFC to grid.
Output: Shunt feed parallel LC coupled to a tuned link into 50
resistave load
Grid Bias: fixed supply

According to the RCA tube manual, with this congiguration I should get
typical usable output of 13 watts. However all I can seem to get is 6
watts into the load. The tunning seems to be working properly. I
have changed the tank LC and output coupling many times. No matter
what I do, I always get about 25-30% effeciency.

Looking at the grid with a scope, I can see the grid signal voltage
from ~ -80 volts going to +40volts. When the signal is removed, the
plate current goes to 0 ma. Which I assume is class C.

QUESTION: Any suggestions of what to try to get closser to the
specified output.

Any suggestion would be gratefully appreciated!
Thanks WA9WAS

My email has no "_SKI" in it for spam prevention!

265. Re: Yaesu FT-101 ACC plug pinout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 18:43:12 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <4rm86.9158$B6.1981069@news1.rdc1.md.home.com>
Source record: 55462

Send me a real address and I'll send you a scan of the page from the Service manual.

N0DGN
mailto:rbethman@home.com

> Hello !
>
> Can't find my manual to my FT-101, and I need to interface to my radio via
> the ACC plug. Could anybody help me ?
>
> Vy 73 de OX3IO, Brian
>
>
>

266. Re: Design help neede on RF AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 19:57:03 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <93t7jv$ba6$1@news8.svr.pol.co.uk>
Source record: 55465

> I have built an RF Class C RF amp using a 2E26.
> The speciifics are:
> freq: 160 mtrs
> Ep = 400 V Ip=50ma
> Eg = -80 volt Ig= 2.5 ma
>
> Input: Tuned LC cap feed into grip. Bias through RFC to grid.
> Output: Shunt feed parallel LC coupled to a tuned link into 50
> resistave load
> Grid Bias: fixed supply
>
> According to the RCA tube manual, with this congiguration I should get
> typical usable output of 13 watts. However all I can seem to get is 6
> watts into the load. The tunning seems to be working properly. I
> have changed the tank LC and output coupling many times. No matter
> what I do, I always get about 25-30% effeciency.
>
> Looking at the grid with a scope, I can see the grid signal voltage
> from ~ -80 volts going to +40volts. When the signal is removed, the
> plate current goes to 0 ma. Which I assume is class C.
>
> QUESTION: Any suggestions of what to try to get closser to the
> specified output.
==========
In order to operate in Class C the grid voltage is to be smaller than the cut-off voltage.
To find this cut-off voltage , reduce the grid voltage until the anode current is ZERO.
This is below -80 V in your case. Suppose you find the cut-off voltage at -85V.
The operating voltage for Class C operation will be somewhere in the -95 V region.

If you now apply RF drive ,the max permissible amplitude of the drive is 95+X where X is the positive grid voltage whereby the anode current is the rated maximum (in your case 50mA)

It means the effective drive voltage resulting in I(anode) = 50mA is 0.707* (95+X).

Have a look in any handbook describing valve operation and look for the Ig / Ia characteristic for Class C ; all the above will then be self-explanatory.

Hope this helps Good Luck

73 Frank gm0csz.kn6wh@ukrs.org

267. Re: Design help neede on RF AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 19:58:36 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3A6204EC.6D81770@mc.net>
Source record: 55463

From an old RCA Transmitting Manual 10/62
pg 101 typical values

for CCS @ 125Mhz are:

Ep = +400V
Egrid2 = +190V from 19K series resistor
Eg = -30V from 10K series resistor
Vp RF driving = 40V
Pdrive = .12W

Plate current = 75mA
Screen current = 11mA
Grid current = ~3mA
Pout = 20W Peak

For ICAS service @ 160Mhz

Ep = +300V
Egrid2 = +170V from 21.5K series resistor
Eg = -75V from 30K series resistor
Vp RF driving = 85V
Pdrive = 1.5W

Plate current = 75mA
Screen current = 6mA
Grid current = ~2.5mA
Pout = 13W Peak

Now for 160Meters you may have to worry about
parasitic oscillations. Personally at 160 Meters
I wouldn't use a shunt LC with inductive coupling
because of difficulty in setting the load correctly.

Hope this helps some.

73 Chuck KD9JQ
http://sites.netscape.net/kd9jq/hamradio/kd9jq.html

Note: There is no SKI in my email wrote:

> I have built an RF Class C RF amp using a 2E26.
> The speciifics are:
> freq: 160 mtrs
> Ep = 400 V Ip=50ma
> Eg = -80 volt Ig= 2.5 ma
>
> Input: Tuned LC cap feed into grip. Bias through RFC to grid.

> Output: Shunt feed parallel LC coupled to a tuned link into 50
> resistave load
> Grid Bias: fixed supply
>
> According to the RCA tube manual, with this congiguration I should get
> typical usable output of 13 watts. However all I can seem to get is 6
> watts into the load. The tunning seems to be working properly. I
> have changed the tank LC and output coupling many times. No matter
> what I do, I always get about 25-30% effeciency.
>
> Looking at the grid with a scope, I can see the grid signal voltage
> from ~ -80 volts going to +40volts. When the signal is removed, the
> plate current goes to 0 ma. Which I assume is class C.
>
> QUESTION: Any suggestions of what to try to get closser to the
> specified output.
>
> Any suggestion would be gratefully appreciated!
> Thanks WA9WAS
>
> ----------
> My email has no "_SKI" in it for spam prevention!

268. Help: Different types of chokes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 20:34:53 UTC
From: Robert Fanfant <fanfant@ix.netcom.com>
Message-ID: <93t2j1$7ma$1@slb3.atl.mindspring.net>
Source record: 55464
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Can someone give a quick explanation of the different type of chokes?

1) Hash Choke
2) Current RF Choke
3) RF Choke
4) Wide-Band Choke

-rob

269. Re: Help: Different types of chokes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-14 23:41:45 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3A6238FF.F48B96AC@cmcorp.com>
Source record: 55466
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Robert Fanfant wrote:

> Can someone give a quick explanation of the different type of chokes?
>
> 1) Hash Choke
> 2) Current RF Choke
> 3) RF Choke
> 4) Wide-Band Choke
>
> -rob

ARRL Radio Amateurs Handbook.

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

270. Re: Design help neede on RF AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 00:55:55 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A624A9B.DF20C85F@dialpoint.net>
Source record: 55467

From the books I have the grid voltage seems to be about 2 times what it should be. You did not mention the voltage at the screen grid. Think it should be around 180 volts. You may have it so far into class C that it takes more drive.

Note: There is no SKI in my email wrote:
> I have built an RF Class C RF amp using a 2E26.
> The speciifics are:
> freq: 160 mtrs
> Ep = 400 V Ip=50ma
> Eg = -80 volt Ig= 2.5 ma
>
> Input: Tuned LC cap feed into grip. Bias through RFC to grid.
> Output: Shunt feed parallel LC coupled to a tuned link into 50
> resistave load
> Grid Bias: fixed supply
>
> According to the RCA tube manual, with this congiguration I should get
> typical usable output of 13 watts. However all I can seem to get is 6
> watts into the load. The tunning seems to be working properly. I
> have changed the tank LC and output coupling many times. No matter
> what I do, I always get about 25-30% effeciency.
>
> Looking at the grid with a scope, I can see the grid signal voltage
> from ~ -80 volts going to +40volts. When the signal is removed, the
> plate current goes to 0 ma. Which I assume is class C.
>
> QUESTION: Any suggestions of what to try to get closser to the
> specified output.
>

271. Re: Different types of chokes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 01:27:01 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t64kfcddltf085@corp.supernews.com>
Source record: 55468
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

1.. generally takes out noise from sparks from brushes on alt or generator
and
spark plugs..
2 keeps rf out of filaments in pwr finals
3 general purpose rf inductor
4 i don't know but would guess it has to be low "q" and therefor would have
hi dc res and wider frequ response than a narrow band on e with high q..
"Robert Fanfant" <fanfant@ix.netcom.com> wrote in message
news:93t2j1$7ma$1@slb3.atl.mindspring.net...
> Can someone give a quick explanation of the different type of chokes?
>
> 1) Hash Choke
> 2) Current RF Choke
> 3) RF Choke
> 4) Wide-Band Choke
>
> -rob
>
>

272. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 03:10:52 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <LJt86.4$s%3.1030@wa.nnrp.telstra.net>
Source record: 55469

I've built one that covers from ~35MHz to ~85MHz so I imagine that it would be even easier in the range that you mentioned.
One thing I've noticed though is that the output waveform at the lower end of the range is awful. Something to do with the varacter characteristic I think. I'm now looking at multiple VCOs to get a clean output for the entire range. Might not be a problem with the frequency range you're talking about though.

Regards
Murray - VK6HL

Robert A. French <rfrench99@bigfoot.com> wrote in message news:87itnjfodl.fsf@fulcrum.mignet.yi.org...
> How wide (MHz) could one reasonably make a VCO in the
> 100 to 150 MHz region? I need to cover a 30 MHz bandwidth
> around 110 MHz or so. Is it better to use several VCOs?
> Could three 10 MHz bandwidth VCO's cover this region with
> reasonable Q and noise? Thanks.
>
> Rob

273. Re: Help: Different types of chokes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 03:24:59 UTC
From: k9sqg@aol.com
Message-ID: <20010114222459.21563.00001561@ng-mg1.aol.com>
Source record: 55470

Rob,

Hash chokes are designed to eliminate "hash" from going to or coming from low voltage lines, like 12 vdc. They are used in automotive cases and home cases where switching power supplies are used.

Current RF choke is designed to handle say half to more than an amp or so in high voltage applications for RF amplifiers. Current ratings are even much higher for solid state designs.

An RF choke is similar to above but is usually in the 50-200 ma range.

Wide band choke is designed to handle a broad range of RF frequencies. A grid choke on a grounded grid amplifier is an example.

73s,

Evan

274. Re: Divider/Prescaler chip...Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 05:37:31 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <8%v86.20440$uW5.133993@e420r-sjo3.usenetserver.com>
Source record: 55471
Cross-posted to: rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.misc

"Barry" <Barry@nospam.com> wrote ...
> I am looking for a 1.3 Ghz, divide by 64/256 prescaler chip in an
> 8-pin DIP package. I have combed the internet in search of this chip.

Anthem SA701N
"Divide by: 128/129 or 64/65 Dual Modulus Low Power ECL Prescaler"
Cat# 900-7097
MFR's#: SA701N
Description: [8-pin] DIP 1GHz Prescaler
Price ea.
1-49 $ 6.25
50-up $ 5.50

online info and ordering at www.radioshack.com
enter catalog number 900-7097 in search box on home page
"no minimum order" "no small-order surcharge" :-)

RC

275. Re: Repeater Plans Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 07:10:18 UTC
From: Karl Shoemaker <wa7ycp@yahoo.com>
Message-ID: <3A62A25A.7E8FC6F2@yahoo.com>
Source record: 55472

I've got a few links and ideas on my site, if you wanna check it out.
Karl
http://www.dalek.org/srg/

alec_wood wrote:
>
> Anyone got any plans for building a 2m repeater.
>
> Alec M1BNK

276. Ham Radio Crystal Swapping Bulleton Board!! Webmasters please link!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 13:36:35 UTC
From: sabbatai_zvi@NOSPAMhotmail.com
Message-ID: <3a62fc61.9829304@news-server>
Source record: 55473
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap

Hi there.

HOW ABOUT a LINK to the NEW CRYSTALS swapping BBS?

There is a NEW Crystal Exchange Message Board (free) on the
web at:

http://senac.com/boards/880/

There you can post sale & want ads and find radio crystals for sale
by others!

Sell your excess crystals there!!

The previous old message board was being ruined by Taiwanese
infiltrators that ruined it with off-topic SPAM ads. This one is
secure.

The above is all hobbyist and non-commercial. OK, the BBS has
sponsor ads, that is how we get it free.

I have concentrated all of my HAM LINKS
efforts over the past few years to editing the Open Directory
system, and I am the editor for all of the Ham Radio
BOATANCHORS links on there.

I like the robot that automatically removes any bad links for me!

Never any 404 errors!!

We have a broad variety of specialty links to over 700 sites
(arranged by category) of interest to hams who enjoy antique rigs.

Please also link to:

http://dmoz.org/Recreation/Amateur_Radio/Boatanchors/

277. Wanted to buy / trade: 40 m. xtals FT-243 holders, one available for swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 14:33:50 UTC
From: KF5ND <kf5nd@yahoo.com>
Message-ID: <VSD86.1132$lv6.260206@nnrp3.sbc.net>
Source record: 55474
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

I have an xtal in an FT-243 holder, cut for 7.156 MHz, would like to swap it for 7.040 MHz, FT-243 holder.

Would also like to buy a couple more 40 m. CW xtals, misc. frequencies.

73,

Pete KF5ND

278. F.S. Leader Grid Dip Meter, Model LDM-815

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 18:03:55 UTC
From: W3BV <w3bv@arrl.net>
Message-ID: <3A633B8B.D288A03@arrl.net>
Source record: 55475
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

For Sale: Leader Grid Dip Meter, Model LDM-815. Solid State, covers 1.5 to 250 Mhz with 6 coils, with manual and in original box. Mint Condition (looks unused). $75. Alan, W3BV

279. WTB: Ten-Tec 276 xtal calibrator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 18:04:41 UTC
From: Mike Swift <mswift@dial.pipex.com>
Message-ID: <93veecdpi1@lure.pipex.net>
Source record: 55476

Hi

I'm looking to buy a Ten-Tec model 276 crystal calibrator to match my Century 21. Would prefer one in good, working condition. Will pay your price plus shipping costs to UK - happy to pay cash by registered mail, or other payment method to suit you.

Please contact me by e-mail if you have one of these for sale.

Thanks & 73

Mike
M0CQG

280. Re: Divider/Prescaler chip...Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-15 21:31:40 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A636E59.2BC@pop.removethistomailme.net>
Source record: 55477
Cross-posted to: rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.amateur.misc

Barry wrote:
>
> I am looking for a 1.3 Ghz, divide by 64/256 prescaler chip in an
> 8-pin DIP package. I have combed the internet in search of this chip.
> The Philips part number is SAB6456 and has the following equivalents
> (any of these would suffice) :
>
> (Motorola) MC12066
> (Plessy) SP4666
> (?) SDA4212
>
> I found that there are literally thousands of these sitting in
> distributor warehouses. However, they all want me to buy $100 worth or
> none at all!
>
> I am open for suggestions of other equivalent chips (if they exist) or
> if anyone can point me in the direction of a REAL business person
> willing to sell at hobbyist prices, I would be most greatful.
>
> I have contacted Philips directly and I am still awaiting a reply. I
> sincerely appreciate any help anyone could provide.
>
> Thanks,
>
> Barry

http://www.findchips.com says that Newark has several thousand of the
MC12066D parts.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

281. Puzzling cross-modulation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 00:41:36 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A6398C0.6AA9E72@clifto.com>
Source record: 55478

This morning I was playing with the DX-375 I bought on clearance a week or two ago, and ran into a mix I can't figure out. I'm picking up both 1110 KHz and 1160 KHz on 1360 KHz... IF the "DX" switch is not in the "DX" position. Funny thing about this radio is that SW and FM are more sensitive in the "DX" position, while AM radio is *less* sensitive (though not by a lot, certainly not enough to explain the very strong mix disappearing).

I looked for other images, thinking in terms of synthesizer spurs, but there was nothing else receivable that wasn't also receivable on another radio.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

282. Ultra miniature components sources?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 01:16:21 UTC
From: Marty <nfn04028@naples.net>
Message-ID: <FhN86.37938$U4.1097358@newsread1.prod.itd.earthlink.net>
Source record: 55479

Would anyone know of a source of ultra miniature components such as transistors, microphones, speakers (receivers) and other components similar to those used in the smaller hearing aids? Any references to schematics and articles would also be appreciated.

283. Re: Wanted to buy / trade: 40 m. xtals FT-243 holders, one available for swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 01:55:36 UTC
From: "Robert S. Stein" <w6nbi@earthlink.net>
Message-ID: <3A63A619.F82E7C58@earthlink.net>
Source record: 55480
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

KF5ND wrote:
>
> I have an xtal in an FT-243 holder, cut for 7.156 MHz, would like to swap it
> for 7.040 MHz, FT-243 holder.
>
> Would also like to buy a couple more 40 m. CW xtals, misc. frequencies.
>
> 73,
>
> Pete KF5ND

I have a 7132-kHz xtal in an FT-243 holder. It is yours for $3,
including mailing.

Bob, W6NBI

284. Thanks for you inputs RE: RF AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 04:44:18 UTC
From: szinn6_SKI@home.net
Message-ID: <3a63d020.4169888@news>
Source record: 55481

Thanks to all those who offered assistance. My main problem was, and I'm ashamed to admit it! Was I was measuring 'Ip' in the cathode instead of the plate! DOOH At such low plate current levels, the non RF producing G2 current was calculated as being part of the Ip. This caused me to tune the amp up at much to low of current. Therefore the low effeciency. The grid drive was suffecient to overcome the -120v Eg1 and drive the grid to +40 volts. That was the major mistake. I also discovered the meter I was using had a different internal R from what was advertised. This caused the Ip reading to indicate too high, Also causeing the amp to be tuned at too low of current. With these fixed, the amp is running at 76% effeciency, the target was 75%.

I wish to thank those whom offered assistance. 73 & DX
WA9WAS

On Sun, 14 Jan 2001 21:57:03 +0200, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>
>> I have built an RF Class C RF amp using a 2E26.
>> The speciifics are:
>> freq: 160 mtrs
>> Ep = 400 V Ip=50ma
>> Eg = -80 volt Ig= 2.5 ma
>>
>> Input: Tuned LC cap feed into grip. Bias through RFC to grid.
>> Output: Shunt feed parallel LC coupled to a tuned link into 50
>> resistave load
>> Grid Bias: fixed supply
>>
>> According to the RCA tube manual, with this congiguration I should get
>> typical usable output of 13 watts. However all I can seem to get is 6
>> watts into the load. The tunning seems to be working properly. I
>> have changed the tank LC and output coupling many times. No matter
>> what I do, I always get about 25-30% effeciency.
>>
>> Looking at the grid with a scope, I can see the grid signal voltage
>> from ~ -80 volts going to +40volts. When the signal is removed, the
>> plate current goes to 0 ma. Which I assume is class C.
>>
>> QUESTION: Any suggestions of what to try to get closser to the
>> specified output.
>=======================
>In order to operate in Class C the grid voltage is to be smaller than the
>cut-off voltage.

>To find this cut-off voltage , reduce the grid voltage until the anode
>current is ZERO.
>This is below -80 V in your case. Suppose you find the cut-off voltage
>at -85V.
>The operating voltage for Class C operation will be somewhere in the -95 V
>region.
>
>If you now apply RF drive ,the max permissible amplitude of the drive is
>95+X where X is the positive grid voltage whereby the anode current is the
>rated maximum (in your case 50mA)
>
>It means the effective drive voltage resulting in I(anode) = 50mA is 0.707*
>(95+X).
>
>Have a look in any handbook describing valve operation and look for the Ig
>/ Ia characteristic for Class C ; all the above will then be
>self-explanatory.
>
>Hope this helps Good Luck
>
>73 Frank gm0csz.kn6wh@ukrs.org
>
>
>

285. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 09:47:39 UTC
From: g4gjl@aol.com
Message-ID: <20010116044739.25447.00000451@ng-ck1.aol.com>
Source record: 55482

I recall that the beam plates were conected to the cathode wires in the phenolic base. These need to be separated for grounded grid.
Chech ARRL handbooks from 1955 era.

Pete
G4GJL

286. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 10:17:26 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <WcV86.2961$4y6.227540@bgtnsc07-news.ops.worldnet.att.net>
Source record: 55483

The Mini-Circuits POS-150 is a pretty good bet. It operates from 75 to 150MHz. Price? Around 17 dollars. Give them a call at 800 654-7949.

Pete

Robert A. French <rfrench99@bigfoot.com> wrote in message news:87itnjfodl.fsf@fulcrum.mignet.yi.org...
> How wide (MHz) could one reasonably make a VCO in the
> 100 to 150 MHz region? I need to cover a 30 MHz bandwidth
> around 110 MHz or so. Is it better to use several VCOs?
> Could three 10 MHz bandwidth VCO's cover this region with
> reasonable Q and noise? Thanks.
>
> Rob

287. Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 12:39:06 UTC
From: Matt Donohoe <m_donohoe@dingoblue.net.au>
Message-ID: <3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au>
Source record: 55484

Hello Has anybody here done any radar detector schematics ?

Particularly for the frequencies etc used in Australia?

Thanks, Matt.

m_donohoe@dingoblue.net.au.spam
remove .spam

288. QRP site ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 13:39:06 UTC
From: Eldred <egdv@mjvn.co.za>
Message-ID: <3a645b04$0$227@hades.is.co.za>
Source record: 55398

```
Is there a QRP site ?
Please advise
Eldred
ZS1DJ
```

289. Looking for Pleasley SL6440 cdp, Balance mod chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 14:10:22 UTC
From: hanavin@ren.eecis.udel.edu
Message-ID: <941koe$h2l$1@dewey.udel.edu>
Source record: 55485

I'm looking for a Pleasly SL6440 balance modulator chip,
I think they are out of production, but if you know where
I can buy one old stock, I would appreciate.

290. help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 16:42:58 UTC
From: ik8pae <usn5832@uniserv.uniplan.it>
Message-ID: <3a647968.0@nt01.uniplan.it>
Source record: 55486

Does anyone knows where I can buy
(on line) in UK DE FR or USA
ic AD9850/AD9851 (dds) for VFO
in ham trx??
TIA es 73 de ik8pae Francesco.

291. Re: Puzzling cross-modulation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 17:02:46 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3A647EB5.D11C7B86@valley.net>
Source record: 55487

"Clifton T. Sharp Jr." wrote:

> This morning I was playing with the DX-375 I bought on clearance a week
> or two ago, and ran into a mix I can't figure out. I'm picking up both
> 1110 KHz and 1160 KHz on 1360 KHz... IF the "DX" switch is not in the "DX"
> position. Funny thing about this radio is that SW and FM are more sensitive
> in the "DX" position, while AM radio is *less* sensitive (though not by
> a lot, certainly not enough to explain the very strong mix disappearing).
>
> I looked for other images, thinking in terms of synthesizer spurs, but
> there was nothing else receivable that wasn't also receivable on another
> radio.
>

Hello--
If you're close to either station, chances are the receiver's front end may be saturating in response to the "DX" switch setting.

The signal on 1360 KHz is probably due to a mixer product of the form:

F = n*f1 - m*f2 or F = n*f1 + m*f2 - p*f1

...where F = 1360 KHz, f1 = 1110 KHz, f2 = 1160 KHz

...and m, n and p are integers to be calculated by the reader<g>.

I dimly recall reading about an online mixer spurious-product calculator offered by a mixer manufacturer-- possibly Minicircuits. Help, anyone?

You can also try a search on www.google.com.

Try disconnecting or drastically shortening the receiver's external antenna to see if the spurious response goes away.

73--
Brad AA1IP

292. Web sites for 1 KW HF amp plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 19:30:35 UTC
From: John Harper <ae5x@optonline.net>
Message-ID: <vj196.48000$nj5.5185367@news02.optonline.net>
Source record: 55488

Hello,

Antone know of any web sites or mailing lists where I might be able to find plans/schematics on how to build a 1 KW amp for the HF bands (really just interested in 80 & 160 meters)? I know the ARRL Handbook usually includes one in each issue but I'd like to take a look at what else may be out there before parting with the $.

Thanks and 73,

--

John Harper AE5X
Outdoor QRP & Lowband DXing: http://www.qsl.net/ae5x

293. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 20:09:59 UTC
From: tom_bruhns@agilent.com
Message-ID: <9429qg$8sj$1@nnrp1.deja.com>
Source record: 55489

My $0.02, which will echo some of what's already been posted:

It's a tradeoff between noise and bandwidth. You can make a vco that covers well over an octave in one range, if you want, but for example, if you tune 50MHz with a 5 volt control voltage swing, that's 10MHz/volt, assuming it's linear. If your control voltage has, say, 10 microvolts of noise on it (which is reasonably quiet), that represents 100Hz of FM. That might not be acceptable. And that doesn't even consider what noise sources might be in the oscillator itself. I've designed VCOs with crystals and a tuning range of around 10kHz so I could have a locked ADC clock with very low jitter. I was just looking at the HP/Agilent 10811 10MHz crystal reference oscillator specs and noted that it recommended using a low-noise control voltage for its VCO input, which swings the osc only 1Hz, to keep phase noise low!

For an example of how it's done in a commercial product, you should be able to find the schematic of the oscillator in the HP/Agilent 8662 synthesized source, which is noted for low noise. I've seen the schematic published in an aritcle on low-phase-noise VCOs by Ulrich Rohde. Perhaps it's this one: Rohde, Ulrich L, "Designing Low-Phase-Noise Oscillators," QEX, ARRL Experimenter's Exchange, October 1994. It will be very hard to find a schematic with all the details, but the essence is to use (PIN) diodes to switch inductors and/or capacitors to make one oscillator cover a moderately wide range. Note that you can also use a transmission line or helical inductor, and switch capacitive loads onto it. You MAY find it advantageous to build a VCO at higher frequency and either mix or divide down. If you build a VCO around a very high Q tank, you can get lower noise, and you can get higher Q in a small volume at higher frequencies, assuming you're using an LC, line or cavity tank.

I've kind of jumped into the deep end with respect to phase noise here, but most likely it is important. A web search or two will surely turn up lots more info.

Cheers,
Tom

In article <87itnjfodl.fsf@fulcrum.mignet.yi.org>,
rfrench99@bigfoot.com (Robert A. French) wrote:
> How wide (MHz) could one reasonably make a VCO in the
> 100 to 150 MHz region? I need to cover a 30 MHz bandwidth
> around 110 MHz or so. Is it better to use several VCOs?
> Could three 10 MHz bandwidth VCO's cover this region with
> reasonable Q and noise? Thanks.
>

> Rob
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

294. Re: Ultra miniature components sources?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 20:25:23 UTC
From: tom_bruhns@agilent.com
Message-ID: <942an9$9tj$1@nnrp1.deja.com>
Source record: 55490

As far as the active components go, I would expect ones used in hearing aids to be highly integrated. A lot of semiconductors are available unpackaged...probably almost all are, if you are willing to buy enough of them to capture the manufacturer's interest (and then deal with wirebonding). The transducers are likely "proprietary". You might try contacting hearing aid manufacturers. I recently heard about "disposable" hearing aids, and that might be a source of parts for 'sperimenting with if that's all you're looking for, though dismantling them without destroying things inside might be a bit of a challenge.

A few years ago, I'd have called sot23 and sc90 transistors (and op amps), and 0402 R's and C's, "ultra-miniature" but now they are almost mainstream. I assume you want things smaller than that.

Cheers,
Tom

In article <FhN86.37938$U4.1097358@newsread1.prod.itd.earthlink.net>,
"Marty" <nfn04028@naples.net> wrote:
> Would anyone know of a source of ultra miniature components such as
> transistors, microphones, speakers (receivers) and other components
similar
> to those used in the smaller hearing aids? Any references to
schematics
> and articles would also be appreciated.
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

295. No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 20:57:58 UTC
From: Tom Becker <gtbecker@rightime.com>
Message-ID: <t69deo2dcm7l40@corp.supernews.com>
Source record: 55491

U.S. NAVAL OBSERVATORY
WASHINGTON, D.C. 20392-5420

January 16, 2001
No. 67

TIME SERVICE ANNOUNCEMENT SERIES 14

NO UTC TIME STEP

1. The International Earth Rotation Service (IERS) has announced that there will not be a time step occurring at the end of June, 2001.

2. The difference between UTC and International Atomic Time (TAI) will remain:

TAI-UTC= +32s until further notice.

DENNIS D. McCARTHY
Director
Directorate of Time

http://tycho.usno.navy.mil

296. Re: Ultra miniature components sources?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 21:44:25 UTC
From: rfrench99@bigfoot.com
Message-ID: <87zogrnpdz.fsf@fulcrum.mignet.yi.org>
Source record: 55492

Hey, nothing's too deep! It's for a general-coverage HF DC
receiver (the short of it here is that it's using a DSP
backend to do all the demodulation), so low noise == good.

297. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 22:30:58 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A64CDCF.7937@pop.removethistomailme.net>
Source record: 55494

tom_bruhns@agilent.com wrote:
>
> My $0.02, which will echo some of what's already been posted:
>
> It's a tradeoff between noise and bandwidth. You can make a vco that
> covers well over an octave in one range, if you want, but for example,
> if you tune 50MHz with a 5 volt control voltage swing, that's
> 10MHz/volt, assuming it's linear. If your control voltage has, say, 10
> microvolts of noise on it (which is reasonably quiet), that represents
> 100Hz of FM. That might not be acceptable. And that doesn't even
> consider what noise sources might be in the oscillator itself. I've
> designed VCOs with crystals and a tuning range of around 10kHz so I
> could have a locked ADC clock with very low jitter. I was just looking
> at the HP/Agilent 10811 10MHz crystal reference oscillator specs and
> noted that it recommended using a low-noise control voltage for its VCO
> input, which swings the osc only 1Hz, to keep phase noise low!
>
> For an example of how it's done in a commercial product, you should be
> able to find the schematic of the oscillator in the HP/Agilent 8662
> synthesized source, which is noted for low noise. I've seen the
> schematic published in an aritcle on low-phase-noise VCOs by Ulrich
> Rohde. Perhaps it's this one: Rohde, Ulrich L, "Designing
> Low-Phase-Noise Oscillators," QEX, ARRL Experimenter's Exchange, October
> 1994.

Rohde talks a little about the 8662A in
http://www.amazon.com/exec/obidos/ASIN/0471520195, comparing its VCO
topology to a couple of different R&S models. I'd order it from
someplace besides Amazon, though -- their shipping time for less-popular
books has grown exponentially over the past year or so.

Also, anyone who's interested in the 8662 or low-noise signal sources in
general, and who has access to back issues of "HP Journal," should track
down the issue from the auction at
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1203599951. I
just bought this one, and it's worth every penny.

Of course, if I could just get the ebay crack monkey off my back I could
afford a real, in-the-flesh 8662A to play with....

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

298. Dynamic Range

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 22:37:04 UTC
From: ralph <crlane@erols.com>
Message-ID: <3A64CD10.12E7440C@erols.com>
Source record: 55493

I have been reading about receiver dynamic range where some writers are saying that crystal filters are subject to signal overload (also mechanical filters). Does anyone have any experience or any reference to literature about this? There has been a lot of attention paid to developing high intercept point mixers (+40 to 50 dbm input intercept), thus it would seem the if crystal filters will be generating a lot of distortion products.
Any thoughts about this?

Ralph

299. Re: Dynamic Range

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 23:01:49 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <xp496.49455$nj5.5303675@news02.optonline.net>
Source record: 55495

Ralph,

I don't know about literature references, but filters do have IMD just like everything else. We used to do two tone (third order) testing on crystal filters as part of the normal production line testing. It's been quite a while since I was involved, but numbers in the +50 dbm intercept point (80 db below two +10 dbm tones) sound about right for the stuff we made back then.

Bob Camp
KB8TQ

"ralph" <crlane@erols.com> wrote in message
news:3A64CD10.12E7440C@erols.com...
> I have been reading about receiver dynamic range where some writers
are
> saying that crystal filters are subject to signal overload (also
> mechanical filters). Does anyone have any experience or any
reference to
> literature about this? There has been a lot of attention paid to
> developing high intercept point mixers (+40 to 50 dbm input
intercept),
> thus it would seem the if crystal filters will be generating a lot
of
> distortion products.
> Any thoughts about this?
>
> Ralph

300. F.S. Wave Tek 1901c Oscope displays

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-16 23:56:12 UTC
From: dr.dongle@juno.com
Message-ID: <942n2p$l28$1@nnrp1.deja.com>
Source record: 55496

F.S. 4 Wave Tek 1901c Oscope displays. Recently removed from service
at an Electrovoice factory, well tken care of. Each has a Clear Plastic
screen on the front which allowed the owner to put a responce curve on
it to verafy microphone responce. Has front panel H, V (position),
focus and brightness controls. BNC inputs on the back. CRT is aprox
imatly 11" diagonal. Units are rack mount. These would be perfict for
home brew Spectrum Analyzers.
I'm asking $100.00 each satisfaction guranteed, buyer pays shipping.
Test Equipment Connection is asking $1200 for the same unit

dr.d
--
Stop the madness vote Libertarian!
All it takes for EVIl to triumph is for good people to do nothing!
-Edmond Burke-
Chris Snyder, Cosby, Tn. KD4 OGD

Sent via Deja.com
http://www.deja.com/

301. Low Power Homebrew CW TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 00:06:41 UTC
From: Charlie <null@null.null>
Message-ID: <B68A4C4B.38CE%null@null.null>
Source record: 55397

Hello,

I am a high school student with a tech class ham ticket that I got 4 years ago, and I don't remember much about electronics. I am just getting back into the hobby. However, I wish to build a lower power CW transmitter that TX on the AM broadcast band with very, very low power -- 100 mW or so for a school project. Just enough to transmit to a standard AM RX a couple of feet away. I checked out a bunch of books about electronics from the library, so really all I need is a list of parts and instructions on how to put the unit together. I have a CW st. key that i can use. Thank you!

P.S. I have seen many kits, etc for FM phone and AM phone that TX on the broadcast bands, but nothing for CW. Thank you.

CWR

--

Got Packet? Send me a message via Amateur Radio:
kf4oss@kf4wzb.#burk.va.us.noam

302. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 01:00:42 UTC
From: dpnewkirk@home.com
Message-ID: <3a64ed6e.4396001@news>
Source record: 55399

On Sun, 14 Jan 2001 01:56:03 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote of the possible difference bewteen 807s and 1625s:

>Well, that's what it remembered too until I looked in my 1962 ARRL handbook. It
>shows two different pinouts, one (5AW) for the 807 and another (5AZ) for the
>1625. The 807 doesn't show a suppressor grid (beam former) as does the 1625.

That's a drafting error I had them correct in very-much-later
Handbooks. The 807 and 1625 are electrically identical except for
heater voltage and basing.

One postwar divergence between 807s and 1625s is that some
manufacturers started making 807s without the ceramic insulation and
stem shield that had been standard in both types. The result is a tube
that's potentially less stable for RF purposes.

73,

Dave, W9VES
dpnewkirk@home.com

303. FA TEKTRONIX 5A48

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 01:03:03 UTC
From: John B <robotwizard@nospamnospamworldnet.att.net>
Message-ID: <bb696.3696$4y6.262679@bgtnsc07-news.ops.worldnet.att.net>
Source record: 55400

5A48 Dual-Trace Vertical amp. Fits 5000 series mainframes.
Ebay auction:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208417357

John
KB9WTK

304. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 01:43:54 UTC
From: dpnewkirk@home.com
Message-ID: <3a64f20d.5578611@news>
Source record: 55401

On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack)
wrote:

>Is it possible to run 807's grounded grid zero bias??? I bought an old
>amp called P&H normally uses modified 1625's or 837's but it has 807's
>in it....I dont want to power up just yet...need to get info first...

This amplifier was described in E. L. Hoover, W9SAR, and R. L. Peck,
W9MOW, "A 200-Watt Grounded-Grid Linear Amplifier," QST, June 1955,
pages 21-22, 128. (You can infer from the authors' names where that
company name came from.) Yes, the tubes are operated grounded-grid,
without bias, and at the plate voltage used idle at 10 mA each. That
the circuit includes no means of checking the tubes' grid current,
either individually or collectively, is troubling, as a later QST
article (V. S. Campbell and W. S. Skeen, "Grounded Screen-Grid
Operation for Tetrodes," QST, November 1959, pages 37-39) detailed;
its deck reads: "A tetrode with control grid and screen tied together
to form a high-mu triode for a grounded-grid circuit makes a very
simple arrangement. However, this type of operation invariably results
in excessive control-grid dissipation. This article shows a simple
method of avoiding this difficulty." The absence of grid-current
monitoring means you'll have a hard time determining whether you're
overdriving the tubes without spectral or oscilloscope analysis.

As other respondents have written, the reason the 1625s needed to be
modified was that a beam tube's beam-forming plates, if hardwired to
its cathode, provide a built-in cathode-to-plate capacitance that
would bypass any screening achieved by the grids and require
neutralization for dependable stability. This wouldn't apply to the
837, which is a true pentode (with a separate, true suppressor grid)
and not a beam power tube; but the 837 has a considerably lower
power-handling capability than the 807/1625.

73,

Dave, W9VES
dpnewkirk@home.com

305. Re: QRP site ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 02:11:14 UTC
From: k5bdz@aol.com
Message-ID: <20010116211114.04556.00002983@ng-mi1.aol.com>
Source record: 55402

rp-l@Lehigh.EDU
(Low Power Amateur Radio Discussion)

306. Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 03:01:14 UTC
From: John <john@jcb3.com>
Message-ID: <_V796.167624$iy3.39913758@news1.rdc1.tn.home.com>
Source record: 55403

Hi

I am fairly new at homebrewing and was wondering how most of you order your parts. Does anyone have a good supplier I can just email a list of parts pay for it, and have it shipped? Much of the parts I have are from desoldering misc junk I find here there and everywhere, but some of these new projects I am looking at have some hard to stumble apon stuff. Most of it, from what I ahve noticed is available from radio shack, but they are so expensive with everything, I am sure I can do much better.

Thanks
John

307. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 06:41:30 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101170138450.16002-100000@Gloria.CAM.ORG>
Source record: 55404

On Wed, 17 Jan 2001, John wrote:

> Hi
>
> I am fairly new at homebrewing and was wondering how most of you order
> your parts. Does anyone have a good supplier I can just email a list of
> parts pay for it, and have it shipped? Much of the parts I have are from
> desoldering misc junk I find here there and everywhere, but some of these
> new projects I am looking at have some hard to stumble apon stuff. Most
> of it, from what I ahve noticed is available from radio shack, but they
> are so expensive with everything, I am sure I can do much better.
>
>
> Thanks
> John
>

You never seem to ever have all the parts you need for a project.

One place to check out would be Dan's Small Parts. He's a single
person operation, and he carries parts that radio experimenters
would be interested in. It's not a greater place to buy a
wide selection of parts, and there are some radio-related
parts that I wish he'd carried, but you can get common transistors
and variable capacitors and toroids and other common parts from
one sourece. You can see what he carries at:
http://www.fix.net/dans.html

Michael VE2BVW

308. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 09:26:11 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <n3pa6t08apaqs8mvg5jdj27pm26js9f97g@4ax.com>
Source record: 55405

Two that are pretty well known and give good service (below).
Depending on how you order you can have things next day. Not real
cheap but reasonable and good selections. Request catalogs so you
know what's there.

www.digikey.com
www.mouser.com

309. HV transformer suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 10:32:10 UTC
From: magne@superoffice.no
Message-ID: <902C7EFCEmagne@148.122.208.74>
Source record: 55406

I was thinking about building an HF PA (2 * 3-500Z), but there are
problems getting a suitable HV transformer.

Any known suppliers out there (new or surplus) ?
(that can deliver on a reasonable budget :)

Specs are (approx.) 220V primary, 2200-3000V sec. 900-1100mA

--Magne / la1bfa

310. Where to buy AM ceramic filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 11:28:18 UTC
From: rickw999@aol.com
Message-ID: <20010117062818.19132.00000570@ng-fh1.aol.com>
Source record: 55407

Anyone know where I can find a SFR 450K for my Sangean 803A?
Rick

311. Re: Low Power Homebrew CW TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 12:38:12 UTC
From: troglodite@aol.com
Message-ID: <20010117073812.09565.00005705@ng-ch1.aol.com>
Source record: 55408

>
>into the hobby. However, I wish to build a lower power CW transmitter that
>TX on the AM broadcast band with very, very low power -- 100 mW or so for a
>school project. Just enough to transmit to a standard AM RX a couple of feet
>away. I checked out a bunch of books about electronics from the library, so
>really all I need is a list of parts and instructions on how to put the unit
>together. I have a CW st. key that i can use. Thank you!
>
>P.S. I have seen many kits, etc for FM phone and AM phone that TX on the
>broadcast bands, but nothing for CW. Thank you.

Possibly the simplest CW transmitter for the AM band would be another receiver. An ordinary AM receiver has a local oscillator that runs 455Khz above the frequency indicated on the dial. That can usually be picked up by a nearby receiver. If necessary, you could wrap a few turns of wire around the local oscillator coil in your "transmitter" and feed this to a small antenna.

Your problem will be receiving CW on an ordinary AM receiver. You need a BFO to make the signal audible, or some regeneration in the IF. If you are using a communications receiver tuned to the AM broadcast band, then you have this, but if not, you'll have to improvise.

Doug Moore KB9TMY

312. Re: Low Power Homebrew CW TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 13:39:07 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9447a0$bq4$1@slb3.atl.mindspring.net>
Source record: 55409

I have not seen any kits to use in sending CW in the AM broadcast band.
Besides, the broadcast band recievers don't have any BFO signals so they'd
have to be modified to receive CW.

==========

Actually, if he can find a kit for phone transmission on the AM band, I'd
suggest feeding an audio oscillator into the mic input and keying the audio
oscillator.

This would allow using an easy to get kit, and remove any need to change
the reciever... While still effectively transmitting CW for all practical
purposes.

Jim Pennell

313. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 13:49:12 UTC
From: brokebob@aol.com
Message-ID: <20010117084912.07352.00002208@ng-da1.aol.com>
Source record: 55410

check at

http://www.kenselectronics.com/index.html
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

314. 220 Mobile

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 13:50:39 UTC
From: carl domanico <carl.domanico@verizon.net>
Message-ID: <3A65A33D.191C6C6E@verizon.net>
Source record: 55411

Looking for a Mobile 220MHz. FM Radio....Nice condition...prefer Kenwood...but will accept any manufacture.....

Thanks
Carl
N2MFW

315. Need Kenwood 741 head

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 14:13:04 UTC
From: The Duffer <hduff@ica.net>
Message-ID: <3A65A86F.95A3A97B@ica.net>
Source record: 55412
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Looking for a head for a Kenwood TM-741
OR
parts like the concentric volume/squelch/pb switch assembly.

Please reply by e-mail.
Thanks
Hugh

316. Re: HV transformer suppliers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 14:20:01 UTC
From: k5dh@raytheon.com
Message-ID: <lSh96.14$3d3.80@dfw-service2.ext.raytheon.com>
Source record: 55415

In article <902C7EFCEmagne@148.122.208.74>, magne@superoffice.no says...
>
>I was thinking about building an HF PA (2 * 3-500Z), but there are
>problems getting a suitable HV transformer.
>Any known suppliers out there (new or surplus) ?
>(that can deliver on a reasonable budget :)
>Specs are (approx.) 220V primary, 2200-3000V sec. 900-1100mA

You should visit the Peter W. Dahl Co. web site:

http://www.pwdahl.com/

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

317. Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 14:20:18 UTC
From: ie <ie@algonet.se>
Message-ID: <9449t5$g9e$1@cubacola.tninet.se>
Source record: 55413

Hello,

Can anyone enlighten me on this?
I think I read sometime long ago, that the length of the measuring cables connected to the SWR-meter was rather critical. I think it should be a half wavelength. But now I can't find this notation anywhere.

Does anyone know about this?

73
Ingvar - SM7DUZ

318. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 14:34:30 UTC
From: richardh@iinet.net.au
Message-ID: <3a65aa58.28726496@news.m.iinet.net.au>
Source record: 55414

Gday all
I battled with this device for a month before I gave up and went on
holiday..
Good to see I am not the only one having problems.
I could not get any sense out of the chip in serial mode beyond
getting the IOUD pulses at 1/128 main clock after a master reset.
I tried gating the main clock after reset (the revised data sheet says
the reset should be held high fr 10 clock pulses) to allow the entry
of a 4 byte serial word to address 7 before the chip internally
updated. This had no effect. I could not seem to get any serial data
into the chip - I couldnt change PLL status or current consumption by
switching on/off any sections. I even tried parallel loading one byte
to the register controlling IOUD by controlling serial/parallel mode
and hardwiring the address pins at startup - still couldnt turn off
the IOUD pulses. I havent managed to getan output from the chip or
change the DC level of the DACs by loading data into the multipliers.
I tried delays and multiple initializations to no avail

HAS ANYONE GOT WORKING CODE or pseudocode for initializing the device
in serial mode they are willing to share??
It looks as though I will have to build another board with parallel
mode.... :(

Richard Hosking

On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:

>Craig,
>
>Ahhhh.... now we get into the real fun. Getting an output on the beast
>is not easy.....
>
>Here's what messed me up - more or less in order:
>
>1) The stupid DAC bias resistor - at least the current data sheets
>show how to hook it up. I had mine in the wrong way. Preliminary data
>strikes .....
>
>2) All the various enable bits - digital enable, pll enable, dac
>enable...
>
>3) The frequency select word - miss the first byte and the frequency
>is at 1/256 th of the clock. Pretty hard to see on a scope.
>
>Other things to check:

>
>50 ohm to ground loads on all outputs - at least until you get an
>output.
>
>Current drain, does it change when you turn the PLL on and off ? With
>a 60 MHz clock you should see the current on the supply change
>dramatically when you change the clock frequency.
>
>The wonderful keying bits. Don't enable any of the keying stuff at
>first. Just run it in the CW output mode.
>
>Why the part defaults to no output I have no idea. I wrote a Visual
>Basic app that let me hit the bits one at a time until I found the
>ones that caused the problems in my setup. It's probably worth doing
>something similar to allow you enough flexibility to figure the part
>out.
>
>Hope this helps ....
>
> Bob
>
>
>
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

319. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 15:06:16 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a65b3a3.47260131@news.azstarnet.com>
Source record: 55416

On Wed, 17 Jan 2001 15:20:18 +0100, "ie" <ie@algonet.se> wrote:

>Hello,
>
>Can anyone enlighten me on this?
>I think I read sometime long ago, that the length of the measuring cables
>connected to the SWR-meter was rather critical. I think it should be a
>half wavelength. But now I can't find this notation anywhere.
>
>Does anyone know about this?
>
>73
>Ingvar - SM7DUZ

If you are interested in the power at a particular point, then that is where the meter should be placed, unless the line attenuation is accurately known.

If you are trying to infer SWR from power ratios then the placement should not matter, except that line attenuation will make the ratio better at the sending end than it is at the load end.

There are no 'magic' lengths.

Wes N7WS
>
>

320. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 16:10:05 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A65C3DD.6D93640B@alltel.net>
Source record: 55417

Wes
I beg to differ. Bwlow 100mhz line length is not that critical BUT at freq above 100mhz it becomes very critical to measure both fwd power and ref power. See last page of Bird 43 manual.
I use one at 432mhz and trust me I can make that bird 43 read all over the place just by changing the length of feed to it from the transmitter. Same as you can make a mis-matched ant look good to the rig by varying the feed line length.
We are talking about sine wave's here, and where you look on the sine wave (feed line length to bird 43) will either show the true fwd/ref power or much less of both.
73
bob
wb5apd

Wes Stewart wrote:
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> Wes N7WS
> >
> >

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

321. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 16:41:53 UTC
From: marsgal42@hotmail.com
Message-ID: <944i0e$3sp$1@nnrp1.deja.com>
Source record: 55418

In article <n3pa6t08apaqs8mvg5jdj27pm26js9f97g@4ax.com>,
rexa*non*spam*@dnai.com (Rex Allers) wrote:

> www.digikey.com
> www.mouser.com

Other faves of mine:

Newark: www.newark.com
Downeast Microwave: www.downeastmicrowave.com
RF Parts: www.rfparts.com
Mainline: no web presence; phone +44 116 2777648
Barend Hendriksen: http://www.xs4all.nl/~barendh/Indexeng.htm

True, they're not always cheap. But if we want to buy
products in onesies and twosies, in an industry that
is geared almost entirely for OEMs, we must pay the price.

I often seem to find myself in towns with good local
electronics places. Here in Vancouver it's RP. In Seattle
and Portland it's Radar. In Toronto it's Active Surplus
and Sayal. And so on...

Another good reference is the components suppliers list
in the ARRL Handbook.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

322. Re: Low Power Homebrew CW TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 17:28:28 UTC
From: cj <cj_johansson@hp.com>
Message-ID: <3A65D63C.5E2F0C32@hp.com>
Source record: 55419

Well, CW is just a carrier. The AM broadcast band is kinda nicely centered around 1MHz. There happen to be loads of cheap 1MHz crystal controlled oscillators out there for use in digital electronics, just apply 5V DC and they oscillate at 1MHz (or whatever the crystal freq is). These things are typically a small rectangular metal can, about 1/4 x 1/2 inch, with 4 pins. One pin is +5V, one is the oscillator output, and the other 2 are ground.

So, just get 5V, a switch (or, better, a key), and hook a piece of wire to the output pin for an antenna. Presto, you now have a simple CW transmitter! Of course, the output is actually a square wave, so there's lots of harmonics. And, the hunk of wire is likely a lousy antenna (of course, you could design a better one of those too). Receiving will be easy, but unimpressive (i.e., it won't make the nice "tone" usually associated with CW/code), but you will likely be able to tell that it's there.

-cj
KD6AEG

323. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 17:41:41 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a65d951.56908315@news.azstarnet.com>
Source record: 55420

On Wed, 17 Jan 2001 11:10:05 -0500, Bob Dodson <wb5apd@alltel.net> wrote:

>Wes
> I beg to differ. Bwlow 100mhz line length is not that critical BUT at
>freq above 100mhz it becomes very critical to measure both fwd power and
>ref power. See last page of Bird 43 manual.
> I use one at 432mhz and trust me I can make that bird 43 read all over
>the place just by changing the length of feed to it from the
>transmitter. Same as you can make a mis-matched ant look good to the rig
>by varying the feed line length.
> We are talking about sine wave's here, and where you look on the sine
>wave (feed line length to bird 43) will either show the true fwd/ref
>power or much less of both.
>73
>bob
>wb5apd

I'm sorry Bob, but clearly you don't understand what both Bird and I are saying.

With respect to what Bird is saying: Assume that you have a mismatched line and you start by installing the Bird and making adjustments to the transmitter to maximize the foward power into the line. If you then remove the Bird, you effectively shorten the line by 4 inches. If the four inches is a significant fraction of a wavelength, which it will be at higher frequencies, then the transmitter will see a different load and perform differently. Bird touches on this subject in the second paragraph of section 7.

The forward and reflected powers will be different, however, their ratio will be the same. If you are using the ratios to compute SWR at that point, then your computation is valid, whether or not the Bird is in the line.

If you are getting different (SWR) answers by changing the line length between the transmitter and the Bird, then you have problems with common mode currents on the *outside* of the transmission line. The SWR on the line is *not* affected by anything going on in the transmitter, it is set by the degree of mismatch between the load and the line. You might indeed be seeing differences in power, but the ratio between forward and reflected should not change.

What I was saying is that the only effect that moving the position of the meter has occurs when the line loss is significant. For example, assume that the line attenuation is 3 dB, the transmitter output is 100 W and the load SWR is 3:1.

If the meter is placed at the load the forward power will read 50 W and the reflected power will be 12.5 W. You can verify that this is 3:1 by looking at the chart in the appendix of the Bird handbook, if you don't believe me.

Now if the meter is moved to the input of the line, the forward reading is the full 100 W and the reflected reading is 6.25 W. The new power ratio is 16 which is 1.67:1 SWR, which can also be approximated from the chart.

Please note that this difference is due only to the line attenuation; a magic length and/or the characteristics of the transmitter have nothing whatsoever to do with it.

Wes Stewart N7WS
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>> matter, except that line attenuation will make the ratio better at the sending
>> end than it is at the load end.
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>> There are no 'magic' lengths.
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>> Wes N7WS
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>
>--
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> I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
> 144mhz [2m] Station | 432mhz [70cm] Station
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> MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
> [EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
>==========

324. Want someone to build 160 Meter QRP CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 18:05:42 UTC
From: Les Rayburn <les@highnoonfilm.com>
Message-ID: <t6bnl3nl607ue2@corp.supernews.com>
Source record: 55421

I'm hoping that I can find someone willing to help out a "soldering challenged" ham. I'd like to pay someone to build a simple, crystal controlled 160 Meter CW QRP transmitter.

Nearly any design should work. I'd like for it to operate at 1.999.91khz in CW mode only. Output power should be 1 watt or less. Happy to supply mone for parts and labor. No case needed, but suggestions for connectors would be welcome.

The only other catch is that I'd like to get it by the end of February. If you're
interested, please contact me by e-mail. Thanks!

Les Rayburn, N1LF
les@highnoonfilm.com

325. Re: QRP site ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 18:14:17 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A65E0F9.FF6D5DF@rupert.tds-az.lmco.com>
Source record: 55422

Eldred wrote:
>
> Is there a QRP site ?
> Please advise
> Eldred
> ZS1DJ

There is not just "a" QRP site, there are lots of them.
A quick search on yahoo will get you several thousand hits.

Here are a few to start out with. Most of them have link
sections with other QRP sites listed.

Australian QRP Home Page
http://www.alphalink.com.au/~parkerp/qrp.htm

HOMEBREW QRP IS GUD 4 U
http://cs.okanagan.bc.ca/ve7ouc/eng/kc6wdk-mirror/

Colorado QRP Club
http://www.mtechnologies.com/cqc/

New Jersey QRP Club
http://www.njqrp.org/

The NorCal Page, QRP, Low Power Amateur Radio
http://www.fix.net/~jparker/norcal.html

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

326. Voicekeyer via PC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 20:59:19 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <HIn96.198977$MA1.6599344@afrodite.telenet-ops.be>
Source record: 55423
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew

Dear fellow hams

A couple of weeks ago, there was an item on this newsgroup about someone looking for a voicekeyer. I then said I was thinking of a design for using the PC's soundcard and printerport (LPT) to implement a voicekeyer.

Several OM asked me to publish all this as freeware, so apparently there was some minor interest in this small homebrew project.
Well, it's done and if anyone thinks he can use it, feel free to download it. I designed the hardware for my TS-850, so using it on other rigs means you have to do some research yourself.

I think the hard- and software speak for themselves, you should, however, have your own software to record wav-files.

I'll try to answer all questions. Let me know what you think of it, and if I should change or add some functionalities.

Read all about it in the homebrewsection of my page:
www.qsl.net/on4cln/

73's de ON4CLN - Franki

327. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 21:26:50 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A660E1A.A551AE3@alltel.net>
Source record: 55424

Hi Wes;
I agree 100% with what you said about SWR. What I was referring to by the different readings
with the bird 43 with different feed lengths, was the Power Measurement. Since I thought the person asking the original question was asking about using a bird 43 to measure power.In that case the feed line length is very important if the freq is high enough. As far as swr goes like you said the ratio will stay the same independent of feed line length to the meter (correct also on the slight diff due to feed line loss not to mention that the fwd power also contains the ref power).
In my case I use Bird 43 to measure mainly my power out to be legal on 144 and 432 mhz. That is why I was talking about how important it is the have to correct (I believe it is odd multiples of 1/4 wave length) between the transmitter and the Bird.
Sounds like we are all correct Wes, just talking about different aspects pwr vs swr in using the bird.
You are also correct that removing the bird will shorten the feed length by about 4" and thus the impediance can be affected as perceived by the transmitter(due to the diff new feed length). Wheather the 4" will really matter or not mainly depends of the freq. At 75 meters who cares but at 70cm that is almost 1/4 wave and for sure will change things hi hi.
73 Wes
Bob

Wes Stewart wrote:
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> fraction of a wavelength, which it will be at higher frequencies, then the
> transmitter will see a different load and perform differently. Bird touches on
> this subject in the second paragraph of section 7.
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> the same. If you are using the ratios to compute SWR at that point, then your
> computation is valid, whether or not the Bird is in the line.
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> on the *outside* of the transmission line. The SWR on the line is *not*
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> in power, but the ratio between forward and reflected should not change.
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> has occurs when the line loss is significant. For example, assume that the line
> attenuation is 3 dB, the transmitter output is 100 W and the load SWR is 3:1.
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> If the meter is placed at the load the forward power will read 50 W and the
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> is 1.67:1 SWR, which can also be approximated from the chart.
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===

328. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 21:40:26 UTC
From: novatech@eskimo.com
Message-ID: <9453ga$8i8$1@eskinews.eskimo.com>
Source record: 55425

richardh@iinet.net.au (Richard Hosking) writes:

>Gday all
>I battled with this device for a month before I gave up and went on
>holiday..

This is a hard chip to figure out, but it does everything in the data sheet
the way they say it does (with a few timing errors and some typos). It
requires sitting down with a pencil and mapping out everything step by step
in exactly the right order. Trust me it works. Unfortunately, I can't
post the code. I am pretty proud of it, but Novatech would be upset.

A month is not nearly enough time.

Good luck.

Steve.
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

329. TenTec 1340 TX/RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 22:45:50 UTC
From: Ned Collins <lucille@gofree.indigo.ie>
Message-ID: <3A66209E.8796111D@gofree.indigo.ie>
Source record: 55426

Recently acquired a 1340 Tentec 40m TX/RX.

Interested in modifications/improvements that readers may have carried out on the above series of tranceiver.

73's de Ned/EI5DS

330. AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 22:57:29 UTC
From: John <hydro@fx2.com>
Message-ID: <0rp96.4130$d25.25741@newsfeed.slurp.net>
Source record: 55427

Hi all
I would like to homebrew a high performance AM detector for my kenwood radio. I already have the hifi audio gear and speaker setup. My IF filter is about 7 khz wide. The radio IF freq is 455khz. Any info ??

Thanks John KI4NR

331. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 23:04:40 UTC
From: tom_bruhns@agilent.com
Message-ID: <9458e2$q8q$1@nnrp1.deja.com>
Source record: 55429

Bob,

Just so I better understand just what you are saying here, do you see a significant difference in indicated power if your load is matched 1:1, in you 440MHz system, as you change line length? Which line lenght, if so? (That is, the line from amp to meter or meter to load?) Or do you see that effect only when there is a mismatched load? Do you see it operating into a dummy load, or only into an antenna system?

Cheers,
Tom

In article <3A660E1A.A551AE3@alltel.net>,
Bob Dodson <wb5apd@alltel.net> wrote:
> Hi Wes;
> I agree 100% with what you said about SWR. What I was referring to by
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> > has occurs when the line loss is significant. For example, assume
that the line
> > attenuation is 3 dB, the transmitter output is 100 W and the load
SWR is 3:1.
> >
> > If the meter is placed at the load the forward power will read 50 W
and the
> > reflected power will be 12.5 W. You can verify that this is 3:1 by
looking at
> > the chart in the appendix of the Bird handbook, if you don't believe
me.
> >
> > Now if the meter is moved to the input of the line, the forward
reading is the
> > full 100 W and the reflected reading is 6.25 W. The new power ratio
is 16 which
> > is 1.67:1 SWR, which can also be approximated from the chart.
> >
> > Please note that this difference is due only to the line
attenuation; a magic
> > length and/or the characteristics of the transmitter have nothing
whatsoever to
> > do with it.
> >
> > Wes Stewart N7WS
> > >
> > >
> > >
> > >Wes Stewart wrote:
> > >>
> > >> On Wed, 17 Jan 2001 15:20:18 +0100, "ie" <ie@algonet.se> wrote:
> > >>
> > >> >Hello,

> > >> >
> > >> >Can anyone enlighten me on this?
> > >> >I think I read sometime long ago, that the length of the
measuring cables
> > >> >connected to the SWR-meter was rather critical. I think it
should be a
> > >> >half wavelength. But now I can't find this notation anywhere.
> > >> >
> > >> >Does anyone know about this?
> > >> >
> > >> >73
> > >> >Ingvar - SM7DUZ
> > >>
> > >> If you are interested in the power at a particular point, then
that is where the
> > >> meter should be placed, unless the line attenuation is accurately
known.
> > >>
> > >> If you are trying to infer SWR from power ratios then the
placement should not
> > >> matter, except that line attenuation will make the ratio better
at the sending
> > >> end than it is at the load end.
> > >>
> > >> There are no 'magic' lengths.
> > >>
> > >> Wes N7WS
> > >> >
> > >> >
> > >
> > >--
> > >73
> > >Bob Dodson WB5APD | Collins Collectors
Association
> > >Dahlonega Ga. EM84AK | AC-01054
> > > My Web Page | Collins Radio Association
> > >http://www.homestead.com/wb5apd | CRA #73
> > > ARRL #0001289902
> >
>==
> > > I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL
THE TIME
> > > 144mhz [2m] Station | 432mhz [70cm]
Station
> > > 8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38
el @85'
> > > MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf
ERP=95,741 watts
> > > [EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
> >

>==
>
> --
> 73
> Bob Dodson WB5APD | Collins Collectors
Association
> Dahlonega Ga. EM84AK | AC-01054
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>
==
> I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE
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> 144mhz [2m] Station | 432mhz [70cm] Station
> 8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el
@85'
> MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741
watts
> [EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
>
==
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

332. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 23:08:47 UTC
From: rfrench99@bigfoot.com
Message-ID: <87puhlsrnm.fsf@fulcrum.mignet.yi.org>
Source record: 55428

Might check the Handbook, I recall a synchronous and
quasi-synchronous AM detector mentioned in there.

333. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-17 23:46:03 UTC
From: igotdapower <igotdapowa@hone.con>
Message-ID: <%8q96.19979$B6.5746391@news1.rdc1.md.home.com>
Source record: 55430

what does it mean... have we done any?

"Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote in message
news:3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au...
> Hello Has anybody here done any radar detector schematics ?
>
> Particularly for the frequencies etc used in Australia?
>
> Thanks, Matt.
>
> m_donohoe@dingoblue.net.au.spam
> remove .spam
>
>
>

334. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 00:52:19 UTC
From: Matt Donohoe <m_donohoe@dingoblue.net.au>
Message-ID: <3a663ea5$0$15501$7f31c96c@news01.syd.optusnet.com.au>
Source record: 55431

It was a simple question, if your not intelligent enough to acknowledge that a radar detector is simply a Ultra Wideband receiver that can function up to many Gigahertz then you are a fool.

I asked here because 'some' amateur radio homebrewers have done such circuits before. I was looking for one of them on this list.

If you have no answer, or nothing useful to add, dont post a reply. Thats a waste of my time, and yours.

"igotdapower" <igotdapowa@hone.con> wrote in message
news:%8q96.19979$B6.5746391@news1.rdc1.md.home.com...
> what does it mean... have we done any?
>
> "Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote in message
> news:3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au...
> > Hello Has anybody here done any radar detector schematics ?
> >
> > Particularly for the frequencies etc used in Australia?
> >
> > Thanks, Matt.
> >
> > m_donohoe@dingoblue.net.au.spam
> > remove .spam
> >
> >
> >
>
>

335. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 01:02:17 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a663c39.82231494@news.azstarnet.com>
Source record: 55432

On Wed, 17 Jan 2001 16:26:50 -0500, Bob Dodson <wb5apd@alltel.net> wrote:

>Hi Wes;
> I agree 100% with what you said about SWR. What I was referring to by
>the different readings
>with the bird 43 with different feed lengths, was the Power Measurement.
>Since I thought the person asking the original question was asking about
>using a bird 43 to measure power.In that case the feed line length is
>very important if the freq is high enough. As far as swr goes like you
>said the ratio will stay the same independent of feed line length to the
>meter (correct also on the slight diff due to feed line loss not to
>mention that the fwd power also contains the ref power).

Hi, Bob,

Take a look below at what the original question was and you will see:

"I think I read sometime long ago, that the length of the measuring cables
connected to the SWR-meter was rather critical."

Because the post refers to a 'SWR meter' I addressed that aspect of its use.

> In my case I use Bird 43 to measure mainly my power out to be legal on
>144 and 432 mhz. That is why I was talking about how important it is the
>have to correct (I believe it is odd multiples of 1/4 wave length)
>between the transmitter and the Bird.
> Sounds like we are all correct Wes, just talking about different
>aspects pwr vs swr in using the bird.
> You are also correct that removing the bird will shorten the feed
>length by about 4" and thus the impediance can be affected as perceived
>by the transmitter(due to the diff new feed length). Wheather the 4"
>will really matter or not mainly depends of the freq. At 75 meters who
>cares but at 70cm that is almost 1/4 wave and for sure will change
>things hi hi.

Well, it the load is matched to the line (and the line Zo is 50) then there
shouldn't be any change.

I am still disturbed by your statement that you get readings "all over the
place" when you move the instrument around. If you mean that there is a
difference between the transmitter end and the antenna end then okay. But if
you are just adding a few feet and seeing an effect then something is seriously
wrong.

I see you're using a 4CX1600 at 432. That's quite a bit above its full power
frequency spec. What kind of efficiency are you getting and are you sure you
don't have a harmonic or spur problem?

I too run an 8877 on two meters. Was thinking about asking for a sked sometime when I get an antenna back in the air, but I already have your grid :)

73,

Wes, N7WS DM42jh

>73 Wes
>Bob
>
>
>Wes Stewart wrote:
>>
>> On Wed, 17 Jan 2001 11:10:05 -0500, Bob Dodson <wb5apd@alltel.net> wrote:
>>
>> >Wes
>> > I beg to differ. Bwlow 100mhz line length is not that critical BUT at
>> >freq above 100mhz it becomes very critical to measure both fwd power and
>> >ref power. See last page of Bird 43 manual.
>> > I use one at 432mhz and trust me I can make that bird 43 read all over
>> >the place just by changing the length of feed to it from the
>> >transmitter. Same as you can make a mis-matched ant look good to the rig
>> >by varying the feed line length.
>> > We are talking about sine wave's here, and where you look on the sine
>> >wave (feed line length to bird 43) will either show the true fwd/ref
>> >power or much less of both.
>> >73
>> >bob
>> >wb5apd
>>
>> I'm sorry Bob, but clearly you don't understand what both Bird and I are saying.
>>
>> With respect to what Bird is saying: Assume that you have a mismatched line
>> and you start by installing the Bird and making adjustments to the transmitter
>> to maximize the foward power into the line. If you then remove the Bird, you
>> effectively shorten the line by 4 inches. If the four inches is a significant
>> fraction of a wavelength, which it will be at higher frequencies, then the
>> transmitter will see a different load and perform differently. Bird touches on
>> this subject in the second paragraph of section 7.
>>
>> The forward and reflected powers will be different, however, their ratio will be
>> the same. If you are using the ratios to compute SWR at that point, then your
>> computation is valid, whether or not the Bird is in the line.
>>
>> If you are getting different (SWR) answers by changing the line length between
>> the transmitter and the Bird, then you have problems with common mode currents
>> on the *outside* of the transmission line. The SWR on the line is *not*
>> affected by anything going on in the transmitter, it is set by the degree of
>> mismatch between the load and the line. You might indeed be seeing differences
>> in power, but the ratio between forward and reflected should not change.
>>
>> What I was saying is that the only effect that moving the position of the meter

>> has occurs when the line loss is significant. For example, assume that the line
>> attenuation is 3 dB, the transmitter output is 100 W and the load SWR is 3:1.
>>
>> If the meter is placed at the load the forward power will read 50 W and the
>> reflected power will be 12.5 W. You can verify that this is 3:1 by looking at
>> the chart in the appendix of the Bird handbook, if you don't believe me.
>>
>> Now if the meter is moved to the input of the line, the forward reading is the
>> full 100 W and the reflected reading is 6.25 W. The new power ratio is 16 which
>> is 1.67:1 SWR, which can also be approximated from the chart.
>>
>> Please note that this difference is due only to the line attenuation; a magic
>> length and/or the characteristics of the transmitter have nothing whatsoever to
>> do with it.
>>
>> Wes Stewart N7WS
>> >
>> >
>> >
>> >Wes Stewart wrote:
>> >>
>> >> On Wed, 17 Jan 2001 15:20:18 +0100, "ie" <ie@algonet.se> wrote:
>> >>
>> >> >Hello,
>> >> >
>> >> >Can anyone enlighten me on this?
>> >> >I think I read sometime long ago, that the length of the measuring cables
>> >> >connected to the SWR-meter was rather critical. I think it should be a
>> >> >half wavelength. But now I can't find this notation anywhere.
>> >> >
>> >> >Does anyone know about this?
>> >> >
>> >> >73
>> >> >Ingvar - SM7DUZ
>> >>

336. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 01:02:59 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <7hr96.2485$PY6.278314@news02.optonline.net>
Source record: 55433

Hi,

The part works fine in serial mode. It takes some time to figure out some of what they are trying to tell you in the data sheet, but it does work. The code I have is in PIC assembler and it's pretty long. Much more than would be reasonable in a news group. A simple approach to getting it running:

1) Check the mode select pins to be sure you are in serial mode (I wasn't ....)
2) Bring the chip up with the clock running. Forget about trying to init it first.
3) Reset the chip before you start
4) Do an i/o reset before each serial transfer
5) Just take it up to the point that you shut off the IOUD when you are debugging the serial i/o. Anything more than this will just confuse the issue.

Once you get the serial running then my comments to Craig below may apply.

Most of us have gotten the part running, but it isn't an easy part. There's just to much going on inside the darn thing.

Hope this helps.

Bob Camp
KB8TQ

"Richard Hosking" <richardh@iinet.net.au> wrote in message news:3a65aa58.28726496@news.m.iinet.net.au...
> Gday all
> I battled with this device for a month before I gave up and went on
> holiday..
> Good to see I am not the only one having problems.
> I could not get any sense out of the chip in serial mode beyond
> getting the IOUD pulses at 1/128 main clock after a master reset.
> I tried gating the main clock after reset (the revised data sheet
says
> the reset should be held high fr 10 clock pulses) to allow the entry
> of a 4 byte serial word to address 7 before the chip internally
> updated. This had no effect. I could not seem to get any serial data
> into the chip - I couldnt change PLL status or current consumption
by
> switching on/off any sections. I even tried parallel loading one
byte

> to the register controlling IOUD by controlling serial/parallel mode
> and hardwiring the address pins at startup - still couldnt turn off
> the IOUD pulses. I havent managed to getan output from the chip or
> change the DC level of the DACs by loading data into the
multipliers.
> I tried delays and multiple initializations to no avail
>
> HAS ANYONE GOT WORKING CODE or pseudocode for initializing the
device
> in serial mode they are willing to share??
> It looks as though I will have to build another board with parallel
> mode.... :(
>
> Richard Hosking
>
> On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:
>
> >Craig,
> >
> >Ahhhh.... now we get into the real fun. Getting an output on the
beast
> >is not easy.....
> >
> >Here's what messed me up - more or less in order:
> >
> >1) The stupid DAC bias resistor - at least the current data sheets
> >show how to hook it up. I had mine in the wrong way. Preliminary
data
> >strikes .....
> >
> >2) All the various enable bits - digital enable, pll enable, dac
> >enable...
> >
> >3) The frequency select word - miss the first byte and the
frequency
> >is at 1/256 th of the clock. Pretty hard to see on a scope.
> >
> >Other things to check:
> >
> >50 ohm to ground loads on all outputs - at least until you get an
> >output.
> >
> >Current drain, does it change when you turn the PLL on and off ?
With
> >a 60 MHz clock you should see the current on the supply change
> >dramatically when you change the clock frequency.
> >
> >The wonderful keying bits. Don't enable any of the keying stuff at
> >first. Just run it in the CW output mode.
> >

> >Why the part defaults to no output I have no idea. I wrote a Visual
> >Basic app that let me hit the bits one at a time until I found the
> >ones that caused the problems in my setup. It's probably worth
doing
> >something similar to allow you enough flexibility to figure the
part
> >out.
> >
> >Hope this helps ....
> >
> > Bob
> >
> >
> >
> >
>
> http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> zaprichardh@iinet.net.au
> (remove the zap)

337. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 01:19:49 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <Vwr96.11512$jk6.3344808@typhoon2.ba-dsg.net>
Source record: 55434

Even with an 'ideal' detector, the audio will never be very 'hi-fi' with a 7 KHz IF bandwidth. At most you'd get only 3.5 KHz audio bandwidth, and probably less depending on the passband shape of the IF filter. The best you can hope for is to minimize distortion in your detector, but distortion is ultimately also affected by the IF filter because it can skew the phase of upper and lower sidebands relative to the carrier.
If you're interested in listening to commercial AM-band stations, there's also a fundamental limitation imposed by the station itself. At the low end of the AM band, the bandwidth of the transmitting antenna is often only several KHz. This also limits the high frequency response of the audio.

Joe
W3JDR

"John" <hydro@fx2.com> wrote in message
news:0rp96.4130$d25.25741@newsfeed.slurp.net...
> Hi all
> I would like to homebrew a high performance AM detector for my kenwood
> radio. I already have the hifi audio gear and speaker setup. My IF filter
> is about 7 khz wide. The radio IF freq is 455khz. Any info ??
>
> Thanks John KI4NR
>
>

338. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 01:49:42 UTC
From: marsgal42@hotmail.com
Message-ID: <945i3l$2nq$1@nnrp1.deja.com>
Source record: 55435

In article <3a663ea5$0$15501$7f31c96c@news01.syd.optusnet.com.au>,
"Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote:
> It was a simple question, if your not intelligent enough to
acknowledge that
> a radar detector is simply a Ultra Wideband receiver that can function
up to
> many Gigahertz then you are a fool.

There's a little bit more to it than that. The traditional
hand-held radar gun operates at about 10.7 GHz, while other
technologies (photo radar, GATSO, etc.) operate around 24
and 35 GHz. Then there's the laser stuff...

To detect any one of these is doable; detecting all four
is a fairly tall order. As you mentioned, you don't even
know which frequencies you're looking for, which makes
matters more complicated.

Personally, I've had two speeding tickets. In one case, it
was X band radar, coming around a corner. In the other case,
the cop pulled up behind me and clocked my speed directly.
A radar detector wouldn't have helped much on either.

> I asked here because 'some' amateur radio homebrewers have done such
> circuits before. I was looking for one of them on this list.
>
> If you have no answer, or nothing useful to add, dont post a reply.
Thats a
> waste of my time, and yours.

This isn't "schematic" stuff - it's waveguide and microstripline.

Matt, I note that all you have ever asked in this newsgroup
are requests for schematics that are either unrealistic, or are
well-covered in standard references. Perhaps you should give
some thought to what you ask for before you bitch about
the responses you get.

Laura Halliday VE7LDH "Que les nuages soient notre pied
Grid: CN89mg a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

339. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 02:14:08 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <gjs96.4239$d25.26726@newsfeed.slurp.net>
Source record: 55436

Unless the antenna is not well balanced and you have RF currents flowing on the outside of the shield, the length of line between the transmitter and the wattmeter shouldn't make any difference *except* that forward power will drop as you move farther away from the transmitter due to the increased loss in the line. Any changes in forward and reflected power as you move the position of the meter is caused only by the change in loss in the line, regardless of the SWR. It should not be necessary to use multiples of 1/2 wavelength to get an accurate power reading.

340. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 02:57:02 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A665B7E.5196A215@alltel.net>
Source record: 55437

Hi Wes;

First off its a 4cx1600U coaxial base with cutoff freq of 1000 mhz.
Power out
runs about 2kw at 55% eff on 432. You must be thinking of a 4cx1600b.
And yes even with the bird on a 50 ohm dummy load varying the feed line
length into the bird 43
gives different readings for sure. Example with just the exciter putting
out 42 watts by varying the feed length INTO the bird I can get readings
all the way down to about 20 watts with same 42 watts out of rig.
I went from normal input feed length (shows 42 watts) to adding about
6-7 feet more to input feed. Tried different pieces (lengths) of coax.
Been sitting here playing with it on the dummy load. Not using amp, just
ft-847. I have seen the same thing on 2m with an IC-746 setup.
I know bird says it is traveling wave type meter but I have 3 birds
here and a coaxial dynamics
and 2 diff vhf/uhf rigs and have seen the same thing on them all. Try it
and let me know if you can see a difference.
RR on the original post on swr. Sorry I didn't keep up better on the
original post. This is turning into an interesting discussion.
Thought about editing some of the below off but might help to leave it
so folks will know what this is all about hi hi.
73
bob wb5apd

Wes Stewart wrote:
>
> On Wed, 17 Jan 2001 16:26:50 -0500, Bob Dodson <wb5apd@alltel.net> wrote:
>
> >Hi Wes;
> > I agree 100% with what you said about SWR. What I was referring to by
> >the different readings
> >with the bird 43 with different feed lengths, was the Power Measurement.
> >Since I thought the person asking the original question was asking about
> >using a bird 43 to measure power.In that case the feed line length is
> >very important if the freq is high enough. As far as swr goes like you
> >said the ratio will stay the same independent of feed line length to the
> >meter (correct also on the slight diff due to feed line loss not to
> >mention that the fwd power also contains the ref power).
>
> Hi, Bob,
>
> Take a look below at what the original question was and you will see:
>
> "I think I read sometime long ago, that the length of the measuring cables

> connected to the SWR-meter was rather critical."
>
> Because the post refers to a 'SWR meter' I addressed that aspect of its use.
>
> > In my case I use Bird 43 to measure mainly my power out to be legal on
> >144 and 432 mhz. That is why I was talking about how important it is the
> >have to correct (I believe it is odd multiples of 1/4 wave length)
> >between the transmitter and the Bird.
> > Sounds like we are all correct Wes, just talking about different
> >aspects pwr vs swr in using the bird.
> > You are also correct that removing the bird will shorten the feed
> >length by about 4" and thus the impediance can be affected as perceived
> >by the transmitter(due to the diff new feed length). Wheather the 4"
> >will really matter or not mainly depends of the freq. At 75 meters who
> >cares but at 70cm that is almost 1/4 wave and for sure will change
> >things hi hi.
>
> Well, it the load is matched to the line (and the line Zo is 50) then there
> shouldn't be any change.
>
> I am still disturbed by your statement that you get readings "all over the
> place" when you move the instrument around. If you mean that there is a
> difference between the transmitter end and the antenna end then okay. But if
> you are just adding a few feet and seeing an effect then something is seriously
> wrong.
>
> I see you're using a 4CX1600 at 432. That's quite a bit above its full power
> frequency spec. What kind of efficiency are you getting and are you sure you
> don't have a harmonic or spur problem?
>
> I too run an 8877 on two meters. Was thinking about asking for a sked sometime
> when I get an antenna back in the air, but I already have your grid :)
>
> 73,
>
> Wes, N7WS DM42jh
>
> >73 Wes
> >Bob
> >
> >
> >Wes Stewart wrote:
> >>
> >> On Wed, 17 Jan 2001 11:10:05 -0500, Bob Dodson <wb5apd@alltel.net> wrote:
> >>
> >> >Wes
> >> > I beg to differ. Bwlow 100mhz line length is not that critical BUT at
> >> >freq above 100mhz it becomes very critical to measure both fwd power and
> >> >ref power. See last page of Bird 43 manual.
> >> > I use one at 432mhz and trust me I can make that bird 43 read all over

> >> >the place just by changing the length of feed to it from the
> >> >transmitter. Same as you can make a mis-matched ant look good to the rig
> >> >by varying the feed line length.
> >> > We are talking about sine wave's here, and where you look on the sine
> >> >wave (feed line length to bird 43) will either show the true fwd/ref
> >> >power or much less of both.
> >> >73
> >> >bob
> >> >wb5apd
> >>
> >> I'm sorry Bob, but clearly you don't understand what both Bird and I are saying.
> >>
> >> With respect to what Bird is saying: Assume that you have a mismatched line
> >> and you start by installing the Bird and making adjustments to the transmitter
> >> to maximize the foward power into the line. If you then remove the Bird, you
> >> effectively shorten the line by 4 inches. If the four inches is a significant
> >> fraction of a wavelength, which it will be at higher frequencies, then the
> >> transmitter will see a different load and perform differently. Bird touches on
> >> this subject in the second paragraph of section 7.
> >>
> >> The forward and reflected powers will be different, however, their ratio will be
> >> the same. If you are using the ratios to compute SWR at that point, then your
> >> computation is valid, whether or not the Bird is in the line.
> >>
> >> If you are getting different (SWR) answers by changing the line length between
> >> the transmitter and the Bird, then you have problems with common mode currents
> >> on the *outside* of the transmission line. The SWR on the line is *not*
> >> affected by anything going on in the transmitter, it is set by the degree of
> >> mismatch between the load and the line. You might indeed be seeing differences
> >> in power, but the ratio between forward and reflected should not change.
> >>
> >> What I was saying is that the only effect that moving the position of the meter
> >> has occurs when the line loss is significant. For example, assume that the line
> >> attenuation is 3 dB, the transmitter output is 100 W and the load SWR is 3:1.
> >>
> >> If the meter is placed at the load the forward power will read 50 W and the
> >> reflected power will be 12.5 W. You can verify that this is 3:1 by looking at
> >> the chart in the appendix of the Bird handbook, if you don't believe me.
> >>
> >> Now if the meter is moved to the input of the line, the forward reading is the
> >> full 100 W and the reflected reading is 6.25 W. The new power ratio is 16 which
> >> is 1.67:1 SWR, which can also be approximated from the chart.
> >>
> >> Please note that this difference is due only to the line attenuation; a magic
> >> length and/or the characteristics of the transmitter have nothing whatsoever to
> >> do with it.
> >>
> >> Wes Stewart N7WS
> >> >
> >> >

> >> >
> >> >Wes Stewart wrote:
> >> >>
> >> >> On Wed, 17 Jan 2001 15:20:18 +0100, "ie" <ie@algonet.se> wrote:
> >> >>
> >> >> >Hello,
> >> >> >
> >> >> >Can anyone enlighten me on this?
> >> >> >I think I read sometime long ago, that the length of the measuring cables
> >> >> >connected to the SWR-meter was rather critical. I think it should be a
> >> >> >half wavelength. But now I can't find this notation anywhere.
> >> >> >
> >> >> >Does anyone know about this?
> >> >> >
> >> >> >73
> >> >> >Ingvar - SM7DUZ
> >> >>

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

341. NEED RSS GP340

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 03:21:29 UTC
From: hazz <HAZZ@cableinet.co.uk>
Message-ID: <Zit96.5580$pp2.581468@news3.cableinet.net>
Source record: 55438

I HAVE 2 GP340 V.H.F I WANT TO PUT THEM ON MARINE BAND I NEED RSS THE VERSION # R01.00.20 CAN ANY ONE HELP

342. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 03:45:38 UTC
From: k3ky@erols.com
Message-ID: <945ot2ldn1@bob.news.rcn.net>
Source record: 55439

Thanks to everyone for a great thread and some wonderful memories!
I built an amp with grounded grid 1625's as my first ever homebrew amp.
This would have been in roughly 1964 or 65 at the latest.
It used 6 in parallel. I certainly do remember sawing those rectangular
windows into the sides of the phenolic tube bases. It was possible to
place the opening such that you could perform the surgery without
completely removing the base from the envelope. My first amp was of
dubious utility on 20 meters but did give me some good early
experience. :o) I eventually traded that HB amp for another local
hams HB pair of 4-400A's. He was getting married and moving into an
apartment or some such, and wanted to downsize. I definitely got the
better part of that deal. :o) 73, David K3KY

In article <Pine.LNX.4.10.10101131307430.1197-100000@Gloria.CAM.ORG>
Michael Black <blackm00@Gloria.CAM.ORG> wrote:

>
>
> On Sat, 13 Jan 2001, Wes Stewart wrote:
>
>> On Sat, 13 Jan 2001 11:37:25 -0500 (EST), k8bvj@webtv.net (Jack) wrote:
>>
>> >Is it possible to run 807's grounded grid zero bias??? I bought an old
>> >amp called P&H normally uses modified 1625's or 837's but it has 807's
>> >in it....I dont want to power up just yet...need to get info first...
>> >
>> >tnx Jack K8BVJ
>>
>> This goes way back so this is all from my fuzzy memory and could be wrong.
>>
>> The 1625s are "beam-power tubes" and have beam forming plates connected to the
>> cathode. As I recall, the leads were connected together outside of the
>> envelope, inside the base. The modification involved removing the base and
>> disconnecting the beam forming plates from the cathode and (I think) connecting
>> them to the screen.
>>
>> If this was not done, there was significant coupling from cathode to plate when
>> the tubes were operated g-g.
>>
>> The 807s didn't have the beam forming so they should work unmodified. Just be
>> sure the heater voltage is 6.3 and not 12.6.
>>
>> That said, I question what the intermodulation distortion performance of these
>> tubes would be and the advisibility of operating the amp in today's crowded
>> bands.

>>
>> 73,
>>
>> Wes N7WS
>>
>
> This whole thing was mentioned in QST for July 1968, which was reprinted
> in the last ARRL SSB manual. "Sweep Tube Linear-Amplifier Design" by
> Doug DeMaw.
>
> It's about other things, but it starts:
>
> "It wasn't too many years ago that some of us who were ssb experimenters
> learned that a buck could be saved by "operating" on certain brands of
> 1625-type tubes, thus making them suitable for use in grounded-grid
> amplifiers. It was necessary to saw a window in the tube base, locate
> and separate the cathode and beam-forming plate leads, and bring them out
> to individual base pins. At roughly 25 cents apiece, surplus prices, it
> was no strain on the pin-money fund to put four of them to work in
> parallel and run them at approximately 500 watts DC input."
>
> Michael VE2BVW
>

343. Re: NEED RSS GP340

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 04:15:01 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a666da0.6285617@news.cantech.net.au>
Source record: 55440

On Thu, 18 Jan 2001 03:21:29 GMT, "hazz" <HAZZ@cableinet.co.uk> wrote:

>I HAVE 2 GP340 V.H.F I WANT TO PUT THEM ON MARINE BAND I NEED RSS THE
>VERSION # R01.00.20 CAN ANY ONE HELP

First step, learn to use the caps-lock key.

Try http://www.electricrates.com/ntrforum/ntrboard.html

344. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 04:49:14 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101172334010.21381-100000@Gloria.CAM.ORG>
Source record: 55441

On Thu, 18 Jan 2001, Matt Donohoe wrote:

> It was a simple question, if your not intelligent enough to acknowledge that
> a radar detector is simply a Ultra Wideband receiver that can function up to
> many Gigahertz then you are a fool.
>
A radar detector is hardly an "ultra wideband receiver".

CQ Magazine ran an article about building a radar detector in
1957 or 58. It wasn't much more than an antenna, a diode and
an audio amplifier. Not very sensitive, though it was my impression
that that was what was inside early radar detectors.

When Gunnplexers started being popular in ham circles, there was
another wave or "radar detectors" in 73 Magazine, about 1978 or so.
If I recall, they used the same sort of antenna that Gunnplexers
were using, ie a mechanical matter, and modulated the detector diode
with an audio tone, and again fed the result into an audio amplifier.
Apparently, it was better than the original scheme, though I have
no idea what the commercial detectors were using by that time.

But at some point, the commericial radar detectors dropped the
idea of such simple. They went to a superhet design, under the
idea of longer range. A similar type of antenna, but a local oscillator
that mixes with the incoming signal to move it down to a lower frequency
for handling it. I forget the exact scheme used after detection.
I never saw a construction article about this, but in the mid to late
80's, 73 Magazine ran an article about converting such a radar detector
to something useful to hams.

Radar is a wideband modulation, but you aren't dealing with a wide
slice of the spectrum at a time. You have to specifically set out
to handle a given type of radar.

Now, it occurs to me that perhaps we have misinterpreted your question,
as often happens when the original question is vague. We all seem
to be thinking you want a unit to detect police speed radar. Perhaps
it is some other kind of radar you specifically want to detect,
or maybe you want some means of measuring the output power of some radar
unit. Or, considering that microwave ovens were once referred to
as "radar ranges", maybe that was a slogan for one manufacturer,
perhaps what you want is a detector to see if your microwave oven
is leaking microwave.

Sometimes it helps to ask a question properly, with enough detail,
so nobody's time is wasted.

Michael VE2BVW

345. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 09:37:59 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <946dgj$oo1$1@uranium.btinternet.com>
Source record: 55442

It is safe to assume your Kenwood receiver is already equipped with a detector capable of extracting the best possible performance commensurate with the RF and IF receiver stages when connected to an external loudspeaker.

If you wan't an even better performance there is no alternative but to obtain another complete receiver of even Higher-Fi, at every stage from aerial to loudspeaker.

--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

John <hydro@fx2.com> wrote in message
news:0rp96.4130$d25.25741@newsfeed.slurp.net...
> Hi all
> I would like to homebrew a high performance AM detector for my kenwood
> radio. I already have the hifi audio gear and speaker setup. My IF filter
> is about 7 khz wide. The radio IF freq is 455khz. Any info ??
>
> Thanks John KI4NR
>
>

346. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 10:00:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <946er1qho1@uranium.btinternet.com>
Source record: 55443

In principle, the forward and reflected power meter always gives the correct answers. It is the responsibility of the user to decide what happens when the input and output line lengths and impedances change, or the meter (and its effects on the system)is just removed from the system.

There's a small program available from my website below which models behaviour of ALL types of fwd/ref power and swr meter.

Download in a few seconds program SWRMETER. Not zipped up. Run immediately. Look for divergencies from expected readings in the presence of different source and load impedances.

In practice, departures from licensed power levels, either up or down, either actual or imagined, are of little significance. If the wattmeter indicates the power into the antenna is in the right street then there's nothing to worry about. If you just show a visiting inspector your Bird wattmeter he will probably go away without any further questions. He probably doesn't have one himself.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

347. Gonset Communicator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 10:29:06 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <T8+n8FAyVsZ6Ew43@langwang.demon.co.uk>
Source record: 55444

Some years ago I was given what I was assured was a well used but still operational Gonset Communicator, since then it has been stowed away in the bottom of my junk box.

As I'm more interested in building/tinkering than operating I can't see me ever wanting to put it back on air however, before I do something drastic, I would be grateful if could someone tell me if this equipment has any historic value ?? Looking at the manual it would appear to be an original & definitely not the MkII version (no slide switches under the Rx tuning dial) & the Xtal that came with it is an 8.000Mhz FT243 marked (but marked 8.070Mhz).

There is no serial number on the equipment & I've no idea of date of manufacture but suspect late '50s, early '60s. If it is of some historic significance can anyone suggest who would be interested in it as I might be prepared to give it away to a good home rather than see it broken down for spare parts ?
--
Dick
GM0MNL

348. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 10:37:58 UTC
From: ie <ie@algonet.se>
Message-ID: <946h8b$e6a$1@zingo.tninet.se>
Source record: 55445

Hi guys,
thanks a lot for the interest in my question!
Maybe I should specify what it is I am trying to do here.
I have noticed that when changing the length of the connection cable between the
coax coming down from the antenna and the Bird 43 I get different values on the reflected power.
I am talking about 144 MHz signals.
The reason I connect an extra cable between antenna coax and meter is that it is more convenient to do
it this way due to small space where the rig is at. Normally the meter is not connected to the system.
So I figured that if this extra connection cable was a half wavelength long, it wouldn't change anything, as a
half wave length of a cable is "transparent" if you know what I mean. The impedance is the same on either side of the cable at that specific frequency.
Of course if the conditions were ideal, a 50 ohm load, 50 ohm line/connectors, the length of the extra cable wouldn't matter. But suppose there's something wrong with the antenna or perhaps there is water in the coaxcable, then the load impedance as seen by the transmitter wouldn't be 50 ohms and that would create standing waves on the line.
So by inserting an unspecified length of cable between antenna cable and Bird I could be fooled to think that
I have a perfect system because I could be "lucky" enough to hit a spot on the line where the reflected power is at a minimum. Remember we have standing waves now.
But by making the extra cable a half wave length long I wouldn't change anything and so get a correct reading on the meter.
That is the idea I was trying to get confirmed here. Please correct me if I am wrong.

73/Ingvar SM7DUZ

349. Re: Where to buy AM ceramic filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 10:57:05 UTC
From: corryATeburgDOTcom
Message-ID: <3a66cbd3.46773940@news.elltel.net>
Source record: 55446

On 17 Jan 2001 11:28:18 GMT, rickw999@aol.com (Rick W 999) wrote:

>Anyone know where I can find a SFR 450K for my Sangean 803A?
>Rick

Try Kiwa Electronics. Tell Craig that David sent you.
website:http://kiwa.com/
-Dave

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

350. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 13:16:17 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a66ec5f.127332763@news.azstarnet.com>
Source record: 55347

On 18 Jan 2001 03:45:38 GMT, k3ky@erols.com (David Sinclair) wrote:

>Thanks to everyone for a great thread and some wonderful memories!
>I built an amp with grounded grid 1625's as my first ever homebrew amp.
>This would have been in roughly 1964 or 65 at the latest.
>It used 6 in parallel. I certainly do remember sawing those rectangular
>windows into the sides of the phenolic tube bases. It was possible to
>place the opening such that you could perform the surgery without
>completely removing the base from the envelope. My first amp was of
>dubious utility on 20 meters but did give me some good early
>experience. :o) I eventually traded that HB amp for another local
>hams HB pair of 4-400A's. He was getting married and moving into an
>apartment or some such, and wanted to downsize. I definitely got the
>better part of that deal. :o) 73, David K3KY

Is that an editorial comment about his wife or what? :-)

Wes

351. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 13:19:46 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <f8rd6t0gr76kbgui3dc96ekdl4sog445l5@4ax.com>
Source record: 55348

On Wed, 17 Jan 2001 23:08:47 GMT, rfrench99@bigfoot.com (Robert A. French) wrote:

>Might check the Handbook, I recall a synchronous and
>quasi-synchronous AM detector mentioned in there.

Built it. It works, but the PLL will require some tinkering. The bottom line is very simple: It produces nice audio on groundwave signals. Don't expect it to hold through a selective fade, however.

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

352. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 13:36:38 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a66ed1f.127524631@news.azstarnet.com>
Source record: 55349

On Wed, 17 Jan 2001 21:57:02 -0500, Bob Dodson <wb5apd@alltel.net> wrote:

>Hi Wes;
>
> First off its a 4cx1600U coaxial base with cutoff freq of 1000 mhz.
>Power out
>runs about 2kw at 55% eff on 432. You must be thinking of a 4cx1600b.

RIght you are. Forgot about the 'U" version. That's excellent efficiency on
432. I'm thinking about build something more compact than the W6PO two meter
amp that I now have. All that pipe (silver-plated no less) and still not much
better than 50-55% eff.

> And yes even with the bird on a 50 ohm dummy load varying the feed line
>length into the bird 43
>gives different readings for sure. Example with just the exciter putting
>out 42 watts by varying the feed length INTO the bird I can get readings
>all the way down to about 20 watts with same 42 watts out of rig.

Since you have multiple meters, I assume you are leaving one connected to the
transmitter through a fixed length of cable as a 'reference' and varying the
line length between that one and a second one. True?

If that is the case and the first one always shows 42 watts, then at the moment,
I'm stumped. If this is not what you are doing, then I encourage you to try it.

73,

Wes

> I went from normal input feed length (shows 42 watts) to adding about
>6-7 feet more to input feed. Tried different pieces (lengths) of coax.
>Been sitting here playing with it on the dummy load. Not using amp, just
>ft-847. I have seen the same thing on 2m with an IC-746 setup.
> I know bird says it is traveling wave type meter but I have 3 birds
>here and a coaxial dynamics
>and 2 diff vhf/uhf rigs and have seen the same thing on them all. Try it
>and let me know if you can see a difference.
> RR on the original post on swr. Sorry I didn't keep up better on the
>original post. This is turning into an interesting discussion.
> Thought about editing some of the below off but might help to leave it
>so folks will know what this is all about hi hi.
>73
>bob wb5apd
[snip]

353. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 13:43:18 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <tbrd6tg11tsgjic704ua526blkhsd5g4ur@4ax.com>
Source record: 55350

On Thu, 18 Jan 2001 01:19:49 GMT, "W3JDR" <j.r@usa.com> wrote:

>Even with an 'ideal' detector, the audio will never be very 'hi-fi' with a 7
>KHz IF bandwidth. At most you'd get only 3.5 KHz audio bandwidth, and
>probably less depending on the passband shape of the IF filter. The best you
>can hope for is to minimize distortion in your detector, but distortion is
>ultimately also affected by the IF filter because it can skew the phase of
>upper and lower sidebands relative to the carrier.

Two issues: First, with a good envelope detector, he can achieve a
decent response (6 kHz, realistically) if he tunes off to one sideband
or the other.

Second, phase distortion depends on how many poles the filter has, how
high the Q of each pole is, and how tight the coupling between those
poles are.

It's true, many filters do have excessive phase distortion, but
without knowing what filter he's talking about, I wouldn't jump to
conclusions.

>If you're interested in listening to commercial AM-band stations, there's
>also a fundamental limitation imposed by the station itself. At the low end
>of the AM band, the bandwidth of the transmitting antenna is often only
>several KHz. This also limits the high frequency response of the audio.

True, but there's no point in making things worse by using a poor
detector on it.

I've had a notion of building a decent Costas Loop detector for 455
kHz and for 70 MHz using good diode DBMs.

The usual gilbert cell mixer and LM386 combination just doesn't cut
it...

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

354. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 13:58:44 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A66F694.D21593E6@alltel.net>
Source record: 55351

Ingvar:

Yes adding 1/2 wave length is correct to duplicate what what you would normally have
(reflected power without the bird in the line), to the line when using the bird 43. The impedance is 50 ohms every 1/2 wave length on a rf signal reflected. Adding the extra 1/2 wave length of cable will let the bird see exactly what your rig would see (without the bird being added). This does not mean you would be seeing necessarily the full reflected power unless your original cable was exactly an odd multiple of 1/4 wave to begin with. If your original cable was exactly an odd multiple of 1/4 wave to begin with, then adding exactly 1/2 wave length more will keep it an odd mutilple of 1/4 wave length.
This is the ideal situation. Of course if the antenna has swr and you are not sure of the length of the feed line to antenna, then adding the 1/2 wave length will let the bird see what your rig sees impedance wise and reflected power wise.
You are also correct in that standing waves (swr) at points on the feed line can read near zero. That occurs every EVEN multiple of a 1/4 wave (i.e.. every 1/2 wave length).
If you just want the bird to see what the rig is seeing then add the 1/2 wave length. If you want to know how much reflected power you really have (and your feed line is not cut to odd multiples of 1/4 wave to begin with) then just start adding random lengths to the feed line till you find the max power reading of swr. That should then be the odd multiple of the 1/4 wave I have been talking about.
If you draw a sine wave (1 cycle) you will see that the max Positive power occurs at 1/4 wave length, and the max Negative power occurs at 3/4 wave length.
Conversely, the minimum power occurs at zero and 1/2, and 1 wave length. Sorry for the long rambling reply, but this is easy to draw and explain but hard to do in just words hi hi.
73
bob
wb5apd

ie wrote:
>
> Hi guys,
> thanks a lot for the interest in my question!
> Maybe I should specify what it is I am trying to do here.
> I have noticed that when changing the length of the connection cable between
> the
> coax coming down from the antenna and the Bird 43 I get different values on
> the reflected power.

> I am talking about 144 MHz signals.
> The reason I connect an extra cable between antenna coax and meter is that
> it is more convenient to do
> it this way due to small space where the rig is at. Normally the meter is
> not connected to the system.
> So I figured that if this extra connection cable was a half wavelength long,
> it wouldn't change anything, as a
> half wave length of a cable is "transparent" if you know what I mean. The
> impedance is the same on either side of the cable at that specific
> frequency.
> Of course if the conditions were ideal, a 50 ohm load, 50 ohm
> line/connectors, the length of the extra cable wouldn't matter. But suppose
> there's something wrong with the antenna or perhaps there is water in the
> coaxcable, then the load impedance as seen by the transmitter wouldn't be 50
> ohms and that would create standing waves on the line.
> So by inserting an unspecified length of cable between antenna cable and
> Bird I could be fooled to think that
> I have a perfect system because I could be "lucky" enough to hit a spot on
> the line where the reflected power is at a minimum. Remember we have
> standing waves now.
> But by making the extra cable a half wave length long I wouldn't change
> anything and so get a correct reading on the meter.
> That is the idea I was trying to get confirmed here. Please correct me if I
> am wrong.
>
> 73/Ingvar SM7DUZ

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

355. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:09:27 UTC
From: hanavin@ren.eecis.udel.edu
Message-ID: <946ten$l01$1@dewey.udel.edu>
Source record: 55352

In article <0rp96.4130$d25.25741@newsfeed.slurp.net>,
John <hydro@fx2.com> wrote:
>Hi all
> I would like to homebrew a high performance AM detector for my kenwood
>radio. I already have the hifi audio gear and speaker setup. My IF filter
>is about 7 khz wide. The radio IF freq is 455khz. Any info ??
>
>Thanks John KI4NR
>

Pete, WA1SOV, has nice schematic of synch detector on his page
at
http://home.worldnet.att.net/~wa1sov/technical/sync_det.html

73 Chuck (W3FJJ)

356. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:10:04 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a66f186.128651515@news.azstarnet.com>
Source record: 55353

On Thu, 18 Jan 2001 11:37:58 +0100, "ie" <ie@algonet.se> wrote:

>Hi guys,
>thanks a lot for the interest in my question!
>Maybe I should specify what it is I am trying to do here.
>I have noticed that when changing the length of the connection cable between
>the
>coax coming down from the antenna and the Bird 43 I get different values on
>the reflected power.
>I am talking about 144 MHz signals.
>The reason I connect an extra cable between antenna coax and meter is that
>it is more convenient to do
>it this way due to small space where the rig is at. Normally the meter is
>not connected to the system.
>So I figured that if this extra connection cable was a half wavelength long,
>it wouldn't change anything, as a
>half wave length of a cable is "transparent" if you know what I mean. The
>impedance is the same on either side of the cable at that specific
>frequency.
>Of course if the conditions were ideal, a 50 ohm load, 50 ohm
>line/connectors, the length of the extra cable wouldn't matter. But suppose
>there's something wrong with the antenna or perhaps there is water in the
>coaxcable, then the load impedance as seen by the transmitter wouldn't be 50
>ohms and that would create standing waves on the line.
>So by inserting an unspecified length of cable between antenna cable and
>Bird I could be fooled to think that
>I have a perfect system because I could be "lucky" enough to hit a spot on
>the line where the reflected power is at a minimum. Remember we have
>standing waves now.
>But by making the extra cable a half wave length long I wouldn't change
>anything and so get a correct reading on the meter.
>That is the idea I was trying to get confirmed here. Please correct me if I
>am wrong.
>
>73/Ingvar SM7DUZ
>
Ingvar,

Consider the previous discussion. We have (generally) agreed that except for the effects on line attenuation, the SWR is everywhere the same on a length of line. Therefore, you cannot ever be *lucky* enough to pick a length that provides a match.

Think of it this way: Pick a point on the Smith chart for the load impedance. Let's just say the load is 100+j0 (SWR=2.0:1). Normalize that to 2+j0 and mark

it on the chart. Now add 1/4 wavelength of lossless 50 ohm cable.

The point now rotates toward the generator 180 degrees (twice the line length) to the point 0.5+j0. Unnormalizing this is 25+j0 which is still SWR=2.0:1. The same will be true at any intermediate point; we are after all just rotating around a 2:1 SWR circle.

Another example might show what I believe you were thinking. Let's use the same load impedance 100+j0 but normalize the chart to 70 ohm. The normalized load is now 1.429+j0. If we rotate this around the chart 180 degrees, we land on 0.7+j0. Unnormalizing we get 70 * 0.7 or 49+j0. This is very close to 50 and of course demonstrates the 1/4 wave impedance transformer. Had we selected the geometric mean of the two impedances to be matched (sqr(50 * 100)) for the transformer impedance, the result would have been exact.

So, the only way adding a random length of cable to your system can change the results is if the cable impedance is different from the system impedance. No need to worry about a particular length otherwise.

Regards,

Wes N7WS

357. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:31:51 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A66FE57.36C334A4@alltel.net>
Source record: 55354

Bob;

Here is a quote right out of the bird 43 manual...

"What happens when the load is not well matched, like with an antenna
with a VSWR of 1.5 or 2.0?
Since the length of a line between a mismatched load and the source
trans-forms the impedance of
of the load as seen at the source, line length now becomes critical.
If the adjustment for maximum power transfer were made with the "43" in
place, removing it shortens the line by 4 inches, plus two connectors.
This still is no cause for concern at low frequences where 4 to 5 inches
is a small fraction of a wave length. At higher frequences (e.g. above
100 mhz) power output and frequency of the source may be affected.
It is a principle of transmisssion line theory, that the impedance is
identical on either side of 1/2 wavelength. In order to duplicate the
conditions in your transmission line with the "43" either in or out of
the line, it is necessary to insert or remove 1/2 wavelength."

This is right out of the bird 43 manual. The only way none of this
matters is IF your rig is exacly 50 ohms and your feed line is exactly
50 ohms and the antenna is tuned to exactly 50 ohms.
Then you would have no vswr in the first place. Like it said a low freq
it is not a problem due to the small portion of a wavelength at those
freq's.
At things like 2m it for sure matters, and at 432 and 1296 mhz just a
very few inches can make all the differences in the world on what you
would see.
It is not a matter of line loss but Standing Waves inside the feed
line. Like bird said even with a vswr of 1.5 it matters at 100 mhz and
up.
73
bob
wb5apd

Bob Lewis wrote:
>
> Unless the antenna is not well balanced and you have RF currents
> flowing on the outside of the shield, the length of line between the
> transmitter and the wattmeter shouldn't make any difference *except*
> that forward power will drop as you move farther away from the
> transmitter due to the increased loss in the line. Any changes in
> forward and reflected power as you move the position of the meter is
> caused only by the change in loss in the line, regardless of the SWR.
> It should not be necessary to use multiples of 1/2 wavelength to get

> an accurate power reading.

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

358. Re: TO-220

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:53:19 UTC
From: Geokf4ucc@yahoo.com
Message-ID: <3a670160.1302470@netnews.worldnet.att.net>
Source record: 55355

On Mon, 08 Jan 2001 17:43:52 GMT, geokf4ucc@yahoo.com wrote:

>I am building W1FB - 5watt amp and have a question on the heat sink -
>The PA needs to have a heat sink which is normally screwed flat to the
>board. My question - Radio Shack has a nice looking heat sink
>rs276-1368 but to use it the pa (q1) will have to stand straight
>rather then be screwed flat to board -- is this ok ??
. thanks. george

359. Re: Gonset Communicator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:53:25 UTC
From: troglodite@aol.com
Message-ID: <20010118095325.03900.00000040@ng-md1.aol.com>
Source record: 55356

>
>As I'm more interested in building/tinkering than operating I can't see me
>ever wanting to put it back on air however, before I do something drastic, I
>would be grateful if could someone tell me if this equipment has any
>historic
>value ?? Looking at the manual it would appear to be an original & definitely
>not the MkII version (no slide switches under the Rx tuning dial) & the Xtal
>that came with it is an 8.000Mhz FT243 marked (but marked 8.070Mhz).
>
>There is no serial number on the equipment & I've no idea of date of
>manufacture but suspect late '50s, early '60s. If it is of some historic
>significance can anyone suggest who would be interested in it as I might be
>prepared to give it away to a good home rather than see it broken down for
>spare parts ?

Dick,

The Gonset Communicators were the staple VHF rigs of the mid 50's and early 60's. Originally designed as emergency tranceivers for aircraft, the Amateur Radio models eventually outsold all the CAP models. I grew up in Southern California, and even visited the Gonset plant once when I was in High School. Our High School Radio Club used the 2m Gonsets during the football season to relay scores between schools. We'd set one up on the hill at Griffith Planetarium as a relay station. (There were outlets in the concrete wall around the planetarium where we got "free" power.)

I owned one of the 2m rigs for a while. About 1955, there was a guy who made knobs with a press fit collar that fit over the hex shafts on the Johnson variable capacitors that were used for tuning adjustments. These were so popular it was hard to find a Communicator without them. In the model III, Gonset included knobs for all adjustments.

The case was designed with dimensions to be complementary to the antenna connection at it's top. If you measured from the antenna connector around the case to a point on the opposite side, it was pretty close to 19", or about the length of a radial for a 2m ground plane. That's why they worked so well with just the whip on the top.

The rigs were also pretty versitile, available with power supplies that operated on either 6v, 12v, or 117V. The switch from AC to DC was made via a multi pin Jones plug on the back of the rig. An automobile battery would power the rig for 8 to 10 hours as I recall. (I believe there was even a switch on some models to turn off the dial lights to conserve power on receive.) I took my own Gonset on numerous camping trips. I even tried to use it on a bicycle once, but was not very successful because of having to reach behind me for the transmit switch.

So yes, the Gonset is a piece of history. Maybe not so much in the UK, but certainly here in the US. Perhaps it could be likened to the Wireless Set 19 of the US, though made much later and for a different purpose.

Doug Moore KB9TMY (Formerly K6HWY)

360. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 14:59:29 UTC
From: richardh@iinet.net.au
Message-ID: <3a670395.1557598@news.m.iinet.net.au>
Source record: 55357

Bob
Thanks for your comments again - forgive my persistence but I dont
usually let a project defeat me (this might be the first!)
I may have to do another proto board and redesign the hardware with
the parallel option also.
After a few weeks holiday I might see where my error is (no doubt
there is one!)
Is the chip particularly static sensitive?
I fear I may damaged it with all the mods and fiddling around

Richard

On Thu, 18 Jan 2001 01:02:59 GMT, "Bob Camp" <bob@cq.nu> wrote:

>Hi,
>
>The part works fine in serial mode. It takes some time to figure out
>some of what they are trying to tell you in the data sheet, but it
>does work. The code I have is in PIC assembler and it's pretty long.
>Much more than would be reasonable in a news group. A simple approach
>to getting it running:
>
>1) Check the mode select pins to be sure you are in serial mode (I
>wasn't ....)
>2) Bring the chip up with the clock running. Forget about trying to
>init it first.
>3) Reset the chip before you start
>4) Do an i/o reset before each serial transfer
>5) Just take it up to the point that you shut off the IOUD when you
>are debugging the serial i/o. Anything more than this will just
>confuse the issue.
>
>Once you get the serial running then my comments to Craig below may
>apply.
>
>Most of us have gotten the part running, but it isn't an easy part.
>There's just to much going on inside the darn thing.
>
>Hope this helps.
>
> Bob Camp
> KB8TQ
>
>"Richard Hosking" <richardh@iinet.net.au> wrote in message
>news:3a65aa58.28726496@news.m.iinet.net.au...

>> Gday all
>> I battled with this device for a month before I gave up and went on
>> holiday..
>> Good to see I am not the only one having problems.
>> I could not get any sense out of the chip in serial mode beyond
>> getting the IOUD pulses at 1/128 main clock after a master reset.
>> I tried gating the main clock after reset (the revised data sheet
>says
>> the reset should be held high fr 10 clock pulses) to allow the entry
>> of a 4 byte serial word to address 7 before the chip internally
>> updated. This had no effect. I could not seem to get any serial data
>> into the chip - I couldnt change PLL status or current consumption
>by
>> switching on/off any sections. I even tried parallel loading one
>byte
>> to the register controlling IOUD by controlling serial/parallel mode
>> and hardwiring the address pins at startup - still couldnt turn off
>> the IOUD pulses. I havent managed to getan output from the chip or
>> change the DC level of the DACs by loading data into the
>multipliers.
>> I tried delays and multiple initializations to no avail
>>
>> HAS ANYONE GOT WORKING CODE or pseudocode for initializing the
>device
>> in serial mode they are willing to share??
>> It looks as though I will have to build another board with parallel
>> mode.... :(
>>
>> Richard Hosking
>>
>> On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:
>>
>> >Craig,
>> >
>> >Ahhhh.... now we get into the real fun. Getting an output on the
>beast
>> >is not easy.....
>> >
>> >Here's what messed me up - more or less in order:
>> >
>> >1) The stupid DAC bias resistor - at least the current data sheets
>> >show how to hook it up. I had mine in the wrong way. Preliminary
>data
>> >strikes .....
>> >
>> >2) All the various enable bits - digital enable, pll enable, dac
>> >enable...
>> >
>> >3) The frequency select word - miss the first byte and the
>frequency

>> >is at 1/256 th of the clock. Pretty hard to see on a scope.
>> >
>> >Other things to check:
>> >
>> >50 ohm to ground loads on all outputs - at least until you get an
>> >output.
>> >
>> >Current drain, does it change when you turn the PLL on and off ?
>With
>> >a 60 MHz clock you should see the current on the supply change
>> >dramatically when you change the clock frequency.
>> >
>> >The wonderful keying bits. Don't enable any of the keying stuff at
>> >first. Just run it in the CW output mode.
>> >
>> >Why the part defaults to no output I have no idea. I wrote a Visual
>> >Basic app that let me hit the bits one at a time until I found the
>> >ones that caused the problems in my setup. It's probably worth
>doing
>> >something similar to allow you enough flexibility to figure the
>part
>> >out.
>> >
>> >Hope this helps ....
>> >
>> > Bob
>> >
>> >
>> >
>> >
>>
>> http://www.iinet.net.au/~richardh/VK6BRO.htm
>>
>> zaprichardh@iinet.net.au
>> (remove the zap)
>
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

361. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 15:55:20 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A6711E8.531D5FDE@alltel.net>
Source record: 55358

Wes;

Think about this. Say you have ant antenna that is 100 ohms impedance
with 50 ohm feed line and a 50 ohm rig.

BIRD SAYS WITH SWR

"It is a principle of transmisssion line theory, that the
impedance is identical on either side of 1/2 wavelength."

That tell me the feed line will have an impedance from 100 ohms (the
antenna 100 ohms above) all the way down to 50 ohms depending on where
you look at it on the feed. Bird says the impedance is the same as the
load on either side of 1/2 wave lengths. It is not the same as the load
at other points other than 1/2 wave lengths. The other (not the same)
can be 50 ohms depending on where you look on the feed line.
This means you can show a pefect match to the rig with a 2:1 swr by
varying the feed length.
That is what an antenna tuner does. It electrically varies the feed
length as seen by the rig.
I not ready to give up yet and say you can not adjust the impedance
seen by a rig with a mis-matched antenna by varying the feed length.
your turn guys hi hi..
73
bob
wb5apd

> So, the only way adding a random length of cable to your system can change the
> results is if the cable impedance is different from the system impedance. No
> need to worry about a particular length otherwise.
>
> Regards,
>
> Wes N7WS

362. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 16:28:04 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A671994.E7BCEA6C@alltel.net>
Source record: 55359

Correction. I said..

It is not the same as the load
at other points other than 1/2 wave lengths.

I should have said

It is not the same as the load
at other points other than either side 1/2 wave lengths.

I still think the impedance changes up and down
the line with a mis-matched load. From load impedance all the way down
to feed line impedance. Tell me where I am wrong in my thinking.
If the impedance does vary up and down the feed then the diff
impedance points can be picked by the feed length correct or not.
73 again
bob wb5apd

Bob Dodson wrote:
>
> Wes;
>
> Think about this. Say you have ant antenna that is 100 ohms impedance
> with 50 ohm feed line and a 50 ohm rig.
>
> BIRD SAYS WITH SWR
>
> "It is a principle of transmisssion line theory, that the
> impedance is identical on either side of 1/2 wavelength."
>
> That tell me the feed line will have an impedance from 100 ohms (the
> antenna 100 ohms above) all the way down to 50 ohms depending on where
> you look at it on the feed. Bird says the impedance is the same as the
> load on either side of 1/2 wave lengths. It is not the same as the load
> at other points other than 1/2 wave lengths. The other (not the same)
> can be 50 ohms depending on where you look on the feed line.
> This means you can show a pefect match to the rig with a 2:1 swr by
> varying the feed length.
> That is what an antenna tuner does. It electrically varies the feed
> length as seen by the rig.
> I not ready to give up yet and say you can not adjust the impedance
> seen by a rig with a mis-matched antenna by varying the feed length.
> your turn guys hi hi..
> 73
> bob
> wb5apd

>
>
> > So, the only way adding a random length of cable to your system can change the
> > results is if the cable impedance is different from the system impedance. No
> > need to worry about a particular length otherwise.
> >
> > Regards,
> >
> > Wes N7WS

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

363. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 16:40:05 UTC
From: ie <ie@algonet.se>
Message-ID: <9476foohc1@cubacola.tninet.se>
Source record: 55360

OK guys I think we have it under control now! Hi!

So Bob, am I right in understanding that it is a good idea to avoid line lengths of even half wavelengths if you can? That will actually mask the effects of a bad antenna.
And that the reflected power could actually be even greater than what you measure, unless the line is odd quarterwavelengths long?
Quite interesting indeed!

And Wes...your Smith chart talk is very interesting too, I just have to read up on my Smith charts before I can follow your discussion. But I will!

Thanks also to John for sending me a copy of a page in the Bird manual where there is a diagram for the required length of RG-8/U cable to equal 1/2 wavelength when added to the Bird43. (For frequencies up to 500MHz).
That was actually the diagram I was missing in the first place!

Thanks all,
Ingvar SM7DUZ

364. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 16:51:55 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A671F2B.D5ECD430@alltel.net>
Source record: 55361

> > > So, the only way adding a random length of cable to your system can change the
> > > results is if the cable impedance is different from the system impedance. No
> > > need to worry about a particular length otherwise.
> > >
> > > Regards,
> > >
> > > Wes N7WS
Wes

One more thing I would like to add. I have an antenna here that has a
bad match.
It's swr is around 2.35 to 1. The ft-847 cuts back on power due to this.
If I change the feed
length I can fool the ft-847 and get it to put full power out. Same type
feed line just change the length. Looks to me like the ft-847 thinks it
is seeing 50 ohms load when I vary the length.
Power out meter on ft-847 sure does change.
73
bob
wb5apd

365. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 17:22:53 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A67266D.D8EE2585@alltel.net>
Source record: 55362

ie wrote:
>
> OK guys I think we have it under control now! Hi!
>
> So Bob, am I right in understanding that it is a good idea to avoid line
> lengths of even half wavelengths if you can? That will actually mask the
> effects of a bad antenna.
> And that the reflected power could actually be even greater than what you
> measure, unless the line is odd quarterwavelengths long?
> Quite interesting indeed!

Yes Correct Ingvar. Actually I am glad you brought this all up. It makes
us all think
and learn. I am enjoying this discussion very much. Hope to learn more
myself.
I think if you only operate HF or only have matched antenna's in the
first place you would
not notice these things. Of course so far I seem to be the only one that
thinks this way hi hi.
I did see a presentation by ARRL at the S.E. Vhf Conference in Atlanta
that said the same thing I am
saying 2 years ago.

73 bob wb5apd

366. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 17:37:49 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a672433.141626831@news.azstarnet.com>
Source record: 55363

On Thu, 18 Jan 2001 10:55:20 -0500, Bob Dodson <wb5apd@alltel.net> wrote:

>Wes;
>
> Think about this. Say you have ant antenna that is 100 ohms impedance
>with 50 ohm feed line and a 50 ohm rig.

That is exactly the example I proposed previously and it works just as I said. If the load is 100+j0 and the line Zo is 50, then the SWR is 2:1 everywhere on the line (assuming no loss).

On the Smith chart, one complete revolution is 1/2 wavelength so if you make the complete circle, you obviously wind up back at the same place. That is the basis of the 'magic' 1/2 wavelength "impedance repeater" and Bird's statement that you quote below.

If you do not make a complete revolution you wind up with different impedance and it sure isn't 50 ohm because that is the center of the circle about which you are rotating. So you *never* see 50+j0 on a 50 ohm lossless line if the load is other than 50+j0. To be sure there are two points on the chart where the Z is 50 +/-j X and two others where the |Z| = 50, but the SWR is still 2:1.

If you should rotate only halfway around the chart (1/4 wavelength) then the impedance is 25+j0; still 2:1 in a 50-ohm system.

So yes, you can adjust the impedance seen by the transmitter by varying the line length but only to the extent that the new impedance falls on the 2:1 circle. You *never* see a "perfect match" in this situation.

Antenna tuners are another subject, but I will say that they do more than electrically varying the electrical length. The above example proves this. No matter what electrical length the cable is, the SWR never changes from 2:1.

Regards,

Wes

>
> BIRD SAYS WITH SWR
>
>"It is a principle of transmisssion line theory, that the
>impedance is identical on either side of 1/2 wavelength."
>
> That tell me the feed line will have an impedance from 100 ohms (the
>antenna 100 ohms above) all the way down to 50 ohms depending on where
>you look at it on the feed. Bird says the impedance is the same as the
>load on either side of 1/2 wave lengths. It is not the same as the load

>at other points other than 1/2 wave lengths. The other (not the same)
>can be 50 ohms depending on where you look on the feed line.
> This means you can show a pefect match to the rig with a 2:1 swr by
>varying the feed length.
>That is what an antenna tuner does. It electrically varies the feed
>length as seen by the rig.
> I not ready to give up yet and say you can not adjust the impedance
>seen by a rig with a mis-matched antenna by varying the feed length.
> your turn guys hi hi..
>73
>bob
>wb5apd
>
>
>
>
>> So, the only way adding a random length of cable to your system can change the
>> results is if the cable impedance is different from the system impedance. No
>> need to worry about a particular length otherwise.
>>
>> Regards,
>>
>> Wes N7WS

367. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 18:04:25 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <grbe6tsd2h1il2od48f2aukdpv7am8k7gu@4ax.com>
Source record: 55364

On 18 Jan 2001 14:09:27 GMT, hanavin@ren.eecis.udel.edu (Chuck
Hanavin) wrote:

>In article <0rp96.4130$d25.25741@newsfeed.slurp.net>,
>John <hydro@fx2.com> wrote:
>>Hi all
>> I would like to homebrew a high performance AM detector for my kenwood
>>radio. I already have the hifi audio gear and speaker setup. My IF filter
>>is about 7 khz wide. The radio IF freq is 455khz. Any info ??
>>
>>Thanks John KI4NR
>>
>
>Pete, WA1SOV, has nice schematic of synch detector on his page
>at
>http://home.worldnet.att.net/~wa1sov/technical/sync_det.html

That doesn't look like a synchronous detector to me. It's not a bad
circuit, but it has no synchronous oscillator to replace a selectively
faded carrier.

Instead it limits the carrier to recover it cleanly. This will work
only as long as the sidebands never approach the magnitude of the full
carrier. If they do (as they would in a deep fade) you'll get total
garbage coming out of the detector.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

368. Helix antennas for hydrogen line (1420MHz) work

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 18:17:30 UTC
From: Ash <abuse@gravitywell.org>
Message-ID: <3A673336.267994D7@gravitywell.org>
Source record: 55365

Hi
I've been considering using 4 phased Helix antennas instead of a parabolic dish
since they are quite hard to get here in sweden , a 3-5meter dish that is...
I've only used my radioscanner for a couple of years but have been into amateur radio
and satellite work alot during this time and radio communication is my largest interest
since a few years back.
Now I'm tired of playing with weather satellites and such, and is looking to explore what
I'm
really interested in - space. And the waterhole looks like a nice spot to start, I'll be
doing both
hydrogen line work and seti search.
Although I'm an electronics engineer I'm planning on buying most of the stuff ,
from DownEastMicrowave I'm going to buy 1420-144RX downconverter (my scanner only
goes from 10kHz to 1300MHz) and the 1420ULNA <0.4dB NF pre-amp.
Some questions I have about helix's is how directional are they?
Phasing 4 would improve that alot (compared to just one) I guess?
I've seen on some helix designs some use a piece of metal from the last winding and
adjusting it
closer or further from the groundplane, is this necessary for a rx only antenna too?
Is it really possible to replace the dish with helix's? Otherwise I can wait on buying the
downconverter etc.
One other thing, for rx purposes I've been using standard home satellite - low loss 75ohm
cable
(14.5dB loss @ 500MHz compared to RG-214's 18dB loss @ 500MHz (per 100meter) with great
results
for years, and would very much prefer to continue so, will there be much loss jumping from
50 to 75ohm for
downlead only! the 75ohm will still have LNA / downconverter / mmic line amplifier in front
of it,
and on 144mhz the losses are minimal are they not?
I'd really much appreciate valuable thoughts and replies

Regards
Anders Gimseus
Sweden
ash@telia.com

--
< This is my actual email adress, hopefully the spam programs filter out abuse@*!* adresses
>

369. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 19:18:25 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a6732cf.145366695@news.azstarnet.com>
Source record: 55366

On Thu, 18 Jan 2001 17:40:05 +0100, "ie" <ie@algonet.se> wrote:

>OK guys I think we have it under control now! Hi!
>
>So Bob, am I right in understanding that it is a good idea to avoid line
>lengths of even half wavelengths if you can? That will actually mask the
>effects of a bad antenna.
>And that the reflected power could actually be even greater than what you
>measure, unless the line is odd quarterwavelengths long?
>Quite interesting indeed!

Let me point out a difficulty with trying to realize a particular electrical line length over some distance.

For example let's assume that we are operating at 300 MHz (just to make the math a little easier) and we have a lossless transmission line with unity velocity factor.

The wavelength (L) is 1 meter, so a line one meter long will have 360 degrees of phase delay (when matched). Now an antenna probably will be further away than 1 meter so let's say (again to simplify the numbers) that the line is 50 meters long. The phase shift in this line is 18,000 degrees or 50 wavelengths so the line "repeats" the load Z at the input.

With the hypothetical 100+j0 ohm load from the previous examples, we see 100 +j0 at the input. So far, so good.

Now let's QSY up to 301.5 MHz: L is now 0.995 meters so our 50-meter line is 50.25 wavelengths long. That's 100 and a half trips around the Smith chart. Our 100 +j0 load looks like 25+j0 at the line input. We picked up a quarter wavelength of cable just by moving frequency by 1.5 MHz (0.5%).

This is what is called the "long lines effect" and points out the difficulty of trying to use a "magic" length of cable as is so often recommend in amateur discussions. This can be even more complicated it thermal effects and measurement tolerances are thrown in.

If bandwidth of any significance is desired, then the matching should be done as close to the load as possible and the balance of the transmission line operated in a matched condition.

Wes N7WS

>
>And Wes...your Smith chart talk is very interesting too, I just have to read
>up on my Smith charts before I can follow your discussion. But I will!
>

>Thanks also to John for sending me a copy of a page in the Bird manual where
>there is a diagram for the required length of RG-8/U cable to equal 1/2
>wavelength when added to the Bird43. (For frequencies up to 500MHz).
>That was actually the diagram I was missing in the first place!
>
>Thanks all,
>Ingvar SM7DUZ
>
>
>
>

370. Re: TO-220

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 19:49:19 UTC
From: tom_bruhns@agilent.com
Message-ID: <947hbr$nm7$1@nnrp1.deja.com>
Source record: 55367

Probably will be fine. I assume this amp is for relatively low frequencies; the only problems I'd expect have to do with changes in capacitance seen at the transistor's collector (drain?), and that depends on the heat sink, the board, etc. -- in short, the whole environment around the transistor. At 4MHz - 7MHz, I wouldn't expect a problem, but at 440MHz, positions and lead lengths are critical. As with most things, there's a lot of gray area and YMMV.

Cheers,
Tom

In article <3a670160.1302470@netnews.worldnet.att.net>,
Geokf4ucc@yahoo.com wrote:
> On Mon, 08 Jan 2001 17:43:52 GMT, geokf4ucc@yahoo.com wrote:
>
> >I am building W1FB - 5watt amp and have a question on the heat sink -
> >The PA needs to have a heat sink which is normally screwed flat to
the
> >board. My question - Radio Shack has a nice looking heat sink
> >rs276-1368 but to use it the pa (q1) will have to stand straight
> >rather then be screwed flat to board -- is this ok ??
> . thanks. george
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

371. TRIO/KENWOOD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 21:38:28 UTC
From: Frederick Rendell <fred.rendell@lineone.net>
Message-ID: <t6eodcoagn8aa9@corp.supernews.co.uk>
Source record: 55368

FOR SALE TRIO/KENWOOD TS711 2M MULTIMODE BASE STATION

BOXED IN GOOD CONDITION

£ 275.00

fred.rendell@lineone.net

372. Re: Web sites for 1 KW HF amp plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 23:42:26 UTC
From: Dave <dave_eckhardt@hp.com>
Message-ID: <3a677f44$1@hpb10302.boi.hp.com>
Source record: 55372

The Svetlana site at: http://www.svetlana.com has many good designs and options for amps.

"John Harper" <ae5x@optonline.net> wrote in message news:vj196.48000$nj5.5185367@news02.optonline.net...
> Hello,
>
> Antone know of any web sites or mailing lists where I might be able to find
> plans/schematics on how to build a 1 KW amp for the HF bands (really just
> interested in 80 & 160 meters)? I know the ARRL Handbook usually includes
> one in each issue but I'd like to take a look at what else may be out there
> before parting with the $.
>
> Thanks and 73,
>
> --
>
> John Harper AE5X
> Outdoor QRP & Lowband DXing: http://www.qsl.net/ae5x
>
>
>

373. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 23:47:52 UTC
From: tom_bruhns@agilent.com
Message-ID: <947vb6$59g$1@nnrp1.deja.com>
Source record: 55370

Strong agreement from here about what Wes wrote. Some more food for thought: that 100+j0 ohm antenna, fed instead with 75 ohm line, results in a constant 1.33:1 SWR on the line, just as it results in a constant 2:1 SWR on a 50 ohm line. However, if you plot the effect on a Smith chart normalized to 50 ohms, THEN you'll see a circle centered on 75 ohms, passing through 100+j0 ohms, and also passing through 56.25+j0 ohms. THAT point is rather a low "SWR" to a transmitter that likes to see 50 ohms, or for that matter a pretty well matched load to a length of 50 ohm line, and would result in a low SWR on the 50 ohm line.

So...by changing the length of a uniform impedance, lossless line, you won't change the SWR on that line, but by changing the length of a section of line of one impedance, you may change the SWR in another line of a different impedance that it's connected in series with. (There won't be an effect only if the SWR on the line whose length you change is 1:1.)

Cheers,
Tom

In article <3a672433.141626831@news.azstarnet.com>,
nospam_n7ws@arrl.net (Wes Stewart) wrote:
> On Thu, 18 Jan 2001 10:55:20 -0500, Bob Dodson <wb5apd@alltel.net>
wrote:
>
> >Wes;
> >
> > Think about this. Say you have ant antenna that is 100 ohms
impedance
> >with 50 ohm feed line and a 50 ohm rig.
>
> That is exactly the example I proposed previously and it works just as
I said.
> If the load is 100+j0 and the line Zo is 50, then the SWR is 2:1
everywhere on
> the line (assuming no loss).
>
> On the Smith chart, one complete revolution is 1/2 wavelength so if
you make the
> complete circle, you obviously wind up back at the same place. That
is the
> basis of the 'magic' 1/2 wavelength "impedance repeater" and Bird's
statement
> that you quote below.
>

> If you do not make a complete revolution you wind up with different
impedance
> and it sure isn't 50 ohm because that is the center of the circle
about which
> you are rotating. So you *never* see 50+j0 on a 50 ohm lossless line
if the
> load is other than 50+j0. To be sure there are two points on the
chart where
> the Z is 50 +/-j X and two others where the |Z| = 50, but the SWR is
still 2:1.
>
> If you should rotate only halfway around the chart (1/4 wavelength)
then the
> impedance is 25+j0; still 2:1 in a 50-ohm system.
>
> So yes, you can adjust the impedance seen by the transmitter by
varying the line
> length but only to the extent that the new impedance falls on the 2:1
circle.
> You *never* see a "perfect match" in this situation.
>
> Antenna tuners are another subject, but I will say that they do more
than
> electrically varying the electrical length. The above example proves
this. No
> matter what electrical length the cable is, the SWR never changes from
2:1.
>
> Regards,
>
> Wes
>
> >
> > BIRD SAYS WITH SWR
> >
> >"It is a principle of transmisssion line theory, that the
> >impedance is identical on either side of 1/2 wavelength."
> >
> > That tell me the feed line will have an impedance from 100 ohms
(the
> >antenna 100 ohms above) all the way down to 50 ohms depending on
where
> >you look at it on the feed. Bird says the impedance is the same as
the
> >load on either side of 1/2 wave lengths. It is not the same as the
load
> >at other points other than 1/2 wave lengths. The other (not the same)
> >can be 50 ohms depending on where you look on the feed line.
> > This means you can show a pefect match to the rig with a 2:1 swr
by

> >varying the feed length.
> >That is what an antenna tuner does. It electrically varies the feed
> >length as seen by the rig.
> > I not ready to give up yet and say you can not adjust the
impedance
> >seen by a rig with a mis-matched antenna by varying the feed length.
> > your turn guys hi hi..
> >73
> >bob
> >wb5apd
> >
> >
> >
> >
> >> So, the only way adding a random length of cable to your system can
change the
> >> results is if the cable impedance is different from the system
impedance. No
> >> need to worry about a particular length otherwise.
> >>
> >> Regards,
> >>
> >> Wes N7WS
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

374. FA:HP 8558B HP182 SPectrum analyzer coverage 100KHz to 1500Mhz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-18 23:54:52 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <2nL96.647$H2q.18219141@news.xtra.co.nz>
Source record: 55369
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208432281

This a good unit, everything works as it should.... reserve is $750, payment
in US Dollars.
Thanks for looking
Ted

==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

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375. FA: HP 8558B and HP 182T spectrum analyzer manuals.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 00:00:46 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <ysL96.651$H2q.17432690@news.xtra.co.nz>
Source record: 55371
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208437946
Photocopy of manual for HP182 Mainframe

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208436517
This is an original manual (not a photocopy) for operation, maintenance and
repair of a HP 8558B spectrum analyzer plug in.

Both manuals are in excellent order.

Quite hard to find.
Thanks
Ted

--
==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

376. FA: Neat little case with RF parts... Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 00:33:03 UTC
From: Great Surplus! <Newsgroups@GreatSurplus.com>
Message-ID: <2_L96.2159$5R4.353929@news.uswest.net>
Source record: 55373
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.swap,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208881823

Sorry for the cryptic subject. It just seems this would be the basis for a really neat
homebrew transmitter or receiver for portable use. This item is in reality an
International Crystal model 2400-0-2148 deviation meter. At least that's what I
think it is! It's in a nice metal cubic case 8x8x8 with latch. There is a deviation meter,
a channel selector, and a fairly decent vernier dial. The Channel selector has a
Weston thermometer built into it! Inside are 24 ceramic crystal sockets that have
(alas!) been relieved of their crystals. There is a very high quality 24-position
rotary switch and 3 very high quality ceramic variable capacitors, and a really
solid coil form. I would consider this a parts set, given the cost of recrystalling
it. But still a nice little unit to build into something. Could be a really nifty retro
portable tube ham receiver, or a transmitter-receiver. That's why I stuck it in the
'Transmitters' section - I think it would make a really cool little portable rig. The
vernier is smooth and more than adequate to track 40m CW around a fixed
rock transmitter. Also has a heavy carry handle on the case, and S0-239 antenna
connectors on the top - really perfect for a little rig.
Lotsa neat parts! Even has a robust battery holder inside.

Sorry for such a long post.

Take care

377. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 00:44:58 UTC
From: Craig Johnson <cbjohns@mn.mediaone.net>
Message-ID: <e6M96.18395$lh.849738@typhoon.mn.mediaone.net>
Source record: 55374

Richard,

Yes, I got it working, with Bob Camp's help. It certainly didn't work
the way I thought it did, according to my reading of the product spec.
I particular, the iOUD

The trick was initializing it TWICE. The first time just to get it changed
to INTERNAL update, and the second time with all the right bits and
an IOUD to make it take. I couldn't get it to work at all in internal
update mode (the default!).

I also have PIC code. Mine is 16F877 code. Let me know what
would be helpful.

- Craig

"Richard Hosking" <richardh@iinet.net.au> wrote in message
news:3a65aa58.28726496@news.m.iinet.net.au...
> Gday all
> I battled with this device for a month before I gave up and went on
> holiday..
> Good to see I am not the only one having problems.
> I could not get any sense out of the chip in serial mode beyond
> getting the IOUD pulses at 1/128 main clock after a master reset.
> I tried gating the main clock after reset (the revised data sheet says
> the reset should be held high fr 10 clock pulses) to allow the entry
> of a 4 byte serial word to address 7 before the chip internally
> updated. This had no effect. I could not seem to get any serial data
> into the chip - I couldnt change PLL status or current consumption by
> switching on/off any sections. I even tried parallel loading one byte
> to the register controlling IOUD by controlling serial/parallel mode
> and hardwiring the address pins at startup - still couldnt turn off
> the IOUD pulses. I havent managed to getan output from the chip or
> change the DC level of the DACs by loading data into the multipliers.
> I tried delays and multiple initializations to no avail
>
> HAS ANYONE GOT WORKING CODE or pseudocode for initializing the device
> in serial mode they are willing to share??
> It looks as though I will have to build another board with parallel
> mode.... :(
>
> Richard Hosking
>
> On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:
>
> >Craig,

> >
> >Ahhhh.... now we get into the real fun. Getting an output on the beast
> >is not easy.....
> >
> >Here's what messed me up - more or less in order:
> >
> >1) The stupid DAC bias resistor - at least the current data sheets
> >show how to hook it up. I had mine in the wrong way. Preliminary data
> >strikes .....
> >
> >2) All the various enable bits - digital enable, pll enable, dac
> >enable...
> >
> >3) The frequency select word - miss the first byte and the frequency
> >is at 1/256 th of the clock. Pretty hard to see on a scope.
> >
> >Other things to check:
> >
> >50 ohm to ground loads on all outputs - at least until you get an
> >output.
> >
> >Current drain, does it change when you turn the PLL on and off ? With
> >a 60 MHz clock you should see the current on the supply change
> >dramatically when you change the clock frequency.
> >
> >The wonderful keying bits. Don't enable any of the keying stuff at
> >first. Just run it in the CW output mode.
> >
> >Why the part defaults to no output I have no idea. I wrote a Visual
> >Basic app that let me hit the bits one at a time until I found the
> >ones that caused the problems in my setup. It's probably worth doing
> >something similar to allow you enough flexibility to figure the part
> >out.
> >
> >Hope this helps ....
> >
> > Bob
> >
> >
> >
> >
>
> http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> zaprichardh@iinet.net.au
> (remove the zap)

378. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 00:50:52 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <MbM96.7514$RB.418122@news02.optonline.net>
Source record: 55375

Richard,

I have not found the part to be very easy to damage. It seems to be about as rugged as the rest of the stuff on the board. What I do find as a problem is that the doc's are to long and to hard to read in one sitting ....

Bob

"Richard Hosking" <richardh@iinet.net.au> wrote in message news:3a670395.1557598@news.m.iinet.net.au...
> Bob
> Thanks for your comments again - forgive my persistence but I dont
> usually let a project defeat me (this might be the first!)
> I may have to do another proto board and redesign the hardware with
> the parallel option also.
> After a few weeks holiday I might see where my error is (no doubt
> there is one!)
> Is the chip particularly static sensitive?
> I fear I may damaged it with all the mods and fiddling around
>
> Richard
>
> On Thu, 18 Jan 2001 01:02:59 GMT, "Bob Camp" <bob@cq.nu> wrote:
>
> >Hi,
> >
> >The part works fine in serial mode. It takes some time to figure out
> >some of what they are trying to tell you in the data sheet, but it
> >does work. The code I have is in PIC assembler and it's pretty long.
> >Much more than would be reasonable in a news group. A simple approach
> >to getting it running:
> >
> >1) Check the mode select pins to be sure you are in serial mode (I
> >wasn't ....)
> >2) Bring the chip up with the clock running. Forget about trying to
> >init it first.
> >3) Reset the chip before you start
> >4) Do an i/o reset before each serial transfer
> >5) Just take it up to the point that you shut off the IOUD when you
> >are debugging the serial i/o. Anything more than this will just

> >confuse the issue.
> >
> >Once you get the serial running then my comments to Craig below may
> >apply.
> >
> >Most of us have gotten the part running, but it isn't an easy part.
> >There's just to much going on inside the darn thing.
> >
> >Hope this helps.
> >
> > Bob Camp
> > KB8TQ
> >
> >"Richard Hosking" <richardh@iinet.net.au> wrote in message
> >news:3a65aa58.28726496@news.m.iinet.net.au...
> >> Gday all
> >> I battled with this device for a month before I gave up and went
on
> >> holiday..
> >> Good to see I am not the only one having problems.
> >> I could not get any sense out of the chip in serial mode beyond
> >> getting the IOUD pulses at 1/128 main clock after a master reset.
> >> I tried gating the main clock after reset (the revised data sheet
> >says
> >> the reset should be held high fr 10 clock pulses) to allow the
entry
> >> of a 4 byte serial word to address 7 before the chip internally
> >> updated. This had no effect. I could not seem to get any serial
data
> >> into the chip - I couldnt change PLL status or current
consumption
> >by
> >> switching on/off any sections. I even tried parallel loading one
> >byte
> >> to the register controlling IOUD by controlling serial/parallel
mode
> >> and hardwiring the address pins at startup - still couldnt turn
off
> >> the IOUD pulses. I havent managed to getan output from the chip
or
> >> change the DC level of the DACs by loading data into the
> >multipliers.
> >> I tried delays and multiple initializations to no avail
> >>
> >> HAS ANYONE GOT WORKING CODE or pseudocode for initializing the
> >device
> >> in serial mode they are willing to share??
> >> It looks as though I will have to build another board with
parallel
> >> mode.... :(

> >>
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> >>
> >> On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:
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> >> >Craig,
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> >> >Ahhhh.... now we get into the real fun. Getting an output on the
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> >> >is not easy.....
> >> >
> >> >Here's what messed me up - more or less in order:
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> >> >1) The stupid DAC bias resistor - at least the current data
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> >> >show how to hook it up. I had mine in the wrong way. Preliminary
> >data
> >> >strikes .....
> >> >
> >> >2) All the various enable bits - digital enable, pll enable, dac
> >> >enable...
> >> >
> >> >3) The frequency select word - miss the first byte and the
> >frequency
> >> >is at 1/256 th of the clock. Pretty hard to see on a scope.
> >> >
> >> >Other things to check:
> >> >
> >> >50 ohm to ground loads on all outputs - at least until you get
an
> >> >output.
> >> >
> >> >Current drain, does it change when you turn the PLL on and off ?
> >With
> >> >a 60 MHz clock you should see the current on the supply change
> >> >dramatically when you change the clock frequency.
> >> >
> >> >The wonderful keying bits. Don't enable any of the keying stuff
at
> >> >first. Just run it in the CW output mode.
> >> >
> >> >Why the part defaults to no output I have no idea. I wrote a
Visual
> >> >Basic app that let me hit the bits one at a time until I found
the
> >> >ones that caused the problems in my setup. It's probably worth
> >doing
> >> >something similar to allow you enough flexibility to figure the
> >part
> >> >out.

> >> >
> >> >Hope this helps ....
> >> >
> >> > Bob
> >> >
> >> >
> >> >
> >> >
> >>
> >> http://www.iinet.net.au/~richardh/VK6BRO.htm
> >>
> >> zaprichardh@iinet.net.au
> >> (remove the zap)
> >
> >
>
> http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> zaprichardh@iinet.net.au
> (remove the zap)

379. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 01:05:16 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3A6792CC.C27095F6@alltel.net>
Source record: 55376

Well folks I never said you could actually change a swr by the feed
line length, only the perceived swr by a rig or a swr meter. No, in my
stated instance you will never see a perfect match at the transmitter
BUT you can see a vastly lower swr. That is all I have been saying. I am
not suggesting you can tune an antenna or change a swr by line length,
just that the impedance will change down the line therefore it matters
where you look on the line to see the true FULL reflected power.
If you read Wes/Toms statement below carefully I think they agree with
this ?? Like I said if you have no reflected power then there is no need
to worry about line length. Since conditions can change
and you might develop a swr, then the feed length needs to be taken into
consideration to see how much reflected power there really is, and
where to look on the line to see the FULL reflected power for a given
freq.

73 bob wb5apd

tom_bruhns@agilent.com wrote:
>
> Strong agreement from here about what Wes wrote. Some more food for
> thought: that 100+j0 ohm antenna, fed instead with 75 ohm line, results
> in a constant 1.33:1 SWR on the line, just as it results in a constant
> 2:1 SWR on a 50 ohm line. However, if you plot the effect on a Smith
> chart normalized to 50 ohms, THEN you'll see a circle centered on 75
> ohms, passing through 100+j0 ohms, and also passing through 56.25+j0
> ohms. THAT point is rather a low "SWR" to a transmitter that likes to
> see 50 ohms, or for that matter a pretty well matched load to a length
> of 50 ohm line, and would result in a low SWR on the 50 ohm line.
>
> So...by changing the length of a uniform impedance, lossless line, you
> won't change the SWR on that line, but by changing the length of a
> section of line of one impedance, you may change the SWR in another line
> of a different impedance that it's connected in series with. (There
> won't be an effect only if the SWR on the line whose length you change
> is 1:1.)
>
> Cheers,
> Tom
>
> In article <3a672433.141626831@news.azstarnet.com>,
> nospam_n7ws@arrl.net (Wes Stewart) wrote:
> > On Thu, 18 Jan 2001 10:55:20 -0500, Bob Dodson <wb5apd@alltel.net>
> wrote:
> >
> > >Wes;

> > >
> > > Think about this. Say you have ant antenna that is 100 ohms
> impedance
> > >with 50 ohm feed line and a 50 ohm rig.
> >
> > That is exactly the example I proposed previously and it works just as
> I said.
> > If the load is 100+j0 and the line Zo is 50, then the SWR is 2:1
> everywhere on
> > the line (assuming no loss).
> >
> > On the Smith chart, one complete revolution is 1/2 wavelength so if
> you make the
> > complete circle, you obviously wind up back at the same place. That
> is the
> > basis of the 'magic' 1/2 wavelength "impedance repeater" and Bird's
> statement
> > that you quote below.
> >
> > If you do not make a complete revolution you wind up with different
> impedance
> > and it sure isn't 50 ohm because that is the center of the circle
> about which
> > you are rotating. So you *never* see 50+j0 on a 50 ohm lossless line
> if the
> > load is other than 50+j0. To be sure there are two points on the
> chart where
> > the Z is 50 +/-j X and two others where the |Z| = 50, but the SWR is
> still 2:1.
> >
> > If you should rotate only halfway around the chart (1/4 wavelength)
> then the
> > impedance is 25+j0; still 2:1 in a 50-ohm system.
> >
> > So yes, you can adjust the impedance seen by the transmitter by
> varying the line
> > length but only to the extent that the new impedance falls on the 2:1
> circle.
> > You *never* see a "perfect match" in this situation.
> >
> > Antenna tuners are another subject, but I will say that they do more
> than
> > electrically varying the electrical length. The above example proves
> this. No
> > matter what electrical length the cable is, the SWR never changes from
> 2:1.
> >
> > Regards,
> >
> > Wes

> >
> > >
> > > BIRD SAYS WITH SWR
> > >
> > >"It is a principle of transmisssion line theory, that the
> > >impedance is identical on either side of 1/2 wavelength."
> > >
> > > That tell me the feed line will have an impedance from 100 ohms
> (the
> > >antenna 100 ohms above) all the way down to 50 ohms depending on
> where
> > >you look at it on the feed. Bird says the impedance is the same as
> the
> > >load on either side of 1/2 wave lengths. It is not the same as the
> load
> > >at other points other than 1/2 wave lengths. The other (not the same)
> > >can be 50 ohms depending on where you look on the feed line.
> > > This means you can show a pefect match to the rig with a 2:1 swr
> by
> > >varying the feed length.
> > >That is what an antenna tuner does. It electrically varies the feed
> > >length as seen by the rig.
> > > I not ready to give up yet and say you can not adjust the
> impedance
> > >seen by a rig with a mis-matched antenna by varying the feed length.
> > > your turn guys hi hi..
> > >73
> > >bob
> > >wb5apd
> > >
> > >
> > >
> > >
> > >> So, the only way adding a random length of cable to your system can
> change the
> > >> results is if the cable impedance is different from the system
> impedance. No
> > >> need to worry about a particular length otherwise.
> > >>
> > >> Regards,
> > >>
> > >> Wes N7WS
> >
> >
>
> --
> Tom Bruhns -- K7ITM
>
> Sent via Deja.com
> http://www.deja.com/

--
73
Bob Dodson WB5APD | Collins Collectors Association
Dahlonega Ga. EM84AK | AC-01054
My Web Page | Collins Radio Association
http://www.homestead.com/wb5apd | CRA #73
ARRL #0001289902
==========
I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
144mhz [2m] Station | 432mhz [70cm] Station
8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
[EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
==========

380. Re: LED lightbulb replacements.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 02:12:05 UTC
From: novatech@eskimo.com
Message-ID: <9487pl$9gk$1@eskinews.eskimo.com>
Source record: 55377

JW <jdwalton@home.com> writes:

>But the spectrum of fluorescents - even daylight bulbs (5500K)- is just awful,
>and I mean awful. Don't believe me? Take a picture of your workshop with
>ordinary film. You need a lot of magenta correction and even that doesn't get
>it right.

Good article in the latest isue of Scientific American on LEDs.

Steve.
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

381. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 02:17:14 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a679a78.171908616@news.azstarnet.com>
Source record: 55378

On Thu, 18 Jan 2001 20:05:16 -0500, Bob Dodson <wb5apd@alltel.net> wrote:

> Well folks I never said you could actually change a swr by the feed
>line length, only the perceived swr by a rig or a swr meter. No, in my
>stated instance you will never see a perfect match at the transmitter
>BUT you can see a vastly lower swr. That is all I have been saying. I am
>not suggesting you can tune an antenna or change a swr by line length,
>just that the impedance will change down the line therefore it matters
>where you look on the line to see the true FULL reflected power.
> If you read Wes/Toms statement below carefully I think they agree with
>this ?? Like I said if you have no reflected power then there is no need
>to worry about line length. Since conditions can change
>and you might develop a swr, then the feed length needs to be taken into
>consideration to see how much reflected power there really is, and
>where to look on the line to see the FULL reflected power for a given
>freq.

I will let Tom answer for himself, but I disagree.

One last time.

If the SWR on a lossless line is 2:1 (or any other value) at one point along the line, then without introducing some other matching element, it is 2:1 (or the same value) at every other point on the line. Period.

If the measuring equipment (either the Bird or the built-in SWR measuring system) says or perceives anything differently, then that equipment is providing inaccurate results. Period.

It is entirely possible, even likely, that the transmitter will prefer some value of impedance over another, even though they have the same SWR. Therefore, pruning the line length may (probably will) change the output power. If the output power changes, then the forward power and the reflected power change proportionately but their ratio does not. If the instrumentation says something differently, then it is wrong.

73,

Wes N7WS

>
> 73 bob wb5apd
>
>
>
>
>tom_bruhns@agilent.com wrote:

>>
>> Strong agreement from here about what Wes wrote. Some more food for
>> thought: that 100+j0 ohm antenna, fed instead with 75 ohm line, results
>> in a constant 1.33:1 SWR on the line, just as it results in a constant
>> 2:1 SWR on a 50 ohm line. However, if you plot the effect on a Smith
>> chart normalized to 50 ohms, THEN you'll see a circle centered on 75
>> ohms, passing through 100+j0 ohms, and also passing through 56.25+j0
>> ohms. THAT point is rather a low "SWR" to a transmitter that likes to
>> see 50 ohms, or for that matter a pretty well matched load to a length
>> of 50 ohm line, and would result in a low SWR on the 50 ohm line.
>>
>> So...by changing the length of a uniform impedance, lossless line, you
>> won't change the SWR on that line, but by changing the length of a
>> section of line of one impedance, you may change the SWR in another line
>> of a different impedance that it's connected in series with. (There
>> won't be an effect only if the SWR on the line whose length you change
>> is 1:1.)
>>
>> Cheers,
>> Tom
>>
>> In article <3a672433.141626831@news.azstarnet.com>,
>> nospam_n7ws@arrl.net (Wes Stewart) wrote:
>> > On Thu, 18 Jan 2001 10:55:20 -0500, Bob Dodson <wb5apd@alltel.net>
>> wrote:
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>> > On the Smith chart, one complete revolution is 1/2 wavelength so if
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>> > basis of the 'magic' 1/2 wavelength "impedance repeater" and Bird's
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>> > that you quote below.
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>> > and it sure isn't 50 ohm because that is the center of the circle
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>> > you are rotating. So you *never* see 50+j0 on a 50 ohm lossless line
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>> > load is other than 50+j0. To be sure there are two points on the
>> chart where
>> > the Z is 50 +/-j X and two others where the |Z| = 50, but the SWR is
>> still 2:1.
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>> > If you should rotate only halfway around the chart (1/4 wavelength)
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>> > impedance is 25+j0; still 2:1 in a 50-ohm system.
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>> > So yes, you can adjust the impedance seen by the transmitter by
>> varying the line
>> > length but only to the extent that the new impedance falls on the 2:1
>> circle.
>> > You *never* see a "perfect match" in this situation.
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>> > Antenna tuners are another subject, but I will say that they do more
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>> > electrically varying the electrical length. The above example proves
>> this. No
>> > matter what electrical length the cable is, the SWR never changes from
>> 2:1.
>> >
>> > Regards,
>> >
>> > Wes
>> >
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>> > >"It is a principle of transmisssion line theory, that the
>> > >impedance is identical on either side of 1/2 wavelength."
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>> > > That tell me the feed line will have an impedance from 100 ohms
>> (the
>> > >antenna 100 ohms above) all the way down to 50 ohms depending on
>> where
>> > >you look at it on the feed. Bird says the impedance is the same as
>> the
>> > >load on either side of 1/2 wave lengths. It is not the same as the
>> load
>> > >at other points other than 1/2 wave lengths. The other (not the same)
>> > >can be 50 ohms depending on where you look on the feed line.
>> > > This means you can show a pefect match to the rig with a 2:1 swr
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>> > >varying the feed length.
>> > >That is what an antenna tuner does. It electrically varies the feed
>> > >length as seen by the rig.
>> > > I not ready to give up yet and say you can not adjust the

>> impedance
>> > >seen by a rig with a mis-matched antenna by varying the feed length.
>> > > your turn guys hi hi..
>> > >73
>> > >bob
>> > >wb5apd
>> > >
>> > >
>> > >
>> > >
>> > >> So, the only way adding a random length of cable to your system can
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>> > >> results is if the cable impedance is different from the system
>> impedance. No
>> > >> need to worry about a particular length otherwise.
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>> > >> Regards,
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>> > >> Wes N7WS
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>> >
>>
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>> Tom Bruhns -- K7ITM
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>
>--
>73
>Bob Dodson WB5APD | Collins Collectors Association
>Dahlonega Ga. EM84AK | AC-01054
> My Web Page | Collins Radio Association
>http://www.homestead.com/wb5apd | CRA #73
> ARRL #0001289902
>===
> I MONITOR 144.200 ALL THE TIME | I MONITOR 432.100 ALL THE TIME
> 144mhz [2m] Station | 432mhz [70cm] Station
> 8877/1.5kw 2x17 el @90' | 4cx1600u/1.5kw 1X38 el @85'
> MGF1302 0.8nf ERP=87,990 watts | MGF1302 0.9nf ERP=95,741 watts
> [EME-HSMS-PSK31-MT63-SSB-CW] | [SSB-CW]
>===

382. CRYSTALS WANTED

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 03:08:03 UTC
From: sabbatai_zvi@NOSPAMhotmail.com
Message-ID: <3a67afa2.3165000@news-server>
Source record: 55379
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap

```
Crystals wanted!!

Many buyers waiting at:

http://senac.com/boards/880/
```

383. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 03:26:38 UTC
From: Terry Sanford <tsanford@nf.sympatico.ca>
Message-ID: <3A67B42C.9E6E0F23@nf.sympatico.ca>
Source record: 55380

Matt Donohoe wrote:

> Hello Has anybody here done any radar detector schematics ?
>
> Particularly for the frequencies etc used in Australia?
>
> Thanks, Matt.
>

Well why Australia? Radars used for what?

We live near a harbour and, judging by the different sizes of the various antennae, there appear to be many types of radar used on ships. On one occasion I detected radar pulses from a naval ship on a regular car radio, while it was tuned to a local AM broadcast station!

Also the airport has several radars. There have been some comments that some can be picked up i.e. they interfere with, some of the cheap CB (27 Mhz.) handheld units. Probably just 'blocking' the front end of the CB receiver?

And a local broadcasting station has a weather radar system. I suppose you could detect that if you wished?

Question is too vague. And would appear to be not 'normally' the kind of thing 'Amateur Radio Homebrewers' are constructing?

384. can you help with a question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 04:12:15 UTC
From: kf4toh@aol.com
Message-ID: <20010118231215.16348.00000143@ng-cn1.aol.com>
Source record: 55381

i have a roller inductor thats
21 turns of 5 dia at 5.5 long coil the coil is 1/8 wide x 3/8 edge wound
copper "a big ef johnson roller "
i figure it to be 28 uh does this figure right to you guys

thanks joe

385. HEP 590

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 04:27:03 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3A67C217.41910895@visi.com>
Source record: 55382

Hi gang,
I'm looking for a few (3 or 4) old Motorola HEP 590 ICs. They were a metal can diff amp type IC available around the mid 70's. I can come up with an ECG/NTE sub that is similar, but I would really like to get my hands on some of the original article. Anyone got some gathering dust?

tnx es 72

Bob WB0POQ

386. Re: Bird Thruline wattmeters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 05:44:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A67D451.F38D9180@eznec.com>
Source record: 55383

A point that might have been missed is that "50 ohm" lines often aren't really 50 ohms. Manufacturers can be pretty sloppy, and 10 ohms one way or the other isn't unusual. As Tom pointed out, you CAN change the SWR on the internal Bird line (which is what it measures) by changing the length of a non-50 ohm line between it and the load. If you see the SWR (or the ratio of forward to reverse power) change when you change the line length, you've either got current on the outside of the line causing it to be part of the load, or your transmission line isn't really 50 ohms. (I'm assuming here that the loss in the added or removed sections of line is negligible. Otherwise, increasing the length of the line to the load will decrease the SWR.) Just because the line says 50 ohms doesn't mean it is.

Roy Lewallen, W7EL

387. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 07:06:24 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <UIR96.33$a22.119411@news-west.usenetserver.com>
Source record: 55384

"Jake Brodsky" <frussle@erols.com> wrote in message
news:tbrd6tg11tsgjic704ua526blkhsd5g4ur@4ax.com...
> On Thu, 18 Jan 2001 01:19:49 GMT, "W3JDR" <j.r@usa.com>
> wrote:
>
> >Even with an 'ideal' detector, the audio will never be
> >very 'hi-fi' with a 7 KHz IF bandwidth. At most you'd get
> >only 3.5 KHz audio bandwidth, and probably less depending
> >on the passband shape of the IF filter. The best you
> >can hope for is to minimize distortion in your detector,
> >but distortion is ultimately also affected by the IF
> >filter because it can skew the phase of upper and lower
> >sidebands relative to the carrier.
>
> Two issues: First, with a good envelope detector, he can
> achieve a decent response (6 kHz, realistically) if he
> tunes off to one sideband or the other.

Sorry, this may work with exalted carrier detection (BFO set
to zero beat the carrier using a product detector), but not
with an envelope detector. W3JDR is correct.

The amplitudes of both sidebands must be equal and the
carrier voltage must be at least twice the amplitude of
either sideband for distortionless detection with an
envelope detector. [The phases of the carrier and both
sidebands must also be in the proper relationship.] Tuning
off to one side with an envelope detector produces the same
type of distortion as selective fading. You need to look at
the envelope detector not as a rectifier, but as a mixer,
where the sidebands and carrier mix to produce a mix of
audio and RF signals. Viewing the diode as a square-law
device is the easiest wayu to demonstrate this
mathematically.

73, Barry WA4VZQ ornitz@usa.net

388. Re: Helix antennas for hydrogen line (1420MHz) work

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 07:29:47 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <3oof6toqal5dege14ca1ig11l58vdkrfhm@4ax.com>
Source record: 55385

On Thu, 18 Jan 2001 18:17:30 GMT, Ash <abuse@gravitywell.org> wrote:

>Some questions I have about helix's is how directional are they?

For any antenna with a distinct main lobe in the radiation pattern, you can get an estimation of the solid angle of the main lobe by dividing the solid angle for a sphere by the absolute gain (_not_ dB) over isotropic radiator.

>Phasing 4 would improve that alot (compared to just one) I guess?

If you maintain "optimum" spacing (i.e. maintain a clean pattern), the gain would increase by nearly 6 dB and the radiation angle in both horizontal and vertical pattern width would be halved compared to a single antenna.

For radio astronomy, it can be advantageous to use larger spacing, thus the radiation pattern will contain a lot of "fingers", with nulls between peaks. If there are only two point sources with some angular distance between them, then a narrow finger can be pointed towards the wanted signal and the null towards the unwanted source. However, with more than two point sources, these fingers cause a lot of aliases.

Paul OH3LWR

389. Re: Helix antennas for hydrogen line (1420MHz) work

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 08:54:54 UTC
From: Lee Leduc <leeleduc@pacbell.net>
Message-ID: <h00g6tcc8g5tmoj060frpktrfjk7m3arjp@4ax.com>
Source record: 55386

You might try the following site. It has a lot of links for Amateur
Radio Astronomy enthusiasts.
http://www.nitehawk.com/rasmit/ws1_4.html

On Thu, 18 Jan 2001 18:17:30 GMT, Ash <abuse@gravitywell.org> wrote:

>Hi
>I've been considering using 4 phased Helix antennas instead of a parabolic dish
>since they are quite hard to get here in sweden , a 3-5meter dish that is...
>I've only used my radioscanner for a couple of years but have been into amateur radio
>and satellite work alot during this time and radio communication is my largest interest
>since a few years back.
>Now I'm tired of playing with weather satellites and such, and is looking to explore what
I'm
>really interested in - space. And the waterhole looks like a nice spot to start, I'll be
doing both
>hydrogen line work and seti search.
>Although I'm an electronics engineer I'm planning on buying most of the stuff ,
>from DownEastMicrowave I'm going to buy 1420-144RX downconverter (my scanner only
>goes from 10kHz to 1300MHz) and the 1420ULNA <0.4dB NF pre-amp.
>Some questions I have about helix's is how directional are they?
>Phasing 4 would improve that alot (compared to just one) I guess?
>I've seen on some helix designs some use a piece of metal from the last winding and
adjusting it
>closer or further from the groundplane, is this necessary for a rx only antenna too?
>Is it really possible to replace the dish with helix's? Otherwise I can wait on buying the
downconverter etc.
>One other thing, for rx purposes I've been using standard home satellite - low loss 75ohm
cable
>(14.5dB loss @ 500MHz compared to RG-214's 18dB loss @ 500MHz (per 100meter) with great
results
>for years, and would very much prefer to continue so, will there be much loss jumping from
50 to 75ohm for
>downlead only! the 75ohm will still have LNA / downconverter / mmic line amplifier in
front of it,
>and on 144mhz the losses are minimal are they not?
>I'd really much appreciate valuable thoughts and replies
>
>Regards
>Anders Gimseus
>Sweden
>ash@telia.com

390. Re: can you help with a question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 11:01:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9496ppbdb1@uranium.btinternet.com>
Source record: 55387

Program SOLNOID2 will give you the answer in a jiffy.

Download in a few seconds from website below. Not zipped up. Run
immediately.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

kf4toh <kf4toh@aol.com> wrote in message
news:20010118231215.16348.00000143@ng-cn1.aol.com...
>
> i have a roller inductor thats
> 21 turns of 5 dia at 5.5 long coil the coil is 1/8 wide x 3/8 edge wound
> copper "a big ef johnson roller "
> i figure it to be 28 uh does this figure right to you guys
>
> thanks joe

391. Re: Question about AD9854 initialization

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 13:03:34 UTC
From: richardh@iinet.net.au
Message-ID: <3a683ae3.3618824@news.m.iinet.net.au>
Source record: 55388

Craig
I would be intrerested in the code if you are willing.
E mail if you like
Thanks

Richard

On Fri, 19 Jan 2001 00:44:58 GMT, "Craig Johnson"
<cbjohns@mn.mediaone.net> wrote:

>Richard,
>
>Yes, I got it working, with Bob Camp's help. It certainly didn't work
>the way I thought it did, according to my reading of the product spec.
>I particular, the iOUD
>
>The trick was initializing it TWICE. The first time just to get it changed
>to INTERNAL update, and the second time with all the right bits and
>an IOUD to make it take. I couldn't get it to work at all in internal
>update mode (the default!).
>
>I also have PIC code. Mine is 16F877 code. Let me know what
>would be helpful.
>
>- Craig
>
>
>"Richard Hosking" <richardh@iinet.net.au> wrote in message
>news:3a65aa58.28726496@news.m.iinet.net.au...
>> Gday all
>> I battled with this device for a month before I gave up and went on
>> holiday..
>> Good to see I am not the only one having problems.
>> I could not get any sense out of the chip in serial mode beyond
>> getting the IOUD pulses at 1/128 main clock after a master reset.
>> I tried gating the main clock after reset (the revised data sheet says
>> the reset should be held high fr 10 clock pulses) to allow the entry
>> of a 4 byte serial word to address 7 before the chip internally
>> updated. This had no effect. I could not seem to get any serial data
>> into the chip - I couldnt change PLL status or current consumption by
>> switching on/off any sections. I even tried parallel loading one byte
>> to the register controlling IOUD by controlling serial/parallel mode
>> and hardwiring the address pins at startup - still couldnt turn off
>> the IOUD pulses. I havent managed to getan output from the chip or
>> change the DC level of the DACs by loading data into the multipliers.

>> I tried delays and multiple initializations to no avail
>>
>> HAS ANYONE GOT WORKING CODE or pseudocode for initializing the device
>> in serial mode they are willing to share??
>> It looks as though I will have to build another board with parallel
>> mode.... :(
>>
>> Richard Hosking
>>
>> On Fri, 29 Dec 2000 02:11:53 GMT, "Bob Camp" <bob@cq.nu> wrote:
>>
>> >Craig,
>> >
>> >Ahhhh.... now we get into the real fun. Getting an output on the beast
>> >is not easy.....
>> >
>> >Here's what messed me up - more or less in order:
>> >
>> >1) The stupid DAC bias resistor - at least the current data sheets
>> >show how to hook it up. I had mine in the wrong way. Preliminary data
>> >strikes .....
>> >
>> >2) All the various enable bits - digital enable, pll enable, dac
>> >enable...
>> >
>> >3) The frequency select word - miss the first byte and the frequency
>> >is at 1/256 th of the clock. Pretty hard to see on a scope.
>> >
>> >Other things to check:
>> >
>> >50 ohm to ground loads on all outputs - at least until you get an
>> >output.
>> >
>> >Current drain, does it change when you turn the PLL on and off ? With
>> >a 60 MHz clock you should see the current on the supply change
>> >dramatically when you change the clock frequency.
>> >
>> >The wonderful keying bits. Don't enable any of the keying stuff at
>> >first. Just run it in the CW output mode.
>> >
>> >Why the part defaults to no output I have no idea. I wrote a Visual
>> >Basic app that let me hit the bits one at a time until I found the
>> >ones that caused the problems in my setup. It's probably worth doing
>> >something similar to allow you enough flexibility to figure the part
>> >out.
>> >
>> >Hope this helps ....
>> >
>> > Bob
>> >

>> >
>> >
>> >
>>
>> http://www.iinet.net.au/~richardh/VK6BRO.htm
>>
>> zaprichardh@iinet.net.au
>> (remove the zap)
>
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

392. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 14:52:26 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <8lkg6tgghch5182h1ir6krs5h2aeji63ij@4ax.com>
Source record: 55389

On Fri, 19 Jan 2001 02:06:24 -0500, "Dr. Barry L. Ornitz"
<ornitz@usa.net> wrote:

>
>"Jake Brodsky" <frussle@erols.com> wrote in message
>news:tbrd6tg11tsgjic704ua526blkhsd5g4ur@4ax.com...
>> On Thu, 18 Jan 2001 01:19:49 GMT, "W3JDR" <j.r@usa.com>
>> wrote:
>>
>> >Even with an 'ideal' detector, the audio will never be
>> >very 'hi-fi' with a 7 KHz IF bandwidth. At most you'd get
>> >only 3.5 KHz audio bandwidth, and probably less depending
>> >on the passband shape of the IF filter. The best you
>> >can hope for is to minimize distortion in your detector,
>> >but distortion is ultimately also affected by the IF
>> >filter because it can skew the phase of upper and lower
>> >sidebands relative to the carrier.
>>
>> Two issues: First, with a good envelope detector, he can
>> achieve a decent response (6 kHz, realistically) if he
>> tunes off to one sideband or the other.
>
>Sorry, this may work with exalted carrier detection (BFO set
>to zero beat the carrier using a product detector), but not
>with an envelope detector. W3JDR is correct.
>
>The amplitudes of both sidebands must be equal and the
>carrier voltage must be at least twice the amplitude of
>either sideband for distortionless detection with an
>envelope detector. [The phases of the carrier and both
>sidebands must also be in the proper relationship.] Tuning
>off to one side with an envelope detector produces the same
>type of distortion as selective fading. You need to look at
>the envelope detector not as a rectifier, but as a mixer,
>where the sidebands and carrier mix to produce a mix of
>audio and RF signals. Viewing the diode as a square-law
>device is the easiest wayu to demonstrate this
>mathematically.

I think you have something wrong with your math. Otherwise, how on
earth could you possibly receive CHU with an envelope detector on
7.335? It has only one sideband.

Have you never tuned an AM signal with the carrier near the edge of a
narrow filter?

And what did it sound like?

You only need one sideband with the carrier. You can tune to one side. Yes, sometimes you do get distortion due to the carrier phase change at the filter edge, but it's not always severe enough to cause bad distortion. That's a filter issue, not a detector issue.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

393. want info digital display

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 15:46:58 UTC
From: Jimmi <jimmi@satlantic.com>
Message-ID: <3A686233.1022E5BA@satlantic.com>
Source record: 55390

A few years ago 73 magazine had an article for a home made digital
display add on to a TenTec reciever. it used 7447 counter chips. does
anyone remember this .I was hoping to get a print of this .
thanks
Jim
VE9FA

--

**** WARNING **** All unsolicited bulk e-mail received at this address
will be promptly reported to the sender's system administrator, and to
law enforcement authorities whenever applicable.

394. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 16:09:24 UTC
From: "Richard F. Gillette P.E." <r.f.gillette@ieee.org>
Message-ID: <3A68667A.77F2A1FF@ieee.org>
Source record: 55391

Go to a HAMFEST.

See www.arrl.org Hamfets (upper right) for a list in your area. Sun 23
Jan. at DeVry in chicago is a good one.

Rich W9PE

The larger ones have most everything and the price is right.

Brokebob wrote:

> check at
>
> http://www.kenselectronics.com/index.html
> brokebob@aol.com (broke=not working, retired=not working, retired=broke)

395. FA: Hewlett Packard HP400E Voltmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 16:37:34 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <i3_96.3003$mo2.273054@news1.news.adelphia.net>
Source record: 55392
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.equipment

This instrument is in fair physical condition. There is some sticker residue on the panel and enclosure. I checked it against another voltmeter and it's working fine. The back panel has buffered AC and DC outputs to drive a chart recorder or other instrumentation.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208944666

396. Re: How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 17:28:40 UTC
From: K0HB <K0HB@arrl.org>
Message-ID: <949tfr$o3d$1@nnrp1.deja.com>
Source record: 55394
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A689983.AD373F4B@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:

> Yes, I am asking for some input before I go and rip some surface mount
> resistors out of my 1K$ radio. Would it be okay to use a 15 watt
> grounded tip soldering iron to heat up the ends and pull it out with
> some needle nose pliers? Or should I try to use the desoldering
> wick I have? Please advise on the correct way to remove these
> suckers. I would like to be able to put them back in if need be.

It's nigh-unto impossible to work on fine-pitch SMT with conventional soldering tools. Heated air (using a proper size shaped nozzle) works far better. Try to find a local electronics shop (TV repair place?) which has the right tools.

I broke down and bought a used MTR5000 rework station ($3K used) for my ham shack. Now I can build/rebuild anything!

73, Hans, K0HB
--
"We are fellow travelers on a journey between two
eternities, and it's a trip far too brief for me
to be concerned about your speed at the Code of
Morse."

Sent via Deja.com
http://www.deja.com/

397. How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 19:46:11 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A689983.AD373F4B@grove.iup.edu>
Source record: 55393
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi all,

Yes, I am asking for some input before I go and rip some surface mount resistors out
of my 1K$ radio. Would it be okay to use a 15 watt grounded tip soldering iron to heat up
the ends and pull it out with some needle nose pliers? Or should I try to use the desoldering
wick I have? Please advise on the correct way to remove these suckers. I would like to be
able to put them back in if need be.

Thanks,

Scott.

398. HP 8640A problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 19:55:25 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <94a687$b5k$01$1@news.t-online.com>
Source record: 55396

Hi

trying to repair my HP 8640A signal generator (with option 002 installed) I have ripped off some of the wires soldered to the connector board (part number: 08640-60302 A1544-4) which is attached to the AM /AGC/RF AMP Assembly. Can someone send me a copy of the part of the schematic which shows the assignment of the wires? If the color code of the wires is the same with all 8640s the color to pad assignment would also do.

Peter

399. Re: Plessey On-Frequency Repeaters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 19:57:38 UTC
From: Joe McElvenney <joemac@xic.demon.co.uk>
Message-ID: <VA.0000015f.02291ba9@xic.demon.co.uk>
Source record: 55395

Hi,

A few days ago I posted a request for information on the above subject and have since received a reply from Peter Chadwick. As he is unable to post to this group, I have his permission to repeat it here.

++++++++++++++++
Start of repeat.
++++++++++++++++

Hi Joe,

Well, the Plessey 'Groundsat' on frequency repeater used a direct conversion receiver with I and Q channels. As a result, the local oscillator was on the receive frequency, and was remodulated by the received signal. By amplifying the LO and putting it back to the antenna, you got an on-frequency repeater. The problems are that the transmit power is limited by the dynamic range of the mixers in the receiver, and you have to get the phase shift of the modulation through the system correct so that it doesn't cancel the modulation at one extreme, or oscillate at the other. In order to do FM with analogue direct conversion, you need to do something clever in the demod: as I remember, Groundsat used AGC on each IF strip, and then differentiated the IF and mixed it with the other channel - basically getting I squared plus Q squared. This needs very accurate matched gain control in the two channels.

Strangely enough, it was never a commercial success, and I've never really understood why that was. There was a lot of work done at Roke Manor in those days on direct conversion: as Plessey Semiconductors, we were involved a bit. I guess the patents must have expired by now.

Hope this is of interest.

73

Peter G3RZP

++++++++++++++
End of repeat.
++++++++++++++

All of which raises some interesting points about FM direct-conversion receivers and front-end design.

Cheers - Joe, G3LLV

400. Re: How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 20:14:45 UTC
From: tom_bruhns@agilent.com
Message-ID: <94a77c$1se$1@nnrp1.deja.com>
Source record: 55298
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

For resistors, it's generally not too hard to just heat both ends with an iron and remove it with tweezers (or very fine needlenose, perhaps). I generally just heat one end then the other, back and forth, till I can push the R off its pads with the iron. Clean the pads on the board w/ solder wick before re-installing the resistor .. or better, use a new resistor. ICs are more problematic, but not impossible with a good iron and solder wick and patience.

Cheers,
Tom
who was dragged not quite kicking and screaming into SMT about ten years ago and immediately fell in love with it for homebrewing...far fewer holes to drill!

In article <3A689983.AD373F4B@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> Hi all,
>
> Yes, I am asking for some input before I go and rip some surface mount
> resistors out
> of my 1K$ radio. Would it be okay to use a 15 watt grounded tip
> soldering iron to heat up
> the ends and pull it out with some needle nose pliers? Or should I try
> to use the desoldering
> wick I have? Please advise on the correct way to remove these suckers.
I
> would like to be
> able to put them back in if need be.
>
> Thanks,
>
> Scott.
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

401. want info digital display 73 magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 20:18:34 UTC
From: Jimmi <jimmi@satlantic.com>
Message-ID: <3A68A1D8.B8C467C1@satlantic.com>
Source record: 55297

Jimmi wrote:

> A few years ago 73 magazine had an article for a home made digital
> display add on to a TenTec reciever. it used 7447 counter chips. does
> anyone remember this .I was hoping to get a print of this .
> thanks
> Jim
> VE9FA
>
> --
>
> **** WARNING **** All unsolicited bulk e-mail received at this address
> will be promptly reported to the sender's system administrator, and to
> law enforcement authorities whenever applicable.

--

**** WARNING **** All unsolicited bulk e-mail received at this address
will be promptly reported to the sender's system administrator, and to
law enforcement authorities whenever applicable.

402. Re: How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 22:07:18 UTC
From: marsgal42@hotmail.com
Message-ID: <94adqg$85p$1@nnrp1.deja.com>
Source record: 55300
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A68CD54.C9298631@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> Okay, sounds good. Maybe I will get some extra hands and put 2 irons
on each
> end...it
> should pop right off.

Using a little iron on each end like tongs is how I do it.
If the soldering iron tip is too big a file will make it
smaller.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

403. Re: How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 23:27:16 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A68CD54.C9298631@grove.iup.edu>
Source record: 55299
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Okay, sounds good. Maybe I will get some extra hands and put 2 irons on each
end...it
should pop right off.

Thanks,

Scott.

tom_bruhns@agilent.com wrote:

> For resistors, it's generally not too hard to just heat both ends with
> an iron and remove it with tweezers (or very fine needlenose,
> perhaps). I generally just heat one end then the other, back and
> forth, till I can push the R off its pads with the iron. Clean the
> pads on the board w/ solder wick before re-installing the resistor .. or
> better, use a new resistor. ICs are more problematic, but not
> impossible with a good iron and solder wick and patience.
>
> Cheers,
> Tom
> who was dragged not quite kicking and screaming into SMT about ten years
> ago and immediately fell in love with it for homebrewing...far fewer
> holes to drill!
>
> In article <3A689983.AD373F4B@grove.iup.edu>,
> Scott McClements <yetbbwa@grove.iup.edu> wrote:
> > Hi all,
> >
> > Yes, I am asking for some input before I go and rip some surface mount
> > resistors out
> > of my 1K$ radio. Would it be okay to use a 15 watt grounded tip
> > soldering iron to heat up
> > the ends and pull it out with some needle nose pliers? Or should I try
> > to use the desoldering
> > wick I have? Please advise on the correct way to remove these suckers.
> I
> > would like to be
> > able to put them back in if need be.
> >
> > Thanks,
> >
> > Scott.
> >
> >

>
> --
> Tom Bruhns -- K7ITM
>
> Sent via Deja.com
> http://www.deja.com/

404. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 23:48:58 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <Kn4a6.1638$CP4.566467@typhoon2.ba-dsg.net>
Source record: 55301

Jake,
I'm not sure which math you're referring to...please clarify.

In any case, a carrier with one sideband is not AM. I would happily agree to call it a special case of AM., but it is not AM. It does not produce an envelope that is a faithful reproduction of the original modulation. It 'works' sufficiently well to produce communications qualty audio at moderate modulation percentages, but it distorts in the troughs as modulation approaches 100%. Tuning the receiver off-center in order to pass more of the modulation bandwidth of one set of sidebands will produce better frequency fidelity, but the distortion will hardly qualify as 'hi-fi'.

Joe
W3JDR

"Jake Brodsky" <frussle@erols.com> wrote in message
news:8lkg6tgghch5182h1ir6krs5h2aeji63ij@4ax.com...
> On Fri, 19 Jan 2001 02:06:24 -0500, "Dr. Barry L. Ornitz"
> <ornitz@usa.net> wrote:
>
> >
> >"Jake Brodsky" <frussle@erols.com> wrote in message
> >news:tbrd6tg11tsgjic704ua526blkhsd5g4ur@4ax.com...
> >> On Thu, 18 Jan 2001 01:19:49 GMT, "W3JDR" <j.r@usa.com>
> >> wrote:
> >>
> >> >Even with an 'ideal' detector, the audio will never be
> >> >very 'hi-fi' with a 7 KHz IF bandwidth. At most you'd get
> >> >only 3.5 KHz audio bandwidth, and probably less depending
> >> >on the passband shape of the IF filter. The best you
> >> >can hope for is to minimize distortion in your detector,
> >> >but distortion is ultimately also affected by the IF
> >> >filter because it can skew the phase of upper and lower
> >> >sidebands relative to the carrier.
> >>
> >> Two issues: First, with a good envelope detector, he can
> >> achieve a decent response (6 kHz, realistically) if he
> >> tunes off to one sideband or the other.
> >
> >Sorry, this may work with exalted carrier detection (BFO set
> >to zero beat the carrier using a product detector), but not
> >with an envelope detector. W3JDR is correct.
> >
> >The amplitudes of both sidebands must be equal and the
> >carrier voltage must be at least twice the amplitude of

> >either sideband for distortionless detection with an
> >envelope detector. [The phases of the carrier and both
> >sidebands must also be in the proper relationship.] Tuning
> >off to one side with an envelope detector produces the same
> >type of distortion as selective fading. You need to look at
> >the envelope detector not as a rectifier, but as a mixer,
> >where the sidebands and carrier mix to produce a mix of
> >audio and RF signals. Viewing the diode as a square-law
> >device is the easiest wayu to demonstrate this
> >mathematically.
>
> I think you have something wrong with your math. Otherwise, how on
> earth could you possibly receive CHU with an envelope detector on
> 7.335? It has only one sideband.
>
> Have you never tuned an AM signal with the carrier near the edge of a
> narrow filter?
>
> And what did it sound like?
>
> You only need one sideband with the carrier. You can tune to one
> side. Yes, sometimes you do get distortion due to the carrier phase
> change at the filter edge, but it's not always severe enough to cause
> bad distortion. That's a filter issue, not a detector issue.
>
> 73,
>
>
> Jake Brodsky, AB3A mailto:frussle@erols.com
> "Beware of the massive impossible!"

405. Re: How to remove surface mount components?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-19 23:52:49 UTC
From: tom_bruhns@agilent.com
Message-ID: <94ak0edgl1@nnrp1.deja.com>
Source record: 55302
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Yep, that's the way I often do it too. Great minds and all. If I only have one or two to take off, I just use a single iron (sometimes adding a bit of solder, bridging the R end to end to heat both ends at once). Seems like the only problem components are the ones that are glued down (typically on the "bottom" of boards that are wave soldered).

Cheers,
Tom

In article <94adqg$85p$1@nnrp1.deja.com>,
marsgal42@hotmail.com wrote:
> In article <3A68CD54.C9298631@grove.iup.edu>,
> Scott McClements <yetbbwa@grove.iup.edu> wrote:
> > Okay, sounds good. Maybe I will get some extra hands and put 2 irons
> on each
> > end...it
> > should pop right off.
>
> Using a little iron on each end like tongs is how I do it.
> If the soldering iron tip is too big a file will make it
> smaller.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89mg pied a terre..." - Hospital/Shafte
>
> Sent via Deja.com
> http://www.deja.com/
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

406. Re: feeding transmitter with the wrong antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 00:26:09 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A68DB21.37525E9A@erols.com>
Source record: 55303

Peter,

I hope your question has been answered. The answer is NO. Transmission distance is a function of propagation, not antenna length. Propagation at 2 meters is most very short range. Yes, there are some long distance QSOs on record but they are not because of long antennas. Rather the antennas used have gain, brought about by reshaping the transmitted wave.

Connecting a long wire antenna has some negative benefits as well. If your long wire isn't carefully cut to be a multiple of a quarter wavelength it may have a very high impedance at its end and cause very high SWR.

73

407. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 03:07:59 UTC
From: "Ed Hare, W1RFI" <w1rfi@arrl.net>
Message-ID: <Fj7a6.1023$e5.2535676@news.ntplx.net>
Source record: 55304

> I am fairly new at homebrewing and was wondering how most of you order
> your parts. Does anyone have a good supplier I can just email a list of
> parts pay for it, and have it shipped? Much of the parts I have are from
> desoldering misc junk I find here there and everywhere, but some of these
> new projects I am looking at have some hard to stumble apon stuff. Most
> of it, from what I ahve noticed is available from radio shack, but they
> are so expensive with everything, I am sure I can do much better.

Many construction projects will list a parts source. If you are going to do a lot of homebrewing, become a parts-catalog collector, and become familiar with what each distributor carries.

A great resource to look up nearly any company selling part of interest to hams is found on the ARRL web site at:

http://www.arrl.org/tis/tisfind.html

This database can be searched by either any word in the database or by category. If you want a list of companies selling solar panels, type in solar panel in the search box that is down the screen a bit. One of the more popular parts suppliers is Digikey. To get a rather large list of other suppliers, type in COMPONENT>COMPONENT SUPPLIER in the search box.

The categories list is shown at:

http://www.arrl.org/tis/tisfind.html#cats

Have fun with the searchable, categorized database.

73,
Ed Hare, W1RFI

408. Re: Web sites for 1 KW HF amp plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 03:23:24 UTC
From: "Ed Hare, W1RFI" <w1rfi@arrl.net>
Message-ID: <ay7a6.1025$e5.2536612@news.ntplx.net>
Source record: 55305

John Harper <ae5x@optonline.net> wrote in message
news:vj196.48000$nj5.5185367@news02.optonline.net...

> Antone know of any web sites or mailing lists where I might be able to
find
> plans/schematics on how to build a 1 KW amp for the HF bands (really just
> interested in 80 & 160 meters)? I know the ARRL Handbook usually includes
> one in each issue but I'd like to take a look at what else may be out
there
> before parting with the $.

Hi, John,

Check the ARRL Tech info page at:

http://www.arrl.org/tis/info/amplifir.html

Lot's of reprints from older QST articles and ARRL Handbooks.

Enjoy.

> Outdoor QRP & Lowband DXing: http://www.qsl.net/ae5x

Hey, what's a QRPer doing looking for an amplifier? :-)

73,
Ed Hare, W1RFI

409. "N" connector for coaxial sleeve balun

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 03:26:20 UTC
From: Bob East <viking@pacifier.com>
Message-ID: <3A69055C.EB728062@pacifier.com>
Source record: 55306

Hi,

Does anyone know where I can purchase via mail-order some type "N"
connectors that are chassis mount but not flanged. I want the type that

is circular and I believe are held in place with a nut screwed on the
back.
I have an Amphenol number 082-202-1006 which seems to be the correct
article.

73's and Tks,
Bob East
WA7RED

410. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 04:02:08 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <458a6.5785$GS1.501421@news02.optonline.net>
Source record: 55307

Bruce and the assembled multitude,

I agree with the idea of simply putting in some fairly modern mixer diodes. That's what I finally did and it worked out well, mainly thanks to all who pitched in with helpful tidbits of information. In all of the stuff I came across I never did find a spec on the old mixer diodes.....

Thanks!

Bob

"Bruce Muscolino" <w6toy@erols.com> wrote in message news:3A60786C.1C7C4AF8@erols.com...
>
>
> Bob Camp wrote:
> >
> > My homebrew spectrum analyzer project took an odd twist about a week
> > ago. My employer tossed out a HP 8590A and I happened to fish it out
> > of the trash ....
> >
> It would seem a simple problem if you can get the specs of the old mixer
> diodes. Just look up the specs of a new diode type!
>
> However, since you say "this is only ham radio", why not replace them
> with some fast mixer diodes from someplace like Dan's Small Parts?
>
> 73

411. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 06:22:57 UTC
From: whiskey_au@yahoo.com
Message-ID: <94baruutn1@nnrp1.deja.com>
Source record: 55308

Hi Mat,
if u are referring to police radar, heres a circuit diagram ive had floating around for a while now. Its designed to pick up X-band radar (10.525 GHz) which is now obsolete, however if you use the included formula to change the capacitor lead length, you might be able to get it to work for K or Ka band (K band is handheld radar 24.150GHz, and Ka band is photoradar 33.4->36 GHz). The formula is log10, and in inches.

Ive never got around to making it myself, as im not sure what units the capaciors values are in. The detecting capacitor is listed as "0.22" which i assume is microFarad, as the one capacitor that does have a unit listed is in uF. Anyone have any ideas on this given that it is to detect ~10GHz? It also doesnt say what type of capacitor to use for the detector (i assume a greencap?)

It would be great to get working, it would be immune to radar detectors, as it lacks the leaky oscillator they rely on.. plus its so small! :) The downside is it might not work too well, let me know how u go if it works!

cheers,
Whiskey.
----
whiskey_auNOSPAM@yahoo.com
cut NOSPAM 4 reply.
----

p.s. the jpg is at:
http://www.xdrive.com/share/979970647111Q0mMdFTrQMS8IsDtSwWT
and is valid for 7 days.

In article <3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au>,
"Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote:
> Hello Has anybody here done any radar detector schematics ?
>
> Particularly for the frequencies etc used in Australia?
>
> Thanks, Matt.
>
> m_donohoe@dingoblue.net.au.spam
> remove .spam
>
>

Sent via Deja.com
http://www.deja.com/

412. Re: AM Detector Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 10:03:46 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <4pda6.949$a22.449981@news-west.usenetserver.com>
Source record: 55309

"Jake Brodsky" <frussle@erols.com> wrote in message
news:8lkg6tgghch5182h1ir6krs5h2aeji63ij@4ax.com...
> I think you have something wrong with your math.
> Otherwise, how on earth could you possibly receive CHU
> with an envelope detector on 7.335? It has only one
> sideband.

Because it only _has_ just ONE sideband. If the other were present, but at a very small amplitude, you would get what is known as quadrature distortion. CHU is not modulated deeply either.

> Have you never tuned an AM signal with the carrier near
> the edge of a narrow filter?
> And what did it sound like?

Distorted!

> You only need one sideband with the carrier. You can tune
> to one side. Yes, sometimes you do get distortion due to
> the carrier phase change at the filter edge, but it's not
> always severe enough to cause bad distortion. That's a
> filter issue, not a detector issue.

Forget the phase change for the moment. Just assume the filter amplitude response is not symmetric with respect to the carrier. You now produce an in-phase component that is reduced in amplitude. But you generate a quadrature component too. If the quadrature component is excessive, it can produce considerable distortion. You can demonstate this mathematically with nothing more than trigonometric identities. [And while it took only a half sheet of paper to show this with my scribbling, I am certainly not going to take lots of time to type this in with proper subscripts, superscipts, anmd greek letters. It does make a good learning exercise however.]

If you wish to read more about this, I suggest:

Rohde, Ulrich L. and T. T. N. Bucher: "Communication Receivers: Principles and Design," McGraw-Hill, NY, 1988, pp.362-376.

I am sure the later edition of this book covers this issue too. To quote one pertinent section:

"To avoid quadrature distortion, we try to tune the carrier to the center frequency of the filter, and design our band-pass filters with complex zeroes and poles distributed symmetrically about the filter center frequency. Then the demodulated signal is distorted linearly in amplitude and phase by the characteristics at the USB frequency offset from the carrier, and no quadrature component is introduced. Standard filter designs discussed earlier are based on seeking such characteristics."

The reason I earlier mentioned exalted carrier reception (not an envelope detector) is that the supplied carrier (BFO) when applied at a much greater amplitude than the received carrier tends to reduce the effective modulation index of the signal. Without this, problems occur when the negative modulation index approaches 100 percent. You might note that W3JDR in his reply stated that when using a carrier and one sideband with an envelope detector, the problems occur on the modulation troughs.

If you include the effects of different phase shifts when the carrier is offset from the center of the filter response, you can get far more distortion. This is the distortion found in selective fading oh HF radio paths.

The original poster was looking for high-fidelity detection of AM. An offset filter response is not the way to achieve this.

Dr. Barry L. Ornitz WA4VZQ ornitz@usa.net

413. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 13:48:04 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t6j5onejfs6q42@corp.supernews.com>
Source record: 55310

what did you use and where did you find them?
"Bob Camp" <bob@cq.nu> wrote in message
news:458a6.5785$GS1.501421@news02.optonline.net...
> Bruce and the assembled multitude,
>
> I agree with the idea of simply putting in some fairly modern mixer
> diodes. That's what I finally did and it worked out well, mainly
> thanks to all who pitched in with helpful tidbits of information. In
> all of the stuff I came across I never did find a spec on the old
> mixer diodes.....
>
> Thanks!
>
> Bob
>
>
> "Bruce Muscolino" <w6toy@erols.com> wrote in message
> news:3A60786C.1C7C4AF8@erols.com...
> >
> >
> > Bob Camp wrote:
> > >
> > > My homebrew spectrum analyzer project took an odd twist about a
> week
> > > ago. My employer tossed out a HP 8590A and I happened to fish it
> out
> > > of the trash ....
> > >
> > > It would seem a simple problem if you can get the specs of the old
> mixer
> > > diodes. Just look up the specs of a new diode type!
> > >
> > > However, since you say "this is only ham radio", why not replace
> them
> > > with some fast mixer diodes from someplace like Dan's Small Parts?
> > >
> > > 73
> >
>

414. Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 14:42:01 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <8sha6.3364$4k4.91353@news2-win.server.ntlworld.com>
Source record: 55311

Anyone made, or know the wherabouts of any constructional details for a remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a thing does not seen to have been a common homebrew project.

Thanks for any info.

--
Please add an, "s" to "newsgroup" in email address to reply direct.

415. Re: Parts Suppliers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 14:48:14 UTC
From: "Richard F. Gillette P.E." <r.f.gillette@ieee.org>
Message-ID: <3A69A4F2.BDB04B6A@ieee.org>
Source record: 55312

Correction hamfets in upper left at arrl.org and

28 Jan 2001 at De Very

Wheaton Community Radio Amateurs
http://www.wheatonhamfest.org
Contact:
Pat Byrne, K9JAU
PO Box QSL
Wheaton, IL 60189
Phone: 630-545-9950
Email: info@wheatonhamfest.org

"Richard F. Gillette P.E." wrote:

> Go to a HAMFEST.
>
> See www.arrl.org Hamfets (upper right) for a list in your area. Sun 23
> Jan. at DeVry in chicago is a good one.
>
> Rich W9PE
>
> The larger ones have most everything and the price is right.
>
> Brokebob wrote:
>
> > check at
> >
> > http://www.kenselectronics.com/index.html
> > brokebob@aol.com (broke=not working, retired=not working, retired=broke)

416. Re: Mixer Diodes - Homebrew Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 16:15:49 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <VQia6.12454$GS1.1041571@news02.optonline.net>
Source record: 55313

Henry,

I used the Agilent HSMS 2812. They seem to be the middle of the road part. The 280x and 282x parts are a bit to either side of them in terms of forward voltage. The 282x's might do a better job, but who knows ....

The other major item in the decision making process was that they came in as samples at work .... hate to spend a dollar or two to fix up a 8590 :)

One thing I figured out a bit late - the right way to do it is to cut the old diodes out rather than unsolder them. If you chop the old ones you have a better chance of keeping everything on the duroid from moving around. Also since the old diodes seem to be welled (rather than soldered) into the end blocks you have to do some chopping either way.

Thanks to All!

Bob

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t6j5onejfs6q42@corp.supernews.com...
> what did you use and where did you find them?
> "Bob Camp" <bob@cq.nu> wrote in message
> news:458a6.5785$GS1.501421@news02.optonline.net...
> > Bruce and the assembled multitude,
> >
> > I agree with the idea of simply putting in some fairly modern
mixer
> > diodes. That's what I finally did and it worked out well, mainly
> > thanks to all who pitched in with helpful tidbits of information.
In
> > all of the stuff I came across I never did find a spec on the old
> > mixer diodes.....
> >
> > Thanks!
> >
> > Bob
> >
> >
> > "Bruce Muscolino" <w6toy@erols.com> wrote in message
> > news:3A60786C.1C7C4AF8@erols.com...
> > >
> > >

> > > Bob Camp wrote:
> > > >
> > > > My homebrew spectrum analyzer project took an odd twist about
a
> > week
> > > > ago. My employer tossed out a HP 8590A and I happened to fish
it
> > out
> > > > of the trash ....
> > > >
> > > It would seem a simple problem if you can get the specs of the
old
> > mixer
> > > diodes. Just look up the specs of a new diode type!
> > >
> > > However, since you say "this is only ham radio", why not replace
> > them
> > > with some fast mixer diodes from someplace like Dan's Small
Parts?
> > >
> > > 73
> >
> >
>
>

417. Re: VCO bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 16:24:21 UTC
From: douglas dwyer <doug@ddwyer.demon.co.uk>
Message-ID: <Lq+ZcAA1uba6EwyU@ddwyer.demon.co.uk>
Source record: 55314

In article <LJt86.4$s%3.1030@wa.nnrp.telstra.net>, Murray Lang
<muzzle@iexpress.net.au> writes
>I've built one that covers from ~35MHz to ~85MHz so I imagine that it would
>be even easier in the range that you mentioned.
>One thing I've noticed though is that the output waveform at the lower end
>of the range is awful. Something to do with the varacter characteristic I
>think. I'm now looking at multiple VCOs to get a clean output for the entire
>range. Might not be a problem with the frequency range you're talking about
>though.
>
>Regards
>Murray - VK6HL
>
>Robert A. French <rfrench99@bigfoot.com> wrote in message
>news:87itnjfodl.fsf@fulcrum.mignet.yi.org...
>> How wide (MHz) could one reasonably make a VCO in the
>> 100 to 150 MHz region? I need to cover a 30 MHz bandwidth
>> around 110 MHz or so. Is it better to use several VCOs?
>> Could three 10 MHz bandwidth VCO's cover this region with
>> reasonable Q and noise? Thanks.
>>
>> Rob
>
>
Ive had some sucess with switching inductance taps with pin diodes also
look out for self biasing the varicaps operate back to back.
Varicaps in parallel reduces equivilent series resistance and increases
Q.
For super octave operation try an L varicap t or pi network with more
than one stage series loss goes up but tuning range increases.

--
douglas dwyer

418. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 16:53:25 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <9oja6.53564$HE2.6115955@news1.onlynews.com>
Source record: 55315

> Anyone made, or know the wherabouts of any constructional details for a
> remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
> thing does not seen to have been a common homebrew project.
>
> Thanks for any info.
>
> --
> Please add an, "s" to "newsgroup" in email address to reply direct.
>
You don't make it easy.

I use an inverted "L" for 160, 80 and 40 meters. It's a half wave on 160 and voltage fed on all three bands using an "L" network that is remotely tuned with a motor driven vacuum variable and a Ledex driven switch for the inductor taps. My antenna presents about 2600 ohms on 160, 1800 ohms on 80 and about 700 ohms on 40 meters, making it possible to always keep the capacitor on the antenna end of the inductor so that it doesn't have to be switched. The "L" network was calculated from the measured values of impedance and worked right the first time. It will present a match on any frequency on any of the three bands with just varying the capacity with a single tap on the inductor for each band. Settings vary a bit depending on ground water despite a counterpoise and a 60 foot well casing beneath the tuner. Still have no difficulty and the antenna is quite competitive on all three bands.

You don't NEED an antenna tuner that will match anything to anything, (Although an "L" network can do that,) you just need one that will match your antenna to the rig.

W4ZCB

419. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 17:03:47 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <m9yfGjAzTca6EAWx@ifwtech.plus.net>
Source record: 55316

Richard Fullerton wrote:
>Anyone made, or know the wherabouts of any constructional details for a
>remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
>thing does not seen to have been a common homebrew project.
>

I think you're in the UK - there has been a series in the last 5 issues
of RadCom on an automatic ATU, and my December 2000 'In Practice' column
covered the "manually pre-set, but remotely operated" option.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

420. Alarm Tx via radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 18:21:08 UTC
From: Pieter Kruger <surf101@hotmail.com>
Message-ID: <94ckupchh1@ctb-nnrp2.saix.net>
Source record: 55317

Hi

I have an application where there are already voice radio's in place (CB like) radios.

I have to transmit an alarm tone via the radio link to a distant station. The radio network,
i.e. relay towers etc. are already in place for the exisint voice communications. My question
is this, to send an alarm signal across the voice channel, is this as simple as making an FM transmitter
on the same frequency as the existing voice comms and feeding the alarm signal into the FM transmitter?

It seems that this is all that is required.

Any comments are welcome.

Thank you
Pieter.

-> Please reply to pkruger@wam.co.za

421. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 19:35:27 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <v9pc49.bt7.ln@localhost.localdomain>
Source record: 55321

In article <8sha6.3364$4k4.91353@news2-win.server.ntlworld.com>, "Richard Fullerton" <newsgroup_email@ntlworld.com> wrote:

> Anyone made, or know the wherabouts of any constructional details for a
> remote-controlled ATU for an end-fed wire antenna?

I haven't seen it myself but I believe the G3XJP auto-atu was
published in a recent issue (or issues?) of RadCom.

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.

http://www.qsl.net/ei9gq
Linux 2.4.0

422. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 19:52:54 UTC
From: LA8AK@online.no
Message-ID: <3a69b722.410774923@news.online.no>
Source record: 55318

On Sat, 20 Jan 2001 14:42:01 -0000, "Richard Fullerton"
<newsgroup_email@ntlworld.com> wrote:

>Anyone made, or know the wherabouts of any constructional details for a
>remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
>thing does not seen to have been a common homebrew project.
>
>Thanks for any info.
>

depends whether you want automatic tuning or not
please check the last few issues of Radcom 2000, if it should cover
only one band and this band is not 80 or 160m it seems no reason why
it cannot be adjusted once and for all, to cover more bands you can
use pre-set tuning conditions

73
-jm

423. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 21:00:32 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <J%ma6.4226$4k4.117900@news2-win.server.ntlworld.com>
Source record: 55319

Harold Johnson <w4zcb@ispchannel.com> wrote in message
news:9oja6.53564$HE2.6115955@news1.onlynews.com...
>
>
> I use an inverted "L" for 160, 80 and 40 meters. It's a half wave on 160
and
> voltage fed on all three bands using an "L" network that is remotely tuned
> with a motor driven vacuum variable and a Ledex driven switch for the
> inductor taps. My antenna presents about 2600 ohms on 160, 1800 ohms on 80
> and about 700 ohms on 40 meters, making it possible to always keep the
> capacitor on the antenna end of the inductor so that it doesn't have to be
> switched. The "L" network was calculated from the measured values of
> impedance and worked right the first time. It will present a match on any
> frequency on any of the three bands with just varying the capacity with a
> single tap on the inductor for each band. Settings vary a bit depending on
> ground water despite a counterpoise and a 60 foot well casing beneath the
> tuner. Still have no difficulty and the antenna is quite competitive on
all
> three bands.
>
> You don't NEED an antenna tuner that will match anything to anything,
> (Although an "L" network can do that,) you just need one that will match
> your antenna to the rig.
>
> W4ZCB

Thank you for your comment Harold.

When I think about it, I'm really after building myself 2 remote ATU's for an inverted "L" antenna. One for general coverage receiving, the other for transmitting/receiving on the ham bands.

Now that I've directed myself properly on that issue, I can appreciate that's it's quite likely that the only thing needed to make an ATU for the ham bands, is a tapped fixed inductor and fixed capacitors and a set of relays (manually pre-set as G3SEK mentions). Yes, that could be the answer. I wonder though if I would have a problem if I chose not to have a variable capacitor in the "L" network. Perhaps on the LF bands there would be a problem with narrow bandwith, especially since the maximum length of wire I could get out is about 78 feet. (But given a mediocre earth connection maybe not). If narrow bandwith was a problem maybe I could arrange to toggle between 2 capacitors.

I'd like to operate with an invered "L", but I wonder about the earthing losses. I've got Reg Edward's "endfeed.exe" program (which I think is what

I need to compute the L & C for the "L" network") but I'm unsure as to what earthing requirements in practice I'd need to get acceptable efficiency. (And I muse, what is an acceptable radiating efficiency, 75%?)

Perhaps I should try to get a copy of Ian Whites article. I take it that it does cover inverted "L" antenna's and answers some of my concerns.

(Anyone in UK willing to photocopy and post me December 2000' 'In Practice' column in RadCom that covered the "manually pre-set, but remotely operated" option?)

For the "endfeed.exe" program:

http://www.btinternet.com/~g4fgq.regp/page3.html#S301

424. Re: "N" connector for coaxial sleeve balun

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 21:40:58 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A6A05BB.27104F77@GTE.net>
Source record: 55320

Bob East wrote:

> Hi,
>
> Does anyone know where I can purchase via mail-order some type "N"
> connectors that are chassis mount but not flanged. I want the type that
>
> is circular and I believe are held in place with a nut screwed on the
> back.
> I have an Amphenol number 082-202-1006 which seems to be the correct
> article.
>
> 73's and Tks,
> Bob East
> WA7RED

Try Joel at The RF Connection-- http://www.therfc.com

425. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-20 23:05:21 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <TgiCBjAxmha6EAhO@ifwtech.plus.net>
Source record: 55322

Richard Fullerton wrote:
>
>I'd like to operate with an invered "L", but I wonder about the earthing
>losses. I've got Reg Edward's "endfeed.exe" program (which I think is
>what I need to compute the L & C for the "L" network") but I'm unsure as
>to what earthing requirements in practice I'd need to get acceptable
>efficiency. (And I muse, what is an acceptable radiating efficiency,
>75%?)
>
>Perhaps I should try to get a copy of Ian Whites article. I take it
>that it does cover inverted "L" antenna's and answers some of my
>concerns.
>
Yes it does. It recommends the use of ENDFEED as a design tool, and
makes some suggestions about earthing.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

426. FA: Beautiful 8-tube homebrew receiver on Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 01:08:31 UTC
From: Great Surplus! <Newsgroups@GreatSurplus.com>
Message-ID: <5Hqa6.3000$Vg2.510181@news.uswest.net>
Source record: 55323
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.swap,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1209301289

The above link is for a beautiful homebrew 8-tube ham receiver. I bought it back in 1975 as a teenager and had it ever since. It's never been turned on because the power cord is frayed, but judging by the construction I'm sure it's well built and will run again. I set a reserve on this because of my personal attachment to it. But I will NEVER get around to restoring it, so it's time to pass it on to someone who will.

Take a look at it - this is a NEAT old 8 tube radio.

Dave

Greatsurplus

427. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 01:27:55 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <vWqa6.54317$HE2.6154527@news1.onlynews.com>
Source record: 55324

> Now that I've directed myself properly on that issue, I can appreciate
> that's it's quite likely that the only thing needed to make an ATU for the
> ham bands, is a tapped fixed inductor and fixed capacitors and a set of
> relays (manually pre-set as G3SEK mentions). Yes, that could be the
> answer. I wonder though if I would have a problem if I chose not to
> have a variable capacitor in the "L" network. Perhaps on the LF bands
> there would be a problem with narrow bandwith, especially since the
> maximum length of wire I could get out is about 78 feet. (But given
> a mediocre earth connection maybe not). If narrow bandwith was a
> problem maybe I could arrange to toggle between 2 capacitors.

I have to "toggle" my motor driven vacuum variable a couple of times going from one end of 160 meters to the other to flatten the line, It's fairly sharp even with 250 feet of wire out there. (Conversely, 40 meters is way below 2:1 all across the band with a single setting) and interestingly, for my particular setup, the capacitor values for the top end of 160 and 40 meters are nearly identical. 80 is off quite a bit. At any rate, realizing that not everyone has motor driven caps, you could probably do a suitable job of it with switched caps, particularly if you can switch them 1-2-4-8 style to get incremental values.

If you're loaded with relays and room is not a problem, simply put in the capacity you need for each band made up of fixed and variables and switch the whole thing with a rotary wafer, you only need to tune it up once unless you decide (or mother nature decides for you) to change antennas.

I read Peter Rhodes articles on the homebrew tuner in RadCom. I marvel at his stamina and ingenuity, I actually thought about his technique for some high power solid state low pass filter caps that I thought I needed but I probably don't have the patience for something like that. I do think his major contribution there was the statement about not NEEDING a tuner that will match anything to anything, just a tuner to match your particular conditions.

> I'd like to operate with an invered "L", but I wonder about the earthing
> losses. I've got Reg Edward's "endfeed.exe" program (which I think is
what
> I need to compute the L & C for the "L" network") but I'm unsure as to
what
> earthing requirements in practice I'd need to get acceptable efficiency.
> (And I muse, what is an acceptable radiating efficiency, 75%?)

Depends on what you can accomplish. 120 radials are great. I settle for an elevated counterpoise that extends the full length of the horizontal section of my "L". I know it would reduce my ground losses to have more, but there's a wife and neighbors to live with. Besides, I disconnect my counterpoise

when I want it to use as a 60 KHz antenna for calibrating my standard. (Once a year?) Fed against the well casing, it gives me all kinds of signal from WWVB. Get something up, even 25 percent effeciency is heads and shoulders better than no antenna at all. Good Luck.

W4ZCB

428. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 10:33:50 UTC
From: Matt Donohoe <m_donohoe@dingoblue.net.au>
Message-ID: <3a6abb73$0$15469$7f31c96c@news01.syd.optusnet.com.au>
Source record: 55325

Well,

As you people can see by the LAST post I managed to find a person that was willing to help and did know what I was talking about.

These kind of people may be few and far between, but I would kind of appreciate not writing my requests off unless they have something valid to offer, like Whiskey did.

Look guys, we all have to ask stupid questions that when we reflect on, we say 'damn, thats so simplistic to me now'. But Hell, this is the game of life!!!! This is not one of those critical life or death situations!

"Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote in message news:3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au...
> Hello Has anybody here done any radar detector schematics ?
>
> Particularly for the frequencies etc used in Australia?
>
> Thanks, Matt.
>
> m_donohoe@dingoblue.net.au.spam
> remove .spam
>
>
>

429. Re: 807's grounded grid????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 11:50:13 UTC
From: k8bvj@webtv.net
Message-ID: <865-3A6ACCF5-26@storefull-235.iap.bryant.webtv.net>
Source record: 55328

Thank you fellas for all the info about
1625 vs 807 tubes....

73 Jack K8BVJ

430. Re: want info digital display

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 11:54:47 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <b6Aa6.4224$cN.283123@bgtnsc07-news.ops.worldnet.att.net>
Source record: 55326

Almost All Digital Electronics www.aade.com has a digital display with programmable offset for around 60 dollars.

Pete

Jimmi <jimmi@satlantic.com> wrote in message news:3A686233.1022E5BA@satlantic.com...
> A few years ago 73 magazine had an article for a home made digital
> display add on to a TenTec reciever. it used 7447 counter chips. does
> anyone remember this .I was hoping to get a print of this .
> thanks
> Jim
> VE9FA
>
> --
>
>
>
>
>
>
>
>
>
>
> **** WARNING **** All unsolicited bulk e-mail received at this address
> will be promptly reported to the sender's system administrator, and to
> law enforcement authorities whenever applicable.
>
>

431. Re: Dynamic Range

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 12:12:03 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <nmAa6.4233$cN.283421@bgtnsc07-news.ops.worldnet.att.net>
Source record: 55327

I have generally heard that crystal filters shouldn't have more than +10dBm
or signal applied to them; if I am wrong, anybody can feel free to correct
me. About mechanical filters, I am not sure. In reference to the input
intercept, I believe that you are talking about the 3rd order intercept. I
think that you would be ok, working with a high level mixer, in the IP3
range that you described, because the IP3 is a figure of merit, at an
extrapolated point where the distortion products "catch up" with the desired
signal at the I.F. output of the mixer. Again, if I have missed the point
here, feel free to correct me.
Anyway, since the IP3 is a figure of merit, and you hopefully wouldn't
see a 40 to 50 dBm signal at your mixer input (this corresponds to 10 Watts
and 100 Watts of RF!), you should be ok.

Pete Gianakopoulos
Chicago, Il.

ralph <crlane@erols.com> wrote in message
news:3A64CD10.12E7440C@erols.com...
> I have been reading about receiver dynamic range where some writers are
> saying that crystal filters are subject to signal overload (also
> mechanical filters). Does anyone have any experience or any reference to
> literature about this? There has been a lot of attention paid to
> developing high intercept point mixers (+40 to 50 dbm input intercept),
> thus it would seem the if crystal filters will be generating a lot of
> distortion products.
> Any thoughts about this?
>
> Ralph

432. Re: Alarm Tx via radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 12:44:55 UTC
From: LA8AK@online.no
Message-ID: <3a69f973.427754005@news.online.no>
Source record: 55329

On Sat, 20 Jan 2001 20:21:08 +0200, "Pieter Kruger"
<surf101@hotmail.com> wrote:

>Hi
>
>I have an application where there are already voice radio's in place (CB
>like) radios.
>
>I have to transmit an alarm tone via the radio link to a distant station.
>The radio network,
>i.e. relay towers etc. are already in place for the exisint voice
>communications. My question
>is this, to send an alarm signal across the voice channel, is this as simple
>as making an FM transmitter
>on the same frequency as the existing voice comms and feeding the alarm
>signal into the FM transmitter?
>
>It seems that this is all that is required.
>
LA2AB had some problems with burglaries ever so often at "The
Wavetrap" clubstation, so they arranged for a door alarm with a delay
to switch on the transmitter with open mike on the mobile frequency
145.080 which at least one of the members listened to

73
-jm

433. Re: Alarm Tx via radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 13:20:09 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A6AE209.4FB6F3CC@coqui.net>
Source record: 55330

J M Noeding wrote:
>
> On Sat, 20 Jan 2001 20:21:08 +0200, "Pieter Kruger"
> <surf101@hotmail.com> wrote:
>
> >Hi
> >
> >I have an application where there are already voice radio's in place (CB
> >like) radios.
> >
> >I have to transmit an alarm tone via the radio link to a distant station.
> >The radio network,
> >i.e. relay towers etc. are already in place for the exisint voice
> >communications. My question
> >is this, to send an alarm signal across the voice channel, is this as simple
> >as making an FM transmitter
> >on the same frequency as the existing voice comms and feeding the alarm
> >signal into the FM transmitter?
> >
> >It seems that this is all that is required.
> >
> LA2AB had some problems with burglaries ever so often at "The
> Wavetrap" clubstation, so they arranged for a door alarm with a delay
> to switch on the transmitter with open mike on the mobile frequency
> 145.080 which at least one of the members listened to
>
> 73
> -jm

I had an application once where we had 18 un-attended locations
that needed to be remote-switched simultaneously, and rapidly (ie,
to the second). We installed scanners at the various locations
fix-tuned to the local paging system (analog) with the audio
feeding into a touch-tone decoder. (This was in the early 80s
before you could simply walk into RadioShack and buy all the
pagers you want) Any person, throughout the organization could
simply dial in via telephone and key in the appropriate codes to
make the switches function. The tone decoders were the little $10
kit circuits you see advertised.
It worked quite well. Single tone switching, especially in
crowded bands or on the same channel with audio, isn't very
reliable and is prone to alot of glitching. Standard touchtones
are reliable and the equipment is cheap.

Bill Meacham
Vieques, PR

434. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 13:35:18 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <94f5mu$q2b$1@news6.svr.pol.co.uk>
Source record: 55339

> At any rate, realizing
> that not everyone has motor driven caps, you could probably do a suitable
> job of it with switched caps, particularly if you can switch them 1-2-4-8
> style to get incremental values.
==========
With defunct floppy drives available all over the place ,there are may
opportunities to get a functional stepper motor . These usually make 1.8
degrees per step or 200 steps per revolution. Or covering the range of a
variable (plate) capacitor in 100 steps. If this resolution is insufficient
,a coaxial reduction gear 3:1 or 6:1 can be placed between the stepper motor
and variable capacitor.
These reduction gears can be found on old valve equipment (Heathkit etc)
,but are also still available as new.

Note: Some stepper motors have 3.6 degrees per step, resulting in only 100
steps per revolution.

Stepper motors can be triggered by a 555 timer type of pulse generator (with
transistor power output stage)
Pulse rate can be made variable and motor rotation can be reversed by a
simple switch.

Remote feedback of the capacitor's position is simple by means of a good
quality wirewound potmeter (ten turn if available) mechanically linked to
the capacitor ; the potmeter forming 2 resistor legs of a remote bridge
circuit with moving coil meter or digital voltmeter.

For rotating vacuum caps you might need a stronger stepper motor from those
good old 1970-80s 8inch dics drives . Remember the CDC and the like
computers ?

73 Frank gm0csz.kn6wh@ukrs.org

435. counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 14:49:15 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t6ltnfbacuf8a0@corp.supernews.com>
Source record: 55331

i have an hp105b oscillator that puts out 5 mhz, 1 mhz, and 100khz..
i don't have a manual on it but i think it has a 5mhz xtal..

my hp 5328a reads 4,999,999.8 on the 5 mhz output and 1,000,000.0 on the 1 mhz output..

i'm baffled: 4,999,999.8/5 = 999,999.6, and wonder why i don't get that on the 1 mhz output..

anyone care to explain?
tnx
hank wd5jfr

436. Re AM detector info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 15:49:38 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <94f7ldrgt1@news6.svr.pol.co.uk>
Source record: 55340

From: "W3JDR" <j.r@usa.com>
Subject: Re: AM Detector Info
Date: 20 January 2001 01:48

Jake,
I'm not sure which math you're referring to...please clarify.

In any case, a carrier with one sideband is not AM. I would happily agree to call it a special case of AM., but it is not AM. It does not produce an envelope that is a faithful reproduction of the original modulation. It 'works' sufficiently well to produce communications qualty audio at moderate modulation percentages, but it distorts in the troughs as modulation approaches 100%. Tuning the receiver off-center in order to pass more of the modulation bandwidth of one set of sidebands will produce better frequency fidelity, but the distortion will hardly qualify as 'hi-fi'.

==========
Don't want to be pedantic but the above sounds like the usual confusion of terminology.
AM means Amplitude Modulation

It is applied in various ways.

1) To a carrier with both sidebands generated : DSB most broadcast stations outside the FM bands
This mode is by amateurs usually referred to as AM

2) Single Side Band with suppressed or reduced carrier

3) Independent sidebands with suppressed or reduced carrier
Here each sideband transmits different information

All of the above modes involve amplitude modulation.

73 Frank gm0csz.kn6wh@ukrs.org

437. Re: Dynamic Range

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 15:56:54 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <aFDa6.21676$GS1.2248185@news02.optonline.net>
Source record: 55332

Pete,

The +10 dbm limit is a reasonable one for normal monolithic filters. I have seen discrete crystal filters that seem to be quite happy with +25 to +30 dbm on their input. Of course your government and mine paid some cash to make them that way....

A crystal is generally damaged by power dissipated in the resonator. In the case of a filter the power applied may or may not wind up in a resonator. When the signal is far enough off channel it's just reflected back out of the filter. With a signal directly on channel at least part of it is passed through to the load.

I suspect that as time has gone by the monolythics have gotten better as far as power handling. I see an awful lot of parts that started out as discrete designs and now are being produced as monolythics.

I have not seen to many IF amplifiers or mixers that will put out > +20 dbm though so I'm not sure how important the issue really is.

Bob Camp
KB8TQ

"NANCY GIANAKOPOULOS" <n.gianakopoulos@worldnet.att.net> wrote in message
news:nmAa6.4233$cN.283421@bgtnsc07-news.ops.worldnet.att.net...
> I have generally heard that crystal filters shouldn't have more than +10dBm
> or signal applied to them; if I am wrong, anybody can feel free to correct
> me. About mechanical filters, I am not sure. In reference to the input
> intercept, I believe that you are talking about the 3rd order intercept. I
> think that you would be ok, working with a high level mixer, in the IP3
> range that you described, because the IP3 is a figure of merit, at an
> extrapolated point where the distortion products "catch up" with the desired
> signal at the I.F. output of the mixer. Again, if I have missed the point
> here, feel free to correct me.
> Anyway, since the IP3 is a figure of merit, and you hopefully wouldn't
> see a 40 to 50 dBm signal at your mixer input (this corresponds to

10 Watts
> and 100 Watts of RF!), you should be ok.
>
> Pete Gianakopoulos
> Chicago, Il.
>
> ralph <crlane@erols.com> wrote in message
> news:3A64CD10.12E7440C@erols.com...
> > I have been reading about receiver dynamic range where some
writers are
> > saying that crystal filters are subject to signal overload (also
> > mechanical filters). Does anyone have any experience or any
reference to
> > literature about this? There has been a lot of attention paid to
> > developing high intercept point mixers (+40 to 50 dbm input
intercept),
> > thus it would seem the if crystal filters will be generating a lot
of
> > distortion products.
> > Any thoughts about this?
> >
> > Ralph
>
>

438. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 16:09:26 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <WQDa6.21763$GS1.2260121@news02.optonline.net>
Source record: 55333

Henry,

No need to panic. Sounds like everything is working fine.

4,999,999.8 / 5 = 9,999,999.96

The location of the decimal is the problem. The error is past the
resolution limit of the counter at 1 MHz.

I find it easier to do the math this way:

-0.2 hz error at 5 MHz / 5 = -0.04 Hz error at 1 MHz

Also since everything that a counter does is +/- 1 count on the least
significant digit you may or may not have an error of 0.2 hz at 5 MHz.
The error could be anything from -0.1 to -0.3 Hz.

Test equipment is so much fun :)

Now for the real question .... how do you set the HP 105 on frequency
to better than 0.1 Hz ? These days GPS seems to be the favored
approach.

Hope this helps.

Bob Camp
KB8TQ

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t6ltnfbacuf8a0@corp.supernews.com...
> i have an hp105b oscillator that puts out 5 mhz, 1 mhz, and 100khz..
> i don't have a manual on it but i think it has a 5mhz xtal..
>
> my hp 5328a reads 4,999,999.8 on the 5 mhz output and 1,000,000.0 on
the 1
> mhz output..
>
> i'm baffled: 4,999,999.8/5 = 999,999.6, and wonder why i don't get
that on
> the 1 mhz output..
>
> anyone care to explain?
> tnx
> hank wd5jfr
>
>

439. Re: Dynamic Range of Crystal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 16:17:41 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <94f23n$4ge$1@slb7.atl.mindspring.net>
Source record: 55335

ralph <crlane@erols.com> wrote in message
news:3A64CD10.12E7440C@erols.com...
> I have been reading about receiver dynamic range where some writers are
> saying that crystal filters are subject to signal overload (also
> mechanical filters). Does anyone have any experience or any reference to
> literature about this? There has been a lot of attention paid to
> developing high intercept point mixers (+40 to 50 dbm input intercept),
> thus it would seem the if crystal filters will be generating a lot of
> distortion products.
> Any thoughts about this?
>
> Ralph

==========

I recall reading some articles that show different crystal filter designs
show different overload limits depending on how the input section inside the
filer is configured.

There are other mechanisms of distortion in the crystals themselves so
even the best topology has an overload limit.

Most common crystal filters have an intercept point around +15 to +18 dBm
according to an article I have here in front of me.

This is from Communications Quarterly, Fall 1994. Page 89.

The complete article, by the way is a discussion of ultra high dynamic
range front end design, and how to improve the performance.

One scheme I remember was to use a hybrid splitter after the first mixer
and then feed TWO identical filters. Use another hybrid to combine their
outputs and you wind up with a higher dynamic range filtering system.

Using the hybrid splitter terminates the mixer into 50 ohms while
allowing the filters to be connected DIRECTLY after the mixer. So, by
placing the filter as close to the mixer as possible, AND splitting the
signal so that a lower level hits each crystal filter, one can obtain the
maximum possible dynamic range for the complete system.

==========

Expensive, and probably in most system designs the limiting factor for
performance will be the mixer and phase noise floor on the synthesizer.
Those limits are usually reached 'way before most crystal filters are
overloaded.

Still, for a homebrew design, a VERY interesting concept.

Jim Pennell
N6BIU

==========

jpennell

at

ix.netcom.com

440. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 16:18:51 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <sn1m6ts82aancu4fbd693fipgdvihtludt@4ax.com>
Source record: 55334

On Sun, 21 Jan 2001 08:49:15 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>my hp 5328a reads 4,999,999.8 on the 5 mhz output and 1,000,000.0 on the 1
>mhz output..

If the counter really displays frequency to 0.1Hz resolution, then the
gate time must be (at least) 10 s. Unless the gate time is
synchronised with the waveform, the last digit is always suspect (+/-
1), thus, if you perform the measurement multiple times, you might
also see 4999999.7 or 4999999.9 and 999999.9 or 1000000.1.

>i'm baffled: 4,999,999.8/5 = 999,999.6, and wonder why i don't get that on
>the 1 mhz output..

I know that you are using strange units such as feet and ponds on your
side of the Pond, but I did not know you are using different
arithmetic too :-). Using a non-American calculator, I get 4999999.8/5
= 999999.96. Using a sufficiently large number of repeated
measurements, a frequency counter with 0.1 Hz resolution would display
6 out of 10 cases 1000000.0 and 4 out of 10 cases 999999.9 (unless the
start of the gate time has been synchronised to the waveform).

Paul OH3LWR

441. Low noise, good quality mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 16:57:29 UTC
From: baby HUey <whatare@Hcards.org>
Message-ID: <fqEa6.4$SI2.7272@nnrp2.sbc.net>
Source record: 55336

Can anyone point me in the direction of a very low noise mixer for 45mhz - 75mhz (external) LO with 0 - 30mhz input (HF). I know minicircuits has good mixers, analog devices has a few and there are the standard jfet circuits out there. Any guidance would be appreciated.

Thanks,
Gary-

442. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 17:08:50 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t6m5t4t8sqfeb5@corp.supernews.com>
Source record: 55338

```
i stand corrected on my math..
4,999,999.8/5 = 999,999.96..
"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:sn1m6ts82aancu4fbd693fipgdvihtludt@4ax.com...
> On Sun, 21 Jan 2001 08:49:15 -0600, "Henry Kolesnik"
> <wd5jfr@oklahoma.net> wrote:
>
>
> >my hp 5328a reads 4,999,999.8 on the 5 mhz output and 1,000,000.0 on the
1
> >mhz output..
>
> If the counter really displays frequency to 0.1Hz resolution, then the
> gate time must be (at least) 10 s. Unless the gate time is
> synchronised with the waveform, the last digit is always suspect (+/-
> 1), thus, if you perform the measurement multiple times, you might
> also see 4999999.7 or 4999999.9 and 999999.9 or 1000000.1.
>
> >i'm baffled: 4,999,999.8/5 = 999,999.6, and wonder why i don't get that
on
> >the 1 mhz output..
>
> I know that you are using strange units such as feet and ponds on your
> side of the Pond, but I did not know you are using different
> arithmetic too :-). Using a non-American calculator, I get 4999999.8/5
> = 999999.96. Using a sufficiently large number of repeated
> measurements, a frequency counter with 0.1 Hz resolution would display
> 6 out of 10 cases 1000000.0 and 4 out of 10 cases 999999.9 (unless the
> start of the gate time has been synchronised to the waveform).
>
> Paul OH3LWR
>
>
```

443. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 17:10:20 UTC
From: C Bauman <cbauman@impulse.net>
Message-ID: <3a6b1772$1$191@news.impulse.net>
Source record: 55337

I don't have specs for the "a" model, but the specs for the "b" model show that if you have the standard timebase, you may have around 0.1 ppm tolerance, or +/- 0.5 Hz at 5MHz (0.1 Hz at 1 MHz). Add to that the +/- 1 LSB standard for counters gives a possible error of +/- 0.6 Hz at 5MHz (or 0.2 Hz at 1 MHz). Off hand I'd say the counter was working well and the readings are reasonable.
(BTW, if you haven't caught it already, 4,999,999.8/5=999,999.96)

-CB

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message news:t6ltnfbacuf8a0@corp.supernews.com...
> i have an hp105b oscillator that puts out 5 mhz, 1 mhz, and 100khz..
> i don't have a manual on it but i think it has a 5mhz xtal..
>
> my hp 5328a reads 4,999,999.8 on the 5 mhz output and 1,000,000.0 on the 1
> mhz output..
>
> i'm baffled: 4,999,999.8/5 = 999,999.6, and wonder why i don't get that on
> the 1 mhz output..
>
> anyone care to explain?
> tnx
> hank wd5jfr
>
>

444. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 19:15:19 UTC
From: jflanders2@home.com
Message-ID: <3a6b34dc.834662145@news>
Source record: 55341

LDG AT-11 with a remote "start" pushbutton. Works for me.

See LDG web page or read the original QST construction article (from
4-5 years ago)

Jerry W4UK

On Sat, 20 Jan 2001 14:42:01 -0000, "Richard Fullerton"
<newsgroup_email@ntlworld.com> wrote:

>Anyone made, or know the wherabouts of any constructional details for a
>remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
>thing does not seen to have been a common homebrew project.
>
>Thanks for any info.
>
>--
>Please add an, "s" to "newsgroup" in email address to reply direct.
>
>

445. Re: Low noise, good quality mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 21:32:13 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <tgkf49.dhi.ln@localhost.localdomain>
Source record: 55342

In article <fqEa6.4$Sl2.7272@nnrp2.sbc.net>, "baby HUey"
<whatare@hcards.org> wrote:

> Can anyone point me in the direction of a very low noise mixer for 45mhz
> -
> 75mhz (external) LO with 0 - 30mhz input (HF). I know minicircuits has
> good mixers, analog devices has a few and there are the standard jfet
> circuits out there. Any guidance would be appreciated.
>
> Thanks, Gary-

A diode ring-mixer (DBM) should be suitable for the job. It is
difficult to recommend a specific device without knowing what
you intend to do with it. The Mini Circuits SBL1 and the
M/A-COM MD108 are popular mixers for HF/VHF.

HTH.

Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.

http://www.qsl.net/ei9gq
Linux 2.4.0

446. Re: Re AM detector info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 23:20:08 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <I8Ka6.5654$CP4.1463771@typhoon2.ba-dsg.net>
Source record: 55343

The original poster asked how he could build a hi-fi AM detector for his communications radio. It is a fair assumption that he wants to listen to "AM" in the classical use of the term. I don't think he was talking about SSB, ISB, DSB, or some other form. A subsequent poster explained how better frequency response can be gotten from a simple envelope detector by tuning the receiver off-carrier. Later posts explained that an AM signal that is thus mistuned has a distorted envelope because the signal is no longer 'AM' once it hits the envelope detector. Only AM has a linear envelope.
SSB, DSB, ISB, and other modulation forms may 'involve AM' as you say, but they are not 'AM'. QPSK, QAM, and many other complex modulation forms also 'involve' AM, but they are not AM. AM is concisely defined in most communications texts as a linear modulation of an RF carrier that results in a spectrum that has a carrier component and 2 sets of sidebands with well-defined and unique amplitude and phase relationships with respect to the carrier to and each other. By it's very nature, it produces an RF envelope that is a precise replica of the original modulation. None of the other forms you mentioned deliver a linearly modulated envelope that can be demodulated with a simple envelope detector.

Joe
W3JDR

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:94f7ldrgt1@news6.svr.pol.co.uk...
>
> From: "W3JDR" <j.r@usa.com>
> Subject: Re: AM Detector Info
> Date: 20 January 2001 01:48
>
> Jake,
> I'm not sure which math you're referring to...please clarify.
>
> In any case, a carrier with one sideband is not AM. I would happily agree to
> call it a special case of AM., but it is not AM. It does not produce an
> envelope that is a faithful reproduction of the original modulation. It
> 'works' sufficiently well to produce communications qualty audio at moderate
> modulation percentages, but it distorts in the troughs as modulation
> approaches 100%. Tuning the receiver off-center in order to pass more of the
> modulation bandwidth of one set of sidebands will produce better frequency
> fidelity, but the distortion will hardly qualify as 'hi-fi'.
>
> =================

> Don't want to be pedantic but the above sounds like the usual confusion of
> terminology.
> AM means Amplitude Modulation
>
> It is applied in various ways.
>
> 1) To a carrier with both sidebands generated : DSB most
> broadcast stations outside the FM bands
> This mode is by amateurs usually referred to as AM
>
> 2) Single Side Band with suppressed or reduced carrier
>
> 3) Independent sidebands with suppressed or reduced carrier
> Here each sideband transmits different information
>
> All of the above modes involve amplitude modulation.
>
> 73 Frank gm0csz.kn6wh@ukrs.org
>
>
>
>
>
>

447. Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-21 23:54:29 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <DKKa6.8421$4k4.215597@news2-win.server.ntlworld.com>
Source record: 55344
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Hi

I'm (very possibly) going to try to build something (small remote-control ATU for receiving purposes.) employing a stepper motor. Stepper motors are easily obtainable and cheap (from old floppies). However, obtainability is one thing, matching a salvaged stepper motor up with a suitable controller is another.

I've got stepper motor in front of me now, is there any way I could fathom out a circuit to run it?

It is made in Japan, but also identified as Applied Motor Products Inc, Scotts valley CA, DC12v 1.0A/ï¿½ 1.32 Ohms 400S/R. Out are 4 wires, red, blue, white and yellow. P/N 63-004280-00(5016-907)REV. Also has on B46-90.

Are there any general rules (or indeed databases) which one can use to aid in getting a motor, one happens to have at hand, up and running?

Thanks if you can help.

Rich.

Please note: This post has been crossposted, you may wish to respond only in your regular forum. I crossposted thinking I'd widen the net of available help.

--
Please add an, "s" to "newsgroup" in email address to reply direct.

448. Want: Aisin GPS board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 00:09:19 UTC
From: Duffer <hduff@ica.net>
Message-ID: <3A6B7A2F.3936D9E6@ica.net>
Source record: 55345
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I'm looking for one or two of the Aisin GPS boards that were being sold surplus
by Electro-Mavin last year.
If you (or anyone you know) have one that you haven't done anything with and would consider selling it,
please drop me a message.

Thanks...Hugh.

449. FA: Millen 80m Link coils on Ebay - NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 00:28:19 UTC
From: Great Surplus! <Newsgroups@GreatSurplus.com>
Message-ID: <tcLa6.1954$ot2.552540@news.uswest.net>
Source record: 55346
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1209524567

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1209526384

The above are Millen link coils for 80m - one end link and one
center link. Both are NOS with original box. Shiny porclain and
perfect turns. Great for an 807 or 6L6 puffer project for 80m CW.

Thanks for the look,

Dave
Great Surplus

450. Re: Re AM detector info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 00:34:29 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3A6B8005.D83C504D@sympatico.ca>
Source record: 55247

W3JDR wrote:
>
> The original poster asked how he could build a hi-fi AM detector for his
> communications radio. It is a fair assumption that he wants to listen to
> "AM" in the classical use of the term. I don't think he was talking about
> SSB, ISB, DSB, or some other form. A subsequent poster explained how better
> frequency response can be gotten from a simple envelope detector by tuning
> the receiver off-carrier. Later posts explained that an AM signal that is
> thus mistuned has a distorted envelope because the signal is no longer 'AM'
> once it hits the envelope detector. Only AM has a linear envelope.
> SSB, DSB, ISB, and other modulation forms may 'involve AM' as you say, but
> they are not 'AM'. QPSK, QAM, and many other complex modulation forms also
> 'involve' AM, but they are not AM. AM is concisely defined in most
> communications texts as a linear modulation of an RF carrier that results in
> a spectrum that has a carrier component and 2 sets of sidebands with
> well-defined and unique amplitude and phase relationships with respect to
> the carrier to and each other. By it's very nature, it produces an RF
> envelope that is a precise replica of the original modulation. None of the
> other forms you mentioned deliver a linearly modulated envelope that can be
> demodulated with a simple envelope detector.
>
> Joe
> W3JDR
>

I'm so pleased you added that last line - (with a simple envelope
detector) Otherwise I would have trouble reconciling this thread with
Short Wave SSB broadcasts; which do a great job, including music.
My Kenwood Ham gear has trouble with music on SSB, but using a Short
Wave receiver (HF-150) in synchronous AM handles SSB broadcasts just
fine.

Dave
VE3HLU

451. Re: Low noise, good quality mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 03:18:06 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <ODNa6.4889$Mu1.339030@bgtnsc06-news.ops.worldnet.att.net>
Source record: 55248

The Mini-Circuits SRA-3, SBL-3, TUF-3, TFM-3, GRA-3 are all good mixers.
The SRA-3 would be my choice, since it is specified to operate down to
25KHz. I have used the TUF-3 with equally good results. The midband
conversion loss of these mixers is in the 4.7 to 5.0dB range. Since these
mixers are passive types, the noise figure is approximately the same as the
conversion loss, just slightly higher.
I have been using these mixers in my own designs for a few years
now, and with no RF amplification ahead of them, you are looking at a
Minimum Discernable Siglan of .02 to .04uV.

Pete Gianakopoulos
Chicago, Il.

baby HUey <whatare@Hcards.org> wrote in message
news:fqEa6.4$Sl2.7272@nnrp2.sbc.net...
> Can anyone point me in the direction of a very low noise mixer for 45mhz -
> 75mhz (external) LO with 0 - 30mhz input (HF). I know minicircuits has
good
> mixers, analog devices has a few and there are the standard jfet circuits
> out there. Any guidance would be appreciated.
>
> Thanks,
> Gary-
>
>

452. Re: Re AM detector info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 03:29:04 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <4ONa6.4895$Mu1.339826@bgtnsc06-news.ops.worldnet.att.net>
Source record: 55249

There were two articles that came to mind when I saw this post; one of the articles used a 4066 analog switch at a detector, using a comparator to gate the switch on and off. Supposedly, this detector had wide bandwidth and low distortion.
The other detector was pretty interesting; a fellow in Canada came up with a design that used a Phillips FM I.F. strip, and took the RSSI signal and ran it in to an antilog amp. The result was that this strip could demodulate AM and FM. The FM signal would be taken of the demodulated output of the chip, while the AM signal would be taken at the output of the antilog amplifier. I have been meaning to build this circuit for the last 5 years or so. Maybe someday.....
Now, if you really want to keep it simple, you could use an absolute value detector, which uses an op amp, with diodes in the feedback loop. This type of detector has a threshold of around 2 or three millivolts, and it sounds great! The key is to use an op amp that has a large enough bandwidth to operate properly at the final intermediate frequency. I DID use a TLO72 and an LF353, both Radio Shack stock items, and they were fine as a detector for the MW band, so a 455KHz I.F. signal would present no problems. I had actually intended to use this circuit in a radio design, but when I discovered the Phillips TDA-1572, I abandoned this approach. The receivers that I have designed with the 1572 have a distortion of .5% at the audio output.
On a final note, the AOR-7030 receiver uses this device in the 2nd I.F. strip; this device is one of their claims to fame.

Pete Gianakopoulos
Chicago, Il.

Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:94f7ldrgt1@news6.svr.pol.co.uk...
>
> From: "W3JDR" <j.r@usa.com>
> Subject: Re: AM Detector Info
> Date: 20 January 2001 01:48
>
> Jake,
> I'm not sure which math you're referring to...please clarify.
>
> In any case, a carrier with one sideband is not AM. I would happily agree to
> call it a special case of AM., but it is not AM. It does not produce an
> envelope that is a faithful reproduction of the original modulation. It
> 'works' sufficiently well to produce communications qualty audio at moderate
> modulation percentages, but it distorts in the troughs as modulation

> approaches 100%. Tuning the receiver off-center in order to pass more of
the
> modulation bandwidth of one set of sidebands will produce better frequency
> fidelity, but the distortion will hardly qualify as 'hi-fi'.
>
> ================
> Don't want to be pedantic but the above sounds like the usual confusion of
> terminology.
> AM means Amplitude Modulation
>
> It is applied in various ways.
>
> 1) To a carrier with both sidebands generated : DSB most
> broadcast stations outside the FM bands
> This mode is by amateurs usually referred to as AM
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>
> All of the above modes involve amplitude modulation.
>
> 73 Frank gm0csz.kn6wh@ukrs.org
>
>
>
>
>
>

453. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 07:22:24 UTC
From: Alan <amtilley@students.latrobe.edu.au>
Message-ID: <3A6BDFB0.1447B931@students.latrobe.edu.au>
Source record: 55250

Just out of curiosity , how do you get on with stations that are close enough
for your ground wave? Isn't QSB a problem due to a mix of ground and sky wave?
regards Alan (VK3RY)
(Sounds like a nice setup!)

Richard Fullerton wrote:

> Harold Johnson <w4zcb@ispchannel.com> wrote in message
> news:9oja6.53564$HE2.6115955@news1.onlynews.com...
> >
> >
> > I use an inverted "L" for 160, 80 and 40 meters. It's a half wave on 160
> and
> > voltage fed on all three bands using an "L" network that is remotely tuned
> > with a motor driven vacuum variable and a Ledex driven switch for the
> > inductor taps. My antenna presents about 2600 ohms on 160, 1800 ohms on 80
> > and about 700 ohms on 40 meters, making it possible to always keep the
> > capacitor on the antenna end of the inductor so that it doesn't have to be
> > switched. The "L" network was calculated from the measured values of
> > impedance and worked right the first time. It will present a match on any
> > frequency on any of the three bands with just varying the capacity with a
> > single tap on the inductor for each band. Settings vary a bit depending on
> > ground water despite a counterpoise and a 60 foot well casing beneath the
> > tuner. Still have no difficulty and the antenna is quite competitive on
> all
> > three bands.
> >
> > You don't NEED an antenna tuner that will match anything to anything,
> > (Although an "L" network can do that,) you just need one that will match
> > your antenna to the rig.
> >
> > W4ZCB
>
> Thank you for your comment Harold.
>
> When I think about it, I'm really after building myself 2 remote ATU's for
> an inverted "L" antenna. One for general coverage receiving, the other for
> transmitting/receiving on the ham bands.
>
> Now that I've directed myself properly on that issue, I can appreciate
> that's it's quite likely that the only thing needed to make an ATU for the
> ham bands, is a tapped fixed inductor and fixed capacitors and a set of
> relays (manually pre-set as G3SEK mentions). Yes, that could be the
> answer. I wonder though if I would have a problem if I chose not to
> have a variable capacitor in the "L" network. Perhaps on the LF bands

> there would be a problem with narrow bandwith, especially since the
> maximum length of wire I could get out is about 78 feet. (But given
> a mediocre earth connection maybe not). If narrow bandwith was a
> problem maybe I could arrange to toggle between 2 capacitors.
>
> I'd like to operate with an invered "L", but I wonder about the earthing
> losses. I've got Reg Edward's "endfeed.exe" program (which I think is what
> I need to compute the L & C for the "L" network") but I'm unsure as to what
> earthing requirements in practice I'd need to get acceptable efficiency.
> (And I muse, what is an acceptable radiating efficiency, 75%?)
>
> Perhaps I should try to get a copy of Ian Whites article. I take it that it
> does cover inverted "L" antenna's and answers some of my concerns.
>
> (Anyone in UK willing to photocopy and post me December 2000' 'In Practice'
> column in RadCom that covered the "manually pre-set, but remotely operated"
> option?)
>
> For the "endfeed.exe" program:
>
> http://www.btinternet.com/~g4fgq.regp/page3.html#S301

454. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 07:56:11 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <vIRa6.12412$Ah2.225030@news1.frmt1.sfba.home.com>
Source record: 55251

> > Anyone made, or know the wherabouts of any constructional details for a
> > remote-controlled ATU for an end-fed wire antenna?

I used to have a 130 foot wire at 55 feet. It was end fed on 80 using a series 120 pF fixed
vacuum capacitor and an adjustable shunt inductor from the wire to "ground" ("ground" was
the top of the tower). The adjustable inductor was a homebrew 6 inch diameter coil made
of 1/4 inch copper tubing with taps connects to a big rotary switch of the type used for
bandswitches in linears. The switch was driven by a rotary solenoid. Each pulse moves
to the next tap. I had taps every 100 kHz so I could have virtually 1:1 VSWR at all
frequencies.

Before building this, I measured the wire impedance with a noise bridge located at the top
of the tower. I had to build my own because it needed to be able to accurately measure
a 3000 ohm impedance and be remotely controllable from the ground).
This enabled the tuner to work the first time I put it up. (No climbing the tower and
tweaking it!).

I also fed it on 40, where it coincidentally also needed 120 pF, but of course, less inductance.
In general, the series cap would need to be bandswitched.

Rick Karlquist N6RK

455. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 11:17:00 UTC
From: g0wmf@my-deja.com
Message-ID: <94h4r8$96c$1@nnrp1.deja.com>
Source record: 55252
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

1. If this is a bipolar stepping motor then there will be 2 coils and the 4 wires will represent the ends of the coils. The first step is to find out which wires are 'paired.' Do this by testing the resistance between each wire and the remaining wires. When the wires are paired you will see 1.32ohms (approx) - or alternatively you should see infinite resistance.

2. If (by any chance) you find that a wire is connected to more than one other wire and one of the combinations has twice the resistance of the other combinations, then you are dealing with a unipolar stepping motor. These work on a different principle. [They are easier to understand and you might find it easier to learn how to use one of these first before moving on to the bipolar type.]

3. The basic action of the stepping motor is that current passing through the coil energizes the magnetic field which causes the permanent magnet at the core to take up a fixed position. All you have to do for your first experiment is choose ONE set of the paired leads - connect them to a 12Vdc source, and watch the motor move to a fixed position.

4. Disconnect this and do the same with the other pair. The stepping motor will move to a different position.

5. A stepping motor driver circuit basically does exactly what you are now doing manually. It just switches the current off on one coil and energizes the next, and so on.....

6. There are a couple of complications you should know about.

7. A unipolar stepping motor is simpler. It has 5 or 6 leads and the coils are center-tapped. The way to use this motor is to put the common [center-tap] line at 12Vdc, and then ground each of the other ends of the coils in turn. [There are various modes you can use - such as energizing 2 coils together - but this is the basic idea]

8. A bipolar stepping motor is more complicated, because there are only (in your case) 2 coils - so you have to REVERSE the direction of current across the coil to get the necessary 4 phases of stepping.

9. Armed with this knowledge, just repeat the experiment above but test for 'reverse' current across the coil too. If you stick a pointer (such as a chopstick or needle) on the spindle and record the position - you can easily work out from the above which order the coils need to be energized in to give the smooth motion you require.

10. When the coils de-energize, there is a considerable back EMF as the magnetic field disintegrates [you will probably see sparks as you take the lead off the terminal]. When you design the driver circuit you need to include snubbing diodes so the reverse current can fly back to source.... otherwise you will fry the transistors [which are usually darlington-pair transistors.... i.e., a darlington pair in the same package]

Have fund - and EMail me if you need any more hints.

Best regards, Roy G0WMF / 7J1AUA

In article <DKKa6.8421$4k4.215597@news2-win.server.ntlworld.com>,
"Richard Fullerton" <newsgroup_email@ntlworld.com> wrote:
> Hi
>
> I'm (very possibly) going to try to build something (small remote-
control
> ATU for receiving purposes.) employing a stepper motor. Stepper
motors are
> easily obtainable and cheap (from old floppies). However,
obtainability is
> one thing, matching a salvaged stepper motor up with a suitable
controller
> is another.
>
> I've got stepper motor in front of me now, is there any way I could
fathom
> out a circuit to run it?
>
> It is made in Japan, but also identified as Applied Motor Products
Inc,
> Scotts valley CA, DC12v 1.0A/$B!&(B 1.32 Ohms 400S/R. Out are 4 wires,
red,
> blue, white and yellow. P/N 63-004280-00(5016-907)REV. Also has on
B46-90.
>
> Are there any general rules (or indeed databases) which one can use
to aid
> in getting a motor, one happens to have at hand, up and running?
>
> Thanks if you can help.
>
> Rich.
>
> Please note: This post has been crossposted, you may wish to respond
only in
> your regular forum. I crossposted thinking I'd widen the net of
available
> help.
>
> --

> Please add an, "s" to "newsgroup" in email address to reply direct.
>
>

Sent via Deja.com
http://www.deja.com/

456. Need datasheets

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 12:20:16 UTC
From: QRO <swecomm@worldonline.se>
Message-ID: <94h8i4col1@news.han.telia.se>
Source record: 55253

Help!
I need datasheets for the transmitting tubes RS1002A and RS1026 from
Siemens.

73 de
Len

swecomm@worldonline.se

457. Re: Low noise, good quality mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 13:14:56 UTC
From: baby HUey <na@na.na>
Message-ID: <yfWa6.651$Sl2.227718@nnrp2.sbc.net>
Source record: 55254

Thanks Pete...

"NANCY GIANAKOPOULOS" <n.gianakopoulos@worldnet.att.net> wrote in message
news:ODNa6.4889$Mu1.339030@bgtnsc06-news.ops.worldnet.att.net...
> The Mini-Circuits SRA-3, SBL-3, TUF-3, TFM-3, GRA-3 are all good mixers.
> The SRA-3 would be my choice, since it is specified to operate down to
> 25KHz. I have used the TUF-3 with equally good results. The midband
> conversion loss of these mixers is in the 4.7 to 5.0dB range. Since these
> mixers are passive types, the noise figure is approximately the same as
the
> conversion loss, just slightly higher.
> I have been using these mixers in my own designs for a few years
> now, and with no RF amplification ahead of them, you are looking at a
> Minimum Discernable Siglan of .02 to .04uV.
>
> Pete Gianakopoulos
> Chicago, Il.
>
> baby HUey <whatare@Hcards.org> wrote in message
> news:fqEa6.4$Sl2.7272@nnrp2.sbc.net...
> > Can anyone point me in the direction of a very low noise mixer for
45mhz -
> > 75mhz (external) LO with 0 - 30mhz input (HF). I know minicircuits has
> good
> > mixers, analog devices has a few and there are the standard jfet
circuits
> > out there. Any guidance would be appreciated.
> >
> > Thanks,
> > Gary-
> >
> >
>
>
>

458. Help Identifying Transmit tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 13:22:31 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3A6C3417.2D0D7970@innercite.com>
Source record: 55269
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Might anyone help me in identifying this transmitter tube and its characteristics. It is air cooled like the 4CX250's but has rings at the bottom for electrical connection. It is about 3.5 inches in diameter. Please respond by email. Thanks Don Smith KB6GQA
http://www.innercite.com/~desmith/Txtube.JPG

459. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 13:23:44 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <9vWa6.11492$vH6.189589@news6-win.server.ntlworld.com>
Source record: 55255
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Hi

Problem about crossposting initially, (as I did) is that if folks choose to reply only in their forum things said can get duplicated, it's better if everybody knows what in totality is being said. Way to do that is to crosspost replies to all the forums, but I wonder if that is bad netiquette. Perhaps when one initially crossposts one should direct folks to reply to a specified forum to keep all the messages together, without duplicating the messages all over the forums. But in that case some folks might not want to subscribe to a new forum. (Is it bad netiquette for continuing posts to be in more than one forum?)

Well, in this instance I think I'll suggest any future posts be posted to rec.amateur.homebrew, so I and others only have one forum to look at, and replies are seen in total, but it's just a suggestion.

<g0wmf@my-deja.com> wrote in message news:94h4r8$96c$1@nnrp1.deja.com...
> 1. If this is a bipolar stepping motor then there will be 2 coils and
> the 4 wires will represent the ends of the coils. The first step is to
> find out which wires are 'paired.' Do this by testing the resistance
> between each wire and the remaining wires. When the wires are paired
> you will see 1.32ohms (approx) - or alternatively you should see
> infinite resistance.

[...]

Thanks for the info. Any reply will be in rec.amateur.homebrew.

Just say here that I found a stepper motor forum and someone wanted a similar solution, ie to drive a 12v bipolar stepper. I went to: http://us.st.com/stonline/index.shtml where I typed in L297 and (seperately) bipolar stepper and now have some application notes (L297, L298, L293E). However, on first perusal I wonder whether they are too sophisticed for my needs. I'm wanting this stepper I got to drive a variable capacitor 180 degrees backwards and frwards, not to make a floppy disk drive work. And I'll need some indiction of where the vc setting is at I suppose. Seems I would need micropossor control with the L298, L297. Do I need that!!

"...Scotts valley CA, DC12v 1.0A/ï¿½ 1.32 Ohms 400S/R. Out are 4 wires, red, blue, white and yellow...."

This stepper I have is bipolar, it's got 2 coils. This is what I get from the markings: Working voltage of coils :12v; Working current per phase:1.0A (presumably " /ï¿½" means per phase). Coils' resistance: 1.32 ohms. I think 400s/r will mean 400 steps per revolution. That means it's a 0.9 degree

motor.

(I'm off to look at this stepper forum :

Http://www.eio.com/public/stepper/)

Rich.

460. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 13:33:14 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <sDWa6.11500$vH6.189030@news6-win.server.ntlworld.com>
Source record: 55256
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Aaah.

I was just sent this:

http://www.hut.fi/Misc/Electronics/circuits/diskstepper.html

My stepper needs to run in a continuous fashion.

461. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 14:46:26 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <94i9oh$k4$1@plutonium.btinternet.com>
Source record: 55271

Rich,

Download program ENDFEED from website below. Takes only a few seconds. Not zipped up. Run immediately.

From given antenna and ground height and length dimensions the program computes radiating efficiency of any vertical or inverted-L at any frequency.

Also micro-henry and picofarad component values of L-match and T-match networks to match the 50-ohm transceiver impedance.

To wind your coils on empty toilet-paper tubes with 18 gauge wire download program SOLNOID2.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Richard Fullerton <newsgroup_email@ntlworld.com> wrote in message news:8sha6.3364$4k4.91353@news2-win.server.ntlworld.com...
> Anyone made, or know the wherabouts of any constructional details for a
> remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
> thing does not seen to have been a common homebrew project.
>
> Thanks for any info.
>
> --
> Please add an, "s" to "newsgroup" in email address to reply direct.
>
>

462. Visit my sell/trade/buy page!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 14:50:22 UTC
From: k5dh@raytheon.com
Message-ID: <OMXa6.27$3d3.1084@dfw-service2.ext.raytheon.com>
Source record: 55259
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

```
Please visit my sell/trade/buy page:

http://www.qsl.net/k5dh/swap.html

73,
Dean, K5DH
```

463. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 14:53:06 UTC
From: 11001011 <garrett.r.mace@rose-hulman.edu>
Message-ID: <94hh9j$e39$1@solomon.cs.rose-hulman.edu>
Source record: 55257
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Get a ULN2813 or ECG2018. 8-Darlington-pair IC capable of 600mA each output, more than enough for typical disk drive steppers or dot matrix printer steppers (good source of nice steppers-cheap-as long as you don't get Panasonic, most of those are 48V I think). TTL or CMOS input. Back-EMF protected. Good for two unipolar four-coil steppers, costs $5 max.

Wire up the common/commons to positive supply, and each coil wire to an output pin. That's it. All you have to do is apply a logic signal to the input terminal across from the output pin you want to activate.

You'll want to make a small logic circuit or PIC to drive the steppers, or use a computer for testing. In that case, use the parallel port pins 2-9 and ground. A simple way to get parallel port stepper controller software is to search for "stepper controller" and "kit" on your favorite web search. I find that many companies are selling parallel port stepper controllers that are no more complicated than the chip above or else a few FETs. A lot of these will operate pin-for-coil like the circuit above. Don't buy their controller for $75, just download their controller software since many of them seem to provide it for free on the internet; supposed to be included with the kit on a floppy. All it does is strobe the parallel port lines in an appropriate manner. Some let you set two-phase, wave, and half-stepping as well as speed and direction. One is usable from DOS batch commands. The actual names escape me at the moment since I don't use them anymore (project moved to PIC control).

This is the most useful information I know about stepper control, hope it helps someone.

---Garrett Mace
EE Junior, Rose-Hulman Institute of Technology
Terre Haute, IN

"Richard Fullerton" <newsgroup_email@ntlworld.com> wrote in message
news:sDWa6.11500$vH6.189030@news6-win.server.ntlworld.com...
> Aaah.
>
> I was just sent this:
>
> http://www.hut.fi/Misc/Electronics/circuits/diskstepper.html
>
> My stepper needs to run in a continuous fashion.
>
>

464. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 15:05:39 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <J1Ya6.11649$vH6.193405@news6-win.server.ntlworld.com>
Source record: 55258
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Well, unless someone chides me, I'll post on all 3 forums.

I need to establish some performance parameters for this receive only remote-control ATU I want to make.

I envisage this bipolar stepper motor turning a varable capacitor. So it probably needs to reverse direction. Also, I _don't_want to control it from my PC. My minds eye sees pressing a button making the motor go one way, pressing another making it go the opposite way. It must know when it's reached end of travel. I wonder of there is anyway I can know the motors anguler position, so I can set it where I want it. (unless I just tune for peak noise/signal on rx).

Of course I need some hardware to do all this.

If anyone has any suggestions, feel free to suggest anything.

Rich.

465. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 15:42:00 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3A6C54C8.7165E98D@ieee.org>
Source record: 55262

Bob Camp wrote:

> Now for the real question .... how do you set the HP 105 on frequency
> to better than 0.1 Hz ? These days GPS seems to be the favored
> approach.
>

I constructed a 1 MHz oscillator and locked it to LORAN. I then compare the phase of the 1 MHz. to 1 MHz. derived from the counter time base. I use a
computer to store readings every 15 seconds and run the program for a few
hours. I can get accuracy of about one part in 10X10 with my setup.

Bill K7NOM

466. want info digital display

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 16:08:19 UTC
From: Jimmi <jimmi@satlantic.com>
Message-ID: <3A6C5BBE.D3886A73@satlantic.com>
Source record: 55260

I am looking for the article from 73 magazine. It was a digital display
hooked up to a TenTec transceiver. I just want the circut used . I do not
want anything else.
thanks

Jimmi wrote:

> A few years ago 73 magazine had an article for a home made digital
> display add on to a TenTec reciever. it used 7447 counter chips. does
> anyone remember this .I was hoping to get a print of this .
> thanks
> Jim
> VE9FA
>
> --
>
> **** WARNING **** All unsolicited bulk e-mail received at this address
> will be promptly reported to the sender's system administrator, and to
> law enforcement authorities whenever applicable.

--

**** WARNING **** All unsolicited bulk e-mail received at this address
will be promptly reported to the sender's system administrator, and to
law enforcement authorities whenever applicable.

467. SuperRegen VHF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 16:40:58 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <jhoo6to40pgqf17q1nt5k15ea6orqhhudb@4ax.com>
Source record: 55261

Anybody got a point to a url with the working schematic for a super regen VHF receiver? I plan on using it for 2-meter cheap and dirty short range detection with slope detection of the FM signal.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

468. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 17:12:55 UTC
From: Radio Ham <nospam@nospam.demon.co.uk>
Message-ID: <980184326.19240.4.nnrp-07.9e98250c@news.demon.co.uk>
Source record: 55263
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

This ain't quite the answer you want, but do a web search for "stepper motor", and in particular look out for the tutorial by Douglas Jones. I've recently been through this mill, and you'll get loads more info from the web than I could be bothered to type in.

Your motor is probably a bi-polar motor, requiring H-bridges to drive it.

Am important PS - if you keep the electronics from whatever eqpt you scrounged the motor, you'll find all the necessary drive electronics!

Richard Fullerton <newsgroup_email@ntlworld.com> wrote in message news:DKKa6.8421$4k4.215597@news2-win.server.ntlworld.com...
> Hi
>
> I'm (very possibly) going to try to build something (small remote-control
> ATU for receiving purposes.) employing a stepper motor. Stepper motors are
> easily obtainable and cheap (from old floppies). However, obtainability is
> one thing, matching a salvaged stepper motor up with a suitable controller
> is another.
>
> I've got stepper motor in front of me now, is there any way I could fathom
> out a circuit to run it?
>
> It is made in Japan, but also identified as Applied Motor Products Inc,
> Scotts valley CA, DC12v 1.0A/Ω 1.32 Ohms 400S/R. Out are 4 wires, red,
> blue, white and yellow. P/N 63-004280-00(5016-907)REV. Also has on B46-90.
>
> Are there any general rules (or indeed databases) which one can use to aid
> in getting a motor, one happens to have at hand, up and running?
>
>
>
> Thanks if you can help.
>
> Rich.
>
> Please note: This post has been crossposted, you may wish to respond only in
> your regular forum. I crossposted thinking I'd widen the net of available

> help.
>
> --
> Please add an, "s" to "newsgroup" in email address to reply direct.
>

469. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 17:14:59 UTC
From: Radio Ham <nospam@nospam.demon.co.uk>
Message-ID: <980184327.19240.5.nnrp-07.9e98250c@news.demon.co.uk>
Source record: 55264
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

In that case get yourself one of the optical knobs that have
two sensors that give quadrature outputs, and connect direct to the
H-bridges.

Richard Fullerton <newsgroup_email@ntlworld.com> wrote in message
news:J1Ya6.11649$vH6.193405@news6-win.server.ntlworld.com...
> Well, unless someone chides me, I'll post on all 3 forums.
>
> I need to establish some performance parameters for this receive only
> remote-control ATU I want to make.
>
> I envisage this bipolar stepper motor turning a varable capacitor. So it
> probably needs to reverse direction. Also, I _don't_want to control it
from
> my PC. My minds eye sees pressing a button making the motor go one way,
> pressing another making it go the opposite way. It must know when it's
> reached end of travel. I wonder of there is anyway I can know the motors
> anguler position, so I can set it where I want it. (unless I just tune
for
> peak noise/signal on rx).
>
> Of course I need some hardware to do all this.
>
> If anyone has any suggestions, feel free to suggest anything.
>
> Rich.
>

470. Re: SuperRegen VHF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 17:15:02 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3A6C6A96.A87951EE@valley.net>
Source record: 55266

Jim Weir wrote:

> Anybody got a point to a url with the working schematic for a super regen VHF
> receiver? I plan on using it for 2-meter cheap and dirty short range detection
> with slope detection of the FM signal.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

Hello--
A recent (i.e., 2000) issue of QEX magazine featured a solid-state version plus extensive notes on the technology (and even included a squelck). PC boards are available from FAR Circuits. The design also features an RF stage for isolation.

73--
Brad AA1IP

471. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 17:41:27 UTC
From: trader@NOSPAMcybermight.com
Message-ID: <3a6c6fdf.1215663162@209.189.89.230>
Source record: 55265
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

I've been playing with bi-polar stepper motors here at the house. I've written some code that runs an an Atemel AVR processor to control them.

It can has the following:

1. Can control 2 stepper motors.
2. Has independent toggles for cw/ccw rotation for each motor.
3. Seperate enable pins for each motor.
4. Speed is controlled by a clock signal.

It will interface to some 2955 and some 3055 transistors to sink the current.

If you are interested e-mail me and I can send you the code and specifics on it.

>Of course I need some hardware to do all this.
>
>If anyone has any suggestions, feel free to suggest anything.
>
>Rich.
>

Reply e-mail anti-spammed for my protection.
trader.DIE@SPAMMERS.cybermight.com

73's

Karl Domrose
KD5LCP
United States...Louisiana

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

472. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 20:23:44 UTC
From: sparta@freeuk.KEIN-SPAM.BITTE.net
Message-ID: <3a6c90ac.25894742@news.freeuk.net>
Source record: 55267
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

On Sun, 21 Jan 2001 23:54:29 -0000, "Richard Fullerton"
<newsgroup_email@ntlworld.com> wrote:

>Hi
>
>I'm (very possibly) going to try to build something (small remote-control
>ATU for receiving purposes.) employing a stepper motor. Stepper motors are
>easily obtainable and cheap (from old floppies). However, obtainability is
>one thing, matching a salvaged stepper motor up with a suitable controller
>is another.
>
>I've got stepper motor in front of me now, is there any way I could fathom
>out a circuit to run it?
>
>It is made in Japan, but also identified as Applied Motor Products Inc,
>Scotts valley CA, DC12v 1.0A/Ω 1.32 Ohms 400S/R. Out are 4 wires, red,
>blue, white and yellow. P/N 63-004280-00(5016-907)REV. Also has on B46-90.
>
>Are there any general rules (or indeed databases) which one can use to aid
>in getting a motor, one happens to have at hand, up and running?

Driver chips for these are readily available. I've
at least one in the junkbox. Yours for the asking.

The logic required to get the driver to activate the
motor in the way you want it to is another problem
which you'll have to read up on.

--

____
73 de G4RGA, nordland@line one.net
George Dubya Bushisms No 3:
'Is our children learning?'
Rallies: http://website.lineone.net http://www.netcomuk.co.uk

473. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 20:23:44 UTC
From: sparta@freeuk.KEIN-SPAM.BITTE.net
Message-ID: <3a6c9209.26243307@news.freeuk.net>
Source record: 55268
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

On Mon, 22 Jan 2001 11:17:00 GMT, g0wmf@my-deja.com wrote:

>1. If this is a bipolar stepping motor then there will be 2 coils and
>the 4 wires will represent the ends of the coils. The first step is to
>find out which wires are 'paired.' Do this by testing the resistance
>between each wire and the remaining wires. When the wires are paired
>you will see 1.32ohms (approx) - or alternatively you should see
>infinite resistance. ------%<------

Thread's only a few hours old and we have an expert
already and no less than 12 replies.

It pleases me to see that, for once, instead of megabytes of
backbiting and insults, genuine technical expertise has been
offered.

There's hope for the newsgroup yet!

--

____
73 de G4RGA, nordland@line one.net
George Dubya Bushisms No 3:
'Is our children learning?'
Rallies: http://website.lineone.net http://www.netcomuk.co.uk

474. Re: SuperRegen VHF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 21:26:44 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10101221552590.13645-100000@Gloria.CAM.ORG>
Source record: 55270

On Mon, 22 Jan 2001, Jim Weir wrote:

> Anybody got a point to a url with the working schematic for a super regen VHF
> receiver? I plan on using it for 2-meter cheap and dirty short range detection
> with slope detection of the FM signal.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup
>
>

Charles Kitchin has been doing work on the superregnerative receiver
(and regen for that matter) in recent years. He's tried to improve
on the basic concept, not just make it transistorized. It used to
be that you could find a superregen receiver in any collection
of solid state circuits, but you don't see them that often, and
they were fairly garden variety.

In the 2001 edition of the ARRL, there is a superregen by Charles
Kitchin, and it's been in the past few editions too. He picked
a good FET, put a grounded gate amplifier ahead of it, and included
control to adjust the waveform of the quenching, which he says
impacts on the circuit operation, particularly in narrow band use.
It doesn't say if this article appeared elsewhere.

He had a circuit for a six meter superregen in QST a few years back,
but I didn't buy the issue since it appeared to be your average
superregen.

He also had an article in Communications Quarterly for Fall 1994.
I've yet to see it, but I imagine it's like his article on regen
receivers in the Fall 1995 issue of the same magazine, where he
goes back to look at the tube-based circuits and origins, and
then provides some solid-state circuits that improve on the art.

I posted something about superregens last year, and I got email
from him later (apparently he didn't have newsgroup access), and
he was going to have an article in QEX in the July/August QEX.
I see further in that message, that he included a list of his
articles on the topic:

"High Performance Regenerative Receiver Design", QEX magazine, Nov/Dec
1998, pp
24-36.

"An Ultra Simple Receiver For 6 Meters", QST magazine, Dec 1997, pp 39-41
American Radio Relay League (ARRL) Publication, 225 Main St. Newington,
CT.
06111

"Super Regeneration: the Lost Technology", Communications Quarterly Fall
1994,
pp 27-40.
The above super regen article is a bit outdated as it was written before I
discovered how to modify the detector to receive NBFM.

Michael VE2BVW

475. FS: N Type connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 22:45:12 UTC
From: Nick Ciarallo <nick@vlsi.polymtl.ca>
Message-ID: <3A6CB7F8.3A23FD18@vlsi.polymtl.ca>
Source record: 55272
Cross-posted to: rec.radio.amateur.homebrew,mtl.vendre-forsale

I have 140 pieces of a type N panel mount RF connector for sale. These are NEW. They have a square flange that mounts with 4 screws to a panel or bulkhead. The pins have been slightly machined but otherwise the connectors are perfect.

This is what the connector looks like: http://www.rfconnector.com/nsf42xx.htm

I would like $150 U.S. for the lot or the equivalent in Canadian $ or make me an offer.

Thanks, Nick

476. Re: Help Identifying Transmit tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 23:16:29 UTC
From: Lamar Owen <lamar.owen@wgcr.org>
Message-ID: <3A6CBF4D.7542E82B@wgcr.org>
Source record: 55273
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

"Donald E. Smith" wrote:
>
> Might anyone help me in identifying this transmitter tube and its
> characteristics. It is air cooled like the 4CX250's but has rings at
> the bottom for electrical connection. It is about 3.5 inches in
> diameter. Please respond by email. Thanks Don Smith KB6GQA
> http://www.innercite.com/~desmith/Txtube.JPG

What do the numbers on the plate cooler structure say?
--
Lamar Owen
WGCR Internet Radio
1 Peter 4:11

477. Re: Help Identifying Transmit tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-22 23:57:20 UTC
From: rich7@my-deja.com
Message-ID: <94ihcr$i89$1@nnrp1.deja.com>
Source record: 55274
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

In article <3A6C3417.2D0D7970@innercite.com>,
desmith@innercite.com wrote:
> Might anyone help me in identifying this transmitter tube and its
> characteristics. It is air cooled like the 4CX250's but has rings at
> the bottom for electrical connection. It is about 3.5 inches in
> diameter. Please respond by email. Thanks Don Smith KB6GQA
> http://www.innercite.com/~desmith/Txtube.JPG
>
> >>>>>>>>> It's a 4CX-250-K which uses a special socket, to be used on
70 CM. Rich <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<

Sent via Deja.com
http://www.deja.com/

478. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 01:24:34 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <m35b6.32130$GS1.3799647@news02.optonline.net>
Source record: 55275

Bill,

I've been running one of the Motorola UT series GPS cards for a while here. They put out a pretty good 1 pps signal. The setup seems to floor out at 24 hours in the 2-5x10-12 range. I'm not sure if that's the floor of the GPS or the floor of what I'm running it against. Loran would probably work very well here as well. I did the GPS thing since it was cheaper.

Bob

"Bill Janssen" <billj@ieee.org> wrote in message news:3A6C54C8.7165E98D@ieee.org...
>
>
> Bob Camp wrote:
>
> > Now for the real question .... how do you set the HP 105 on frequency
> > to better than 0.1 Hz ? These days GPS seems to be the favored
> > approach.
> >
>
> I constructed a 1 MHz oscillator and locked it to LORAN. I then compare
> the phase of the 1 MHz. to 1 MHz. derived from the counter time base. I
> use a
> computer to store readings every 15 seconds and run the program for a
> few
> hours. I can get accuracy of about one part in 10X10 with my setup.
>
> Bill K7NOM

479. Where to obtain NE604

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 02:14:15 UTC
From: kjz5440@aol.com
Message-ID: <20010122211415.11279.00000784@ng-ca1.aol.com>
Source record: 55276

Does anyone know where I can find a Signetics NE604 (FM receiver subsystem IC)?
I've checked several sources, and I can't seem to find this anywhere.

I'd appreciate the help.

Thanks,
Kevin

480. AD9854 Initialization Code

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 02:45:07 UTC
From: richardh@iinet.net.au
Message-ID: <3a6cebc3.2350518@news.m.iinet.net.au>
Source record: 55277

```
Gday all
I am pleased to report that I have finally got the beast to work
As always, the error was mine ( ...sounds of self flagellation)
The data direction register in the micro port driving the DDS was set
to all inputs!!!
Strangely enough it would still drive the DDS board at low data rates
but not at normal speed.

This pseudocode for starting the device in serial mode seems to work

Start Main Clock
RESET high
Wait 10 clock cycles
RESET low
Stop main clock
IORESET high
IORESET low
;serial data
07 ; Address of control reg
00
00
00
00 ; Write all zeros to control reg
Start main clock
Wait 100msec ; Plenty of time for an internal update
; then internal update will be switched off
Stop main clock ; though it doesnt matter now
IORESET high
IORESET low
; serial data
07
**
**
**
** ; whatever control options you want
IOUD high
IOUD low
Start main clock
Write freq word etc to DDS

Thanks to all those who advised (Bob Camp, Stephen Swift and others)

Richard

http://www.iinet.net.au/~richardh/VK6BRO.htm
```

zaprichardh@iinet.net.au
(remove the zap)

481. Re: AD9854 Initialization Code

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 03:14:34 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <uG6b6.32622$GS1.3919142@news02.optonline.net>
Source record: 55278

Richard,

Glad you got it working.

I find the DDR thing to be a problem with PIC's since I'm never quite
sure I'm on the right ram page when I set up the TRIS registers ...

Enjoy!

Bob

"Richard Hosking" <richardh@iinet.net.au> wrote in message
news:3a6cebc3.2350518@news.m.iinet.net.au...
> Gday all
> I am pleased to report that I have finally got the beast to work
> As always, the error was mine (...sounds of self flagellation)
> The data direction register in the micro port driving the DDS was
set
> to all inputs!!!
> Strangely enough it would still drive the DDS board at low data
rates
> but not at normal speed.
>
> This pseudocode for starting the device in serial mode seems to work
>
> Start Main Clock
> RESET high
> Wait 10 clock cycles
> RESET low
> Stop main clock
> IORESET high
> IORESET low
> ;serial data
> 07 ; Address of control reg
> 00
> 00
> 00
> 00 ; Write all zeros to control reg
> Start main clock
> Wait 100msec ; Plenty of time for an internal update
> ; then internal update will be switched off
> Stop main clock ; though it doesnt matter now
> IORESET high
> IORESET low
> ; serial data
> 07

> **
> **
> **
> ** ; whatever control options you want
> IOUD high
> IOUD low
> Start main clock
> Write freq word etc to DDS
>
>
> Thanks to all those who advised (Bob Camp, Stephen Swift and others)
>
> Richard
>
> http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> zaprichardh@iinet.net.au
> (remove the zap)

482. Re: CoolAmp for silver plating

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 06:56:12 UTC
From: lrbety@aol.com
Message-ID: <20010123015612.15171.00000776@ng-ce1.aol.com>
Source record: 55279

Hey, If CoolAmp solves your problem - use it and be happy you have found a solution.

David

483. Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 10:50:02 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A6D45D2.1CAB@pop.removethistomailme.net>
Source record: 55280
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

I've recently been fooling around with some 802.11 wireless Ethernet hardware (Lucent Orinoco) at home. It seems to be working well for the most part, but I've been seeing severe dropouts on a very occasional basis due to the appearance of a fairly-strong interfering signal close to where the Lucent hardware operates. Typically the interfering signal has been popping up late at night (around 1 AM local time) and lasting for only a few minutes before going away. It's not causing any real grief but I'm curious where it's coming from.

Last night, the QRM lasted for quite a while, and I managed to catch the culprit on my SA. I don't have a portable receiver for this band to help track down the signal, but I would be curious if anyone recognizes its spectral footprint and can tell me what kind of device to look for. I haven't run across anything like this before -- it doesn't look much like a microwave oven, and it doesn't look anything like another 802.11 device.

The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting around 2.4615 GHz and taking up about 10 MHz of space at its -6dB points. What kind of device is doing this, and who do I yell at to make it stop? :)

-- jm

----
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
----

484. FT1000D

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 11:22:47 UTC
From: "william.bradbury" <william.bradbury@ntlworld.com>
Message-ID: <ISdb6.311$x%3.6018@news6-win.server.ntlworld.com>
Source record: 55281

FOR SALE FT1000D WITH ALL FILTERS /TX MODULE/MIKE/MAN?24 MOUTHS OLD ONE OF LAST TEN SOLD RECEIPT CAN BE SEEN/SELL FOR ?1850.00 MY EMAIL ADDS AND FULL ADDS IS IN QRZ.COM?MY CALL IS M5AHY QTH /NOTTINGHAM,UK?

485. Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 12:25:43 UTC
From: Fred <frederick@ezclick.net>
Message-ID: <bLeb6.262107$IP1.8813041@news1.giganews.com>
Source record: 55282

I am using a 12 volt car battery for backup power.
I have it hooked up to a little battery charger to keep it charged up.
Well, the battery don't last about 9 or 10 months doing it this way.
These are new batteries that I am using.
I thought I might be over charging them, but I am not.
Tell me what I am doing worng.
Give me a solution.
I would like to countiue to use this setup if possible, because I have have
it placed neatly in my shack.

486. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 12:27:04 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <GLeb6.381$x%3.6839@news6-win.server.ntlworld.com>
Source record: 55283
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

At the moment I'm looking at bipolar motor drivers, which of course involve the H bridge cicuit.

I've been looking at the L293 Push-Pull Four Channel Driver. You can see a schematic at:

http://www.hvwtech.com/dnload/datasheets/L293d.pdf

Please look at page number 3.

I have some points.

As far as I can rell T's 13, 14, 15, and 16 make up one full H bridge. Ts 27, 28, 28 and 29, make another (note the misdescription in the schematic).

T's 13 and 14, T's 15 and 16, T's 27 and 28, T's 28 and 29 are half H bridges and make one channel, associated with an output. That's why the L293 is called a 4 channel driver.

Now then, concering the output: this will either be positive or to to ground.

Logical inputs in the proper sequence are sent to inputs 1, 2, 3, and 4. The purpose of the chip inhibit connections I know not.

Okay, I was confused by the block diagram on page 1. Of course its a block dagram, but how is one to know that outputs (on pins 3, 6, 11, and 14, will be either +ve or to ground? I was looking for current flow from Vc through the triangles to output, or alternatively current from source (ground) to output. I mean is the output assumed to be Vc or ground?

Please comment if I have misunderstood something.

Rich.

Links for those who might be interested in running that stepper motor in your junk box.

Drivers

Dual Full Bridge Driver L298:
http://www.alltronics.com/download/1773.pdf

Push-Pull Four Channel Driver With Diodes L293D
http://www.alltronics.com/download/1330.pdf

Push-Pull Four Channel Drivers L293B, L293E
http://www.st.com/stonline/books/pdf/docs/1328.pdf

Push-Pull Four Channel/Dual H-Bridge Driver L293C:
http://www.st.com/stonline/books/pdf/docs/1329.pdf

Push-Pull Four Channel Driver With Diodes L293 L293DD:
http://www.st.com/stonline/books/pdf/docs/1330.pdf

Dual Full Bridge Driver L298:
http://www.st.com/stonline/books/pdf/docs/1329.pdf

Stepper Motor Driver Considerations Common Problems and Solutions@
http://www.st.com/stonline/books/pdf/docs/1675.pdf

Stepper Motor Driving:
http://www.st.com/stonline/books/pdf/docs/1679.pdf

Stepper Motor Driving:
http://www.st.com/stonline/books/pdf/docs/1679.pdf

Applications of monolithic bridge drivers:
http://www.st.com/stonline/books/pdf/docs/1681.pdf

Controllers

Bipolar Stepper Motor Control:
http://www.st.com/stonline/books/pdf/docs/1700.pdf

The L297 stepper motor controller
http://www.st.com/stonline/books/pdf/docs/1734.pdf

Stepper Motor Controllers L297 L297D
http://www.alltronics.com/download/1334.pdf

--
Please add an, "s" to "newsgroup" in email address to reply direct.

487. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 12:37:16 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <ZUeb6.394$x%3.8347@news6-win.server.ntlworld.com>
Source record: 55284
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

> Okay, I was confused by the block diagram on page 1. Of course its a
>block diagram, but how is one to know that outputs (on pins 3, 6, 11, and
>14, will be either +ve or to ground? I was looking for current flow from
>Vc through the triangles to output, or alternatively current from source
>(ground) to output. I mean is the output assumed to be Vc or ground?

It doesn't much matter, but figure 9 on page 4 actually shows a bipolar
stepper motor circuit.

Rich.

488. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 15:03:14 UTC
From: Win Hill <whill@mediaone.net>
Message-ID: <3A6D9C4A.5F54597D@mediaone.net>
Source record: 55285
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

John Miles wrote:
>
> I've recently been fooling around with some 802.11 wireless Ethernet
> hardware (Lucent Orinoco) at home. It seems to be working well for the
> most part, but I've been seeing severe dropouts on a very occasional
> basis due to the appearance of a fairly-strong interfering signal close
> to where the Lucent hardware operates. Typically the interfering signal
> has been popping up late at night (around 1 AM local time) and lasting
> for only a few minutes before going away. It's not causing any real
> grief but I'm curious where it's coming from.
>
> Last night, the QRM lasted for quite a while, and I managed to catch the
> culprit on my SA. I don't have a portable receiver for this band to
> help track down the signal, but I would be curious if anyone recognizes
> its spectral footprint and can tell me what kind of device to look for.
> I haven't run across anything like this before -- it doesn't look much
> like a microwave oven, and it doesn't look anything like another 802.11
> device.
>
> The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
> asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting
> around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
> points. What kind of device is doing this, and who do I yell at to make
> it stop? :)
>
> -- jm

The FCC rules state that part 15 devices may not interfere but also that
they must _accept_ any interference, and this is also printed on the part
15 hardware tag, that appears to be a penalty of operation in the ISM band.

:-(

What channel are on operating on? The receiver responds to +/-8MHz about
the carrier, so Channel 1 at 2400MHz would appear to be unaffected by the
interference. Likewise a higher channel might be safe (802.11 channels
are spaced every 5MHz). How stable is the frequency of the interferring
noise? It's likely a high harmonic of a spike signal... Have you been
able to see any of the other harmonics? This would allow you to calculate
the basic repetition rate, which might provide a clue.

Let us know what you learn.

Thanks,
- Win

Winfield Hill
Rowland Institute for Science
100 Edwin Land Blvd
Cambridge, MA 02142-1297

489. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 15:19:49 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3A6DA200.F3D7A96D@primeline.net>
Source record: 55286
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

My first guess, no-one, as per the FCC part 15 status of the 802.11b device,
it must accept interference, including that which may cause unesired operation, you
know it all.

Look up Seattle wireless to learn how to at least build a directional 2.4 Ghz antenna (I might be tempted to try and borrow an MMDS downconvertor,
an find a portable SA to at least find where it's coming from, than if they have
a licence to transmit there.

John Miles wrote:
>
> I've recently been fooling around with some 802.11 wireless Ethernet
> hardware (Lucent Orinoco) at home. It seems to be working well for the
> most part, but I've been seeing severe dropouts on a very occasional
> basis due to the appearance of a fairly-strong interfering signal close
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> around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
> points. What kind of device is doing this, and who do I yell at to make
> it stop? :)
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

490. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 15:27:21 UTC
From: Allan Dobler <Allan.Dobler@crha-health.ab.ca>
Message-ID: <3A6DA2D9.C77F5BF6@crha-health.ab.ca>
Source record: 55287
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Isn't 2460 MHz used for microwave ovens?
Allan VE6XK

John Miles wrote:
>
> I've recently been fooling around with some 802.11 wireless Ethernet
> hardware (Lucent Orinoco) at home. It seems to be working well for the
> most part, but I've been seeing severe dropouts on a very occasional
> basis due to the appearance of a fairly-strong interfering signal close
> to where the Lucent hardware operates. Typically the interfering signal
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> The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
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> around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
> points. What kind of device is doing this, and who do I yell at to make
> it stop? :)
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

491. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 16:03:12 UTC
From: David VanHorn <dvanhorn@cedar.net>
Message-ID: <4Xhb6.38722$P5.1659226@news1.rdc1.il.home.com>
Source record: 55288
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Dosen't this band overlap the ham band? (2300-2450)
There was a big contest this last weekend.

492. Re: WANTED: 4-1000 and chimney

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 16:19:36 UTC
From: rh3333@aol.com
Message-ID: <20010123111936.22402.00000199@ng-mq1.aol.com>
Source record: 55289

I HAVE A LIKE NEW 4PR1000 (PR=PULSE RATED- A DIRECT SUB FOR THE REGULAR 4-1000)
$325

I DO HOT HAVE A CHIMNEY BUT I DO HAVE A SOCKET IF NEEDED

493. Source of Collins "Low Cost" Mechanical Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 17:07:36 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3A6DBA58.7A029429@ix.netcom.com>
Source record: 55290

Does anyone know how to get these filters in small quantities? I was looking for 455 KHz center freq, CW B/W types for a HB project. A search of the Collins web site, even by part number, produced nothing, except a load of frustration... It seems to be geared up to Avionics Systems sales only , definitely not small sales to hams. I seem to remember a product review in QST in recent years, but a search of the index on the ARRL web site came up blank also, maybe it was in QEX?

Any leads would be appreciated,

Dan AC6AO G3NCR

494. Re: Source of Collins "Low Cost" Mechanical Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 17:32:49 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <94kf3a$i1k$1@news6.svr.pol.co.uk>
Source record: 55291

Try:-
http://www.collins.rockwell.com/otherbusinesses/collins-filters/
$300-00 for the one I was interesred in!
If ceramic filters will do there is a uk company called Golledge.
Don

495. Re: Source of Collins "Low Cost" Mechanical Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 17:35:07 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <94kf71$ul6$1@news7.svr.pol.co.uk>
Source record: 55292

Try:_
http://www.collins.rockwell.com/otherbusinesses/collins-filters/
$300-00 for the one I was interested in.
If ceramic filters will do there is a UK company called Golledge who sell them for
ï¿½3-00.
Don

496. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 17:42:59 UTC
From: p_e~t#e$r%k&v3@home.com
Message-ID: <Xns9032815C3F347peterkvhomecom@24.2.9.58>
Source record: 55293
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Hello John:

John Miles <jmiles@pop.net> wrote in <3A6D45D2.1CAB@pop.net>:

>I've recently been fooling around with some 802.11 wireless Ethernet
>hardware (Lucent Orinoco) at home. It seems to be working well for the
>most part, but I've been seeing severe dropouts on a very occasional
>basis due to the appearance of a fairly-strong interfering signal close
>to where the Lucent hardware operates. Typically the interfering signal
>has been popping up late at night (around 1 AM local time) and lasting
>for only a few minutes before going away. It's not causing any real
>grief but I'm curious where it's coming from.
>
>Last night, the QRM lasted for quite a while, and I managed to catch the
>culprit on my SA. I don't have a portable receiver for this band to
>help track down the signal, but I would be curious if anyone recognizes
>its spectral footprint and can tell me what kind of device to look for.
>I haven't run across anything like this before -- it doesn't look much
>like a microwave oven, and it doesn't look anything like another 802.11
>device.
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>The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
>asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting
>around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
>points. What kind of device is doing this, and who do I yell at to make
>it stop? :)
>
>-- jm

Just a thought: Could the culprit be one of those new 2.4 Ghz Digital, SS
or Non-SS (Spread Spectrum), cordless telephones like some of the models
vended by Panasonic under the GigaRange brand name? SS phones only stay
on any one channel for a little while and try to avoid occupied channels
so that might explain why you only occasionally experience interference
from one of these gizmos. And I believe they share some of the same
frequencies as 802.11, but I'm not sure on this - if they do then they're
a potential culprit.

Sorry that I can't be more help, but I'm looking into 802.11 wireless for
a part of my home LAN and when I spotted your post I just had to but in.

I watch for new postings this thread but I would appreciate it if you'd
email me if you do identify the culprit. Especially if it turns out to be
a 2.4 Ghz cordless phone - I've got one so I'm naturally curious.

73 for now
Peter Vince VA3PKV
PS Remove the _~#$%& but not the @ from my reply-by-email address.

497. Re: Source of Collins "Low Cost" Mechanical Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 18:50:48 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3A6DD288.547C3F38@mwci.net>
Source record: 55294

Don Vosper wrote:

> Try:_
> http://www.collins.rockwell.com/otherbusinesses/collins-filters/
> $300-00 for the one I was interested in.
> If ceramic filters will do there is a UK company called Golledge who sell them for
> ï¿½3-00.
> Don

The low cost torsional mode miniature filters are less than $100 for one filter.
Good quantity discounts for a group buy are available. They are excellent.

Bill W0IYH

498. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 20:36:43 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3A6DEC4D.BEB14420@primeline.net>
Source record: 55295
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Because the interference occurs at 1 AM, I beleive it is a microwave
data transmission (from a bank or something), if not, probably a
genuine ISM emission
(like weather radar maybe)

Peter Vince wrote:
>
> Hello John:
>
> John Miles <jmiles@pop.net> wrote in <3A6D45D2.1CAB@pop.net>:
>
> >I've recently been fooling around with some 802.11 wireless Ethernet
> >hardware (Lucent Orinoco) at home. It seems to be working well for the
> >most part, but I've been seeing severe dropouts on a very occasional
> >basis due to the appearance of a fairly-strong interfering signal close
> >to where the Lucent hardware operates. Typically the interfering signal
> >has been popping up late at night (around 1 AM local time) and lasting
> >for only a few minutes before going away. It's not causing any real
> >grief but I'm curious where it's coming from.
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> >Last night, the QRM lasted for quite a while, and I managed to catch the
> >culprit on my SA. I don't have a portable receiver for this band to
> >help track down the signal, but I would be curious if anyone recognizes
> >its spectral footprint and can tell me what kind of device to look for.
> >I haven't run across anything like this before -- it doesn't look much
> >like a microwave oven, and it doesn't look anything like another 802.11
> >device.
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> >The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
> >asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting
> >around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
> >points. What kind of device is doing this, and who do I yell at to make
> >it stop? :)
> >
> >-- jm
>
> Just a thought: Could the culprit be one of those new 2.4 Ghz Digital, SS
> or Non-SS (Spread Spectrum), cordless telephones like some of the models
> vended by Panasonic under the GigaRange brand name? SS phones only stay
> on any one channel for a little while and try to avoid occupied channels
> so that might explain why you only occasionally experience interference
> from one of these gizmos. And I believe they share some of the same
> frequencies as 802.11, but I'm not sure on this - if they do then they're

> a potential culprit.
>
> Sorry that I can't be more help, but I'm looking into 802.11 wireless for
> a part of my home LAN and when I spotted your post I just had to but in.
>
> I watch for new postings this thread but I would appreciate it if you'd
> email me if you do identify the culprit. Especially if it turns out to be
> a 2.4 Ghz cordless phone - I've got one so I'm naturally curious.
>
> 73 for now
> Peter Vince VA3PKV
> PS Remove the _~#$%& but not the @ from my reply-by-email address.

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

499. Calculation of microstrip bandpassfilters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 20:39:44 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <94kq9vohe00$1@news.t-online.com>
Source record: 55296

Hi

I need some bandpassfilters for a frequency multiplier chain and thought of using two coupled microstrip lambda/4 resonators (one end grounded, taps for the input/output connection).
Can someone here provide hints how to calculate such filters? What is the right location of the taps if input/output impedance, spacing and line width are given? Some rules of thumb will be enough at the moment.

Peter

500. Gel type lead acid battery re-vitalisation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 20:41:42 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <94l1gddpu1@news7.svr.pol.co.uk>
Source record: 55200

Some time ago I read a bulletin (in one of the amateur radio news groups) about the possible re-vitalisation of sealed lead acid batteries. Although sealed , they have a built-in pressure relief facility .
When the complete unit is heated-up ,say in hot water (leaving the connecting lugs dry), and subsequently allowing the battery to cool ,while keeping some (distilled) water droplets near the relief valve area ,some of that water would be sucked inside restoring the battery's ability to be charged.

Has anybody on this newsgroup actually done this , and .....with positive result ?.

TIA for any info on this topic from any 'practitioners'.

73 Frank gm0csz.kn6wh@ukrs.org

501. Re: Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 20:41:56 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <94l1gfdpu2@news7.svr.pol.co.uk>
Source record: 55201

> I am using a 12 volt car battery for backup power.
> I have it hooked up to a little battery charger to keep it charged up.
> Well, the battery don't last about 9 or 10 months doing it this way.
> These are new batteries that I am using.
> I thought I might be over charging them, but I am not.
> Tell me what I am doing wrong.
> Give me a solution.
> I would like to counties to use this set-up if possible, because I have
> it placed neatly in my shack.
==========
1) Safety : If car battery is not hermetically sealed , watch out for a
potentially explosive gas mixture of
Hydrogen + Oxygen in your shack . Non-hermetically sealed batteries
should be kept in a well ventilated
area

2) Car batteries are not the most appropriate type of lead acid battery for
back-up .
It is better to use deep cycle batteries also known as leisure batteries
as used in RVs and for camping.

3) Not knowing up to which voltage your car battery-in-the-shack is charged
, perhaps 13.8 V. , it is important that when a non-sealed battery ,it is
charged to 14.5 V for a couple of hours before being put back on 13.8V
charge voltage, approx once every 2 months ,.

4) If not hermetically sealed ,check electrolyte level approx every 2 months
, if too low add distilled - or de-ionised water.

5) To stay healthy a battery on back-up duty needs 'exercise' , hence once
every 2 months discharge it to 11.5 Volts , immediately followed by
re-charging.
Especially this activity I found very rewarding.

I use 4* 75Ah leisure batteries for my station (100W HF rig ,TNC , 25W VHF
transceiver ,test equipment and operating desk lighting and experienced
loss of battery capacity after several months on charge by a 2 Amperes
charger at 13.8 V . Following a discharge to 11.5 V (battery fully
discharged ,although some say it should be as low as 11 V) the batteries
have regained their full capacity ,demonstrated by higher operating voltage
at max current draw during 100W CW + SSB operation.
I now stick to the above 2 monthly routines interleaving the
discharge/recharge/toppping -up with the short-term higher voltage charge
operation.
The discharge operation is performed on 1 battery at the time .

In the shack I also have a few hermetically sealed (gel type)batteries which are normally connected to the main header ,kept at 13.75 V ,however during the short period of charging the main batteries to 14.5 V , the hermetically sealed batteries are disconnected for fear of loss of capacity resulting from ultimate electrolyte starvation (since they cannot be readily topped -up)
These batteries can be connected in series when the temporary need for a higher supply voltage arises ,for example when testing up to 60V circuits (5 gel type batteries in series)

Each battery has its individual (nearby) fuse for obvious safety reasons.

In the next few months all of the above batteries will be charged by a wind generator + 2 solar panels .

73 Frank gm0csz.kn6wh@ukrs.org

502. Re: Where to obtain NE604

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 21:14:39 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3A6DF43F.5376F4C6@valley.net>
Source record: 55198

KJZ5440 wrote:

> Does anyone know where I can find a Signetics NE604 (FM receiver subsystem IC)?
> I've checked several sources, and I can't seem to find this anywhere.
>
> I'd appreciate the help.
>
> Thanks,
> Kevin

Hello--
I've been looking for some of these for Steve Hageman's "Personal Network Analyzer" project (Jan.-Feb. 1998 QST), but no soap.

I'll attempt to use NE625s or SA627s (unsure of the exact part numbers-- they're not handy as I write) that are available from Radio SHack-- these appear to include the IF and RSSI innards of the 604 but with an added mixer. The pinout of the IF section comes close to matching the 604, but the front four and two rear pins need to be spread out (dead-bug style) and suitably bypassed or otherwise terminated.

If all you need is an RSSI/logarithmically-scaled detector, take a look at Analog Devices' Llog amp devices (e.g., the AD8307). This chip costs approx. $15.00.

Good luck, and 73--
Brad AA1IP

503. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 21:20:38 UTC
From: troglodite@aol.com
Message-ID: <20010123162038.15077.00001504@ng-cs1.aol.com>
Source record: 55197

>The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
>asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting
>around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
>points. What kind of device is doing this, and who do I yell at to make
>it stop? :)

It's space aliens dumping their garbage.

504. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 22:29:31 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A6E0814.128@pop.removethistomailme.net>
Source record: 55199
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

John Miles wrote:
<snip>

I'm pretty sure it's not an oven, because it's a relatively stable signal. (At least in the shot I took, that is. I didn't think to zoom down on one of the lobes.)

I just took a picture of the Panasonic 1100W microwave in my kitchen, at http://209.95.122.40/jm/uwave.gif. If you look closely you can see my 802.11 signal foundering in the swamp of garbage from the microwave, at around 45 dB below the oven noise.

(Fun factoid of the day: the microwave and the 802.11 access point are both located about the same distance -- 30 feet or so -- from my workbench. This suggests that you'll get about 10,000 times the RF exposure standing next to a microwave oven, than you would from an 802.11-equipped laptop. :) I didn't think ovens leaked that much.)

Win's suggestion of an impulse-noise harmonic seems intriguing -- J.C. Bose successfully ran a spark gap transmitter at 60 GHz in 1905, so I guess anything's possible. But it sure looks like some kind of band-limited DSSS signal to me. A periodic data dump from a nearby bank or store could make sense; there's a lot of commercial/retail property on my block.

The main lobe's width suggests a data clock rate of around 1.5 Mbps if I understand the theory correctly, which seems like a common-enough data rate (DS1 telephony, SP/DIF audio, etc.) However, the book I have suggests the side lobes should be half the main lobe's width, while they appear more like 80-90% as wide in the shot I took.

At any rate, the 802.11 access point is using channel 10 by default, so it looks like I could miss the interference easily enough by dropping down a few channels. It'd still be interesting to figure out what's going on, though. I wrote some waterfall-display code a couple of years ago and it's still lying around here somewhere... when I get some spare time I'll hook it up to the GPIB card and do a 24-hour survey of the whole band.

Will post the results if I find the source. Thanks for the input, it's appreciated!

-- jm

---
http://www.qsl.net/ke5fx

Note: My E-mail address has been altered to avoid spam
---

505. Re: AD9854 Initialization Code

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-23 23:08:46 UTC
From: richardh@iinet.net.au
Message-ID: <3a6e0e48.442773@news.m.iinet.net.au>
Source record: 55202

In fact I have dispensed with the main clock control and it does not
appear to corrupt the serial data - ie the part updates itself during
a serial write cycle without interrupting the serial transfer.
Presumably it updates garbage and then the proper data so I suppose
you might get odd outputs during the serial transfer.

Richard

On Tue, 23 Jan 2001 02:45:07 GMT, richardh@iinet.net.au (Richard
Hosking) wrote:

>Gday all
>I am pleased to report that I have finally got the beast to work
>As always, the error was mine (...sounds of self flagellation)
>The data direction register in the micro port driving the DDS was set
>to all inputs!!!
>Strangely enough it would still drive the DDS board at low data rates
>but not at normal speed.
>
>This pseudocode for starting the device in serial mode seems to work
>
>Start Main Clock
>RESET high
>Wait 10 clock cycles
>RESET low
>Stop main clock
>IORESET high
>IORESET low
> ;serial data
>07 ; Address of control reg
>00
>00
>00
>00 ; Write all zeros to control reg
>Start main clock
>Wait 100msec ; Plenty of time for an internal update
> ; then internal update will be switched off
>Stop main clock ; though it doesnt matter now
>IORESET high
>IORESET low
> ; serial data
>07
>**
>**
>**

>** ; whatever control options you want
>IOUD high
>IOUD low
>Start main clock
>Write freq word etc to DDS
>
>
>Thanks to all those who advised (Bob Camp, Stephen Swift and others)
>
>Richard
>
>http://www.iinet.net.au/~richardh/VK6BRO.htm
>
>zaprichardh@iinet.net.au
>(remove the zap)

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

506. Want: KW TM-741 head or parts radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 00:25:31 UTC
From: Duffer <hduff@ica.net>
Message-ID: <3A6E20FB.54B58B9@ica.net>
Source record: 55203
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I need the control head only or a complete scrapped Kenwood TM-741A
radio for parts.
Please e-mail me with details

507. Re: AD9854 Initialization Code

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 01:21:07 UTC
From: novatech@eskimo.com
Message-ID: <94lam3sdb1@eskinews.eskimo.com>
Source record: 55204

richardh@iinet.net.au (Richard Hosking) writes:

>>I am pleased to report that I have finally got the beast to work
>>As always, the error was mine (...sounds of self flagellation)
>>The data direction register in the micro port driving the DDS was set
>>to all inputs!!!
>>
>>
>>Thanks to all those who advised (Bob Camp, Stephen Swift and others)
^^^^^^^^^^^^^
>>Richard

Glad I could contribute, even though it wasn't much. I love this part
because it will do everything I want along with everything my customers
want. Unfortunately, my board is too pricey for homebrew. I wish
I could figure a way to make it cheaper (besides making 10,000 of them).

Great to see it working for you.

Thanks for posting the psuedo code-- looks good.

Steve.
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

508. Re: AD9854 Initialization Code

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 01:34:00 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <ciqb6.35135$GS1.4770482@news02.optonline.net>
Source record: 55205

Richard,

The only time I can see the internal update being a problem is during a frequency change. You *might* put out a couple of cycles at a weird frequency if your serial clock was slow relative to your output frequency.

In an application that uses filtering after the DDS I doubt you would have any problem at all. If you run the output into a phase detector this could drive it a bit nuts.

Enjoy!

Bob Camp
KB8TQ

"Richard Hosking" <richardh@iinet.net.au> wrote in message news:3a6e0e48.442773@news.m.iinet.net.au...
> In fact I have dispensed with the main clock control and it does not
> appear to corrupt the serial data - ie the part updates itself during
> a serial write cycle without interrupting the serial transfer.
> Presumably it updates garbage and then the proper data so I suppose
> you might get odd outputs during the serial transfer.
>
> Richard
>
> On Tue, 23 Jan 2001 02:45:07 GMT, richardh@iinet.net.au (Richard
> Hosking) wrote:
>
> >Gday all
> >I am pleased to report that I have finally got the beast to work
> >As always, the error was mine (...sounds of self flagellation)
> >The data direction register in the micro port driving the DDS was set
> >to all inputs!!!
> >Strangely enough it would still drive the DDS board at low data rates
> >but not at normal speed.
> >
> >This pseudocode for starting the device in serial mode seems to work
> >
> >Start Main Clock
> >RESET high
> >Wait 10 clock cycles

> >RESET low
> >Stop main clock
> >IORESET high
> >IORESET low
> > ;serial data
> >07 ; Address of control reg
> >00
> >00
> >00
> >00 ; Write all zeros to control reg
> >Start main clock
> >Wait 100msec ; Plenty of time for an internal update
> > ; then internal update will be switched off
> >Stop main clock ; though it doesnt matter now
> >IORESET high
> >IORESET low
> > ; serial data
> >07
> >**
> >**
> >**
> >** ; whatever control options you want
> >IOUD high
> >IOUD low
> >Start main clock
> >Write freq word etc to DDS
> >
> >
> >Thanks to all those who advised (Bob Camp, Stephen Swift and
others)
> >
> >Richard
> >
> >http://www.iinet.net.au/~richardh/VK6BRO.htm
> >
> >zaprichardh@iinet.net.au
> >(remove the zap)
>
> http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> zaprichardh@iinet.net.au
> (remove the zap)

509. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 03:04:29 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <65sp6tsv2en7hjobir3ti0t9562krconat@4ax.com>
Source record: 55206

Bill Janssen <billj@ieee.org> wrote:

>I constructed a 1 MHz oscillator and locked it to LORAN. I then compare
>the phase of the 1 MHz. to 1 MHz. derived from the counter time base. I
>use a
>computer to store readings every 15 seconds and run the program for a
>few
>hours. I can get accuracy of about one part in 10X10 with my setup.

I looked into doing this, but found that locking to the LORAN C signal
was not so simple. I thought there was no continuous carrier. Was this
wrong?

How did you do this? The NIST Time and Frequency Measurement group
indicates that the LORAN signal is the most stable signal available to
all of us, except perhaps for the 60 kHz WWVB signal.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA
---

510. Re: Are you a stepper motor guru? If so perhaps you can help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 05:00:09 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3A6E6159.D62EFA60@bt.com>
Source record: 55207
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Richard Fullerton wrote:
>
> I'm (very possibly) going to try to build something (small
> remote-control ATU for receiving purposes.) employing a
> stepper motor.

Good idea - one that I've thought of trying, but have been put off by having to run a seperate control cable to the box... I'm still watching with interest though...

> Stepper motors are easily obtainable and
> cheap (from old floppies).

If you need more torque (say, for a transmitting ATU?), try looking in scrap printers or fax machines, they're riddled with steppers! (I have a collection of about 30 steppers, one day I'll get to use them, I hope!)

> I've got stepper motor in front of me now, is there any way
> I could fathom out a circuit to run it?
> It is made in Japan, but also identified as Applied Motor Products Inc,
> Scotts valley CA, DC12v 1.0A/Ω 1.32 Ohms 400S/R.

I'd guess that "400 S/R" probably means "400 steps per revolution"?

Have you looked on the 'net? There are several "stepper motor" groups which are quite useful :-

http://www.eio.com/stepindx.htm
http://www.doc.ic.ac.uk/~ih/doc/stepper/
http://www.st.com/stonline/books/ascii/docs/1679.htm

(The last one is an Application Note on bipolar motors from SGS Thomson)

HTH,
Good luck,

73
Andy

511. Re: Remote ATU ideas.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 05:26:56 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3A6E67A0.9F4BAB27@bt.com>
Source record: 55208
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Richard Fullerton wrote:
>
> I need to establish some performance parameters for this receive only
> remote-control ATU I want to make.
>
> I envisage this bipolar stepper motor turning a varable capacitor.

OK, what about an inductor in there as well? It shouldn't be too
difficult to fabricate a roller inductor for RX only.

> So it probably needs to reverse direction.

Yup, that's easy electronically. (Bipolars included?)

> Also, I _don't_want to control it from
> my PC.

Go on! Why not? the cheapest of cheap PC's could do it, and it would
save a *lot* of hardware manufacture!

> My minds eye sees pressing a button making the motor go one way,
> pressing another making it go the opposite way. It must know when it's
> reached end of travel.

Why? you don't need to with the capacitor (if you use an 'endless'
capactor).

> I wonder of there is anyway I can know the motors
> anguler position, so I can set it where I want it.

How many steps have you taken from point 'X', that's your current
position.

> (unless I just tune for peak noise/signal on rx).

Probably this is just as easy, but you lose the "resetability" you asked
for :-(

> Of course I need some hardware to do all this.

Old/scrap Fax machines and printers - they are gold mines for gears,
sprockets, optical coding discs, belts, cams, springs, bearings, etc.
They can also provide the electrical components - microswitches, optical
sensors, driver chips, solenoids - the list is almost endless.

> If anyone has any suggestions, feel free to suggest anything.

Lagavulin? (Well, it is Burn's Night tomorrow...)

73
Andy

512. Re: Remote ATU ideas.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 07:14:37 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A6E80DD.37F9BAB1@coqui.net>
Source record: 55209
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew,uk.radio.amateur

Andy Lake wrote:
>
> Richard Fullerton wrote:
> >
> > I need to establish some performance parameters for this receive only
> > remote-control ATU I want to make.
> >
> > I envisage this bipolar stepper motor turning a varable capacitor.
>
> OK, what about an inductor in there as well? It shouldn't be too
> difficult to fabricate a roller inductor for RX only.
>
> > So it probably needs to reverse direction.
>
> Yup, that's easy electronically. (Bipolars included?)
>
> > Also, I _don't_want to control it from
> > my PC.
>
> Go on! Why not? the cheapest of cheap PC's could do it, and it would
> save a *lot* of hardware manufacture!
>
> > My minds eye sees pressing a button making the motor go one way,
> > pressing another making it go the opposite way. It must know when it's
> > reached end of travel.
>
> Why? you don't need to with the capacitor (if you use an 'endless'
> capactor).
>
> > I wonder of there is anyway I can know the motors
> > anguler position, so I can set it where I want it.
>
> How many steps have you taken from point 'X', that's your current
> position.
>
> > (unless I just tune for peak noise/signal on rx).
>
> Probably this is just as easy, but you lose the "resetability" you asked
> for :-(
>
> > Of course I need some hardware to do all this.
>
> Old/scrap Fax machines and printers - they are gold mines for gears,

> sprockets, optical coding discs, belts, cams, springs, bearings, etc.
> They can also provide the electrical components - microswitches, optical
> sensors, driver chips, solenoids - the list is almost endless.
>
> > If anyone has any suggestions, feel free to suggest anything.
>
> Lagavulin? (Well, it is Burn's Night tomorrow...)
>
> 73
> Andy

I remember the remote tuning network at our local radio station in
the old days. Ol' Sparky rigged up a couple of antenna rotors
with the controls mounted on an inside panel to drive the big
variable caps out in the "hut". Overkill, but it worked.

Bill Meacham

513. Pointer to Oscilloscope FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 10:20:34 UTC
From: wd1v@amsat.org
Message-ID: <wd1v-2401010520370001@wdonev.ne.mediaone.net>
Source record: 55210

http://www.qsl.net/wd1v/

514. Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 10:42:55 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a6eb096.6699710@news.lin.foa.se>
Source record: 55211

Hi
I am looking for any information regarding the generation of
quadrature signals.

It needs to be wideband, i e 20-140 MHz or so...
Using all-pass filters seems to be a viable way, but where do I find
any design information. Searching the internet reveals several sources
but they are old, very old, hard to find!

If you have any information please post it here

Thanks
Lasse SM5GLC

515. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 11:29:19 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a6ebbd4.1365819@news.cantech.net.au>
Source record: 55212

On Wed, 24 Jan 2001 10:42:55 GMT, lasse.moell@swipnet.se (Lasse)
wrote:

>Hi
>I am looking for any information regarding the generation of
>quadrature signals.
>
>It needs to be wideband, i e 20-140 MHz or so...
>Using all-pass filters seems to be a viable way, but where do I find
>any design information. Searching the internet reveals several sources
>but they are old, very old, hard to find!
>

Intuitively I'd be thinking of:
(a) a digital source using a multiphase clock, or
(b) a VCO pair with different types of phase detector. The latter
work at different phase angles depending on their type. That way the
reference osc and divider data can at least be common.

Just ideas.

516. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 12:05:40 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <oyzb6.64619$HE2.6712874@news1.onlynews.com>
Source record: 55213

> I am looking for any information regarding the generation of
> quadrature signals.
>
> It needs to be wideband, i e 20-140 MHz or so...
> Using all-pass filters seems to be a viable way, but where do I find
> any design information. Searching the internet reveals several sources
> but they are old, very old, hard to find!

"How to design wide-band RF Quadrature Network" by G.W.Horn, I4MK

QEX, November 1982

W4ZCB

517. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 12:35:09 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a6ecaee.13445253@news.lin.foa.se>
Source record: 55214

Thanks for the information!
I'll try to find the QEX, we did start subscribing 95.....

Apparently a ham, Robert Dome W2WAM, did pioneer the phase-difference networks.... but where can I find his work? One reference is Electronics Dec 1946! Anyone not recycling magazines??

Using PLL and other similar ccks are not viabel. The component will be used in a butler matrix (direction finding) with multiple input signals.

Cheers
Lasse SM5GLC
On Wed, 24 Jan 2001 12:05:40 GMT, "Harold Johnson" <w4zcb@ispchannel.com> wrote:

>
>
>> I am looking for any information regarding the generation of
>> quadrature signals.
>>
>> It needs to be wideband, i e 20-140 MHz or so...
>> Using all-pass filters seems to be a viable way, but where do I find
>> any design information. Searching the internet reveals several sources
>> but they are old, very old, hard to find!
>
>"How to design wide-band RF Quadrature Network" by G.W.Horn, I4MK
>
>QEX, November 1982
>
>W4ZCB
>
>

518. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 13:26:06 UTC
From: richardh@iinet.net.au
Message-ID: <3a6ed6be.48424947@news.m.iinet.net.au>
Source record: 55215

Lasse

I have just managed to get a signal from the AD9854 quadrature direct digital ynthesizer on a prototype board. If you want a LO signal, this chip might be a possibility. Admittedly the spur output might be unacceptabvle for many applications. The chip will produce an accurate pair of quadrature signals, closely matched in amplitude and phase. Using an image, you could reach 140MHz. The device will cover to 70-80 MHz without a problem.

Richard

On Wed, 24 Jan 2001 10:42:55 GMT, lasse.moell@swipnet.se (Lasse) wrote:

>Hi
>I am looking for any information regarding the generation of
>quadrature signals.
>
>It needs to be wideband, i e 20-140 MHz or so...
>Using all-pass filters seems to be a viable way, but where do I find
>any design information. Searching the internet reveals several sources
>but they are old, very old, hard to find!
>
>If you have any information please post it here
>
>Thanks
>Lasse SM5GLC
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

519. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 16:00:04 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <8_Cb6.64921$HE2.6718599@news1.onlynews.com>
Source record: 55216

> I'll try to find the QEX, we did start subscribing 95.....
>
> Apparently a ham, Robert Dome W2WAM, did pioneer the phase-difference
> networks.... but where can I find his work? One reference is
> Electronics Dec 1946! Anyone not recycling magazines??
>
> Using PLL and other similar ccks are not viabel. The component will be
> used in a butler matrix (direction finding) with multiple input
> signals

Ah Yes! The Dome phase shift networks. Others in the field were W2WZR, K2QCX, W1DAX and Jim Kohler, VE5FP/VK2BOX. I don't know whether these are even still alive but you might try their call book address for more information.

Richard, when you get that thing percolating,0-80 MHz. I want to buy one. Complete with whatever you finally get to make the thing initialize.

W4ZCB

520. Life is not just internet...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 16:15:45 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a6efdcb.26467611@news.lin.foa.se>
Source record: 55217

It's so easy to forget your local library!
After spending several hours searching the web I took a reference list with me to our library. It sure was a pleasant surprise! Four articles from -49 -60 were immediately available, and Electronics -46 should be available tomorrow! Even our old Ham Radio was still available.

Honestly I had forgotten how FUN it can be to surf the shelves, smelling the books and just flipping pages. Looking at pictures/ads from an era long before me, noticing familar names and so on can be just as exciting as the new issue of Playboy (yep I am a wierdo).

Hmm, I getting lost in memoires, getting old. Now time for some reading
CU
/Lasse SM5GLC

>On Wed, 24 Jan 2001 12:05:40 GMT, "Harold Johnson"
><w4zcb@ispchannel.com> wrote:
>
>>
>>
>>> I am looking for any information regarding the generation of
>>> quadrature signals.
>>>
>>> It needs to be wideband, i e 20-140 MHz or so...
>>> Using all-pass filters seems to be a viable way, but where do I find
>>> any design information. Searching the internet reveals several sources
>>> but they are old, very old, hard to find!
>>
>>"How to design wide-band RF Quadrature Network" by G.W.Horn, I4MK
>>
>>QEX, November 1982
>>
>>W4ZCB
>>
>>
>

521. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 17:24:38 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3A6F0FD6.A1F26461@ieee.org>
Source record: 55218

Jim Adney wrote:
>
> Bill Janssen <billj@ieee.org> wrote:
>
> >I constructed a 1 MHz oscillator and locked it to LORAN. I then compare
> >the phase of the 1 MHz. to 1 MHz. derived from the counter time base. I
> >use a
> >computer to store readings every 15 seconds and run the program for a
> >few
> >hours. I can get accuracy of about one part in 10X10 with my setup.
>
> I looked into doing this, but found that locking to the LORAN C signal
> was not so simple. I thought there was no continuous carrier. Was this
> wrong?
>
> How did you do this? The NIST Time and Frequency Measurement group
> indicates that the LORAN signal is the most stable signal available to
> all of us, except perhaps for the 60 kHz WWVB signal.
>
Ok it wasn't easy but then it wasn't too hard either.
I started with a 1 MHz oscillator and divide it down to the pulse rate
of
the LORAN signal. I generate a short pulse at that rate and use the
pulse
in a sample and hold circuit to sample the LORAN during the first part
of the pulse. The analog output of the hold circuit is used to steer the
frequency of the 1 MHz. oscillator.

To align the sample on the pulse, I trigger a scope with the pulse and
look
at the LORAN signal. I the adjust the divider until the pulses line up
and then
reset the divider to its correct setting. I have thumb switches to set
the
divide ratio.

Hope that helps explain what I did.

My next project is to build a receiver for WWVB on 60 KHz. I would
recommend that that signal (or GPS) be used for any new projects.

Bill K7NOM

522. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 19:25:24 UTC
From: Winfield Hill <hill@rowland.org>
Message-ID: <3A6F2C24.5E5965@rowland.org>
Source record: 55219
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

John Miles wrote:
>
> I'm pretty sure it's not an oven, because it's a relatively stable
> signal. (At least in the shot I took, that is. I didn't think to
> zoom down on one of the lobes.)
>
> I just took a picture of the Panasonic 1100W microwave in my kitchen,
> at http://209.95.122.40/jm/uwave.gif. If you look closely you can
> see my 802.11 signal foundering in the swamp of garbage from the
> microwave, at around 45 dB below the oven noise.
>
> (Fun factoid of the day: the microwave and the 802.11 access point
> are both located about the same distance -- 30 feet or so -- from my
> workbench. This suggests that you'll get about 10,000 times the RF
> exposure standing next to a microwave oven, than you would from an
> 802.11-equipped laptop. :) I didn't think ovens leaked that much.)

John, the conventional wisdom is that a microwave oven operating on
FULL is actually on a 50% duty cycle at 60Hz, i.e. powered on half
cycles only. 802.11 modems are supposed to sucessfully sneak their
packets through undisturbed during the quiet 8ms periods. The MAC
chip should make automatic retries until finding the quiet interval.
What have been your observations about this?

BTW, I like the 7470A plotter emulator software, we'd you get it?

Thanks,
- Win

Winfield Hill
Rowland Institute for Science
100 Edwin Land Blvd
Cambridge, MA 02142

523. Re: counter vs frequency std?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 20:04:33 UTC
From: Stephen Tompsett <stephen@blob.demon.co.uk>
Message-ID: <GbHDDUARVzb6EwZP@blob.demon.co.uk>
Source record: 55220

In article <3A6F0FD6.A1F26461@ieee.org>, Bill Janssen <billj@ieee.org>
writes
>
>My next project is to build a receiver for WWVB on 60 KHz. I would
>recommend that that signal (or GPS) be used for any new projects.
>
>Bill K7NOM

May I recommend http://www.rt66.com/~shera/ for a GPS-Based Frequency Standard
project.

--
Stephen Tompsett

524. TRIO 9R59D

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 20:46:30 UTC
From: Brian A Berry <brianberry@btinternet.com>
Message-ID: <94nenugnf1@plutonium.btinternet.com>
Source record: 55221

Anyone know what the values of the oscillator padding capacitors are for all the ranges of this receiver please? I have one to repair and someone has been at the coil pack!

I have a full manual, but the coil pack is only shown as a complete unit, and no values are given for the padders. Appreciate any help that you can give. Thanks brianberry@btinternet.com

525. Radio Shack ME-11 DMM serial cable info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 21:18:48 UTC
From: LLConner <llconner@gte.net>
Message-ID: <YEHb6.7706$tV5.164207@paloalto-snr1.gtei.net>
Source record: 55222

Radio Shack is selling the ME-11 on clearance and I got one. But I can't find anything about the serial port and the pin-outs for a cable to a PC. Brand name on the unit is MeTex but that doesn't help either. Any help would be appreciated.

Thanks,

Larry

526. Re: Low Power Homebrew CW TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 21:45:59 UTC
From: diggernrebel1@aol.com
Message-ID: <20010124164559.01565.00000919@ng-fb1.aol.com>
Source record: 55223

Charlie,
See if you can get your hands on The giant book of electronic projects. It has a schematic and parts list for a low power AM transmitter and you can use the ocilator section of the cw tansmitter kit section to send CW. Good luck. C U on the bands.KB2YFP

527. Re: Dynamic Range of Crystal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 21:56:55 UTC
From: Lasse Moell <lasse.moell@please.no.spam.swipnet.se>
Message-ID: <jlju6tsn1d10o4mmds7p5i12sa11bh82re@4ax.com>
Source record: 55224

>
> One scheme I remember was to use a hybrid splitter after the first mixer
>and then feed TWO identical filters. Use another hybrid to combine their
>outputs and you wind up with a higher dynamic range filtering system.
>
> Using the hybrid splitter terminates the mixer into 50 ohms while
>allowing the filters to be connected DIRECTLY after the mixer. So, by
>placing the filter as close to the mixer as possible, AND splitting the
>signal so that a lower level hits each crystal filter, one can obtain the
>maximum possible dynamic range for the complete system.
>

Jim,
if I recall correctly this was used by the AEG/Telefunkten E-series
receivers for HF.

Splitting the rf in two paths would reduce the signal level by 3 dB
and thus improving the IMD by 6 dB. Since the splitting/summing
network was consitiuted of 90 degree hybrids I guess the greatest
advantage would be cancellation of reflected and unwanted signals back
into the mixer.

Good Luck with the experiments

Cu
Lasse SM5GLC

528. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 23:32:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A6F6860.B06@pop.removethistomailme.net>
Source record: 55225
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Winfield Hill wrote:
>
> John, the conventional wisdom is that a microwave oven operating on
> FULL is actually on a 50% duty cycle at 60Hz, i.e. powered on half
> cycles only. 802.11 modems are supposed to sucessfully sneak their
> packets through undisturbed during the quiet 8ms periods. The MAC
> chip should make automatic retries until finding the quiet interval.
> What have been your observations about this?

I can still surf the web OK with the microwave on, but LANEVAL reports zero throughput for some reason. Maybe it tries to keep the wire saturated without backing off to allow the necessary retries... dunno.

There's an option in the Orinoco client software for "interference robustness" that's specifically intended to deal with oven interference. It evidently breaks the packets up into smaller fragments that are more likely to fit into the quiet half-cycle periods. It doesn't seem to help LANEVAL, although I didn't try enabling it at both the client card and access point.

> BTW, I like the 7470A plotter emulator software, we'd you get it?

Thanks! I wrote it to parse the output from my Tek 494P's PLOT? command. That's a fairly-old instrument (Reagan-era eBay special), and it only uses a few basic HPGL commands that were easy to reverse-engineer by looking at a sample plot file. You're welcome to the C source, but it's not likely to work with any instruments besides the 49x analyzers yet.

If I can find a reference for the 7470A somewhere, I'll try to bring the emulator up to date with all of the HPGL commands from that generation. I'd like to use it with my 2430A scope too, but its HPGL output looks much harder to reverse-engineer than the 494's. Font support is going to be a PIA in either case because my (also homebrew) graphics library doesn't do scalable fonts. I'll probably have to switch over to GDI if I go much further with it.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

529. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-24 23:43:19 UTC
From: Jorgen Lund-Nielsen <jorgen.lund-nielsen@desy.de>
Message-ID: <3A6F6897.11BE74C3@desy.de>
Source record: 55226
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Winfield Hill wrote:
>

>
> BTW, I like the 7470A plotter emulator software, we'd you get it?
>

Yes, that looks nice, i'm interested, too!

Jorgen
dj0ud

530. Re: Calculation of microstrip bandpassfilters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 01:38:21 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <hsLb6.44651$ft6.1030893@typhoon.mw.mediaone.net>
Source record: 55227

"Peter Bolch" <320058850955-0001@t-online.de> wrote in message
news:94kq9vohe00$1@news.t-online.com...
> Hi
>
>
> I need some bandpassfilters for a frequency multiplier chain and thought
of
> using two coupled microstrip lambda/4 resonators (one end grounded, taps
> for the input/output connection).
> Can someone here provide hints how to calculate such filters? What is the
> right location of the taps if input/output impedance, spacing and line
> width are given? Some rules of thumb will be enough at the moment.

You may want to get this software package ($10 US). I had this bookmarked, but I have not use this program before. The snippet below is from the web page. I think this will do want you want, and then some.

"PUFF is a program for laying out and analyzing microstrip and stripline circuits on IBM-compatible personal computers. The program is fast and easy to use. Circuits are laid out on the screen using cursor keys, and may be analyzed for scattering parameters in the frequency domain, or impulse and step responses in the time domain. PUFF's element library includes several lumped elements, transmission lines, and coupled lines. Multiport scattering parameter files may be read into the program to represent transistors, to create hypothetical components, or to compare theory and experiment. PUFF also produces photographic artwork on dot-matrix and HP LaserJet printers. Support for VGA, EGA and CGA graphics is included."

http://www.cco.caltech.edu/~mmic/puffindex/puffE/puffE.htm

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse Code is used exclusively by Electronics Based life forms to communicate amongst themselves using advanced Organic Digital Signal Processors, running state of the art Artificial Intelligence Software, to perform the highly complex transmit encryption, receive decryption and error correction functions."

531. HP7470A plotter emulator (was Re: Interference....)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 02:07:58 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A6F8CDD.4718@pop.removethistomailme.net>
Source record: 55228
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Jorgen Lund-Nielsen wrote:
>
> Winfield Hill wrote:
> >
>
> >
> > BTW, I like the 7470A plotter emulator software, we'd you get it?
> >
>
> Yes, that looks nice, i'm interested, too!
>
> Jorgen
> dj0ud

FYI, I've uploaded the current version of my HPGL plotter emulator to http://www.qsl.net/ke5fx, with full source.

It will probably take some effort to get it working with anything but the Tek 492/494/495/496/497 analyzers, but it ought to be better than nothing as a starting platform. I'll add vector fonts to it as soon as I can find an HPGL reference of some kind. Suggestions are always welcome....

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

532. Connecting radios together 'back-to-back'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 03:28:22 UTC
From: David Baker <david@baker.pc.my>
Message-ID: <g67v6t8f7hehmff78nmmo5amnm4phq6qf1@4ax.com>
Source record: 55229

(Sorry if this isn't strictly amateur! I'm having trouble finding a more suitable newsgroup to post into...)

I have 2 radio transceivers (Pacific Crest RFM96W - http://www.paccrst.com/FTP/anon/Intl.rfm96w.pdf) that I want to connect together by coax. I need to do this as if I try using the antennas for my testing I get all sorts of reflections & interference due to the small size of my concrete & steel workshop.

I can remember from the dim dark past during my Air Force days that I will need an inline attenuator to cut down the signal so as to not blow the front end out of the receiver. However the theory has long since been erased from my memory banks & I have been unsuccessful trying to find out what I need.

My radio transmitter is 2 watts. My radio receiver has -117dBm sensitivity. Frequency is 450 MHz (approx)

Anyone know how I can calculate the attenuation required?

Now for the tricky bit - how do I make an attenuator with the above value? Is it just a resistor? I can see from the following website:
http://hometown.aol.com/arrow146/atten.html
that they use what appear to be only resistors. As I don't need anything with variable attenuation (for the moment), I'm hoping I can do with just one or 2 resistors. Would some kind soul please let me know if this is possible, and if so:

What value resistor(s)
What power rating
What composition resistors

Thanks in advance,

Dave

533. Re: SuperRegen VHF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 03:42:19 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A6FA065.292B96C1@GTE.net>
Source record: 55230

Jim Weir wrote:

> Anybody got a point to a url with the working schematic for a super regen VHF
> receiver? I plan on using it for 2-meter cheap and dirty short range detection
> with slope detection of the FM signal.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

Go to the FAR circuits site- under receivers there is a VHF regen.

Dale W4OP

534. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 04:28:13 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <_YNb6.33513$vZ3.795860@e3500-chi1.usenetserver.com>
Source record: 55231

I might be possible to mix your signal up to a frequency where the required bandwidth is possible with a 90 degree hybrid and then mix both the in-phase and 90 degree signals down to the original frequency. Look at some of the Mini-Circuits stuff at http://www.minicircuits.com/dg02-102.pdf .

gl
John

"Lasse " <lasse.moell@swipnet.se> wrote in message
news:3a6eb096.6699710@news.lin.foa.se...
> Hi
> I am looking for any information regarding the generation of
> quadrature signals.
>
> It needs to be wideband, i e 20-140 MHz or so...
> Using all-pass filters seems to be a viable way, but where do I find
> any design information. Searching the internet reveals several sources
> but they are old, very old, hard to find!
>
> If you have any information please post it here
>
> Thanks
> Lasse SM5GLC
>

535. Re: Homebrew Remote-Controlled ATU For End-Fed Wire.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 05:11:47 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <nAOb6.2713$R5.161845@news1.frmt1.sfba.home.com>
Source record: 55232

My end fed antenna was horizontal and fed directly at the end, 55 feet up.
It doesn't fit either the vertical or inverted L model that the ENDFEED
program analyzes. The ENDFEED program does seem to correctly predict end
fed verticals I have built.

Rick N6RK

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
news:94i9oh$k4$1@plutonium.btinternet.com...
> Rich,
>
> Download program ENDFEED from website below. Takes only a few seconds. Not
> zipped up. Run immediately.
>
> From given antenna and ground height and length dimensions the program
> computes radiating efficiency of any vertical or inverted-L at any
> frequency.
>
> Also micro-henry and picofarad component values of L-match and T-match
> networks to match the 50-ohm transceiver impedance.
>
> To wind your coils on empty toilet-paper tubes with 18 gauge wire download
> program SOLNOID2.
> --
> **********
> Regards, Reg, G4FGQ
> Free radio design & modelling software
> http://www.btinternet.com/~g4fgq.regp
>
> **********
>
> Richard Fullerton <newsgroup_email@ntlworld.com> wrote in message
> news:8sha6.3364$4k4.91353@news2-win.server.ntlworld.com...
> > Anyone made, or know the wherabouts of any constructional details for a
> > remote-controlled ATU for an end-fed wire antenna? Surprisingly, such a
> > thing does not seen to have been a common homebrew project.
> >
> > Thanks for any info.
> >
> > --
> > Please add an, "s" to "newsgroup" in email address to reply direct.
> >
> >
>
>

536. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 05:25:46 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <uNOb6.2762$R5.165515@news1.frmt1.sfba.home.com>
Source record: 55233

I once built a quadrature splitt that worked from 1 to 140 MHz. It was simply a constant resistance all pass network in the half lattice configuration using a center tapped transformer. The lattice arms had series resonant tanks in series with parallel resonant tanks. The pole and zero frequencies were calculated using an IEEE paper by Lankershim and Shirley (I think it was in the 1960's, or 1970's in Trans. on Circuit Theory). This is the best of many papers on the subject, IMHO. I am not aware of any recent papers on the subject; I think everything that could be said about was said about it 30 years ago. You should be able to search the IEEE web site and find the citation. The component tolerances are not critical for these networks. I used ordinary molded inductors and ceramic caps.

Rick Karlquist N6RK

Lasse <lasse.moell@swipnet.se> wrote in message
news:3a6eb096.6699710@news.lin.foa.se...
> Hi
> I am looking for any information regarding the generation of
> quadrature signals.
>
> It needs to be wideband, i e 20-140 MHz or so...
> Using all-pass filters seems to be a viable way, but where do I find
> any design information. Searching the internet reveals several sources
> but they are old, very old, hard to find!
>
> If you have any information please post it here
>
> Thanks
> Lasse SM5GLC
>

537. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 13:59:16 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a702e4a.14458770@news.lin.foa.se>
Source record: 55234

Rick,
I have been going thru all IEEE Trans. Ckt Theory 63-79 and found nil
from Lankershim and Shirley. I even tried IRE 60-62 with similar
information.

But I am not sure it would be suitable to use RC network as this would
present quite high insertion losses.

I do have an article "Normalized Design of 90 degree Phase-Difference
Networks" by Bedrosian from IRE Trans. on Circuit Theory june 1960
that seems promising!

Cheers
/Lasse SM5GLC

On Thu, 25 Jan 2001 05:25:46 GMT, "Richard Karlquist" <rick@area.com>
wrote:

>I once built a quadrature splitt that worked from 1 to 140 MHz. It was
>simply a constant resistance all pass network in the half lattice
>configuration using a center tapped transformer. The lattice arms had
>series resonant tanks in series with parallel resonant tanks. The pole and
>zero frequencies were calculated using an IEEE paper by Lankershim and
>Shirley (I think it was in the 1960's, or 1970's in Trans. on Circuit
>Theory). This is the best of many papers on the subject, IMHO. I am not
>aware of any recent papers on the subject; I think everything that could be
>said about was said about it 30 years ago. You should be able to search the
>IEEE web site and find the citation. The component tolerances are not
>critical for these networks. I used ordinary molded inductors and ceramic
>caps.
>
>Rick Karlquist N6RK
>
>Lasse <lasse.moell@swipnet.se> wrote in message
>news:3a6eb096.6699710@news.lin.foa.se...
>> Hi
>> I am looking for any information regarding the generation of
>> quadrature signals.
>>
>> It needs to be wideband, i e 20-140 MHz or so...
>> Using all-pass filters seems to be a viable way, but where do I find
>> any design information. Searching the internet reveals several sources
>> but they are old, very old, hard to find!
>>
>> If you have any information please post it here
>>

>> Thanks
>> Lasse SM5GLC
>>
>
>

538. Re: Help Identifying Transmit tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 14:09:14 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3A70338A.785ABE0F@innercite.com>
Source record: 55151
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi Rich Thanks for the email. This is about double the size of
4CX-250's It is about 4 inches diameter. I would guess it is about 500
or 1000watts. Might anybody else have some input on it. 73's Don KB6GQA

rich7@my-deja.com wrote:

> In article <3A6C3417.2D0D7970@innercite.com>,
> desmith@innercite.com wrote:
> > Might anyone help me in identifying this transmitter tube and its
> > characteristics. It is air cooled like the 4CX250's but has rings at
> > the bottom for electrical connection. It is about 3.5 inches in
> > diameter. Please respond by email. Thanks Don Smith KB6GQA
> > http://www.innercite.com/~desmith/Txtube.JPG
> >
> > >>>>>>>>> It's a 4CX-250-K which uses a special socket, to be used on
> 70 CM. Rich <<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<
>
> Sent via Deja.com
> http://www.deja.com/

539. Re: Connecting radios together 'back-to-back'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 14:15:06 UTC
From: brokebob@aol.com
Message-ID: <20010125091506.17849.00001274@ng-mo1.aol.com>
Source record: 55235

Load the transmitter with a dummy load of some sort (maybe 2 100 ohm 1 watt resistors in parallel). The receiver should hear the transmitter with no direct connection.
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

540. Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 14:16:23 UTC
From: Ian Wade <ian.wade@netro.co.uk>
Message-ID: <7yJff0B3UDc6EwEH@netro.co.uk>
Source record: 55236
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

I have an internal 100MB ZIP drive that has apparently started to have seek problems -- when running Norton Disk Doctor, the surface check regularly fails around the middle of the disk, and I can hear the head assembly repeatedly clicking as it retries.

I've tried several disks, some fresh, some old, and all exhibit the same problem, so I'm certain it isn't the media.

Unfortunately the drive is held in place by screws that are very difficult to get at, so before I completely disassemble the computer, is there anything else I can do to identify/fix the problem with the drive in situ (e.g. cleaning)?

--
Ian

541. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 14:27:42 UTC
From: Paul <paul@PaulBrewer.org>
Message-ID: <YxOG3VAefDc6Ewgd@thunderbird-sport.freeserve.co.uk>
Source record: 55237
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

```
In article <7yJff0B3UDc6EwEH@netro.co.uk>, Ian Wade
<ian.wade@netro.co.uk> writes
>I have an internal 100MB ZIP drive that has apparently started to have
>seek problems -- when running Norton Disk Doctor, the surface check
>regularly fails around the middle of the disk, and I can hear the head
>assembly repeatedly clicking as it retries.
>
>I've tried several disks, some fresh, some old, and all exhibit the same
>problem, so I'm certain it isn't the media.
>
>Unfortunately the drive is held in place by screws that are very
>difficult to get at, so before I completely disassemble the computer, is
>there anything else I can do to identify/fix the problem with the drive
>in situ (e.g. cleaning)?
>
No.
--
Paul B
```

542. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 15:06:38 UTC
From: Tom Gameson <tom.gameson@btinternet.com>
Message-ID: <3A7040FE.67273B89@btinternet.com>
Source record: 55238
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

Ian -
you want to take a look at
http://www.grc.com/clickdeath.htm
if your drive has contracted the 'click of death' you should be able to
get a free
replacement from Iomega
regards
Tom

Ian Wade wrote:

> I have an internal 100MB ZIP drive that has apparently started to have
> seek problems -- when running Norton Disk Doctor, the surface check
> regularly fails around the middle of the disk, and I can hear the head
> assembly repeatedly clicking as it retries.
>
> I've tried several disks, some fresh, some old, and all exhibit the same
> problem, so I'm certain it isn't the media.
>
> Unfortunately the drive is held in place by screws that are very
> difficult to get at, so before I completely disassemble the computer, is
> there anything else I can do to identify/fix the problem with the drive
> in situ (e.g. cleaning)?
>
> --
> Ian

543. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 15:14:49 UTC
From: richardh@iinet.net.au
Message-ID: <3a7040a0.1907920@news.m.iinet.net.au>
Source record: 55239

Lasse
I have tried the "polyphase" network at audio and RF up to 30 MHz.
This is a RC network in a ring configuration. At audio it is driven
using opamps and at RF with ferrite transformers. (the network should
be driven by push pull signals). You can achieve a couple of decades
bandwidth using multiple poles but it gets quite lossy (>20dB) if you
want reasonable accuracy. You can get 50-60dB sideband suppression at
audio from 200Hz to 8KHz or so using an 8 pole audio network. (this is
equivalent to about 0.1 degree accuracy)
At 30 Mhz the accuracy wasnt too good (around 25dB). I used these
networks as phase shifters for "phasing method" ssb
receivers/generators in the LO and audio sections..

Richard

On Thu, 25 Jan 2001 13:59:16 GMT, lasse.moell@swipnet.se (Lasse)
wrote:

>On Thu, 25 Jan 2001 05:25:46 GMT, "Richard Karlquist" <rick@area.com>
>wrote:
>
>>I once built a quadrature splitt that worked from 1 to 140 MHz. It was
>>simply a constant resistance all pass network in the half lattice
>>configuration using a center tapped transformer. The lattice arms had
>>series resonant tanks in series with parallel resonant tanks. The pole and
>>zero frequencies were calculated using an IEEE paper by Lankershim and
>>Shirley (I think it was in the 1960's, or 1970's in Trans. on Circuit
>>Theory). This is the best of many papers on the subject, IMHO. I am not
>>aware of any recent papers on the subject; I think everything that could be
>>said about was said about it 30 years ago. You should be able to search the
>>IEEE web site and find the citation. The component tolerances are not
>>critical for these networks. I used ordinary molded inductors and ceramic
>>caps.
>>
>>Rick Karlquist N6RK
>>
>>Lasse <lasse.moell@swipnet.se> wrote in message
>>news:3a6eb096.6699710@news.lin.foa.se...
>>> Hi
>>> I am looking for any information regarding the generation of
>>> quadrature signals.
>>>
>>> It needs to be wideband, i e 20-140 MHz or so...
>>> Using all-pass filters seems to be a viable way, but where do I find
>>> any design information. Searching the internet reveals several sources

>>> but they are old, very old, hard to find!
>>>
>>> If you have any information please post it here
>>>
>>> Thanks
>>> Lasse SM5GLC
>>>
>>
>>
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

544. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 16:10:44 UTC
From: FNVF <charles.bulke@wanadoo.fr>
Message-ID: <3A705004.F7E8A4AC@wanadoo.fr>
Source record: 55240
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

Hello
I had quite he same problems on my own Zip drive.
That's a mechanical fault recognized by IOMEGA,fortunately the
equipment was still under warranty and I got it freely replaced by
IOMEGA in Netherlands.
Good Luck
s73 Charles SWL

Ian Wade a ï¿½crit :

> I have an internal 100MB ZIP drive that has apparently started to have
> seek problems -- when running Norton Disk Doctor, the surface check
> regularly fails around the middle of the disk, and I can hear the head
> assembly repeatedly clicking as it retries.
>
> I've tried several disks, some fresh, some old, and all exhibit the same
> problem, so I'm certain it isn't the media.
>
> Unfortunately the drive is held in place by screws that are very
> difficult to get at, so before I completely disassemble the computer, is
> there anything else I can do to identify/fix the problem with the drive
> in situ (e.g. cleaning)?
>
> --
> Ian

545. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 16:15:51 UTC
From: Conor Turton <conor.turton@bigfoot.com>
Message-ID: <MPG.14da6193e62335719897ca@news.claranews.com>
Source record: 55241
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

In article <7yJff0B3UDc6EwEH@netro.co.uk>, ian.wade@netro.co.uk says...
> I have an internal 100MB ZIP drive that has apparently started to have
> seek problems -- when running Norton Disk Doctor, the surface check
> regularly fails around the middle of the disk, and I can hear the head
> assembly repeatedly clicking as it retries.
>
>
IOMEGA ZIP Drive "Click of Death" syndrome. Made big news a while back.
Earlier ZIP drives were well known for failing because of this.

--

_____
Conor Turton [MCP]
conor.turton@bigfoot.com
ICQ:31909763
_____

546. Re: Radio Shack ME-11 DMM serial cable info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 16:46:01 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <dLYb6.66346$HE2.6781681@news1.onlynews.com>
Source record: 55242

> Radio Shack is selling the ME-11 on clearance and I got one. But I can't
> find anything about the serial port and the pin-outs for a cable to a PC.
> Brand name on the unit is MeTex but that doesn't help either. Any help
would
> be appreciated.

I bought several. That's a remarkable value. The serial port interface uses a standard serial port cable. I suspect you only need a few of the wires instead of all of them, but I had an old one with all 9 wires in it and it works fine. The software is packaged with the unit, reads the data into the computer or into a file. If you purchase one and are interested, I have a piece of software that will take a reading every second, average it over a minute and put that info into a comma delimited file for later use in a spreadsheet. I find it of value monitoring a VLF station for signal strength, but lots of applications.

W4ZCB

547. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 16:51:07 UTC
From: kickabout <kickabout@ntlworld.com>
Message-ID: <BPYb6.4683$Z%5.109892@news2-win.server.ntlworld.com>
Source record: 55243
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

Conor Turton <conor.turton@bigfoot.com> wrote in message
news:MPG.14da6193e62335719897ca@news.claranews.com...
> In article <7yJff0B3UDc6EwEH@netro.co.uk>, ian.wade@netro.co.uk says...
> > I have an internal 100MB ZIP drive that has apparently started to have
> > seek problems -- when running Norton Disk Doctor, the surface check
> > regularly fails around the middle of the disk, and I can hear the head
> > assembly repeatedly clicking as it retries.
> >
> >
> IOMEGA ZIP Drive "Click of Death" syndrome. Made big news a while back.
> Earlier ZIP drives were well known for failing because of this.
>
I suffered from this initially but manager to source an up to date driver
for the machine and since then i has worked faultlessley.

548. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 18:33:44 UTC
From: Keith Laws <keith@keithlaws.co.uk>
Message-ID: <f2+B6gAIGHc6EwBK@tollhouse.demon.co.uk>
Source record: 55245
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

In article <BPYb6.4683$Z%5.109892@news2-win.server.ntlworld.com>,
kickabout <kickabout@ntlworld.com> writes
>Conor Turton <conor.turton@bigfoot.com> wrote in message
>news:MPG.14da6193e62335719897ca@news.claranews.com...
>> IOMEGA ZIP Drive "Click of Death" syndrome. Made big news a while back.
>> Earlier ZIP drives were well known for failing because of this.
>>
> I suffered from this initially but manager to source an up to date driver
>for the machine and since then i has worked faultlessley.
>
>
I remember reading in a magazine that they had had loads of complaints
from PC users, but none from Mac users and suspected it wasnt actually a
hardware problem at all, but software instead.
--
Keith Laws

What's my solution?

....NOISE POLLUTION

549. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 18:34:18 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn970sda.8hf.QSB@animas.frontier.net>
Source record: 55244
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

On Thu, 25 Jan 2001 14:16:23 +0000, Ian Wade scribbled:
>I have an internal 100MB ZIP drive that has apparently started to have
>seek problems -- when running Norton Disk Doctor, the surface check
>regularly fails around the middle of the disk, and I can hear the head
>assembly repeatedly clicking as it retries.

Visit Deja.com and search the ng: alt.iomega.zip.jazz for "click".
You're *not* going to like what you find.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

550. DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 19:34:15 UTC
From: John <hydro@fx2.com>
Message-ID: <ic%b6.1$Uo2.213@newsfeed.slurp.net>
Source record: 55246

Hi
I was wondering if anyone has any info on building a DSP base modulator for SSB. Or maybe a modern phasing SSB circuit. I like to build something that I can vary my transmit audio response, Like the newer radio's, without using crystal filters.

thanks for any help

John

551. FS: BIRD WATT METER W/SLUGS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 21:30:36 UTC
From: rh3333@aol.com
Message-ID: <20010125163036.07832.00000103@ng-ch1.aol.com>
Source record: 55147

For Sale - Bird watt meter WITH PEP (swing) kit installed. Includes 50 watt, 100 watt and a 5000 watt slug. Adapted to operator on 110 volt house current. In good shape. A new one w/slugs would cost over $600. Will sell meter and all the slugs for $400+$20 shipping/insurance/COD fee.

552. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 21:41:06 UTC
From: marsgal42@hotmail.com
Message-ID: <94q6hg$78p$1@nnrp1.deja.com>
Source record: 55148

In article <ic%b6.1$Uo2.213@newsfeed.slurp.net>,
"John" <hydro@fx2.com> wrote:

> I was wondering if anyone has any info on building a DSP base
modulator
> for SSB. Or maybe a modern phasing SSB circuit. I like to build
something
> that I can vary my transmit audio response, Like the newer radio's,
without
> using crystal filters.

There have been numerous designs in the magazines (QST, QEX,
RadCom, etc.) in the last few years for modern analogue
radios. Some were phasing radios, while others used the
3rd method. Look for callsigns KK7B and S53MV to start.

There have been a handful of DSP radios in QST and QEX
(consult the indexes). The DSP stuff is well-covered in
all the usual references. Every such radio I've ever
seen used a DSP eval board...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

553. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 21:46:29 UTC
From: Martin Moore <m_moore@btinternet.com>
Message-ID: <94q6rp$kj5$1@plutonium.btinternet.com>
Source record: 55149
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

"Paul" <paul@PaulBrewer.org> wrote in message
news:YxOG3VAefDc6Ewgd@thunderbird-sport.freeserve.co.uk...
> In article <7yJff0B3UDc6EwEH@netro.co.uk>, Ian Wade
> <ian.wade@netro.co.uk> writes
> >I have an internal 100MB ZIP drive that has apparently started to have
> >seek problems -- when running Norton Disk Doctor, the surface check
> >regularly fails around the middle of the disk, and I can hear the head
> >assembly repeatedly clicking as it retries.
> >
> >I've tried several disks, some fresh, some old, and all exhibit the same
> >problem, so I'm certain it isn't the media.
> >
> >Unfortunately the drive is held in place by screws that are very
> >difficult to get at, so before I completely disassemble the computer, is
> >there anything else I can do to identify/fix the problem with the drive
> >in situ (e.g. cleaning)?
> >
> No.
> --
> Paul B

Sounds like what is known as the Click of Death, which at one time was more
common on early Iomega Zip drives. Try the following lin it may help.

http://www.accesszone.com/clickdeath/index.html

554. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 22:00:41 UTC
From: k3ky@erols.spamnocom
Message-ID: <94q7m9$57l$1@bob.news.rcn.net>
Source record: 55150
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

Good advice from Tom. The GRC (Gibson Research Corp.) site is excellent.
If I remember right, the drive may turn out to be OK. It depends. One thing
others did not mention is a free software on the GRC site called "TIP"
(Trouble in Paradise). It will figure out whether the drive or the media are
at fault. The picture does get cloudy, however, if you have both bad media
and a bad drive at the same time. Anyway, read his site. TIP is excellent
and I use it from time to time to check my drive and media. It is well
worth the effort to get it and run it. Takes a while to run, even on the smaller
100M size media, but very informative and definitely worth taking the time
for. 73, David K3KY

In article <3A7040FE.67273B89@btinternet.com>
Tom Gameson <tom.gameson@btinternet.com> wrote:

> Ian -
> you want to take a look at
> http://www.grc.com/clickdeath.htm
> if your drive has contracted the 'click of death' you should be able to
> get a free
> replacement from Iomega
> regards
> Tom
>
> Ian Wade wrote:
>
>> I have an internal 100MB ZIP drive that has apparently started to have
>> seek problems -- when running Norton Disk Doctor, the surface check
>> regularly fails around the middle of the disk, and I can hear the head
>> assembly repeatedly clicking as it retries.
>>
>> I've tried several disks, some fresh, some old, and all exhibit the same
>> problem, so I'm certain it isn't the media.
>>
>> Unfortunately the drive is held in place by screws that are very
>> difficult to get at, so before I completely disassemble the computer, is
>> there anything else I can do to identify/fix the problem with the drive
>> in situ (e.g. cleaning)?
>>
>> --
>> Ian

555. usb -> lsb inverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-25 22:41:21 UTC
From: ik8pae <usn5832@uniserv.uniplan.it>
Message-ID: <3a70aafa.0@nt01.uniplan.it>
Source record: 55152

Does anyone knows where I can find
schematic of usb -> lsb band inverter
for use in military surplus rtx.
Tia es vy '73 de ik8pae Francesco

556. Re: Source of Collins "Low Cost" Mechanical Filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 00:52:18 UTC
From: no-mail-thanks@hotmail.com
Message-ID: <3a70c902.210897928@news.eclipse.net>
Source record: 55153

>Does anyone know how to get these filters in small quantities? I was
>looking for 455 KHz center freq, CW B/W types for a HB project.
>
>Dan AC6AO G3NCR

Try George, W2VJN of Inrad at inrad@rosenet.net or
http://www.qth.com/inrad
His company sells filters of all kinds.
George is an engineers engineer. He REALLY knows equipment,
receivers, and filters. Ask him ANYTHING about radios !!

Rick K2XT

557. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 01:16:08 UTC
From: richardh@iinet.net.au
Message-ID: <3a70cf05.354840@news.m.iinet.net.au>
Source record: 55154

John
I am developing a DDS circuit which could be used as the LO of such a
device.
It uses the AD9854 quadrature DDS chip and I am in the process of
writing the software - I expect it will take a few months yet. I have
managed to get a signal from the device so far which appears as a nice
quadrature pair from the 2 outputs.

Richard

On Thu, 25 Jan 2001 14:34:15 -0500, "John" <hydro@fx2.com> wrote:

>Hi
> I was wondering if anyone has any info on building a DSP base modulator
>for SSB. Or maybe a modern phasing SSB circuit. I like to build something
>that I can vary my transmit audio response, Like the newer radio's, without
>using crystal filters.
>
>thanks for any help
>
>John
>
>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

558. Re: Radio Shack ME-11 DMM serial cable info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 02:15:35 UTC
From: jrobmills@aol.comrx320
Message-ID: <20010125211535.07519.00001230@ng-ct1.aol.com>
Source record: 55155

I don't have a ME-11 but I did pick up a 22-168a from the Shack's bargan table on close out several months ago. When I got it home I found that the supplied software would not work on my pentium lll 750 with win98. I finally located the author of the software and he sent me an updated version which worked great. If anyone has one of these meters and is having a software problem, let me know.

Rob Mills ~~

559. TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 03:04:24 UTC
From: "David J. Moge" <n1rzb@mailops.com>
Message-ID: <3a70e8ab@excalibur.gbmtech.net>
Source record: 55156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In brief, I have a multi element TV antenna with a amplifier connecting to 4 televisions. The house lot is laid out in such a way that it's very hard to string antennas up with out having them in close proximity to the TV antenna. Cable is not an option. Satellite is possible but would like to keep regular TV antenna.

At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10 Watts) which my wife gave me. I put up a dipole to try it out and to my surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.

My wife hasn't stopped yelling at me sense. Every time I key the mike or try out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do much good at all.
My HF rigs cause no problems at all. I do have a good RF ground

WHAT AM I DOING WRONG??? HELP!!!

Any comments and suggestions would be gratefully appreciated.

Thanks

560. TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 03:09:15 UTC
From: "David J. Moge" <n1rzb@mailops.com>
Message-ID: <3a70e9c9@excalibur.gbmtech.net>
Source record: 55157

In brief, I have a multi element TV antenna with a amplifier connecting to 4 televisions. The house lot is laid out in such a way that it's very hard to string antennas up with out having them in close proximity to the TV antenna.

At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10 Watts) which my wife gave me. I put up a dipole to try it out and to my surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.

My wife hasn't stopped yelling at me sense. Every time I key the mike or try out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do much go at all.
My HF rigs cause no problems at all. I do have a good RF ground

WHAT AM I DOING WRONG??? HELP!!!

Any comments and suggestions would be gratefully appreciated.

Thanks

561. Power Supply Questions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 03:46:43 UTC
From: Bill <bill@hovac.com>
Message-ID: <94qr9j$f86$1@box6.cho.cstone.net>
Source record: 55158

Hello to all,

I am in the process of making a decision about a power supply for my Icom 706 for base use.

I see these Pryamid supplies. I like that they are linear but are they any good for ham use? Or should I just stay with the Astron brand although they are switching supplies?

The Pryamid is much less expensive but that's not always good.

All replies welcome.

Thanks,
Bill

562. Re: Power Supply Questions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 04:02:23 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <IE6c6.250$Uo2.2626@newsfeed.slurp.net>
Source record: 55159

I have a 35 amp Pyramid supply on the bench. It's been a good supply.
I also have an Astron SS-30M switching supply on the rig. No RFI
detected unless I lay the antenna right on the supply. Astron also
makes linear supplies (RS, RM, and VS series). So does MFJ and Alinco.

563. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 05:07:32 UTC
From: John Ineson <john@sneakerpimp.fsnet.co.uk>
Message-ID: <WgVxOjq3am9EgZW4whYk8KG+=Se8@4ax.com>
Source record: 55160
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

On Thu, 25 Jan 2001 14:16:23 +0000, Ian Wade <ian.wade@netro.co.uk>
wrote:
>I have an internal 100MB ZIP drive that has apparently started to have
>seek problems -- when running Norton Disk Doctor, the surface check
>regularly fails around the middle of the disk, and I can hear the head
>assembly repeatedly clicking as it retries.
>
>I've tried several disks, some fresh, some old, and all exhibit the same
>problem, so I'm certain it isn't the media.
>
>Unfortunately the drive is held in place by screws that are very
>difficult to get at, so before I completely disassemble the computer, is
>there anything else I can do to identify/fix the problem with the drive
>in situ (e.g. cleaning)?

Yeah, percussive maintenance.

But seriously, sounds seriously fscked to me. In or out of situ, I
doubt you'll be able to do anything about it, unless it's still within
warranty.

--
John G Ineson

564. FA: Homebrew ham receiver on Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 05:37:10 UTC
From: Great Surplus! <Newsgroups@GreatSurplus.com>
Message-ID: <Z3gc6.145$TB.103748@news.uswest.net>
Source record: 55172
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.swap,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1209301289

8 tube homebrew receiver from around 1940. Well built, all there,
not tested. Will need work, but is a GOOD basis to start with.

Thanks!

Great Surplus

565. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 06:45:11 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn97276g.u9d.w9wi@linux1.localdomain>
Source record: 55161
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

```
On Thu, 25 Jan 2001 18:33:44 +0000, Keith Laws <keith@keithlaws.co.uk> wrote:
>I remember reading in a magazine that they had had loads of complaints
>from PC users, but none from Mac users and suspected it wasnt actually a
>hardware problem at all, but software instead.

I had one fail on a machine at work. (wasn't aware this was a common problem,
but what's described is exactly what happened to ours) The computer was
neither a Mac nor a PC; it was a Chyron TV title generator. (Motorola
68040, I think the OS is called "PSOS". SCSI interface.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.
```

566. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 06:50:34 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <63727t8o1j14hutrsiovp03tbfu9csvg44@4ax.com>
Source record: 55162
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 25 Jan 2001 22:04:24 -0500, "David J. Moge"
<n1rzb@mailops.com> wrote:

>In brief, I have a multi element TV antenna with a amplifier connecting to 4
>televisions.

Anybody using broadband antenna amplifiers are just asking for
trouble. If it has a frequency response something like 47 .. 860 MHz,
then there is no wonder that it is going to saturate :-).

Are you absolutely sure you need amplification for VHF channels ?
Wouldn't it be sufficient to put a UHF only amplifier directly after
the UHF antenna and just use a passive summing network to connect the
VHF antenna into the downlead ?

If this is not possible, but Band I is not needed (channels 2 .. 6 in
the USA), put a high pass filter around 150 MHz immediately in front
of the preamplifier.

If Band I channels are required, put a 50 MHz notch filter immediately
in front of the amplifier and make sure the amplifier has a good
metallic cabinet so that your transmitted signal does not go directly
into the amplifier.

Paul OH3LWR

567. Re: Iterference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 07:35:18 UTC
From: tony <lindena1@earthlink.net>
Message-ID: <WM9c6.464$k%3.63721@newsread1.prod.itd.earthlink.net>
Source record: 55163
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Here is a link that explains why the interference is probably NOT due to microwave ovens:
http://www.cts.com/browse/solectek/tech-center/tt-microwave.html

I couldn't find a link, but I have seen an article explaining why you should not use 802.11 around fluorescent lights due to interference problems. You might want to explore this possibility (especially if you have a bad ballast).
Tony

John Miles <jmiles@pop.removethistomailme.net> wrote in message news:3A6D45D2.1CAB@pop.removethistomailme.net...
> I've recently been fooling around with some 802.11 wireless Ethernet
> hardware (Lucent Orinoco) at home. It seems to be working well for the
> most part, but I've been seeing severe dropouts on a very occasional
> basis due to the appearance of a fairly-strong interfering signal close
> to where the Lucent hardware operates. Typically the interfering signal
> has been popping up late at night (around 1 AM local time) and lasting
> for only a few minutes before going away. It's not causing any real
> grief but I'm curious where it's coming from.
>
> Last night, the QRM lasted for quite a while, and I managed to catch the
> culprit on my SA. I don't have a portable receiver for this band to
> help track down the signal, but I would be curious if anyone recognizes
> its spectral footprint and can tell me what kind of device to look for.
> I haven't run across anything like this before -- it doesn't look much
> like a microwave oven, and it doesn't look anything like another 802.11
> device.
>
> The signal at http://209.95.122.40/jm/qrm.gif seems to consist of an
> asymmetrical series of decaying sidebands roughly 2.6 MHz wide, starting
> around 2.4615 GHz and taking up about 10 MHz of space at its -6dB
> points. What kind of device is doing this, and who do I yell at to make
> it stop? :)
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --
>

568. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 09:47:14 UTC
From: Ian Wade <ian.wade@netro.co.uk>
Message-ID: <u1cqOJAieUc6Ew2c@netro.co.uk>
Source record: 55164
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

In article <94q7m9$57l$1@bob.news.rcn.net>, David Sinclair
<k3ky@erols.spamnocom> writes
>Good advice from Tom. The GRC (Gibson Research Corp.) site is excellent.
>If I remember right, the drive may turn out to be OK. It depends. One thing
>others did not mention is a free software on the GRC site called "TIP"
>(Trouble in Paradise). It will figure out whether the drive or the media are
>at fault. The picture does get cloudy, however, if you have both bad media
>and a bad drive at the same time. Anyway, read his site. TIP is excellent
>and I use it from time to time to check my drive and media. It is well
>worth the effort to get it and run it. Takes a while to run, even on the smaller
>100M size media, but very informative and definitely worth taking the time
>for. 73, David K3KY
>

Thanks David. I downloaded TIP and tried to run it, but it doesn't
support my type of drive. However, as the machine has never been
connected to the Internet, I doubt it has anything to do with Click of
Death.

The more likely cause of the problem is that I recently got into the
habit of leaving the ZIP cartridge in place during power-down and power-
up. I discovered when reading the ZIP drive manual yesterday that I'm
not supposed to do this. So, as the drive is several years old and well
out of warranty, I'm going to have to bite the bullet and buy a new one.

Ian

569. Re: Calculation of microstrip bandpassfilters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 10:06:18 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a714b37.7665292@news.lin.foa.se>
Source record: 55165

Peter,
many many years ago, there was a basic program for designing slabline filters. I might have it still but on 5 inch diskette but no drive!! I might find a listing of the program if you want. The performance was great I did design a 6 pole 560 MHz filter with 3 MHz BW and excellent agreement both passband and IL.

If you want the "real" stuff try MFilter from http://www.eagleware.com slick easy but expensive.

Good Luck
/Lasse SM5GLC

On Tue, 23 Jan 2001 21:39:44 +0100, "Peter Bolch" <320058850955-0001@t-online.de> wrote:

>Hi
>
>
>I need some bandpassfilters for a frequency multiplier chain and thought of
>using two coupled microstrip lambda/4 resonators (one end grounded, taps
>for the input/output connection).
>Can someone here provide hints how to calculate such filters? What is the
>right location of the taps if input/output impedance, spacing and line
>width are given? Some rules of thumb will be enough at the moment.
>
>
>Peter
>
>
>
>

570. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 10:29:51 UTC
From: Conor Turton <conor.turton@bigfoot.com>
Message-ID: <MPG.14db61f564c3ce439897e2@news.claranews.com>
Source record: 55166
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

In article <u1cqOJAieUc6Ew2c@netro.co.uk>, ian.wade@netro.co.uk says...
> Thanks David. I downloaded TIP and tried to run it, but it doesn't
> support my type of drive. However, as the machine has never been
> connected to the Internet, I doubt it has anything to do with Click of
> Death.
>
What has being connected to the internet got to do with a hardware
failure? Its like saying "Well the tyre on the car can't be flat because
I've never taken it into Outer Space." LOL

--

Conor Turton [MCP]
conor.turton@bigfoot.com
ICQ:31909763
----

571. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 12:30:35 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <05ec6.2860$Uo2.3387@newsfeed.slurp.net>
Source record: 55167
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> If Band I channels are required, put a 50 MHz notch filter
immediately
> in front of the amplifier .....

You can make a good inexpensive notch filter by placing a 1/4 wave (on your 6M operating frequency) long piece of coax, shorted on the far end, across the input to the amplifier.

572. electronic keyer with memory (EPROM)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 13:54:35 UTC
From: Antun Lautar <antunl@rijeka.riteh.hr>
Message-ID: <Pine.GSO.4.20.0101261451080.24695-100000@rijeka.riteh.hr>
Source record: 55171

hello,
I was wondering if anybody could send me a schema for electronic keyer
with memory (EPROM), PCB layout, programm for EPROM, ect...

I'm looking forward to yours answers,

73's de Toni / 9a6kgt

573. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 13:55:02 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <Wkfc6.9628$R5.514720@news1.frmt1.sfba.home.com>
Source record: 55168

My network was "lossless" with all L's and C's, no R's. Actual loss with ordinary coils
was a few dB.

CORRECTION: the authors I cited should have been "Albershim and Shirley" (not Lankershim).
Check IEEE Circuit Theory and also Proceedings of IEEE.

Here is a brief description of the circuit (ASCII artwork in Courier font follows):

transformer:
1.414:1 turns ratio
center tap grounded

```
-------)|(---------------------------A-----------------------------------
output X
)|( | |
)|( ------C--------------------------- |
)|(---ground | |
)|( ------------------------B----------|----
)|( | |
-------)|(---------------------------D-----------------------------------
output Y
```

The two outputs, X and Y are versus ground. The input is to the transformer primary.

A, B, C, and D are two terminal LC networks. A and B are dual networks and C and D are dual networks. Furthermore, A and B are chosen to result in a constant resistance all pass function to output X and C and D are chosen to result in a constant resistance all pass function to output Y. Many network theory books describe the constant resistance network; basically, the geometric
mean of the arm immitances is equal to the termination impedance times a constant,
typically 1/4 or 1 or 4.

Operation is as follows: suppose A is a parallel resonant tank at 1 MHz and B is a
series resonant tank at 1 MHz. at low frequencies. At low frequencies, the network is a straight through (no phase shift) to output X because A is a short
circuit and B is an open circuit. At 1 MHz, A is an open circuit and B is a short circuit, so the network is a 180 degree phase inverter. At high frequencies,

A is again a short circuit and B is again an open circuit so the network is again
a straight through, no phase shift.

It turns out that the phase shift around 1 MHz is extremely linear versus frequency.

Now suppose C and D are arranged in a similar way to drive output Y. Again, output
Y will have a linear phase shift versus frequency. But suppose we use a different
frequency than 1 MHz for C and D. It turns out that we will still get a linear
phase slope versus frequency, but if the resonant frequency is chosen correctly,
it will be 90 degrees advanced or retarded from output X.

Thus, over an octave or so, you will have a quadrature network. The frequency
response can be extended without limit by adding additional resonators in the arms
so that the A,B resonant frequencies are interleaved with the C,D resonant frequencies.

I believe 3 tanks per arm will get you 20-140 MHz. As I said, I built one from 1-140
MHz that really worked, and it was easy.

Rick Karlquist N6RK
Lasse <lasse.moell@swipnet.se> wrote in message
news:3a702e4a.14458770@news.lin.foa.se...
> Rick,
> I have been going thru all IEEE Trans. Ckt Theory 63-79 and found nil
> from Lankershim and Shirley. I even tried IRE 60-62 with similar
> information.
>
> But I am not sure it would be suitable to use RC network as this would
> present quite high insertion losses.
>
> I do have an article "Normalized Design of 90 degree Phase-Difference
> Networks" by Bedrosian from IRE Trans. on Circuit Theory june 1960
> that seems promising!
>
> Cheers
> /Lasse SM5GLC

574. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 14:02:47 UTC
From: Mike <m.j.willis@rl.ac.uk>
Message-ID: <94s029$ico@newton.cc.rl.ac.uk>
Source record: 55169
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Bob Lewis <rlewis@staffnet.com> wrote in message
news:05ec6.2860$Uo2.3387@newsfeed.slurp.net...
> > If Band I channels are required, put a 50 MHz notch filter
> immediately
> > in front of the amplifier .....
>
> You can make a good inexpensive notch filter by placing a 1/4 wave (on
> your 6M operating frequency) long piece of coax, shorted on the far
> end, across the input to the amplifier.

What good will that do ? I thought a 1/4 wave translated a short to an open.

>
>
>

575. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 14:11:38 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <uAfc6.9633$R5.516952@news1.frmt1.sfba.home.com>
Source record: 55170

Here is another attempt at the ASCII schematic. The one I previously
posted wrapped around on my newsreader.

transformer:
1.414:1 turns ratio
center tap grounded

```
-------)|(------------------------A------------------------ output X
)|( | |
)|( ------C---------------------- |
)|(---ground | |
)|( --------------------B---------|----
)|( | |
-------)|(------------------------D------------------------ output Y
```

Richard Karlquist <rick@area.com> wrote in message
news:Wkfc6.9628$R5.514720@news1.frmt1.sfba.home.com...
>
> -------)|(----------------------------A-----------------------------------
> output X
>)|(| |
>)|(------C---------------------------- |
>)|(---ground | |
>)|(------------------------B----------|----
>)|(| |
> -------)|(----------------------------D-----------------------------------
> output Y
>
>

576. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 16:51:07 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn973anr.3m7.QSB@animas.frontier.net>
Source record: 55173
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Fri, 26 Jan 2001 07:30:35 -0500, Bob Lewis scribbled:
>> If Band I channels are required, put a 50 MHz notch filter
>immediately
>> in front of the amplifier .....
>
>You can make a good inexpensive notch filter by placing a 1/4 wave (on
>your 6M operating frequency) long piece of coax, shorted on the far
>end, across the input to the amplifier.

OPEN on the far end!

Best use a piece of 'large' coax. I've used 3/4" cable TV hardline.
It's notch is wide enough that you should cut it low in freq. to keep
from killing any TV2 signal. Cut it for 49 - maybe 48 mcs --- you
can always cut long coax shorter, but you can't cut short coax longer.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

577. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 17:39:07 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <63a37tcq80ho1indg6aerkfd693bdo1e8d@4ax.com>
Source record: 55174
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Fri, 26 Jan 2001 07:30:35 -0500, "Bob Lewis" <rlewis@staffnet.com>
wrote:

>You can make a good inexpensive notch filter by placing a 1/4 wave (on
>your 6M operating frequency) long piece of coax, shorted on the far
>end, across the input to the amplifier.

Make that 1/2 wave and you might see a notch :-) on that frequency
(and remembering to compensate for the velocity factor) if you are
using shorted stubs.

A 1/4 wave _open_ stub could also be used, but it is harder to tune.

578. Re: usb -> lsb inverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 18:42:27 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <94sgejmul2@woodrow.ucdavis.edu>
Source record: 55175

: ik8pae <usn5832@uniserv.uniplan.it> wrote:
: Does anyone knows where I can find
: schematic of usb -> lsb band inverter
: for use in military surplus rtx.
: Tia es vy '73 de ik8pae Francesco

Hello Francesco,

I'm not really to sure what your asking... you need to be more specific
about what you want to do.

Do you want to change to the oppisite side band of a radio you now have..?
Do you want to add the sideband mode to a radio, now without side band..?
Do you want to convert some frequency side band radio to another..?

let use know more detail and we'll try to help.

cheers
skipp@pilot.ucdavis.edu

579. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 18:44:12 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <94sghsmul3@woodrow.ucdavis.edu>
Source record: 55176

: John <hydro@fx2.com> wrote:
: Hi
: I was wondering if anyone has any info on building a DSP base modulator
: for SSB. Or maybe a modern phasing SSB circuit. I like to build something
: that I can vary my transmit audio response, Like the newer radio's, without
: using crystal filters.
: thanks for any help
: John

You could also control the audio bandwidth of an old crystal filter unit
easy enough..

cheers
skipp

580. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 20:03:31 UTC
From: Chuck Parsons <Chuck@CatenaryScientific.com>
Message-ID: <3A71D813.31590B55@CatenaryScientific.com>
Source record: 55177
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

Winfield Hill wrote:

> John, the conventional wisdom is that a microwave oven operating on
> FULL is actually on a 50% duty cycle at 60Hz, i.e. powered on half
> cycles only. 802.11 modems are supposed to sucessfully sneak their
> packets through undisturbed during the quiet 8ms periods. The MAC
> chip should make automatic retries until finding the quiet interval.
> What have been your observations about this?
>

At least one "commercial" oven I turned into a plasma excitor was full wave rectified. I'm sure because the filter caps and linear regulator I added had very limited margin. The oven was just a little beefier like you might find in a vending area, Amana I think.

No doubt what you describe is the norm, but it could be kind of ugly on the power factor if a Motel hooked all their microwaves on the same side of the incoming power circuit ;-)

Chuck

581. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 21:32:31 UTC
From: Mike Tatum <miket@cybatek.fsnet.co.uk>
Message-ID: <3A71ECE9.39D1B3D7@cybatek.fsnet.co.uk>
Source record: 55178

Hi James!

I too would like a copy if possible as I am in the process of designing and building a 2 x 813 tube
amplifier for 160m ... Any chance of you mailing me a copy too please ?

Thanks!

MikeT ...
M0AWS / GB6VR (Valve Radio)

James Hurry wrote:

> I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
> Transmitting Tube Manual if that helps... I can make a copy and send to you
> of that data..
> --
> 73's,
> Dudley
> WA5QPZ
> jhurry@austin.rr.com
>
> "W4pqw HS" <w4pqwhs@aol.com> wrote in message
> news:20001228151523.05852.00000183@ng-cu1.aol.com...
> > anyone have data sheets on 813 in SSB GG service.. schematics of
> working
> > pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW

582. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 21:59:33 UTC
From: sparta@freeuk.KEIN-SPAM.BITTE.net
Message-ID: <3a71f1a8.130267@news.freeuk.net>
Source record: 55179
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

On Thu, 25 Jan 2001 18:33:44 +0000, Keith Laws <keith@keithlaws.co.uk> wrote:

>In article <BPYb6.4683$Z%5.109892@news2-win.server.ntlworld.com>,
>kickabout <kickabout@ntlworld.com> writes
>>Conor Turton <conor.turton@bigfoot.com> wrote in message
>>news:MPG.14da6193e62335719897ca@news.claranews.com...
>>> IOMEGA ZIP Drive "Click of Death" syndrome. Made big news a while back.
>>> Earlier ZIP drives were well known for failing because of this.
>>>
>> I suffered from this initially but manager to source an up to date driver
>>for the machine and since then i has worked faultlessley.
>>
>>
>I remember reading in a magazine that they had had loads of complaints
>from PC users, but none from Mac users and suspected it wasnt actually a
>hardware problem at all, but software instead.
>--
>Keith Laws
>
>What's my solution?

Buy a new Zip drive. That's what I had to do. Mine was made by
Panasonic and failed after 2 years.

The software which came with the replacement I bought attempts
to solve the problem (mentioned in another post) of leaving
media in the drive, by ejecting the disc when you close down
Windows.

Another problem with leaving discs in the drive is that
Windows '98 will often swop the drive letters around at
random on booting. Particularly if you have two partitions on
the HD, a CD-R/W and a RamDisc. A real pain for the forgetful.
Fixing the drive letters in Device Mananger achieves nothing.

--

---
73 de G4RGA, nordland@line one.net
George Dubya Bushisms No 3:
'Is our children learning?'
Rallies: http://website.lineone.net http://www.netcomuk.co.uk

583. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 21:59:34 UTC
From: sparta@freeuk.KEIN-SPAM.BITTE.net
Message-ID: <3a71f1a1.123897@news.freeuk.net>
Source record: 55180
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

On Fri, 26 Jan 2001 06:45:11 GMT, w9wi@linux1.localdomain () wrote:

>On Thu, 25 Jan 2001 18:33:44 +0000, Keith Laws <keith@keithlaws.co.uk> wrote:
>>I remember reading in a magazine that they had had loads of complaints
>>from PC users, but none from Mac users and suspected it wasnt actually a
>>hardware problem at all, but software instead.
>
>I had one fail on a machine at work. (wasn't aware this was a common problem,
>but what's described is exactly what happened to ours) The computer was
>neither a Mac nor a PC; it was a Chyron TV title generator. (Motorola
>68040, I think the OS is called "PSOS". SCSI interface.)

When I 'phoned Iomega about this failure mode, they pretended
never to have heard of it!

--
____
73 de G4RGA, nordland@line one.net
George Dubya Bushisms No 3:
'Is our children learning?'
Rallies: http://website.lineone.net http://www.netcomuk.co.uk

584. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 22:05:09 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a71f480.194345514@news.azstarnet.com>
Source record: 55181

http://frank.nostalgiaair.org/sheets/079/8/813.pdf

N7WS

On Fri, 26 Jan 2001 21:32:31 +0000, Mike Tatum <miket@cybatek.fsnet.co.uk>
wrote:

>Hi James!
>
>I too would like a copy if possible as I am in the process of designing and
>building a 2 x 813 tube
>amplifier for 160m ... Any chance of you mailing me a copy too please ?
>
>Thanks!
>
>MikeT ...
>M0AWS / GB6VR (Valve Radio)
>
>James Hurry wrote:
>
>> I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
>> Transmitting Tube Manual if that helps... I can make a copy and send to you
>> of that data..
>> --
>> 73's,
>> Dudley
>> WA5QPZ
>> jhurry@austin.rr.com
>>
>> "W4pqw HS" <w4pqwhs@aol.com> wrote in message
>> news:20001228151523.05852.00000183@ng-cu1.aol.com...
>> > anyone have data sheets on 813 in SSB GG service.. schematics of
>> working
>> > pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW
>

585. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-26 22:28:32 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <BRmc6.3295$Uo2.5462@newsfeed.slurp.net>
Source record: 55182
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> What good will that do ? I thought a 1/4 wave translated a short to
an open.
>
Ooops - I should have said open on the far end - that will cause a low
impedance at the amp input for the 6 meter frequency.

586. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 00:30:51 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <980555726.28978.0.nnrp-13.9e98acde@news.demon.co.uk>
Source record: 55184
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

>A 1/4 wave _open_ stub could also be used, but it is harder to tune.
>
Why ?
I would have thought that cutting coax stubs is as easy / hard for
1/2 wave as it is for a 1/4 wave !!

Martin

587. Re: Power Supply Questions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 00:33:42 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A721766.D6CEC3F0@dialpoint.net>
Source record: 55183

I ahve used both kinds over the years and have found the Pryamid supplies are ok If you make sure they have the over voltage protection. You just have to rate them about 2/3 what an Astron of the same amp rating. That is if you get an Astron rated for 35 amps, the the Pryamid should be rated for aobut 50 amps. That is for the linear supplies. Have not looked into the switching supplies. I have been using an Astron 50 amp supply for my Icom 706. It is also powering several other rigs and solid state amps for other bands. If you think you need a 30 amp supply then look at a 50 amp one. That way you can allow for expansion.

Bill wrote:
>
> Hello to all,
>
> I am in the process of making a decision about a power supply for my Icom
> 706 for base use.
>
> I see these Pryamid supplies. I like that they are linear but are they any
> good for ham use? Or should I just stay with the Astron brand although they
> are switching supplies?
>
> The Pryamid is much less expensive but that's not always good.
>
> All replies welcome.
>
> Thanks,
> Bill

588. TVI 6 METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 00:58:42 UTC
From: "David J. Moge" <n1rzb@mailops.com>
Message-ID: <3a72d6e3@excalibur.gbmtech.net>
Source record: 55192

In brief, I have a multi element TV antenna with a amplifier connecting to 4 televisions. The house lot is laid out in such a way that it's very hard to string antennas up with out having them in close proximity to the TV antenna. Cable is not an option. Satellite is possible but would like to keep regular TV antenna.

At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10 Watts) which my wife gave me. I put up a dipole to try it out and to my surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.

My wife hasn't stopped yelling at me sense. Every time I key the mike or try out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do much good at all.
My HF rigs cause no problems at all. I do have a good RF ground

WHAT AM I DOING WRONG??? HELP!!!

Any comments and suggestions would be gratefully appreciated.

Thanks
DAVE, N1RZB

589. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 01:52:05 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <jn947tgeerv80170aledokc84r4s9ibrs3@4ax.com>
Source record: 55185
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sat, 27 Jan 2001 00:30:51 -0000, "Martin John Hallsworth"
<Martin@g1gyc.demon.co.uk> wrote:

>>A 1/4 wave _open_ stub could also be used, but it is harder to tune.

>Why ?

Sticking a needle through the shield and the centre conductor is a
reversible operation, cutting the coax is not a reversible operation.

590. Re: Interference to 802.11 LAN on 2.4 GHz band - does this ring a bell?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 02:18:14 UTC
From: gwalpert@netaxs.com
Message-ID: <94tb0v$n24@netaxs.com>
Source record: 55186
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,sci.electronics.design

In article <3A71D813.31590B55@CatenaryScientific.com>, Chuck Parsons
<Chuck@CatenaryScientific.com> wrote:
>Winfield Hill wrote:>
>> John, the conventional wisdom is that a microwave oven operating on
>> FULL is actually on a 50% duty cycle at 60Hz, i.e. powered on half
>> cycles only. 802.11 modems are supposed to sucessfully sneak their
>> packets through undisturbed during the quiet 8ms periods. The MAC
>> chip should make automatic retries until finding the quiet interval.
>> What have been your observations about this?
>>
> At least one "commercial" oven I turned into a plasma excitor was full
>wave rectified. I'm sure because the filter caps and linear regulator I
>added had very limited margin. The oven was just a little beefier like you
>might find in a vending area, Amana I think.
>
> No doubt what you describe is the norm, but it could be kind of ugly on
>the power factor if a Motel hooked all their microwaves on the same side of
>the incoming power circuit ;-)

As I recall it, the roughly 50% duty factor of microwave oven radiation is not
due to half wave rectification, but due to lack of any filter on the rectified
HV supply. The magnetron only fires when the voltage exceeds some fairly high
threshold, so it is quiet near the zero crossings of transformer output.

Glen Walpert

591. Alinco DR-570T problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 03:48:11 UTC
From: KG4FGN <kg4fgn@mindspring.com>
Message-ID: <94th90$un0$1@slb2.atl.mindspring.net>
Source record: 55187

Greetings,

I recently acquired a slightly used Alinco DR-570T. This is a dual band 2m/440 radio with crossband repeater capability. (A hamfest acquisition).

When I use the 2m side, everything works great. When I go to the 440 side, I have problems. I receive great, but when I try to transmit nothing happens (usually). No little bar pops up to show me my transmit strength, nothing. The lights on the display dim a little, but that's about it. Once in a blue moon it will transmit, the strength kicks in to full, but then drops back again. I've tried on high and low power and get the same results.

Weirdly though, the 2m side works great, no problems at all. I've tried two antenna, tried different power settings, etc. No changes, 440 still poops out.

Any ideas?

Thanks and 73's,

Robert / KG4FGN

592. Re: Connecting radios together 'back-to-back'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 04:18:30 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3A724C16.C26FEF9A@nettally.com>
Source record: 55188

Your two watt radio has an output of +33 dBm while your receiver has an input sensitivity of -117 dBm, a spread of 150 dB. Your receiver can probably tolerate a fair amount of input level , before it generates intermodulation, say about 60 dB above -117 dBm or -57 dBm, to be on the safe side I would assume about 10 dB more isolation or -67 dBm. -67 to +33 is still about 100 dB of attenuation needed.

Building attenuators is tricky and requires that you use non-inductive, carbon composition resisitors. The amount of attenuation you need is beyond a homebrew attenuator. The leakage across the components at 450 MHz will likely cancel the attenuation you are seeking. Your attenuator must also be able to handle the power of your transmitter (2 watts).

I would suggest a couple of options:

1 That you purchase a 50 ohm dummy load for the transmitter, one signal sampler (RFA-4059-A from Tessco, pn 13503 $61.43 each). (These samplers are adjustable from 20 to 80 dB.) and an inline attenuator for the receiver, something in the 30 DB range. The signal sampling port would be connected via the 30 dB attenuator to the receiver. The attenuator would lower the signal and provide a good match to the receiver.

2. Purchase two attenuators in the 30 DB range and place a switchable "Kay" attenuator between the two attenuators. Use double shielded cable for best results. There are construction articles for Kay type attenuators, however they require a lot of mechanical considerations to shield the sections.

3. In practice, I have simply put a dummy load on each device and positioned them for best operation. Normally FM receivers are not at all sensitive to the signal level above a certain threshold, and the direct signal is likely to be greater than a reflected signal in this configuration. But it sounds like you are looking for better repeatability. In some cases, the receiving radio might need to be placed in a screen room and the signal coupled through a port in a controlled manner. Without a screen room, you may find that the cable leakage, upsets the signal attenuation.

I hope this helps.

David Baker wrote:

> (Sorry if this isn't strictly amateur! I'm having trouble finding a
> more suitable newsgroup to post into...)
>
> I have 2 radio transceivers (Pacific Crest RFM96W -
> http://www.paccrst.com/FTP/anon/Intl.rfm96w.pdf) that I want to

> connect together by coax. I need to do this as if I try using the
> antennas for my testing I get all sorts of reflections & interference
> due to the small size of my concrete & steel workshop.
>
> I can remember from the dim dark past during my Air Force days that I
> will need an inline attenuator to cut down the signal so as to not
> blow the front end out of the receiver. However the theory has long
> since been erased from my memory banks & I have been unsuccessful
> trying to find out what I need.
>
> My radio transmitter is 2 watts. My radio receiver has -117dBm
> sensitivity. Frequency is 450 MHz (approx)
>
> Anyone know how I can calculate the attenuation required?
>
> Now for the tricky bit - how do I make an attenuator with the above
> value? Is it just a resistor? I can see from the following website:
> http://hometown.aol.com/arrow146/atten.html
> that they use what appear to be only resistors. As I don't need
> anything with variable attenuation (for the moment), I'm hoping I can
> do with just one or 2 resistors. Would some kind soul please let me
> know if this is possible, and if so:
>
> What value resistor(s)
> What power rating
> What composition resistors
>
> Thanks in advance,
>
> Dave

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

WARNING TO UNSOLICITED SPAMMERS!!!

Pursuant to U.S. Code, title 47, Chapter 5, Subchapter II,
"Any and all non-solicited commercial E-mail (SPAM) sent to
this address is subject to a download and archival fee of
$500.00 U.S."! E-mailing denotes acceptance of these terms.

593. Coax trap tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 10:40:31 UTC
From: Glen Ross <glen.ross@ntlworld.com>
Message-ID: <VA.00000257.004bfb27@ntlworld.com>
Source record: 55189

In article <980555726.28978.0.nnrp-13.9e98acde@news.demon.co.uk>,
Martin John Hallsworth wrote:

> >A 1/4 wave _open_ stub could also be used, but it is harder to tune.
>

Very easy to tune if you cut the length somwhat short and then put a
trimmer across the end. An alternative is to cut it a bit over length,
remove the outer sheath over a couple of inches and then push the
copper braid back until the line tunes where you need it.

Glen G8MWR

594. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 12:08:38 UTC
From: Alan <tille1@ironbark.bendigo.latrobe.edu.au>
Message-ID: <3A72BA46.5B6AC32E@ironbark.bendigo.latrobe.edu.au>
Source record: 55114
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi

Cutting a stub to the correct length is like playing Russian roulette.
The alternative is to cut the stub shorter than the calculated length
either quarter or half wave and use a small trimmer capacitor. Use one on
the input to the Amp and one on the out put as well. My experience
suggest that most on the damage occurs in the TV set mixer.
you can locate a stub if necessary at the TV set as well. I have had a
good results with co ax and trimmer it is very easy tune. After a while
you can simply guess the length of coax and tune the trimmer.
Regards Alan
VK3ry

Martin John Hallsworth wrote:

> >A 1/4 wave _open_ stub could also be used, but it is harder to tune.
> >
> Why ?
> I would have thought that cutting coax stubs is as easy / hard for
> 1/2 wave as it is for a 1/4 wave !!
>
> Martin

595. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 12:55:20 UTC
From: Mike Tatum <miket@cybatek.fsnet.co.uk>
Message-ID: <3A72C53A.D3A3E074@cybatek.fsnet.co.uk>
Source record: 55190

Excellent!
Many thanks!

MikeT ...

Wes Stewart wrote:

> http://frank.nostalgiaair.org/sheets/079/8/813.pdf
>
> N7WS
>
> On Fri, 26 Jan 2001 21:32:31 +0000, Mike Tatum <miket@cybatek.fsnet.co.uk>
> wrote:
>
> >Hi James!
> >
> >I too would like a copy if possible as I am in the process of designing and
> >building a 2 x 813 tube
> >amplifier for 160m ... Any chance of you mailing me a copy too please ?
> >
> >Thanks!
> >
> >MikeT ...
> >M0AWS / GB6VR (Valve Radio)
> >
> >James Hurry wrote:
> >
> >> I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
> >> Transmitting Tube Manual if that helps... I can make a copy and send to you
> >> of that data..
> >> --
> >> 73's,
> >> Dudley
> >> WA5QPZ
> >> jhurry@austin.rr.com
> >>
> >> "W4pqw HS" <w4pqwhs@aol.com> wrote in message
> >> news:20001228151523.05852.00000183@ng-cu1.aol.com...
> >> > anyone have data sheets on 813 in SSB GG service.. schematics of
> >> working
> >> > pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW
> >

596. Re: Radar Detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 13:47:42 UTC
From: igotdapower <igotdapowa@hone.con>
Message-ID: <2kAc6.10504$49.1305539@news1.rdc2.pa.home.com>
Source record: 55191

ya know what i say maybe its you with the problem and not everyone else...
go suck your kangaroos arse...

"Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote in message
news:3a6abb73$0$15469$7f31c96c@news01.syd.optusnet.com.au...
> Well,
>
> As you people can see by the LAST post I managed to find a person that was
> willing to help and did know what I was talking about.
>
> These kind of people may be few and far between, but I would kind of
> appreciate not writing my requests off unless they have something valid to
> offer, like Whiskey did.
>
> Look guys, we all have to ask stupid questions that when we reflect on, we
> say 'damn, thats so simplistic to me now'. But Hell, this is the game of
> life!!!! This is not one of those critical life or death situations!
>
>
> "Matt Donohoe" <m_donohoe@dingoblue.net.au> wrote in message
> news:3a644222$0$15470$7f31c96c@news01.syd.optusnet.com.au...
> > Hello Has anybody here done any radar detector schematics ?
> >
> > Particularly for the frequencies etc used in Australia?
> >
> > Thanks, Matt.
> >
> > m_donohoe@dingoblue.net.au.spam
> > remove .spam
> >
> >
> >
>
>

597. Re: 813 tube data wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 16:53:09 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3A72FCF5.3C92006B@mc.net>
Source record: 55193

Mike,

If you need design help see freeware program for GG Amps at:

http://sites.netscape.net/kd9jq/hamradio/TAP.html

73 Chuck KD9JQ

Mike Tatum wrote:

> Hi James!
>
> I too would like a copy if possible as I am in the process of designing and
> building a 2 x 813 tube
> amplifier for 160m ... Any chance of you mailing me a copy too please ?
>
> Thanks!
>
> MikeT ...
> M0AWS / GB6VR (Valve Radio)
>
> James Hurry wrote:
>
> > I have 813 data and a schematic of tha 813 GG circuit in a 1962 RCA
> > Transmitting Tube Manual if that helps... I can make a copy and send to you
> > of that data..
> > --
> > 73's,
> > Dudley
> > WA5QPZ
> > jhurry@austin.rr.com
> >
> > "W4pqw HS" <w4pqwhs@aol.com> wrote in message
> > news:20001228151523.05852.00000183@ng-cu1.aol.com...
> > > anyone have data sheets on 813 in SSB GG service.. schematics of
> > working
> > > pair of 813s in GG showing bias arrangements etc. thanks Harold W4PQW

598. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 18:17:25 UTC
From: Lasse Moell <lasse.moell@please.no.spam.swipnet.se>
Message-ID: <nf367tcg2b5sbv088tp9qe8nri4o433peq@4ax.com>
Source record: 55194

Gee thanks for the information!
I will look up the article and see what I can learn.
So far I dug up 3 interesting articles along with others with minor
useful information:
"Realization of a Constant Phase Difference" by Sidney Darlington,
Bell systems technical Journal 1950

"Normalized Design of 90 degree Phase-Difference Networks"
by S D Bedrosian, IRE Transactions on Circuit Theory 1960

and finally
"Formation of Passive Lumped Constant 90-Degree Pahse-Difference
networks" R B Wilds, Ham Radio 1979

Wildes present usable tables for desingning all-pass networks and it
is simple to de-normalize for any impedance or frequency range.

The other two are having a ball with Cauer Chebychef polynoms which
slightly obscure my need for a simple design ;-))

I have to try some computer simulations to see what can be done and
how sensitive the circuits are for component variations.

This will be a fun project I am sure!

Thanks guys for all the help!
Cheers
Lasse SM5GLC

On Fri, 26 Jan 2001 13:55:02 GMT, "Richard Karlquist" <rick@area.com>
wrote:

>My network was "lossless" with all L's and C's, no R's. Actual loss with
>ordinary coils
>was a few dB.
>
>CORRECTION: the authors I cited should have been "Albershim and Shirley"
>(not Lankershim).
>Check IEEE Circuit Theory and also Proceedings of IEEE.
>
>Here is a brief description of the circuit (ASCII artwork in Courier font
>follows):
>
>
> transformer:
> 1.414:1 turns ratio
> center tap grounded

>
>-------)|(----------------------------A-----------------------------------
>output X
>)|(| |
>)|(------C---------------------------- |
>)|(---ground | |
>)|(------------------------B----------|----
>)|(| |
>-------)|(----------------------------D-----------------------------------
>output Y
>
>The two outputs, X and Y are versus ground. The input is to the transformer
>primary.
>
>A, B, C, and D are two terminal LC networks. A and B are dual networks and
>C and D are dual networks. Furthermore, A and B are chosen to result in a
>constant resistance all pass function to output X and C and D are chosen to
>result in a constant resistance all pass function to output Y. Many network
>theory books describe the constant resistance network; basically, the
>geometric
>mean of the arm immitances is equal to the termination impedance times a
>constant,
>typically 1/4 or 1 or 4.
>
>Operation is as follows: suppose A is a parallel resonant tank at 1 MHz and
>B is a
>series resonant tank at 1 MHz. at low frequencies. At low frequencies, the
>network is a straight through (no phase shift) to output X because A is a
>short
>circuit and B is an open circuit. At 1 MHz, A is an open circuit and B is a
>short circuit, so the network is a 180 degree phase inverter. At high
>frequencies,
>A is again a short circuit and B is again an open circuit so the network is
>again
>a straight through, no phase shift.
>
>It turns out that the phase shift around 1 MHz is extremely linear versus
>frequency.
>
>Now suppose C and D are arranged in a similar way to drive output Y. Again,
>output
>Y will have a linear phase shift versus frequency. But suppose we use a
>different
>frequency than 1 MHz for C and D. It turns out that we will still get a
>linear
>phase slope versus frequency, but if the resonant frequency is chosen
>correctly,
>it will be 90 degrees advanced or retarded from output X.
>
>Thus, over an octave or so, you will have a quadrature network. The

>frequency
>response can be extended without limit by adding additional resonators in
>the arms
>so that the A,B resonant frequencies are interleaved with the C,D resonant
>frequencies.
>
>I believe 3 tanks per arm will get you 20-140 MHz. As I said, I built one
>from 1-140
>MHz that really worked, and it was easy.
>
>Rick Karlquist N6RK
>Lasse <lasse.moell@swipnet.se> wrote in message
>news:3a702e4a.14458770@news.lin.foa.se...
>> Rick,
>> I have been going thru all IEEE Trans. Ckt Theory 63-79 and found nil
>> from Lankershim and Shirley. I even tried IRE 60-62 with similar
>> information.
>>
>> But I am not sure it would be suitable to use RC network as this would
>> present quite high insertion losses.
>>
>> I do have an article "Normalized Design of 90 degree Phase-Difference
>> Networks" by Bedrosian from IRE Trans. on Circuit Theory june 1960
>> that seems promising!
>>
>> Cheers
>> /Lasse SM5GLC
>
>

599. Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 18:48:07 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <980621941.6686.0.nnrp-01.9e98acde@news.demon.co.uk>
Source record: 55195
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

Hello,
I was having a root round in the shed I have come across an abandoned project - it is a Pye Westminster, I have no longer got information on Westminster's and this is a "special" set ie it is not a W15FM the set is not a Whitehall before you all jump on that it is FM only has 10 Tx and 6 Rx channels I think it is most likely half of a 2 rig set up and is remote controlled.

It is longer than a W15 by 4 or 5 inches (100 - 125mm), the standard PA strip has the final transistor stage missing and in the extra space at the back of the rig is an add on amplifier stage (High power I think maybe 25 watts or more) and a "current limiter" PCB.

The ID plate has the following markings
Cat N° AT90148
Ser N° 81493
Code BL01 VEEX

from the code number I remember it to be
"V" spec IF filters (25Khz)
"E" band Tx (68 - 88 MHz)
"E" band Rx (68 - 88 MHz)
I do not know what the "X" means
Can any one identify what this rig is and more importantly has any one got details or circuit details. I am looking to use the PA for 50 Mhz on my FT690
so any help much appreciated.

Thanks Martin G1GYC

--
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Remove :-
_NOSPAM_FOR_ME_
from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

600. 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:07:58 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <i0Fc6.46376$B6.12424334@news1.rdc1.md.home.com>
Source record: 55196

Gentlemen:

W4PQW, Harold, received a copy of the project from the Sixteenth Edition of "Radio Handbook" from William I. Orr. I received permission from Mr. Orr to copy and distribute this.

I have scanned in the project, and have a copy of the electronic mail permission from Mr. Orr on a page I just built for the purpose of distributing this information. I saw your requests in the newsgroup and built this.

http://members.home.net/rbethman/813s.html

You'll find the info at the above site. While it is not a single band amplifier, it shouldn't be too difficult to place it on 160 mtrs.

Enjoy!

N0DGN

601. FA: Hewlett Packard HP400E Voltmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:42:28 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <EwFc6.5183$mo2.616996@news1.news.adelphia.net>
Source record: 55097
Cross-posted to:
misc.industry.electronics.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.equipment

This instrument is in fair physical condition. There is some sticker residue on the panel and enclosure. I checked it against another voltmeter and it's working fine. The back panel has buffered AC and DC outputs to drive a chart recorder or other instrumentation.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208944666

602. FA: Hewlett Packard HP5005B Signature Multimeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:45:54 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <SzFc6.5186$mo2.617095@news1.news.adelphia.net>
Source record: 55098
Cross-posted to: misc.industry.electronics.marketplace,rec.radio.amateur.homebrew,sci.electronics.equipment

Besides Signature analysis, this multimeter will measure frequency up to 50 mHz, time intervals up to 100 s, totalize up to 99999 counts, DC voltage up to +/- 250 VDC, differential voltage, peak voltage, and resistance measurements. This instrument is in excellent cosmetic and functional condition, with the exception that one of the little probe clips from the measurement pod isn't working properly. They are a semi disposable item, and easily unplug from the test lead. I have used this multimeter to measure frequency, voltage, and resistance, and it's working very well. It is very accurate, most rages have 4 1/2 digits precision. This instrument has an HPIB interface for computerized testing applications. I am including the original operators and service manuals.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1208958709

603. FS: Hewlett Packard HP606 Signal Generator Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:48:10 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <_BFc6.5187$mo2.617090@news1.news.adelphia.net>
Source record: 55100
Cross-posted to:
misc.industry.electronics.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.equipment

This is a very good quality spiral bound photocopy of the operating and service manual for the HP606 Signal Generator. It includes general information, operating instructions, theory of operation, maintenance, parts lists, circuit schematics, and circuit pictorials.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=549322198

604. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:48:11 UTC
From: Omega <xomegaman@ntlworld.com>
Message-ID: <_zFc6.1428$YT3.49988@news6-win.server.ntlworld.com>
Source record: 55099
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

Last one of those I saw was back in 1970's and it was a W30AM. The valve at the back was a quick heat PA with a TX invertor on the centre section. I linked one up many years ago and used it on 2M but invertor whine used to be a big problem on mobile use.

I have the manual somewhere in the loft if you're serious about it.

Steve
xomegaman@ntlworld.com

"Martin John Hallsworth" <Martin@g1gyc.demon.co.uk> wrote in message
news:980621941.6686.0.nnrp-01.9e98acde@news.demon.co.uk...
> Hello,
> I was having a root round in the shed I have come across an abandoned
> project - it is a Pye Westminster, I have no longer got information
> on Westminster's and this is a "special" set ie it is not a W15FM the
> set is not a Whitehall before you all jump on that it is FM only has
> 10 Tx and 6 Rx channels I think it is most likely half of a 2 rig set up
> and is remote controlled.
>
> It is longer than a W15 by 4 or 5 inches (100 - 125mm), the standard
> PA strip has the final transistor stage missing and in the extra space
> at the back of the rig is an add on amplifier stage (High power I think
> maybe 25 watts or more) and a "current limiter" PCB.
>
> The ID plate has the following markings
> Cat N° AT90148
> Ser N° 81493
> Code BL01 VEEX
>
> from the code number I remember it to be
> "V" spec IF filters (25Khz)
> "E" band Tx (68 - 88 MHz)
> "E" band Rx (68 - 88 MHz)
> I do not know what the "X" means
> Can any one identify what this rig is and more importantly has any one got
> details or circuit details. I am looking to use the PA for 50 Mhz on my
> FT690
> so any help much appreciated.
>
> Thanks Martin G1GYC
>

> --
> ~~~~~~
> Remove :-
> _NOSPAM_FOR_ME_
> from return address to reply or click this link
>
> mailto:martin@g1gyc.demon.co.uk
> ~~~~~~
>
>
>
>
>

605. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:51:19 UTC
From: Dan Glover <news@dangl.demon.co.uk>
Message-ID: <G7u75L.8C9@dgsys.co.uk>
Source record: 55101
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

In article <980621941.6686.0.nnrp-01.9e98acde@news.demon.co.uk>,
"Martin John Hallsworth" <Martin@g1gyc.demon.co.uk> wrote:

>I was having a root round in the shed I have come across an abandoned
>project - it is a Pye Westminster, I have no longer got information
>on Westminster's and this is a "special" set ie it is not a W15FM the
>set is not a Whitehall before you all jump on that it is FM only has
>10 Tx and 6 Rx channels I think it is most likely half of a 2 rig set up
>and is remote controlled.

Probably has a label on the hinged cover which says "10TR6" and either A
or B (though I can't remember which was which). I had a pair of these
and modified both to full ten channel operation. If we're lucky someone
will explain how they were used with a twin control box labelled
"PLATOON" and "BATTALION".

>It is longer than a W15 by 4 or 5 inches (100 - 125mm), the standard
>PA strip has the final transistor stage missing and in the extra space
>at the back of the rig is an add on amplifier stage (High power I think
>maybe 25 watts or more) and a "current limiter" PCB.

W25FM I think was the designation.

>The ID plate has the following markings
>Cat N° AT90148
>Ser N° 81493
>Code BL01 VEEX

>from the code number I remember it to be
>"V" spec IF filters (25Khz)
>"E" band Tx (68 - 88 MHz)
>"E" band Rx (68 - 88 MHz)
>I do not know what the "X" means

Ten channel.

>Can any one identify what this rig is and more importantly has any one got
>details or circuit details. I am looking to use the PA for 50 Mhz on my
>FT690
>so any help much appreciated.

Ah. Well I was going to say "treat it as a W15FM until the last stage,
then follow your nose for the PA". What I almost certainly don't have
is details of the PA stage. If it still has the original crystals and
you have the right equipment you should at least be able to get an idea

of the drive level and thus the feasibility of using with your FT690.

One thing to bear in mind: there's no particular reason why the PA should be linear in its original application so be prepared for that as well as adding turns to coils or whatever to bring it down to 50MHz.

If you can identify the final PA transistors that might offer a better route to getting a suitable circuit.

Dan

--
Dan Glover (dan@dangl.demon.co.uk)

606. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 19:54:27 UTC
From: Michael Kennedy <info@kennedysoftware.ie>
Message-ID: <2NFc6.12580$s4.6915@news.indigo.ie>
Source record: 55102
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

Jim,

Re COD: my advice - visit Steve Gibson's site (www.grc.com) and look for his extensive notes on this COD problem. He also has (definitely HAD) a test program in there, to see how your ZIP drive is running...

Re Iomega: I think the Iomega folks are trained to "not know" <g>. However, not only do they know, but, as far as I recall, some of the big guns in Iomega have promised that every COD problem drive will be replaced, anywhere, AT NO COST, and irrespective of warranty periods.

- Mike

"JimD" <sparta@freeuk.KEIN-SPAM.BITTE.net> wrote in message news:3a71f1a1.123897@news.freeuk.net...
> On Fri, 26 Jan 2001 06:45:11 GMT, w9wi@linux1.localdomain () wrote:
>
> >On Thu, 25 Jan 2001 18:33:44 +0000, Keith Laws <keith@keithlaws.co.uk> wrote:
> >>I remember reading in a magazine that they had had loads of complaints
> >>from PC users, but none from Mac users and suspected it wasnt actually a
> >>hardware problem at all, but software instead.
> >
> >I had one fail on a machine at work. (wasn't aware this was a common problem,
> >but what's described is exactly what happened to ours) The computer was
> >neither a Mac nor a PC; it was a Chyron TV title generator. (Motorola
> >68040, I think the OS is called "PSOS". SCSI interface.)
>
> When I 'phoned Iomega about this failure mode, they pretended
> never to have heard of it!
>
> --
> ____
> 73 de G4RGA, nordland@line one.net
> George Dubya Bushisms No 3:
> 'Is our children learning?'
> Rallies: http://website.lineone.net http://www.netcomuk.co.uk

607. Re: Dynamic Range of Crystal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 20:14:33 UTC
From: douglas dwyer <doug@ddwyer.demon.co.uk>
Message-ID: <UDPOGEApwyc6EwSd@ddwyer.demon.co.uk>
Source record: 55104

The two major nonlinearities in crystal filter crystals are at the two
extremes of applied signal level.
Crystal dissipation of 0.1mw to 10mw the frequency will move frequency
thus imparting a phase shift to a cw signal, frequency change for a 10.7
MHz could be of the order of 10 to 20 ppm.
If the filter has a loss of 3db then 10mw entering the filter will give
rise to 5mw dissipated in the output load resistance.
At the other end of the level range nW? the crystals may exibit
discontinuous loss resistance/level it is this characteristic caused by
contamination that give rise to "sleepy " crystals that prevent an
oscillator form starting their eq series resistance may be 50R at 100uw
but increase to 150r at thermal noise levels.
Both mechanisms will give rise to intermod problems and filter
manufacturers is properly payed will design and test filters to neet
intermod specs.

Douglas Dwyer
Frequency Precision

In article <jlju6tsn1d10o4mmds7p5i12sa11bh82re@4ax.com>, Lasse Moell
<lasse.moell@please.no.spam.swipnet.se> writes
>
>>
>> One scheme I remember was to use a hybrid splitter after the first mixer
>>and then feed TWO identical filters. Use another hybrid to combine their
>>outputs and you wind up with a higher dynamic range filtering system.
>>
>> Using the hybrid splitter terminates the mixer into 50 ohms while
>>allowing the filters to be connected DIRECTLY after the mixer. So, by
>>placing the filter as close to the mixer as possible, AND splitting the
>>signal so that a lower level hits each crystal filter, one can obtain the
>>maximum possible dynamic range for the complete system.
>>
>
>Jim,
>if I recall correctly this was used by the AEG/Telefunkten E-series
>receivers for HF.
>
>Splitting the rf in two paths would reduce the signal level by 3 dB
>and thus improving the IMD by 6 dB. Since the splitting/summing
>network was consitiuted of 90 degree hybrids I guess the greatest
>advantage would be cancellation of reflected and unwanted signals back
>into the mixer.
>
>Good Luck with the experiments

>
>Cu
>Lasse SM5GLC

--
douglas dwyer

608. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 20:59:20 UTC
From: "Larry D. Clark" <me@nowwhere.com>
Message-ID: <3A7336A8.6DD83BE9@swbell.net>
Source record: 55103

i'd hang on to the email he sent you,
he went sk yesterday. a real lose to
say the least

kd5foy

B-Squared wrote:

> Gentlemen:
>
> W4PQW, Harold, received a copy of the project from the Sixteenth
> Edition of "Radio Handbook" from William I. Orr. I received
> permission from Mr. Orr to copy and distribute this.
>
> I have scanned in the project, and have a copy of the electronic
> mail permission from Mr. Orr on a page I just built for the
> purpose of distributing this information. I saw your requests
> in the newsgroup and built this.
>
> http://members.home.net/rbethman/813s.html
>
> You'll find the info at the above site. While it is not a
> single band amplifier, it shouldn't be too difficult to place it
> on 160 mtrs.
>
> Enjoy!
>
> N0DGN

609. ### For your peace of mind.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 22:09:49 UTC
From: care@services.com
Message-ID: <TMT3X88Y.E11AI4IO@services.com>
Source record: 55145

HELP AT HOME

http://caring.cjb.net

| Child Care Services | Senior Services |
| Office Cleaning | Housekeeping |

http://caring.cjb.net

Should you request, a representative and a personally selected caregiver will meet you in person to answer any questions.

http://caring.cjb.net

610. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 23:22:35 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <980637734.22183.0.nnrp-10.9e98acde@news.demon.co.uk>
Source record: 55105
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

>Probably has a label on the hinged cover which says "10TR6" and either A
>or B (though I can't remember which was which).
Yep it the label say "Westminster T10 R6 B"

>I had a pair of these
>and modified both to full ten channel operation. If we're lucky someone
>will explain how they were used with a twin control box labelled
>"PLATOON" and "BATTALION".
>
Ahh ...
I recall seing control boxes at "Anchor" with "PLATOON" and "BATTALION".
some ten years a go (no rigs or control cables thought)

>W25FM I think was the designation.

I remember talk of W25's but never had any one say this was one.

>>I do not know what the "X" means
>
>Ten channel.

That makes sense.

No Xtals in it I think I got it at a rally for £10 because it had no Xtals,
control box, mike or cable

>One thing to bear in mind: there's no particular reason why the PA
>should be linear in its original application so be prepared for that as
>well as adding turns to coils or whatever to bring it down to 50MHz.

Hmmm. that thought had crossed my mind with it being FM I think
that pye did class C PA's in W15 Wessy's.

>
>If you can identify the final PA transistors that might offer a better
>route to getting a suitable circuit.
>
OK The transistor is a TRW PT4236c

>Dan
>
Thanks a lot good info.
73 Martin

611. Looking for cheap 1A op-amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 23:38:47 UTC
From: Mike Silva <mjsilva@my-deja.com>
Message-ID: <94vm67$j77$1@nnrp1.deja.com>
Source record: 55106

Hi all,

I'm looking for an op-amp with an output capability of about an amp.
Nothing critical (well, needs to run on 12V), probably a TO-220
package, and cheaper is better. The LM1875 looks good but too
expensive and it needs 16V. Thanks for any ideas.

73,
Mike, KK6GM

Sent via Deja.com
http://www.deja.com/

612. Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-27 23:46:55 UTC
From: Jethro Jumbalaya Twain <qwasty@hotmail.com>
Message-ID: <94vmlejkg1@nnrp1.deja.com>
Source record: 55107
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

The article is about a replacement for Morse that's easier to learn.
It's a lot like Morse, just a different code.

http://www.eham.net/articles/1681

Sent via Deja.com
http://www.deja.com/

613. Re: TVI 6 METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 00:22:12 UTC
From: Martin Orloski <mml@tdstelme.net>
Message-ID: <3A736634.DCD5163@tdstelme.net>
Source record: 55108

Hi Dave. I have similar troubles on all the HF bands as well as 6m. My G5RV is about 10' above and 10' lateral to my tv antenna and even with low AND high pass filters, I still cause TVI. I've decided that the antennas are just too close plus, one of the tv ant elements is gone so who knows on which frequencies it is now resonant!? Next I'm gonna try recabling the tv ant with coax instead of twin lead, get a new tv ant, and move the G5RV as much as I'm able. So, while I'm not much help to you, I can sympathize with the frustration of all involved. At least the neighbors aren't complaining! GL and 73.

Martin N1WST

"David J. Moge" wrote:

> In brief, I have a multi element TV antenna with a amplifier connecting to 4
> televisions. The house lot is laid out in such a way that it's very hard to
> string antennas up with out having them in close proximity to the TV
> antenna. Cable is not an option. Satellite is possible but would like to
> keep regular TV antenna.
>
> At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10
> Watts) which my wife gave me. I put up a dipole to try it out and to my
> surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.
>
> My wife hasn't stopped yelling at me sense. Every time I key the mike or try
> out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do
> much good at all.
> My HF rigs cause no problems at all. I do have a good RF ground
>
> WHAT AM I DOING WRONG??? HELP!!!
>
> Any comments and suggestions would be gratefully appreciated.
>
> Thanks
> DAVE, N1RZB

614. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 00:46:43 UTC
From: LA8AK@online.no
Message-ID: <3a7362b8.5084993@news.online.no>
Source record: 55109
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.repair,uk.radio.amateur

Have had at over a douzen W15FM for different bands to experiments with, also a douzen F30FM - with R17FM, and R18FM receiver, a T100MN transmitter, an AM25-B, AM25T Vanguard (converted to FM) buying boards from B. Bamber, and some Cambridge FM10d's

Tried to convert it to 6m, but the problem is that - if you increase the capacitance across the coils on the exciter it will be rather sharp tuned and will only cover few channels. Nominal RF o/p from the exciter is 0.15W, not sure if this applies to your version

have much experience using F30FM, and the most important to start with is to add ground connection on as many points on the different pcbs as possible, also using ground lugs on fastening 6BA screws. This even improved modulation with the T30FM transmitter

The T30FM wouldn't give more than 12W, but a simple modification adding few capacitors iimproved this
R18FM may operate fb on 160MHz, but when you try to use it on 2m, it will never be optimum, a BF905 imrpved the squelch setting for 10dB quieting by a figure of 3, you also must add tape under the cover in RF converter.

It is two different versions of W15FM, the first (1967) has bipolar transistors, while the second (1968) has JFET in receiver converter

I never liked the power amplifier in W15FM, it is too old design and can be improved a lot, at least you can obtain far better devices, so for the two metre version (LA3VHF) I used BGY36 power module

73
Jan-Martin LA8AK

On Sat, 27 Jan 2001 18:48:07 -0000, "Martin John Hallsworth" <Martin@g1gyc.demon.co.uk> wrote:

>Hello,
>I was having a root round in the shed I have come across an abandoned
>project - it is a Pye Westminster, I have no longer got information
>on Westminster's and this is a "special" set ie it is not a W15FM the
>set is not a Whitehall before you all jump on that it is FM only has
>10 Tx and 6 Rx channels I think it is most likely half of a 2 rig set up
>and is remote controlled.
>
>It is longer than a W15 by 4 or 5 inches (100 - 125mm), the standard
>PA strip has the final transistor stage missing and in the extra space

>at the back of the rig is an add on amplifier stage (High power I think
>maybe 25 watts or more) and a "current limiter" PCB.
>
>The ID plate has the following markings
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>I do not know what the "X" means
>Can any one identify what this rig is and more importantly has any one got
>details or circuit details. I am looking to use the PA for 50 Mhz on my
>FT690
>so any help much appreciated.
>
>Thanks Martin G1GYC
>
>--
>~~~~~~
>Remove :-
>_NOSPAM_FOR_ME_
>from return address to reply or click this link
>
>mailto:martin@g1gyc.demon.co.uk
>~~~~~~
>
>
>
>
>

615. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 00:46:44 UTC
From: LA8AK@online.no
Message-ID: <3a736ae6.7179855@news.online.no>
Source record: 55110
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Sat, 27 Jan 2001 03:52:05 +0200, Paul Keinanen <keinanen@sci.fi>
wrote:

>>>A 1/4 wave _open_ stub could also be used, but it is harder to tune.
>>Why ?
>
>Sticking a needle through the shield and the centre conductor is a
>reversible operation, cutting the coax is not a reversible operation.
>
>
I made 5-6 equal TVI filters with two sets of tuned quarterwave lines
using up to 1cm pvc coated wires to adjust the end capacitance.
Notchdepth is 85dB on 144MHz, but they covered most of band III with
minimum attenuation. So I see no reason for this shouldn't work on 6m,
airspaced trimmers may be a good choice, but your suggestion using
needles to short is usually overlooked by amateurs

The note is published in Radcom April 1982 pp320, Technical topics,
"Double stub 144MHz TVI-notchfilter" - it is also found in Technical
topics scrapbook. see
https://secure.ws4.u-net.com/www.rsgb.org.uk/books/orderfrm.htm

73
Jan-Martin
LA8AK

616. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 00:59:35 UTC
From: Peter Lemken <plemken@gmx.de>
Message-ID: <3A736EF7.9F581CBF@gmx.de>
Source record: 55111
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

Jethro Jumbalaya Twain wrote:
>
> The article is about a replacement for Morse that's easier to learn.
> It's a lot like Morse, just a different code.

Read my reply.

Warning: Not for the humor impaired.

Peter Lemken
DF5JT
Berlin

--
DeeeeeeeX'ing in the new Millenium. Scream for an hour and go
check the online logs to see if you gotta scream for an hour again
tomorrow nite. [KH2D in rec.radio.amateur.dx]

617. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 01:10:58 UTC
From: Richard McCollum <rmccoll@radiks.net>
Message-ID: <6jKc6.7966$Tb.1617098@nntp1.onemain.com>
Source record: 55112
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

"Jethro Jumbalaya Twain" <qwasty@hotmail.com> wrote in message
news:94vmlejkg1@nnrp1.deja.com...
> The article is about a replacement for Morse that's easier to learn.
> It's a lot like Morse, just a different code.
>
> http://www.eham.net/articles/1681
>
>
> Sent via Deja.com
> http://www.deja.com/

Another bleater that feels he needs five newsgroups to make a point.

We all know Morse testing is going to disappear, we all know it will take
3-10 years to do so. So your problem is whether to study or moo.

Dick N&#65533;BK with apologies for the crosspost

618. Re: Tube Water Cooling ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 03:50:43 UTC
From: Hubie <HubieR@worldnet.att.net>
Message-ID: <01c088dd$b4d23980$2705560c@micron>
Source record: 55113

The Eimac Amateur Service Newsletter AS-28 is "The 'Stanley Steamer'-A 2 kW PEP Linear Amplifier with Vapor Phase Cooling". It uses the 4CV1500V tube, 3-30MHz.

Hubie

619. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 10:36:58 UTC
From: woody <woody@tangon.demon.co.uk>
Message-ID: <wPlVPUAKZ$c6EwnR@tangon.demon.co.uk>
Source record: 55131
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

The W25FM was an export only version as I remember, but like as not the 'export' also included the MoD.

On a 13.8V supply they were spec'd to do 25W continuous, but 35W was more common, and I've even seen 'em do in excess of 50!.

As someone said, treat it as a W15FM, including the PA alignment - it is only a higher power version of the normal PA output stage.

--
Andrew W.
Harrogate, UK
woody@tangon.demon.co.uk
g1uxp@gb7cym

620. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 11:31:08 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <OjqjFAA8LAd6Ewah@g3ohx.demon.co.uk>
Source record: 55115
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <jn947tgeerv80170aledokc84r4s9ibrs3@4ax.com>, Paul Keinanen <keinanen@sci.fi> writes
>On Sat, 27 Jan 2001 00:30:51 -0000, "Martin John Hallsworth" ><Martin@g1gyc.demon.co.uk> wrote:
>
>
>>>A 1/4 wave _open_ stub could also be used, but it is harder to tune.
>
>>Why ?
>
>Sticking a needle through the shield and the centre conductor is a
>reversible operation, cutting the coax is not a reversible operation.
>
>
Let us assume that the interference is really being caused by your very strong 50MHz signal getting into the antenna amplifier via the input connection (I'm sure that this will be the main cause, but it may not be the only problem). However, what you essentially want is lots of attenuation 50 - 52MHz, and as little as possible elsewhere. However....

Using coaxial stubs CAN be very effective, but there are several serious problems with simply adding a simple o/c quarterwave or s/c halfwave stub across the input of the wideband amplifier. These include:
1. The width of the notch will be so wide (even with the lowest-loss coax you can find) that you will also kill the TV low-band (Ch2 - 55.25MHz - will, of course be the worst affected).
2. As well as having a notch on 50MHz, here will be notches at odd multiples of 50MHz (if quarterwave) and all multiples (if halfwave). This may make a bit of a mess of several other TV channels.

The obvious solution to the width problem is to make the notch narrower. With stubs, you can do this by cascading similar stubs, each separated by a quarterwave of coax. This will also greatly increase the depth of the notch. A single stub will give you a notch of 25 to 30dB, and two stubs will increase this to nearly 60dB (I doubt if you'll need anything like this). However, this will not change the 'harmonic suck' effect (although these sucks will also be narrower).

You cannot eliminate the multiple harmonic sucks, but you can move them around so that they do not fall on those frequencies which you want to receive. You can do this (for example) by adding capacitors or inductors in the appropriate places (I won't go into this here).

You will probably be better off with a circuit using only capacitors and inductors. However, there will need to be more to it than the simple equivalent of a single coax stub. I have a typical circuit in mind, but you would have to calculate the values or do some 'jiggling' to values obtained by means of 'inspired guesswork'!

Having said all this, I'm sure that you are not the only one having trouble with 6m hitting TV (antenna amplifier or not). I wouldn't be surprised if there are several off-the-shelf filters which are purpose-made, and don't cost too much. If not, let me know - I'll move to the USA and set up in business!

73,
Ian.

621. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 12:31:17 UTC
From: Martin Moore <m_moore@btinternet.com>
Message-ID: <9513ej$9a3$1@uranium.btinternet.com>
Source record: 55116
Cross-posted to:
uk.comp.homebuilt,rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc,uk.adverts.computer

"Ian Wade" <ian.wade@netro.co.uk> wrote in message
news:u1cqOJAieUc6Ew2c@netro.co.uk...
> Thanks David. I downloaded TIP and tried to run it, but it doesn't
> support my type of drive. However, as the machine has never been
> connected to the Internet, I doubt it has anything to do with Click of
> Death.

What has the Click of Death got to do with the Internet???

Martin

622. 70cm in Los Angeles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 12:57:07 UTC
From: Ilan Rabinovitch <ilan@fonz.net>
Message-ID: <t79u12n6cd795d@corp.supernews.com>
Source record: 55138

Hey,

Im trying to test my radio but havent had any luck picking anything up. I am in the LA area with a 70cm radio. Would anyone be willing to help me test this?

Also if you know of any active repeaters please let me know.

Thanks, Ilan

623. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 13:08:51 UTC
From: Dan Glover <news@dangl.demon.co.uk>
Message-ID: <G7vJ6s.IL4@dgsys.co.uk>
Source record: 55117
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

In article <980637734.22183.0.nnrp-10.9e98acde@news.demon.co.uk>,
"Martin John Hallsworth" <Martin@g1gyc.demon.co.uk> wrote:

>>Probably has a label on the hinged cover which says "10TR6" and either A
>>or B (though I can't remember which was which).
>Yep it the label say "Westminster T10 R6 B"

Right, for further amusement go to <URL:http://www.deja.com> and search
for T10R6 (using settings of "all" and "complete"). You will then find a
previous thread abouty these things, though it won't help with your
project...

[...]

>No Xtals in it I think I got it at a rally for £10 because it had no Xtals,
>control box, mike or cable

It will work with standard W15FM control gear, should you want to go down
that route, or could be converted to "local" operation, particularly if
you only want one channel, eg for packet or whatever. Getting the full
ten channels is just a matter of fitting the full-length oscillator board
and completing the wiring, though where one gets 10-channel boards from
these days I don't know. Real pity about Garex disappearing...

>OK The transistor is a TRW PT4236c

Unfortunately can't find data on that (or any other TRW devices - did
their RF transistor business get sold to someone else?) on the web. You
probably need to track down someone with an old databook.

Dan

--
Dan Glover (dan@dangl.demon.co.uk)

624. Re: TVI 6 METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 14:16:24 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A7429B8.BAEF1879@win.bright.net>
Source record: 55118

Classic case of TV frontend overload. Yes, separate the antennas as
much as possible!

Scott
N0EDV
No TVI with DirecTV :)

Martin Orloski wrote:
>
> Hi Dave. I have similar troubles on all the HF bands as well as 6m. My G5RV is
> about 10' above and 10' lateral to my tv antenna and even with low AND high pass
> filters, I still cause TVI. I've decided that the antennas are just too close
> plus, one of the tv ant elements is gone so who knows on which frequencies it is
> now resonant!? Next I'm gonna try recabling the tv ant with coax instead of
> twin lead, get a new tv ant, and move the G5RV as much as I'm able. So, while
> I'm not much help to you, I can sympathize with the frustration of all
> involved. At least the neighbors aren't complaining! GL and 73.
>
> Martin N1WST
>
> "David J. Moge" wrote:
>
> > In brief, I have a multi element TV antenna with a amplifier connecting to 4
> > televisions. The house lot is laid out in such a way that it's very hard to
> > string antennas up with out having them in close proximity to the TV
> > antenna. Cable is not an option. Satellite is possible but would like to
> > keep regular TV antenna.
> >
> > At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10
> > Watts) which my wife gave me. I put up a dipole to try it out and to my
> > surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.
> >
> > My wife hasn't stopped yelling at me sense. Every time I key the mike or try
> > out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do
> > much good at all.
> > My HF rigs cause no problems at all. I do have a good RF ground
> >
> > WHAT AM I DOING WRONG??? HELP!!!
> >
> > Any comments and suggestions would be gratefully appreciated.
> >
> > Thanks
> > DAVE, N1RZB

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

625. Re: Motorola programming software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 15:28:50 UTC
From: Keith Wood <kw@bctv.com>
Message-ID: <3A743AB2.784FEF37@bctv.com>
Source record: 55119

alec_wood wrote:
>
> Anyone know where I can download programming software for GP300 handheld and
> GP100 radius mobile
>
> Alec M1BNK

Motorola will sell it to just about anyone (not just radio shops).
Motorola will prosecute anyone who downloads it to you.

626. FS: EIMAC 4PR1000 Pulls

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 16:47:07 UTC
From: rh3333@aol.com
Message-ID: <20010128114707.29200.00000672@ng-fi1.aol.com>
Source record: 55120

I have a large number of Eimac 4PR1000 pulls. Guaranteed not to be DOA.
$125/each Buy 5 Get 1 Free

Also, have sockets available - $45/ea

627. Re: Dynamic Range of Crystal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 16:57:29 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a744634.346356005@news.azstarnet.com>
Source record: 55121

On Sat, 27 Jan 2001 20:14:33 +0000, douglas dwyer <doug@ddwyer.demon.co.uk>
wrote:

>The two major nonlinearities in crystal filter crystals are at the two
>extremes of applied signal level.
>Crystal dissipation of 0.1mw to 10mw the frequency will move frequency
>thus imparting a phase shift to a cw signal, frequency change for a 10.7
>MHz could be of the order of 10 to 20 ppm.
>If the filter has a loss of 3db then 10mw entering the filter will give
>rise to 5mw dissipated in the output load resistance.
>At the other end of the level range nW? the crystals may exibit
>discontinuous loss resistance/level it is this characteristic caused by
>contamination that give rise to "sleepy " crystals that prevent an
>oscillator form starting their eq series resistance may be 50R at 100uw
>but increase to 150r at thermal noise levels.
>Both mechanisms will give rise to intermod problems and filter
>manufacturers is properly payed will design and test filters to neet
>intermod specs.

Before retirement, I worked for a major aerospace company and among a lot of
other things did a fair number of crystal measurements. I used an H-P 3577
network analyzer and HB fixtures along with some software that I developed.

The '3577 had the useful property of not only being stepped in frequency but in
amplitiude so that I was able to do power sweeps on crystals as well as
measuring (deriving) the motional parameters.

On one missile program we did encounter a batch of one supplier's crystals that
seemed to be "lazy." It's been a while and I don't remember exactly what power
level I started at, but it was 10 dB below the minimum output of the analyzer.
(The fixture had 10 dB loss).

The procedure was:

1) Install the crystal and at minimum power determine series resonance and ESR.

2) Step the power X dB higher and sweep the frequency and determine series
resonance . Record drive level, ESR and frequency. Repeat until a
user-specified upper power limit was reached.

3) Reverse the procedure, decreasing the power X dB per step.

4) Plot the data, ESR v. drive level.

What would be observed with a "lazy" crystal was a high value of ESR at the
beginning of the sweep with a steep, but smooth decrease as the power increased
and then a leveling off to a nearly constant (normal) lower value. When the

direction of the power sweep was reversed, the ESR would remain almost constant clear back to the starting point. In other words, there was hysterisis.

If the process was reversed, *without* removing the crystal, i.e., some excitation, albiet low level remained, the hysterisis did not recurr.

To me, the behavior in filters of crystals with this characteristic is problematic. If the signal always remains low, the crystal(s) might stay lazy, but with low signal levels, is nonlinearity an operational problem? On the other had, once the crystal has been hit with a big signal it isn't lazy anymore so do we care?

I dunno. Interesting problem.

73,

Wes Stewart N7WS

628. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 17:17:44 UTC
From: Ed Cregger <ecregger@earthlink.net>
Message-ID: <YuYc6.3268$2t5.293747@newsread2.prod.itd.earthlink.net>
Source record: 55122
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

So where did you mention antennas?
--
Ed Cregger
ecregger@earthlink.net

"Jethro Jumbalaya Twain" <qwasty@hotmail.com> wrote in
message news:94vmlejkg1@nnrp1.deja.com...
> The article is about a replacement for Morse that's easier
to learn.
> It's a lot like Morse, just a different code.
>
> http://www.eham.net/articles/1681
>
>
> Sent via Deja.com
> http://www.deja.com/
>

629. Re: Dynamic Range of Crystal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 17:33:37 UTC
From: douglas dwyer <doug@ddwyer.demon.co.uk>
Message-ID: <70417FAxfFd6EwNj@ddwyer.demon.co.uk>
Source record: 55123

In article <3a744634.346356005@news.azstarnet.com>, Wes Stewart
<nospam_n7ws@arrl.net> writes
>On Sat, 27 Jan 2001 20:14:33 +0000, douglas dwyer <doug@ddwyer.demon.co.uk>
>wrote:
>
>>The two major nonlinearities in crystal filter crystals are at the two
>>extremes of applied signal level.
>>Crystal dissipation of 0.1mw to 10mw the frequency will move frequency
>>thus imparting a phase shift to a cw signal, frequency change for a 10.7
>>MHz could be of the order of 10 to 20 ppm.
>>If the filter has a loss of 3db then 10mw entering the filter will give
>>rise to 5mw dissipated in the output load resistance.
>>At the other end of the level range nW? the crystals may exibit
>>discontinuous loss resistance/level it is this characteristic caused by
>>contamination that give rise to "sleepy " crystals that prevent an
>>oscillator form starting their eq series resistance may be 50R at 100uw
>>but increase to 150r at thermal noise levels.
>>Both mechanisms will give rise to intermod problems and filter
>>manufacturers is properly payed will design and test filters to neet
>>intermod specs.
>
>Before retirement, I worked for a major aerospace company and among a lot of
>other things did a fair number of crystal measurements. I used an H-P 3577
>network analyzer and HB fixtures along with some software that I developed.
>
>The '3577 had the useful property of not only being stepped in frequency but in
>amplitiude so that I was able to do power sweeps on crystals as well as
>measuring (deriving) the motional parameters.
>
>On one missile program we did encounter a batch of one supplier's crystals that
>seemed to be "lazy." It's been a while and I don't remember exactly what power
>level I started at, but it was 10 dB below the minimum output of the analyzer.
>(The fixture had 10 dB loss).
>
>The procedure was:
>
>1) Install the crystal and at minimum power determine series resonance and ESR.
>
>2) Step the power X dB higher and sweep the frequency and determine series
>resonance . Record drive level, ESR and frequency. Repeat until a
>user-specified upper power limit was reached.
>
>3) Reverse the procedure, decreasing the power X dB per step.
>

>4) Plot the data, ESR v. drive level.
>
>What would be observed with a "lazy" crystal was a high value of ESR at the
>beginning of the sweep with a steep, but smooth decrease as the power increased
>and then a leveling off to a nearly constant (normal) lower value. When the
>direction of the power sweep was reversed, the ESR would remain almost constant
>clear back to the starting point. In other words, there was hysterisis.
>
>If the process was reversed, *without* removing the crystal, i.e., some
>excitation, albiet low level remained, the hysterisis did not recurr.
>
>To me, the behavior in filters of crystals with this characteristic is
>problematic. If the signal always remains low, the crystal(s) might stay lazy,
>but with low signal levels, is nonlinearity an operational problem? On the
>other had, once the crystal has been hit with a big signal it isn't lazy anymore
>so do we care?
>
>I dunno. Interesting problem.
>
>73,
>
>Wes Stewart N7WS
>
>
>
Quite a trivial method of observing sleepy crystals is to build an
oscillator with adjustable gain or negative resistance often just a
varying supply will do.
As the gain is woulnd up a good crystal will increase the level of
oscillation smoothly a sticky crystal will wait una certain vel is
reached and sprilife at full amplitude.
--
douglas dwyer

630. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 17:46:14 UTC
From: Gullik Webjörn <webjorn@flysta.net>
Message-ID: <3A745AE6.F1C5F845@flysta.net>
Source record: 55144

One way is to split up a single phase signal by feeding two balanced mixers where the LO is derived digitaly from a divider at exactly 90 degree.

The 2 (I/Q) signals are then heterodyned back to their original, this time using inphase LO to another pair of mixers.

Since the same frequency can be used in all LO cases, exact freq is unimportant.

Gullik

Lasse Moell wrote:

> Gee thanks for the information!
> I will look up the article and see what I can learn.
> So far I dug up 3 interesting articles along with others with minor
> useful information:
> "Realization of a Constant Phase Difference" by Sidney Darlington,
> Bell systems technical Journal 1950
>
> "Normalized Design of 90 degree Phase-Difference Networks"
> by S D Bedrosian, IRE Transactions on Circuit Theory 1960
>
> and finally
> "Formation of Passive Lumped Constant 90-Degree Pahse-Difference
> networks" R B Wilds, Ham Radio 1979
>
> Wildes present usable tables for desingning all-pass networks and it
> is simple to de-normalize for any impedance or frequency range.
>
> The other two are having a ball with Cauer Chebychef polynoms which
> slightly obscure my need for a simple design ;-))
>
> I have to try some computer simulations to see what can be done and
> how sensitive the circuits are for component variations.
>
> This will be a fun project I am sure!
>
> Thanks guys for all the help!
> Cheers
> Lasse SM5GLC
>
> On Fri, 26 Jan 2001 13:55:02 GMT, "Richard Karlquist" <rick@area.com>
> wrote:
>
> >My network was "lossless" with all L's and C's, no R's. Actual loss with
> >ordinary coils

> >was a few dB.
> >
> >CORRECTION: the authors I cited should have been "Albershim and Shirley"
> >(not Lankershim).
> >Check IEEE Circuit Theory and also Proceedings of IEEE.
> >
> >Here is a brief description of the circuit (ASCII artwork in Courier font
> >follows):
> >
> >
> > transformer:
> > 1.414:1 turns ratio
> > center tap grounded
> >
> >-------)|(----------------------------A-----------------------------------
> >output X
> >)|(| |
> >)|(------C---------------------------- |
> >)|(---ground | |
> >)|(------------------------B----------|----
> >)|(| |
> >-------)|(----------------------------D-----------------------------------
> >output Y
> >
> >The two outputs, X and Y are versus ground. The input is to the transformer
> >primary.
> >
> >A, B, C, and D are two terminal LC networks. A and B are dual networks and
> >C and D are dual networks. Furthermore, A and B are chosen to result in a
> >constant resistance all pass function to output X and C and D are chosen to
> >result in a constant resistance all pass function to output Y. Many network
> >theory books describe the constant resistance network; basically, the
> >geometric
> >mean of the arm immitances is equal to the termination impedance times a
> >constant,
> >typically 1/4 or 1 or 4.
> >
> >Operation is as follows: suppose A is a parallel resonant tank at 1 MHz and
> >B is a
> >series resonant tank at 1 MHz. at low frequencies. At low frequencies, the
> >network is a straight through (no phase shift) to output X because A is a
> >short
> >circuit and B is an open circuit. At 1 MHz, A is an open circuit and B is a
> >short circuit, so the network is a 180 degree phase inverter. At high
> >frequencies,
> >A is again a short circuit and B is again an open circuit so the network is
> >again
> >a straight through, no phase shift.
> >
> >It turns out that the phase shift around 1 MHz is extremely linear versus

> >frequency.
> >
> >Now suppose C and D are arranged in a similar way to drive output Y. Again,
> >output
> >Y will have a linear phase shift versus frequency. But suppose we use a
> >different
> >frequency than 1 MHz for C and D. It turns out that we will still get a
> >linear
> >phase slope versus frequency, but if the resonant frequency is chosen
> >correctly,
> >it will be 90 degrees advanced or retarded from output X.
> >
> >Thus, over an octave or so, you will have a quadrature network. The
> >frequency
> >response can be extended without limit by adding additional resonators in
> >the arms
> >so that the A,B resonant frequencies are interleaved with the C,D resonant
> >frequencies.
> >
> >I believe 3 tanks per arm will get you 20-140 MHz. As I said, I built one
> >from 1-140
> >MHz that really worked, and it was easy.
> >
> >Rick Karlquist N6RK
> >Lasse <lasse.moell@swipnet.se> wrote in message
> >news:3a702e4a.14458770@news.lin.foa.se...
> >> Rick,
> >> I have been going thru all IEEE Trans. Ckt Theory 63-79 and found nil
> >> from Lankershim and Shirley. I even tried IRE 60-62 with similar
> >> information.
> >>
> >> But I am not sure it would be suitable to use RC network as this would
> >> present quite high insertion losses.
> >>
> >> I do have an article "Normalized Design of 90 degree Phase-Difference
> >> Networks" by Bedrosian from IRE Trans. on Circuit Theory june 1960
> >> that seems promising!
> >>
> >> Cheers
> >> /Lasse SM5GLC
> >
> >

631. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 17:47:36 UTC
From: who? <glennt@ibm.net>
Message-ID: <3a745d66_2@news1.prserv.net>
Source record: 55124
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Dave -

Traditionally, 6m has been the best way to get the "Worked all channel 2's" award. Various low and high pass filters, even (maybe especially) those that are effective on HF tend to be ineffective on 6m. The main problem is that 6m sits right in the middle of what would've been TV channel 1. TV sets tend to have RF front ends that are very poor in terms of strong adjacent channel signal performance. Also, TV's are usually poorly shielded (how many 15KHz harmonics can you count?) so 6m will be picked up by the power wiring and the TV circuitry itself!

What to do? I can't say what if anything will work for you, but here are a few things to try. I'm assuming that your 6m rig is clean, so my suggestions all apply to the TV system. 6m harmonics should not be much of an issue even if present because they impact only one VHF TV channel (11 I think). The basic goal here is to reduce the 6m signal strength at the TV's, TV amp and TV antenna.

1. Move your 6m dipole as far from the TV antenna as possible. The dipole is physically small (10' or so long), so this ought to be easy to do.

2. Keep the 6m and TV ant cables as far apart as possible. You say that you get an SWR of 1.3:1 WITH a tuner? Better to adjust the 6m dipole so that you have a low SWR *WITHOUT* the tuner, assuming that you're feeding the dipole with coax. If this turns out to be the problem, a "current choke" balun at the dipole may also help. If you're feeding the dipole with twinlead, you need to be more careful about what is near the twinlead's path from the antenna to your radio. In either case, the idea is to prevent the 6m antenna feedline from radiating.

3. Orient the 6m dipole so that the TV antenna is directly off the end of the dipole. Putting the TV antenna in an antenna null is the simplest way to reduce the 6m signal level at the TV antenna.

4. Choke/filter the AC power lines feeding the TV amplifier and the TVs. Radio Shack (and others) sell a ferrite core for this. I think they're fairly inexpensive - $3 for 3 or so...

5. Build quarterwave stubs tuned to 6m and install them at the antenna inputs to the TV amp and the TVs. This will selectively reduce the 6m signal level to the amp/TVs. It's possible that the only one you'll really need is on the TV amp - assuming that it's the only box being overloaded. If channel 11 is used in your area, the stub may also affect it. If so, the stub may not be a good idea. (BTW, the halfwave stub

suggested elsewhere would also affect the 2nd harmonic of 6m. Lucky for you, 100MHz is not a TV channel. Unlucky if you're using the same antenna for FM broadcast!)

Good luck. Enjoy 6m!

73 de Glenn wb6w

632. Construction elmer in Central Connecticut?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 17:59:10 UTC
From: dcollin@connix.com
Message-ID: <3a745b6a.12226292@news.mybizz.net>
Source record: 55125
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.equipment

I'm a 46 year old extra class ham (since 1992) looking for an elmer to help get me started in building. I'm located about 5 miles from ARRL HQ.

My interest (today) lies mainly in building QRP CW tranciever kits. I realize that today's kits have excellent instructions, detailed PC boards, and are easily assembled by anyone who knows which end of the iron is hot ... but I don't ... grin!

I'd like to build a Oak Hills Research Norcal 40A for 30 meters, as well as their watt meter and digital freq display. Pretty ambitious for a guy with NO building experience (outside of dipole antennas, and connectors ... g!).

I could use a lesson or two in soldering techiniques (no surface mount stuff, yet), desoldering (now THAT might come in handy ... grin!), winding toroids, equipping a workbench (tools and instruments), and the like. Just enough to get me going, I'll take it from there. If I pick up some theory along the way, all the better, but building a kit doesn't require you know how it works (!).

I'd be more than happy to travel to your QTH if getting around is a problem. I'd pay for any phone calls. Hell, I'd even buy ya lunch! Anyone got a Saturday or Sunday (or two) free?

Thanks,

Dennis KD1JT

633. trap design info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 18:27:16 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3a746484$0$35015$2c3edae7@news.voyager.net>
Source record: 55126

i am looking to build a 30/17/12 meter dipole or sloper, does anyone
out have info on the trap construction i am looking to use coaxial cable
for the trap capacitors any info greatly appreciated
thanks ken w8ob

634. Re: Help please: sick ZIP drive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 18:41:54 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <951p5f$ho4$1@nntp9.atl.mindspring.net>
Source record: 55127
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur,rec.radio.amateur.digital.misc

Click of Death fans:

Yup there really is a "click of death", God Bless Iomega.... I got it
too...

I think I saw a USENET NG dedicated to the "Click of Death".

Why not take the discussion there...

Cheers,

-Peter K1PO

"Walt Davidson" <junkmail1@redhotant.net> wrote in message
news:kk687t0peodocbq7migjv56ig0sc4dtq7m@4ax.com...
> On Sun, 28 Jan 2001 12:31:17 -0000, "Martin Moore"
> <m_moore@btinternet.com> wrote:
>
> >What has the Click of Death got to do with the Internet???
>
> What has it got to do with amateur radio? This thread is being posted
> to three amateur radio newsgroups.
>
> --
> Walt Davidson Email: walt@ surf-zone.co.uk

635. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 18:45:28 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <951pc7htt1@nntp9.atl.mindspring.net>
Source record: 55128
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

CW Antennas are just fine...

CW does have some relationship to antennas. Cannot antennas be optimized for use in the CW band segments, so...

I'd like to see designs for CW optimized yagi's and such...

-Peter

"Ed Cregger" <ecregger@earthlink.net> wrote in message news:YuYc6.3268$2t5.293747@newsread2.prod.itd.earthlink.net...
> So where did you mention antennas?
> --
> Ed Cregger
> ecregger@earthlink.net
>
> "Jethro Jumbalaya Twain" <qwasty@hotmail.com> wrote in
> message news:94vmlejkg1@nnrp1.deja.com...
> > The article is about a replacement for Morse that's easier
> to learn.
> > It's a lot like Morse, just a different code.
> >
> > http://www.eham.net/articles/1681
> >
> >
> > Sent via Deja.com
> > http://www.deja.com/
> >
>
>

636. Re: TVI 6 METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 19:20:26 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <951s3e03q8@news2.newsguy.com>
Source record: 55130

"Scott" <acepilot@win.bright.net> wrote in message
news:3A7429B8.BAEF1879@win.bright.net...
> Classic case of TV frontend overload. Yes, separate the antennas as
> much as possible!

Don't forget, as others have written, the TV is poorly sheilded and can pick up RF from anywhere. Get the dipole as HIGH as possible. This not only gets it away from the TV antenna, but it also gets it away from the TV, the power wiring, etc. etc. etc. If you can construct a small beam, it will be better than the dipole at not radiating downward (towards the TV).

If you don't have a balun at the dipole, definitely get one there - doesn't do a lot of good in the shack (for this problem). Also, as someone else said, get the dipole resonant, same issue.

Ferrite chokes on the power to the TV is a good plan, too.

Don't expect that the problem is that you are transmitting on the TV's frequency or IF (I assume you have checked <g>). TVs are TERRIBLE at any sort of strong signal, even if it isn't close to the TV's frequency. Under Part 15, it's the TV manufacturer's responsibility to deal with it, but in practice, that doesn't do any good. The only thing to do is be sure the TV doesn't see a strong signal, and the easiest way to do that is to radiate your RF away from the TV and it's antenna.

> Scott
> N0EDV
> No TVI with DirecTV :)

I manage to get into my TVs with a ground mounted vertical, even with cable. You probably have an antenna in the sky away from the TV. My antennas in the sky are no problem. Chokes help some, but that plastic case on the TV lets the RF right on in.

didleydadidah

637. incuctance-toroids and turns

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 19:49:07 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3a747523.1697445@netnews.worldnet.att.net>
Source record: 55129

Is there a page on the net that you can input the desired inductance and it will provide you with a formula that you can put in the known factors and it will give you answers -- thank you

638. Re: incuctance-toroids and turns

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 20:07:34 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <Xq7d6.986$pq6.2954@nntpserver.swip.net>
Source record: 55141

http://www.micrometals.com/software.html

/sm6pxj

639. Re: Construction elmer in Central Connecticut?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 22:32:56 UTC
From: dcollin@connix.com
Message-ID: <3a749ed3.29485497@news.mybizz.net>
Source record: 55132
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.equipment

On Sun, 28 Jan 2001 17:59:10 GMT, dcollin@connix.com (Dennis Collin) wrote:

>I'd like to build a Oak Hills Research Norcal 40A for 30 meters, as
>well as their watt meter and digital freq display. Pretty ambitious
>for a guy with NO building experience (outside of dipole antennas, and
>connectors ... g!).

Doh! Of course I meant the OHR100a ... been lookin' at these things just long enough to get myself confused ... grin!

640. Re: TVI 6 METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-28 22:55:36 UTC
From: davearea51@aol.com
Message-ID: <20010128175536.13676.00001601@ng-ci1.aol.com>
Source record: 55133

I might suggest you take the amplifier in the TV out of service. They will generally respond to a 50-MHz signal as channel 2 is JUST above our 6-meter band. Chances are you are saturating the amplifier. It's worth a try.

641. Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 00:54:02 UTC
From: VK4LAJ <vk4laj.SPAM.JAM@loaded-dog.com>
Message-ID: <3a74bfa3@grissom>
Source record: 55134
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

Hi all and thanks for reading my post

I have been out of AR for 14 months (due to an accident not loss of interest) and am now looking to get back into it.

I am looking at building a lot of my own gear this time around and one project is an antenna rotator. Although I have searched high and low on the internet, I can not find anyone that has built a rotator system from scratch. I have found a direction indicator but that's all.

Has anyone built or know of an article that describes building an antenna rotator? If so could you please point me in the right direction or send me a scanned article, but please email me direct after you have removed the SPAMJAM.

--
Don't forget to remove the SPAM.JAM

73
Adam VK4LAJ
E-mail: - vk4laj.SPAM.JAM@loaded-dog.com
WWW: - http://www.loaded-dog.com
Brisbane Australia
CQ Zone 29/ 30
Point your beam at: -27.39.9 South Lat. - 153.3.5 East long
Maiden Head: - QG62mi
Height ASL: - 52m

My wife says I never listen to her...
at least that's what I think she said?

642. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 01:26:35 UTC
From: Ed Juge/NM <ed_juge@zianet.com>
Message-ID: <3a75d123.0@oracle.zianet.com>
Source record: 55066
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

I agree with Ed. This isn't the ng for code discussions.

Ed, W5EJ

"Peter O. Brackett" <ab4bc@ix.netcom.com> wrote in message
news:951pc7htt1@nntp9.atl.mindspring.net...
> CW Antennas are just fine...
>
> CW does have some relationship to antennas. Cannot antennas be optimized
for
> use in the CW band segments, so...
>
> I'd like to see designs for CW optimized yagi's and such...
>
> -Peter
>
> "Ed Cregger" <ecregger@earthlink.net> wrote in message
> news:YuYc6.3268$2t5.293747@newsread2.prod.itd.earthlink.net...
> > So where did you mention antennas?
> > --
> > Ed Cregger
> > ecregger@earthlink.net
> >
> > "Jethro Jumbalaya Twain" <qwasty@hotmail.com> wrote in
> > message news:94vmlejkg1@nnrp1.deja.com...
> > > The article is about a replacement for Morse that's easier
> > to learn.
> > > It's a lot like Morse, just a different code.
> > >
> > > http://www.eham.net/articles/1681
> > >
> > >
> > > Sent via Deja.com
> > > http://www.deja.com/
> > >
> >
> >
>
>

643. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 01:27:27 UTC
From: rice@ironbark.bendigo.latrobe.edu.au
Message-ID: <rice-ya02408000R2901011227270001@news.latrobe.edu.au>
Source record: 55135

Recently, John <hydro@fx2.com> wrote:

> : I was wondering if anyone has any info on building a DSP base modulator
> : for SSB. Or maybe a modern phasing SSB circuit.

I may be pushing my own barrow, but have a look here:
(Not quite what you asked for; but close ;-)

http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html

73 de Phil VK3BHR

644. Re: incuctance-toroids and turns

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 02:17:22 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <952jq1lni1@neptunium.btinternet.com>
Source record: 55136

It's just as simple to vary number of turns, as you would do in practice,
until the desired inductance is obtained.

Download (in a few seconds) program TOROID from website below. Enter core
dimensions, core permeability, number of turns. Program will tell you wire
diameter and inductance. Also capacitance to tune to a specified frequency.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

<geokf4ucc@yahoo.com> wrote in message
news:3a747523.1697445@netnews.worldnet.att.net...
> Is there a page on the net that you can input the desired inductance
> and it will provide you with a formula that you can put in the known
> factors and it will give you answers -- thank you

645. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 03:31:50 UTC
From: bowenb@best.com
Message-ID: <3a74e1de.7147683@news.ncal.verio.com>
Source record: 55137

rice@ironbark.bendigo.latrobe.edu.au (Phil Rice) wrote:

>Recently, John <hydro@fx2.com> wrote:
>
>> : I was wondering if anyone has any info on building a DSP base modulator
>> : for SSB. Or maybe a modern phasing SSB circuit.
>
>I may be pushing my own barrow, but have a look here:
>(Not quite what you asked for; but close ;-)
>
>http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html
>
>73 de Phil VK3BHR

Phil,

Looks pretty good to me. Always did like phasing SSB generation
better than the filter method (guess I'm just old-fashioned). I don't
see the 3.7 MHz upper limit as a problem: just thinking about the
circuit, I see me using the 10 MHz oven timebase that is going to be
the clock for the synthesizer (and for the receiver) as the source for
the modulator and mixng the output of the modulator up to the
appropriate band. That way everything is locked to one master
oscillator.

I'll going to file this with the other info I'm gathering to
construct myself a new transmitter now that I've decided to get back
into ham radio after a 20 year absence.

Regards,
Bill Bowen
bowenb@best.com
Daly City, CA

646. Re: 70cm in Los Angeles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 05:04:38 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <GR6d6.81273$ft6.1553815@typhoon.mw.mediaone.net>
Source record: 55139

"Ilan Rabinovitch" <ilan@fonz.net> wrote in message
news:t79u12n6cd795d@corp.supernews.com...
>
> Also if you know of any active repeaters please let me know.

Look here and pick your state:

http://www.artscipub.com/repeaters/

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

647. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 05:11:47 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <i_6d6.4$aD6.759@wa.nnrp.telstra.net>
Source record: 55140
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

I remember my Grandfather (who's callsign I now have) using a car differential near the base of his tower, with a shaft coming through the shack window attached to a truck's steering wheel. Direction was indicated by a dial on the wall next to the window driven via a pulley on the steering shaft. This impressed me greatly as a young child though I guess it's probably not what you had in mind (c:

Regards
Murray - VK6HL

VK4LAJ <vk4laj.SPAM.JAM@loaded-dog.com> wrote in message news:3a74bfa3@grissom...
> Hi all and thanks for reading my post
>
> I have been out of AR for 14 months (due to an accident not loss of
> interest) and am now looking to get back into it.
>
> I am looking at building a lot of my own gear this time around and one
> project is an antenna rotator. Although I have searched high and low on
the
> internet, I can not find anyone that has built a rotator system from
> scratch. I have found a direction indicator but that's all.
>
> Has anyone built or know of an article that describes building an antenna
> rotator? If so could you please point me in the right direction or send me
a
> scanned article, but please email me direct after you have removed the
> SPAMJAM.
>
> --
> Don't forget to remove the SPAM.JAM
>
> 73
> Adam VK4LAJ
> E-mail: - vk4laj.SPAM.JAM@loaded-dog.com
> WWW: - http://www.loaded-dog.com
> Brisbane Australia
> CQ Zone 29/ 30
> Point your beam at: -27.39.9 South Lat. - 153.3.5 East long
> Maiden Head: - QG62mi
> Height ASL: - 52m
>
> My wife says I never listen to her...
> at least that's what I think she said?

>
>

648. FA: Nice Tek 485 scope and parts mule

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 06:13:28 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A74EDF8.261B@pop.removethistomailme.net>
Source record: 55142

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=551089200 (very clean unit, my personal scope for several years)

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=551155554 (basket case, probably good for parts only)

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

649. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 11:11:59 UTC
From: Gordon Hudson <usenet@hostroute.com>
Message-ID: <953j2t$fru89$1@ID-36920.news.dfncis.de>
Source record: 55146
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

Murray Lang <muzzle@iexpress.net.au> wrote in message
news:i_6d6.4$aD6.759@wa.nnrp.telstra.net...
> I remember my Grandfather (who's callsign I now have) using a car
> differential near the base of his tower, with a shaft coming through the
> shack window attached to a truck's steering wheel. Direction was indicated
> by a dial on the wall next to the window driven via a pulley on the
steering
> shaft. This impressed me greatly as a young child though I guess it's
> probably not what you had in mind (c:

Yes
I had a friend in the Ukraine who used a geared motor attached to the back
axle of a Lada to turn his beam.
It could have turned the whole block of flats.

I used to use a heavy duty stepper motor to turn a VHF beam in my attic
(weight taken off motor by suspending antenna from a string, but I have not
seen any stepper motors that would be up to the job for a long time.

Gordon

http://www.myqth.com/ Free web hosting

650. 40-40 Qrp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 11:13:43 UTC
From: Paschalis Bountoukas <pascal@the.forthnet.gr>
Message-ID: <980766861.571594@athnrd02.forthnet.gr>
Source record: 55047

Hi out there

Finished the 40-40 qrp rig and have a question on the key line.
On the pcb there are two points for the key, the Tx key and the
Rx key.
The first goes through 2 registors (10k & 22k) to Q3/2N3906,
the second one to pin 8 U4/NE5532 throug the D4/1N4148
and 1M registor.
My question is which is to be used for the +key line? or both of
them?

Thanks for any idea

73's
Paschalis, sv2ajx

pascal@the.forthnet.gr

651. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 11:33:48 UTC
From: wmeara@clix.pt
Message-ID: <3a7553db.1097950@news.clix.pt>
Source record: 55143

Bill: Doug DeMaw had a very nice, very simple DSB circuit that I've been planning on building. It appears in several of his books and in the Feb1997 issue of CQ. It essentially gnereates a DSB signal by the TX equivalent of direct conversion. His cirucuit has op amp mic amplifier to a two diode balanced modulatior. The balanced modulator is also fed by the local oscillator at the operating frequency. Output of the blanced modulator goes to the RF amp. Very simple.

I'm planning on building one of these for 17 meters. LO will be a VXO. You could easily throw in a direct conversion RX and make it a very simple QRP transceiver.

73 Bill N2CQR CU2JL

652. Source for 455KHz filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 12:49:00 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A75667F.B3B13F70@GTE.net>
Source record: 55048

Does anyone know of any used sources for 455KHz xtal filters- preferably
SSB BW?

Thanks,

Dale W4OP

653. Re: DSP Sideband Modulator Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 13:20:02 UTC
From: richardh@iinet.net.au
Message-ID: <3a756d3b.4454134@news.m.iinet.net.au>
Source record: 55049

This sequence circuit is otherwise known as the polyphase circuit.
I have used it on recieve as well as transmit for SSB. It gives very
accurate phase shift and is tolerant of component variation. However
it needs lots of passive components and is quite lossy in band. Out of
band signals are less attenuated which may cause a problem with
dynamic range on receive.

Richard

On Mon, 29 Jan 2001 03:31:50 GMT, bowenb@best.com (William H. Bowen)
wrote:

>rice@ironbark.bendigo.latrobe.edu.au (Phil Rice) wrote:
>
>>Recently, John <hydro@fx2.com> wrote:
>>
>>> : I was wondering if anyone has any info on building a DSP base modulator
>>> : for SSB. Or maybe a modern phasing SSB circuit.
>>
>>I may be pushing my own barrow, but have a look here:
>>(Not quite what you asked for; but close ;-)
>>
>>http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html
>>
>>73 de Phil VK3BHR
>
>Phil,
>
> Looks pretty good to me. Always did like phasing SSB generation
>better than the filter method (guess I'm just old-fashioned). I don't
>see the 3.7 MHz upper limit as a problem: just thinking about the
>circuit, I see me using the 10 MHz oven timebase that is going to be
>the clock for the synthesizer (and for the receiver) as the source for
>the modulator and mixng the output of the modulator up to the
>appropriate band. That way everything is locked to one master
>oscillator.
>
> I'll going to file this with the other info I'm gathering to
>construct myself a new transmitter now that I've decided to get back
>into ham radio after a 20 year absence.
>
>Regards,
> Bill Bowen
> bowenb@best.com
> Daly City, CA

>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

654. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 13:54:38 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3A7575DC.22548351@sccoast.net>
Source record: 55050
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

Donald Rymer wrote:
>
> I have acquired an ancient FT200 Tranceiver
> from Yaesu and would love to get it going.
> The problem I have is that the power lead
> didn't come with it. Has anyone ever had one
> of these rigs or have any idea where to get
> some info on same. I would like to hear the
> shortwave stations coming through the tubes
> again.

In addition to Bill's advice, you might also want to ask in some of
the ham radio newsgroups. Perhaps someone in there has experience
with this radio and can offer advice. In fact, I've crossposted this
message (from rec.radio.shortwave) to a couple of those newsgroups for you.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

655. Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 14:16:23 UTC
From: Filippo Cattaneo <expand#KEEP-ME-SPAMFREE#@#NOSPAM#mailcity.com>
Message-ID: <XWed6.52159$ew1.3307816@news.infostrada.it>
Source record: 55051

Hi Chuck!

Re. coil Q: I understand the idea of using a thin wall PVC core for coil winding.
Along the same lines, what about using the following alternatives?

- bare copper instead of PVC coated

- other kinds of core material, such as ceramic or glass?
(wasn't ceramic very popular once upon a time?)

- rather large gauge wire instead of the tiny #22 used in several designs
(wouldn't a lower resistance to reactance ratio also help raise Q?
Moreover, a large coil can be made air-wound)

Best regards,

Filippo N1JPR/I2

656. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 14:40:40 UTC
From: Harry <HGK@centurytel.net>
Message-ID: <3A7580E8.1AA7FA79@centurytel.net>
Source record: 55052
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

Well Donald I have an FT 222 for sale and I have the manual. If I had
your E Mail, I could scan and send that part of the schematic to you!

Dwight Stewart wrote:
>
> Donald Rymer wrote:
> >
> > I have acquired an ancient FT200 Tranceiver
> > from Yaesu and would love to get it going.
> > The problem I have is that the power lead
> > didn't come with it. Has anyone ever had one
> > of these rigs or have any idea where to get
> > some info on same. I would like to hear the
> > shortwave stations coming through the tubes
> > again.
>
> In addition to Bill's advice, you might also want to ask in some of
> the ham radio newsgroups. Perhaps someone in there has experience
> with this radio and can offer advice. In fact, I've crossposted this
> message (from rec.radio.shortwave) to a couple of those newsgroups for you.
>
> Dwight Stewart (W5NET)
>
> http://www.qsl.net/w5net

657. Estate Tubes Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 14:57:09 UTC
From: k1oj <k1oj@swbell.net>
Message-ID: <awfd6.203$Dk2.276548@nnrp3.sbc.net>
Source record: 55053

Howdy from Texas,
I have just finished cataloging the tubes from the estate of a local ham, now SK. There are more than 300 types and more than 1500 tubes total. You can view the list here, www.ditdit.com .

--

OJ
ditdit

Reply To:
k1oj@ditdit.com
k5oj@ditdit.com
www.ditdit.com

658. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 15:21:14 UTC
From: Harry <HGK@centurytel.net>
Message-ID: <3A758A6A.560793B5@centurytel.net>
Source record: 55054
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

OOPS
that's FT 200

Harry wrote:
>
> Well Donald I have an FT 222 for sale and I have the manual. If I had
> your E Mail, I could scan and send that part of the schematic to you!
>
> Dwight Stewart wrote:
> >
> > Donald Rymer wrote:
> > >
> > > I have acquired an ancient FT200 Tranceiver
> > > from Yaesu and would love to get it going.
> > > The problem I have is that the power lead
> > > didn't come with it. Has anyone ever had one
> > > of these rigs or have any idea where to get
> > > some info on same. I would like to hear the
> > > shortwave stations coming through the tubes
> > > again.
> >
> > In addition to Bill's advice, you might also want to ask in some of
> > the ham radio newsgroups. Perhaps someone in there has experience
> > with this radio and can offer advice. In fact, I've crossposted this
> > message (from rec.radio.shortwave) to a couple of those newsgroups for you.
> >
> > Dwight Stewart (W5NET)
> >
> > http://www.qsl.net/w5net

659. Re: incuctance-toroids and turns

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 16:22:30 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3a759641.2066376@netnews.worldnet.att.net>
Source record: 55056

thanks, Im building W1FB qrp 5watt amp from his qrp notebook but it is
so full of typing errors that I want to double check one of the
windings -- george

On Mon, 29 Jan 2001 02:17:22 -0000, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>It's just as simple to vary number of turns, as you would do in practice,
>until the desired inductance is obtained.
>
>Download (in a few seconds) program TOROID from website below. Enter core
>dimensions, core permeability, number of turns. Program will tell you wire
>diameter and inductance. Also capacitance to tune to a specified frequency.
>
>**********
>Regards, Reg, G4FGQ
>Free radio design & modelling software
>http://www.btinternet.com/~g4fgq.regp
>
>**********
>
><geokf4ucc@yahoo.com> wrote in message
>news:3a747523.1697445@netnews.worldnet.att.net...
>> Is there a page on the net that you can input the desired inductance
>> and it will provide you with a formula that you can put in the known
>> factors and it will give you answers -- thank you
>
>

660. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 16:45:51 UTC
From: K0HB <K0HB@arrl.org>
Message-ID: <9546ns$13s$1@nnrp1.deja.com>
Source record: 55058
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3A75C248.212BE649@grove.iup.edu>,
Scott McClements <yetbbwa@grove.iup.edu> wrote:
> Hi all,
>
> I have been playing around with different microphones and I am getting
> tired of
> it.

There's a crew of audio purists who hang out around 14.182 in the
evenings - W0JKD, W2ONV, etc. - check in with them, and you'll get a
lot of help.

73, Hans, K0HB
--
"We are fellow travelers on a journey between two
eternities, and it's a trip far too brief for me
to be concerned about your speed at the Code of
Morse."

Sent via Deja.com
http://www.deja.com/

661. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 16:49:17 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3A759E9A.EBA3551A@sccoast.net>
Source record: 55057
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

Harry wrote:
>
> OOPS
> that's FT 200

Close, Harry. Missed it by only 22. ;-)

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

662. 8044 and 8088 chip info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 18:19:49 UTC
From: GB <picture@gvtel.com>
Message-ID: <3A75B472.8C1E93AD@gvtel.com>
Source record: 55059

Can someone tell me if the a Curtis 8044 chip can be directly replaced with a 8088? (are they the same physical size and same pinouts).

663. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 18:25:31 UTC
From: Joe <joeamp@mindspring.com>
Message-ID: <954cjg$53u$1@slb2.atl.mindspring.net>
Source record: 55060
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

I assume you know it uses a separate power supply/Speaker !
A Yeasu FT-200 as a Tempo One transceiver .
They came in Black and White

Dwight Stewart wrote in message <3A7575DC.22548351@sccoast.net>...
>Donald Rymer wrote:
>>
>> I have acquired an ancient FT200 Tranceiver
>> from Yaesu and would love to get it going.
>> The problem I have is that the power lead
>> didn't come with it. Has anyone ever had one
>> of these rigs or have any idea where to get
>> some info on same. I would like to hear the
>> shortwave stations coming through the tubes
>> again.

664. Re: 8044 and 8088 chip info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 19:01:02 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3A75BDEE.421AB2D8@iquest.net>
Source record: 55061

In one word; NO.

The 8044 is a ASIC made to Curtis sole-owned spec's.

The 8088 is a CPU which gained fame and is also known as the XT computer 'brain'.

These devices are also of unlike packaging.

Bests,

Patrick
W9GTA

GB wrote:
>
> Can someone tell me if the a Curtis 8044 chip can be directly replaced
> with a 8088? (are they the same physical size and same pinouts).

665. Re: trap design info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 19:14:00 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A75C0F8.2781E494@rupert.tds-az.lmco.com>
Source record: 55062

kenneth m cubilo wrote:
>
> i am looking to build a 30/17/12 meter dipole or sloper, does anyone
> out have info on the trap construction i am looking to use coaxial cable
> for the trap capacitors any info greatly appreciated
> thanks ken w8ob

Hi Ken,

There are several methods for using coax in a antenna trap. One
of them uses the coax for the inductor and the capacitor. Another
uses a standard inductor and length of straight coax for the
capacitor. I'm not sure which one you are looking for.

I use a coaxial trap dipole that is set up as an inverted V.
Mine is for 40, 20, 15, and 10 Meters but making one for 30/17/12
should be a simple matter. On my antenna the coax is used for
the inductor and the capacitor.

I used HamCalc, written by George Murphy VE3ERP, to design the
traps. One of the places you can get a copy is from
"http://uhavax.hartford.edu/eetsw".

For my traps forms I used PVC couplings, in various sizes, and a good
quality Belden RG-59. This so that some of the characteristics will
be stable, like the capacitance per foot. You won't need that much
so the cost shouldn't be an issue.

For tuningyou will need a "grid dip" meter. The "grid dip" meter is
used to adjust the traps, before they are connected to the antenna.
Once the traps are on the antenna, you will not be able to check
the trap frequency without disconnecting them.

Once the traps are tuned, build the antenna and adjust the
wires for the various bands starting with the highest frequency
band. In your case that would be 12 meters. Then work you way to
the lowest band. The length of the highest frequency section will
be in the normal range but on the lower frequencies, the traps
will act as loading coils and shorten the over length.

The antenna completed should be tuned in it's operating position.
This may mean that you will have to raise and lower it about a
dozen times to get all the lengths right. I used a mast with a
pulley at the top so it wasn't much of a problem. If you can
borrow an "antenna analyzer" it will greatly simplify the tune
up procedure. With an analyzer you can quickly see how one
adjustment affect you current band and any of the other bands.

I get a SWR of less than 1.5:1 on 40, 20, 15, and 10 Meters with very good bandwidth. On 40, 20, and 15 it covers the whole band but on 10 Meters it's only good for about 400 KHz. The match is close enough to 50 ohms such that I don't use a tuner. I use a 1:1 balun to feed the center of the dipole, but it's not absolutly necessary. You can probably get away with just using a coax choke.

A very good description on the construction of a trap dipole can be had at "http://www.nerc.com/~jdegood/coaxtrap/".

Good Luck
Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore my responses may not be as timely as you, or I, would like them to be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

666. Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 19:19:36 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A75C248.212BE649@grove.iup.edu>
Source record: 55055
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi all,

I have been playing around with different microphones and I am getting tired of
it. I bought some D-104s and put a Panasonic electret condenser full range
element (1K Ohm) in the D-104 head in place of the crystal element (no pre-amp).
The only problem now is, its way too muddy (bassy) for SSB use. I didn't want the
hassles of playing around with capacitors trying to fix up the audio.

Then I found this 8 band equalizer made by W2HIY. I don't like the Radio Shack DJ mixing board look of the unit, nor the layout, nor the price.

Then I started looking around and found a 31 band graphic equalizer can be had new for
around $120 (http://www.artroch.com/351/351desc.htm) and used for under 100$. I couldn't think of any reason I couldn't wire up my microphone to this thing. I was thinking of building
a box with the standard 8 pin connector on the front and running a 1/4" unbalanced
line into the EQ, then back into the adapter box and out the front to the radio. Now, I am
a novice when it comes to circuit design..but this seems pretty simple. The only
thing I figured I have to worry about is RF getting into the big mess. If I wrap
the power line to the EQ over ferrite and do the same in my box on all the lines,
and use a few capacitors here and there in my adapter box, should I be ok? Or will
this type of EQ just get destroyed by the smallest amount of RF and be a headache
to cure?

This exact kind of control over my microphones response is what I desire, but
is this a feasible project?

Thanks,

Scott McClements.

667. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 19:37:10 UTC
From: Mike Tatum <miket@cybatek.fsnet.co.uk>
Message-ID: <3A75C66B.1E603CB4@cybatek.fsnet.co.uk>
Source record: 55063

A real shame indeed.

Many thanks to N0DGN for taking the time to put the info online.

MikeT ...

"Larry D. Clark" wrote:

> i'd hang on to the email he sent you,
> he went sk yesterday. a real lose to
> say the least
>
> kd5foy
>
> B-Squared wrote:
>
> > Gentlemen:
> >
> > W4PQW, Harold, received a copy of the project from the Sixteenth
> > Edition of "Radio Handbook" from William I. Orr. I received
> > permission from Mr. Orr to copy and distribute this.
> >
> > I have scanned in the project, and have a copy of the electronic
> > mail permission from Mr. Orr on a page I just built for the
> > purpose of distributing this information. I saw your requests
> > in the newsgroup and built this.
> >
> > http://members.home.net/rbethman/813s.html
> >
> > You'll find the info at the above site. While it is not a
> > single band amplifier, it shouldn't be too difficult to place it
> > on 160 mtrs.
> >
> > Enjoy!
> >
> > N0DGN

668. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 20:01:22 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <954i50$la2$1@uranium.btinternet.com>
Source record: 55064

To maximise Q of solenoid coils -

Don't use pvc insulated wire. For close-wound coils use enamel insulated magnet wire.

Wind on a ribbed former. The insulation is then nearly all air.

Don't use a close wound winding. Space adjacent turns such that distance between wire centres is 1.5 times wire diameter.

Coil former diameter to length ratio: Don't have long slender coils. Don't have short coils with thin wire. It's not critical but length = diameter is OK.

If you double all coil former dimensions and reduce number of turns to give same inductance then Q approximately doubles. Big coils have big Q !

But if you intend to make a super-selective tuning coil by using reaction around an amplfier just short of oscillation point - why bother ? Any old coil will do for that. Such coils may be small but should have physically very stable dimensions.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Filippo Cattaneo <expand#KEEP-ME-SPAMFREE#@#NOSPAM#mailcity.com> wrote in message news:XWed6.52159$ew1.3307816@news.infostrada.it...
> Hi Chuck!
>
> Re. coil Q: I understand the idea of using a thin wall PVC core for coil
> winding.
> Along the same lines, what about using the following alternatives?
>
> - bare copper instead of PVC coated
>
> - other kinds of core material, such as ceramic or glass?
> (wasn't ceramic very popular once upon a time?)
>
> - rather large gauge wire instead of the tiny #22 used in several designs
> (wouldn't a lower resistance to reactance ratio also help raise Q?
> Moreover, a large coil can be made air-wound)
>
> Best regards,

>
> Filippo N1JPR/I2
>

669. Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 20:19:11 UTC
From: hypnotism <el_latho@hotmail.com>
Message-ID: <3a757bd4$1@ALPHA.RHODES.EDU>
Source record: 55065
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

Hey yall.
I was curious if anyone knew anything about bottling brew in glass bottles which have twist off caps. I have a bunch of Shiner Bock bottles which use the twist off caps, and i have a circular key chain that i can use to reseal caps on airtight (i tried with vinegar and baking soda). If i clean these out thoroughly and sanitize them, would they be ok to bottle in?

If anyone has experience or insight, i would really really appreciate it.

-latho

670. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 20:51:35 UTC
From: 'Doc <w5lz@oio.net>
Message-ID: <3A75D7D7.3D036B08@oio.net>
Source record: 55067
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Scott,
Sure, it ought to work. But tell me this, how do you
squeeze that 15k 'studio quality' audio in to a 3k
bandwidth for SSB?
'Doc

671. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 21:05:30 UTC
From: Kevin Sinn <skinner222@hotmail.com>
Message-ID: <954m0p01snk@enews4.newsguy.com>
Source record: 55069
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

Don't re-use the caps. Buy some caps made for twist-off bottles. In
Canada, they are usually silver as compared to the gold for a regular
bottle.

Kevin in Essex

"hypnotism" <el_latho@hotmail.com> wrote in message
news:3a757bd4$1@ALPHA.RHODES.EDU...
> Hey yall.
> I was curious if anyone knew anything about bottling brew in glass bottles
> which have twist off caps. I have a bunch of Shiner Bock bottles which
use
> the twist off caps, and i have a circular key chain that i can use to
reseal
> caps on airtight (i tried with vinegar and baking soda). If i clean these
> out thoroughly and sanitize them, would they be ok to bottle in?
>
> If anyone has experience or insight, i would really really appreciate it.
>
> -latho
>
>

672. Murata Ceramic filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 21:38:52 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A75E2A5.746368B3@GTE.net>
Source record: 55068

Hi,
Is anyone using the Murata CFU series of ceramic filters in homebrew HF receivers? I have collected a number of these over the years in 3 KHz 6dB BW.
Their site indicates 6dB insertion loss and 2K in/out Z.

Dale W4OP

673. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 21:59:28 UTC
From: Richard McCollum <rmccoll@radiks.net>
Message-ID: <kHld6.33$2Y.16757@nntp2.onemain.com>
Source record: 55070
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy,rec.radio.amateur.antenna

"Ed Juge/NM" <ed_juge@zianet.com> wrote in message
news:3a75d123.0@oracle.zianet.com...
> I agree with Ed. This isn't the ng for code discussions.
>
> Ed, W5EJ
>

Just which of the four groups you posted to is the inappropriate one?

Dick N&#65533;BK

674. Re: Morse Code replacement? Bigtime flame war article!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 22:16:25 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.g7xu9w1.pminews@ca.news.verio.net>
Source record: 55071
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.policy

On Sun, 28 Jan 2001 18:26:35 -0700, Ed Juge/NM wrote:

>I agree with Ed. This isn't the ng for code discussions.

Depends on where "this" is. I'm reading it and posting this
reply in rec.radio.amateur.policy which IS "the place".

It's too bad that the message headers don't indicate which
group the message being replied to was read from.

(This will be my last crosspost to the other groups about CW,
though.)

--
73 de Phil Kane - K2ASP

675. Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 23:18:08 UTC
From: dcollin@connix.com
Message-ID: <3a75f9d2.1202464@news.mybizz.net>
Source record: 55073

I'm looking to start building QRP transciever kits. I need to equip a bench for such work. There are only a few "big ticket" items I can see buying, and the choice might be important. Does anyone have any recommendations for:

A multimeter? Digital or analog? Features? Price?

A soldering station? Weller? WLC100 (40 watt adjustable) OK? Don't bother, just get a simple iron?

A vice to hold PC boards? Panavise? Model?

Of course, I'm open to cost-saving alternatives that some of you have found to work (hams tend to be a "thrifty" lot).

Thanks.

676. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-29 23:23:04 UTC
From: berd_kalamunda@techemail.com
Message-ID: <3a75fb0d.8548197@news.m.iinet.net.au>
Source record: 55074

This is the third method of SSB and has been around since Weaver
proposed it in the dark and distant past.

On Sun, 28 Jan 2001 18:46:14 +0100, Gullik =?iso-8859-1?Q?Webj=F6rn?=
<webjorn@flysta.net> wrote:

>One way is to split up a single phase signal by feeding two balanced mixers where
>the LO is derived digitaly from a divider at exactly 90 degree.
>
>The 2 (I/Q) signals are then heterodyned back to their original, this time using
>inphase LO to another pair of mixers.
>
>Since the same frequency can be used in all LO cases, exact freq is unimportant.
>
>Gullik
>
>Lasse Moell wrote:
>
>> Gee thanks for the information!
>> I will look up the article and see what I can learn.
>> So far I dug up 3 interesting articles along with others with minor
>> useful information:
>> "Realization of a Constant Phase Difference" by Sidney Darlington,
>> Bell systems technical Journal 1950
>>
>> "Normalized Design of 90 degree Phase-Difference Networks"
>> by S D Bedrosian, IRE Transactions on Circuit Theory 1960
>>
>> and finally
>> "Formation of Passive Lumped Constant 90-Degree Pahse-Difference
>> networks" R B Wilds, Ham Radio 1979
>>
>> Wildes present usable tables for desingning all-pass networks and it
>> is simple to de-normalize for any impedance or frequency range.
>>
>> The other two are having a ball with Cauer Chebychef polynoms which
>> slightly obscure my need for a simple design ;-))
>>
>> I have to try some computer simulations to see what can be done and
>> how sensitive the circuits are for component variations.
>>
>> This will be a fun project I am sure!
>>
>> Thanks guys for all the help!
>> Cheers

>> Lasse SM5GLC
>>
>> On Fri, 26 Jan 2001 13:55:02 GMT, "Richard Karlquist" <rick@area.com>
>> wrote:
>>
>> >My network was "lossless" with all L's and C's, no R's. Actual loss with
>> >ordinary coils
>> >was a few dB.
>> >
>> >CORRECTION: the authors I cited should have been "Albershim and Shirley"
>> >(not Lankershim).
>> >Check IEEE Circuit Theory and also Proceedings of IEEE.
>> >
>> >Here is a brief description of the circuit (ASCII artwork in Courier font
>> >follows):
>> >
>> >
>> > transformer:
>> > 1.414:1 turns ratio
>> > center tap grounded
>> >
>> >-------)|(----------------------------A-----------------------------------
>> >output X
>> >)|(| |
>> >)|(------C---------------------------- |
>> >)|(---ground | |
>> >)|(------------------------B----------|----
>> >)|(| |
>> >-------)|(----------------------------D-----------------------------------
>> >output Y
>> >
>> >The two outputs, X and Y are versus ground. The input is to the transformer
>> >primary.
>> >
>> >A, B, C, and D are two terminal LC networks. A and B are dual networks and
>> >C and D are dual networks. Furthermore, A and B are chosen to result in a
>> >constant resistance all pass function to output X and C and D are chosen to
>> >result in a constant resistance all pass function to output Y. Many network
>> >theory books describe the constant resistance network; basically, the
>> >geometric
>> >mean of the arm immitances is equal to the termination impedance times a
>> >constant,
>> >typically 1/4 or 1 or 4.
>> >
>> >Operation is as follows: suppose A is a parallel resonant tank at 1 MHz and
>> >B is a
>> >series resonant tank at 1 MHz. at low frequencies. At low frequencies, the
>> >network is a straight through (no phase shift) to output X because A is a
>> >short
>> >circuit and B is an open circuit. At 1 MHz, A is an open circuit and B is a

>> >short circuit, so the network is a 180 degree phase inverter. At high
>> >frequencies,
>> >A is again a short circuit and B is again an open circuit so the network is
>> >again
>> >a straight through, no phase shift.
>> >
>> >It turns out that the phase shift around 1 MHz is extremely linear versus
>> >frequency.
>> >
>> >Now suppose C and D are arranged in a similar way to drive output Y. Again,
>> >output
>> >Y will have a linear phase shift versus frequency. But suppose we use a
>> >different
>> >frequency than 1 MHz for C and D. It turns out that we will still get a
>> >linear
>> >phase slope versus frequency, but if the resonant frequency is chosen
>> >correctly,
>> >it will be 90 degrees advanced or retarded from output X.
>> >
>> >Thus, over an octave or so, you will have a quadrature network. The
>> >frequency
>> >response can be extended without limit by adding additional resonators in
>> >the arms
>> >so that the A,B resonant frequencies are interleaved with the C,D resonant
>> >frequencies.
>> >
>> >I believe 3 tanks per arm will get you 20-140 MHz. As I said, I built one
>> >from 1-140
>> >MHz that really worked, and it was easy.
>> >
>> >Rick Karlquist N6RK
>> >Lasse <lasse.moell@swipnet.se> wrote in message
>> >news:3a702e4a.14458770@news.lin.foa.se...
>> >> Rick,
>> >> I have been going thru all IEEE Trans. Ckt Theory 63-79 and found nil
>> >> from Lankershim and Shirley. I even tried IRE 60-62 with similar
>> >> information.
>> >>
>> >> But I am not sure it would be suitable to use RC network as this would
>> >> present quite high insertion losses.
>> >>
>> >> I do have an article "Normalized Design of 90 degree Phase-Difference
>> >> Networks" by Bedrosian from IRE Trans. on Circuit Theory june 1960
>> >> that seems promising!
>> >>
>> >> Cheers
>> >> /Lasse SM5GLC
>> >
>> >
>

--Rolie Baldock. email: <berd_kalamunda@techemail.com>

677. Re: 8044 and 8088 chip info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 00:15:44 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A7607B0.3C203FC0@win.bright.net>
Source record: 55075

I don't think you noticed that he said both are same physical size and pinout, that rules out his 8088 being a CPU. I assume both are Curtis chips, but not sure about 8088.

Scott
N0EDV

Patrick Croft wrote:
>
> In one word; NO.
>
> The 8044 is a ASIC made to Curtis sole-owned spec's.
>
> The 8088 is a CPU which gained fame and is also known as the XT computer
> 'brain'.
>
> These devices are also of unlike packaging.
>
> Bests,
>
> Patrick
> W9GTA
>
> GB wrote:
> >
> > Can someone tell me if the a Curtis 8044 chip can be directly replaced
> > with a 8088? (are they the same physical size and same pinouts).

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

678. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 01:07:49 UTC
From: kk7ho@aol.communicate
Message-ID: <20010129200749.15335.00001523@ng-ba1.aol.com>
Source record: 55076

I guess the rec.radio part slipped by him........LOL

679. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 01:19:18 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A761696.D7C5D2C7@grove.iup.edu>
Source record: 55072
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

Latho,

I recommend desoldering the "caps" to take them "off", that way you won't
ruin the leads and could probably sell them at the local Hamfest ;)

Scott McClements.

P.S. rec.radio.amateur.homebrew is for the amateur who builds his/her own
electronic equipment, primarily related to Amateur Radio.

hypnotism wrote:

> Hey yall.
> I was curious if anyone knew anything about bottling brew in glass bottles
> which have twist off caps. I have a bunch of Shiner Bock bottles which use
> the twist off caps, and i have a circular key chain that i can use to reseal
> caps on airtight (i tried with vinegar and baking soda). If i clean these
> out thoroughly and sanitize them, would they be ok to bottle in?
>
> If anyone has experience or insight, i would really really appreciate it.
>
> -latho

680. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 01:55:26 UTC
From: Jeff Barnhouse <jeff_barnhouse@hotmail.com>
Message-ID: <iapd6.2225$d4.75064@typhoon.hawaii.rr.com>
Source record: 55077

I have found that a good soldering station is the Weller WSD80. I usually use the LTA 1.6mm tip, although I have a selection of all tips. The initial price is high however, so for beginning work, a simple iron may be better...just a thought.

Good day!

"Dennis Collin" <dcollin@connix.com> wrote in message news:3a75f9d2.1202464@news.mybizz.net...
> I'm looking to start building QRP transciever kits. I need to equip a
> bench for such work. There are only a few "big ticket" items I can
> see buying, and the choice might be important. Does anyone have any
> recommendations for:
>
> A multimeter? Digital or analog? Features? Price?
>
> A soldering station? Weller? WLC100 (40 watt adjustable) OK? Don't
> bother, just get a simple iron?
>
> A vice to hold PC boards? Panavise? Model?
>
> Of course, I'm open to cost-saving alternatives that some of you have
> found to work (hams tend to be a "thrifty" lot).
>
> Thanks.

681. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 06:04:42 UTC
From: Mike Silva <mjsilva@my-deja.com>
Message-ID: <955lhobcf1@nnrp1.deja.com>
Source record: 55078

In article <954i50$la2$1@uranium.btinternet.com>,
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
> To maximise Q of solenoid coils -
>
> Don't use pvc insulated wire. For close-wound coils use enamel
insulated
> magnet wire.
>
> Wind on a ribbed former. The insulation is then nearly all air.

Lacking that I wonder how a square-cross-section coil wound on two insulators, e.g. plastic strips, in the form of an X would do? I'm guessing quite well...

>
> Don't use a close wound winding. Space adjacent turns such that
distance
> between wire centres is 1.5 times wire diameter.
>
> Coil former diameter to length ratio: Don't have long slender coils.
Don't
> have short coils with thin wire. It's not critical but length =
diameter is
> OK.
>
> If you double all coil former dimensions and reduce number of turns
to give
> same inductance then Q approximately doubles. Big coils have big Q !
>
> But if you intend to make a super-selective tuning coil by using
reaction
> around an amplfier just short of oscillation point - why bother ?
Any old
> coil will do for that. Such coils may be small but should have
physically
> very stable dimensions.

I don't think this is correct. While everything is the same right at the resonant frequency, I'd expect the off-frequency performance of a low-Q coil to be worse (wider bandwidth) than a high-Q coil. If you're right at the zero-resistance point at the resonant frequency (thanks to feedback) you're still in the positive resistance region off of resonance, so Q should matter (IMHO -- I haven't tried to do the math).

73,
Mike, KK6GM

Sent via Deja.com
http://www.deja.com/

682. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 08:30:51 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3A767BAF.15A5D28@sccoast.net>
Source record: 55079
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Scott McClements wrote:
>
> I have been playing around with different
> microphones and I am getting tired of it.
>
> Then I started looking around and found
> a 31 band graphic equalizer can be had
> new for around $120 and used for under 100$.
>
> This exact kind of control over my
> microphones response is what I desire, but
> is this a feasible project?

A replacement mic element can probably be purchased for a tenth of
that, and it is primarily the mic element that effects the audio
sound. Buy yourself a pile of mic elements (tuned for various vocal
ranges), try them all out, use the one you like, and return the others.

If you want different sound for different modes, say for FM and SSB,
try an arrangement similar to the Heil HM-10 microphone, with two
elements controlled by a simple two way toggle switch (or three
elements with a three way switch, or four elements...).

In the end, this will bs far cheaper, and a lot less mess to worry about.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

683. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 08:46:01 UTC
From: vk4laj@my-deja.com
Message-ID: <955v08iof1@nnrp1.deja.com>
Source record: 55080
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

No but close.

But I guess if I used an electric motor to drive the differential it could be feasible.... but wouldn't the twisting moment on the shaft going up the tower be horendous (about 11m)?

Adam VK4LAJ

In article <i_6d6.4$aD6.759@wa.nnrp.telstra.net>,
"Murray Lang" <muzzle@iexpress.net.au> wrote:
> I remember my Grandfather (who's callsign I now have) using a car
> differential near the base of his tower, with a shaft coming through the
> shack window attached to a truck's steering wheel. Direction was indicated
> by a dial on the wall next to the window driven via a pulley on the steering
> shaft. This impressed me greatly as a young child though I guess it's
> probably not what you had in mind (c:
>
> Regards
> Murray - VK6HL
>
> VK4LAJ <vk4laj.SPAM.JAM@loaded-dog.com> wrote in message
> news:3a74bfa3@grissom...
> > Hi all and thanks for reading my post
> >
> > I have been out of AR for 14 months (due to an accident not loss of
> > interest) and am now looking to get back into it.
> >
> > I am looking at building a lot of my own gear this time around and one
> > project is an antenna rotator. Although I have searched high and low on
> the
> > internet, I can not find anyone that has built a rotator system from
> > scratch. I have found a direction indicator but that's all.
> >
> > Has anyone built or know of an article that describes building an antenna
> > rotator? If so could you please point me in the right direction or send me
> a
> > scanned article, but please email me direct after you have removed

the
> > SPAMJAM.
> >
> > --
> > Don't forget to remove the SPAM.JAM
> >
> > 73
> > Adam VK4LAJ
> > E-mail: - vk4laj.SPAM.JAM@loaded-dog.com
> > WWW: - http://www.loaded-dog.com
> > Brisbane Australia
> > CQ Zone 29/ 30
> > Point your beam at: -27.39.9 South Lat. - 153.3.5 East long
> > Maiden Head: - QG62mi
> > Height ASL: - 52m
> >
> > My wife says I never listen to her...
> > at least that's what I think she said?
> >
> >
>
>

Sent via Deja.com
http://www.deja.com/

684. Re: FT200 Yaesu (help!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 11:24:27 UTC
From: SM7EDN <swecomm@worldonline.se>
Message-ID: <9568g3$d4o$1@news.han.telia.se>
Source record: 55081
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.equipment

I have the information you need. Drop me a line with your email address.
- Len
SM7EDN
swecomm@worldonline.se

"Dwight Stewart" <stewartx@sccoast.net> skrev i meddelandet
news:3A7575DC.22548351@sccoast.net...
> Donald Rymer wrote:
> >
> > I have acquired an ancient FT200 Tranceiver
> > from Yaesu and would love to get it going.
> > The problem I have is that the power lead
> > didn't come with it. Has anyone ever had one
> > of these rigs or have any idea where to get
> > some info on same. I would like to hear the
> > shortwave stations coming through the tubes
> > again.
>
>
> In addition to Bill's advice, you might also want to ask in some of
> the ham radio newsgroups. Perhaps someone in there has experience
> with this radio and can offer advice. In fact, I've crossposted this
> message (from rec.radio.shortwave) to a couple of those newsgroups for
you.
>
>
> Dwight Stewart (W5NET)
>
> http://www.qsl.net/w5net

685. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 12:18:12 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <956bce$2d8$1@uranium.btinternet.com>
Source record: 55082

Hi Mike, do the math and then come back. Reg.

--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Mike Silva <mjsilva@my-deja.com> wrote in message
news:955lhobcf1@nnrp1.deja.com...
> In article <954i50$la2$1@uranium.btinternet.com>,
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
> > To maximise Q of solenoid coils -
> >
> > Don't use pvc insulated wire. For close-wound coils use enamel
> insulated
> > magnet wire.
> >
> > Wind on a ribbed former. The insulation is then nearly all air.
>
> Lacking that I wonder how a square-cross-section coil wound on two
> insulators, e.g. plastic strips, in the form of an X would do? I'm
> guessing quite well...
> >
> > Don't use a close wound winding. Space adjacent turns such that
> distance
> > between wire centres is 1.5 times wire diameter.
> >
> > Coil former diameter to length ratio: Don't have long slender coils.
> Don't
> > have short coils with thin wire. It's not critical but length =
> diameter is
> > OK.
> >
> > If you double all coil former dimensions and reduce number of turns
> to give
> > same inductance then Q approximately doubles. Big coils have big Q !
> >
> > But if you intend to make a super-selective tuning coil by using
> reaction
> > around an amplfier just short of oscillation point - why bother ?
> Any old
> > coil will do for that. Such coils may be small but should have

> physically
> > very stable dimensions.
>
> I don't think this is correct. While everything is the same right at
> the resonant frequency, I'd expect the off-frequency performance of a
> low-Q coil to be worse (wider bandwidth) than a high-Q coil. If you're
> right at the zero-resistance point at the resonant frequency (thanks to
> feedback) you're still in the positive resistance region off of
> resonance, so Q should matter (IMHO -- I haven't tried to do the math).
>
> 73,
> Mike, KK6GM
>
>
>
> Sent via Deja.com
> http://www.deja.com/

686. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 12:32:27 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <956c8rsdv1@nnrp1.deja.com>
Source record: 55083

To sum up:

- large rather than small conductor

- uncoated, or enamel insulated at most

- approximately 1:1 length to diameter ratio

- ribbed former, or better no former at all
(easier with thick wire)

- another option: two or more side spacers instead of a full former
(this is quite common in big coils in old transmitting equipment)

- also, thin wall low dielectric former (I am tempted to use a large
lab glass vial or a section of thin walled glass pipe).

Thank you Reg & Mike!

If all the radio's selectivity comes from one LC circuit, I think all
is worth trying!

Have you ever heard of a special glue for use on coils? Does Araldite
ring a bell? I last heard about it perhaps 20 years ago.

Sent via Deja.com
http://www.deja.com/

687. Tube Fluid Cooling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 13:06:10 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <956e7utsn1@nnrp1.deja.com>
Source record: 55084

>> The early 1980's Crays were also fluid cooled

True. Not water cooled. They used a fluoride based compound, somehow related to teflon and old breast implant gel. Highly inert, nonconductive, crystal clear, expensive. I think it was supplied by Montedison, a since dismembered Italian chemicals company.

I think the Sony PS2 uses a sort of silicon fluid bag for chip cooling. If things go on developing the AMD / Intel way (as oppoased to the Transmeta way) we may see a resurgence in liquid cooling.

Using mineral oil or fluoride has its pluses. No worry about boiling and shorting. In the case of oil you need oil resistant gaskets and seals, though.

Filippo N1JPR/I2

Sent via Deja.com
http://www.deja.com/

688. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 13:48:26 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A76EFE2.724782B5@home.com>
Source record: 55085
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

There is a rec.radio.antenna newsgroup.

Also try to do a google search under "prop pitch motor" -- these were often
used.

Jack
exWA8PZL

VK4LAJ wrote:

> Hi all and thanks for reading my post
>
> I have been out of AR for 14 months (due to an accident not loss of
> interest) and am now looking to get back into it.
>
> I am looking at building a lot of my own gear this time around and one
> project is an antenna rotator. Although I have searched high and low on the
> internet, I can not find anyone that has built a rotator system from
> scratch. I have found a direction indicator but that's all.
>
> Has anyone built or know of an article that describes building an antenna
> rotator? If so could you please point me in the right direction or send me a
> scanned article, but please email me direct after you have removed the
> SPAMJAM.
>
> --
> Don't forget to remove the SPAM.JAM
>
> 73
> Adam VK4LAJ
> E-mail: - vk4laj.SPAM.JAM@loaded-dog.com
> WWW: - http://www.loaded-dog.com
> Brisbane Australia
> CQ Zone 29/ 30
> Point your beam at: -27.39.9 South Lat. - 153.3.5 East long
> Maiden Head: - QG62mi
> Height ASL: - 52m
>
> My wife says I never listen to her...
> at least that's what I think she said?

689. David Clark headsets & electret mikes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 15:18:07 UTC
From: "William L. Turini" <Hamanuals@hamanuals.com>
Message-ID: <3A76DB2F.E08BB3E5@hamanuals.com>
Source record: 55086

Anyone out there connected a David Clark Headset to a radio?

I'm looking for information on how to wire it to a common UHF/VHF radio that has 8v and audio on the mike plug. They have electret mikes in the booms and I have the wiring diagrams for the plugs. Looking for information on sizes of dc blocking capacitors, and arrangement.

Thanks

Bill

--
Bill Turini KA4GAV Turini@hamanuals.com
Hamanuals www.hamanuals.com

Always looking for Signal/One Literature,Parts, and Accessories

690. Tubes FA: 6MJ6-6KG6-4cx5000-12AX7-12BY7- 6146-and more!!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 15:19:03 UTC
From: dcintheplace2b@my-deja.com
Message-ID: <956m0t$4sp$1@nnrp1.deja.com>
Source record: 55087

Tubes FA: 6MJ6-6KG6-4cx5000-12AX7-12BY7- 6146-and more!!!!

Click here to view images of auction items
http://www.angelfire.com/bc/DC1/index.html

Qty-11 - 6MJ6 (black cap 6LQ6/6JE6C) No Res
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210936547&r=0&t=0&showTutorial=0&ed=981301134&indexURL=0&
rd=1

Qty-11 17KV6A/22KV6A/22JR6/17JN6/17JT6A/6JN6
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550600404&r=0&t=0&showTutorial=0&ed=981301917&indexURL=0&r
d=1

Qty-26 6/12/17JB6-6/17JM6-6JU6-21JZ6-21KA6
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550604396&r=0&t=0&showTutorial=0&ed=981302433&indexURL=0&r
d=1

Qty-10 24JE6/24LQ6-36MC6-6KM6-6ME6-31LQ6
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550607561&r=0&t=0&showTutorial=0&ed=981302821&indexURL=0&r
d=1

Qty-3 6L6GB tubes
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550609650&r=0&t=0&showTutorial=0&ed=981303108&indexURL=0&r
d=1

Qty-13 6/21/23JS6C-6JM6-42KN6-35LR6 tubes
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550613188&r=0&t=0&showTutorial=0&ed=981303607&indexURL=0&r
d=1

Qty- 12-6DQ6 and 1-17DQ6 tubes
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550620146&r=0&t=0&showTutorial=0&ed=981304450&indexURL=0&r
d=1

Qty-17 6CD6/6CU6/6BQ6/8068 tubes
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550626005&r=0&t=0&showTutorial=0&ed=981305108&indexURL=0&r
d=1

Qty-19 6KG6/40KG6 (EL509/PL509and-519) tubes
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?

ViewItem&item=550630214&r=0&t=0&showTutorial=0&ed=981305559&indexURL=0&r
d=1

High Power Resistors - Qty - 8
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550635680&r=0&t=0&showTutorial=0&ed=981306192&indexURL=0&r
d=1

Jennings Vaccuum Variable Cap, 10KV,6.5-50pf
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550635680&r=0&t=0&showTutorial=0&ed=981306192&indexURL=0&r
d=1

26 - 8 switch and 2 - 4 switch Dip Switches
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=550652046&r=0&t=0&showTutorial=0&ed=981307996&indexURL=0&r
d=1

!!!4 MOTOROLA STAR TAC CELL PHONES & ACC!!!!
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210391389&r=0&t=0&showTutorial=0&ed=981330126&indexURL=0&
rd=1

4CX5000 Transmitter Tetrode
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210434073&r=0&t=0&showTutorial=0&ed=981339726&indexURL=0&
rd=1

SK300 Socket&Chimney for 4CX5000/10000/15000
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210441569&r=0&t=0&showTutorial=0&ed=981341064&indexURL=0&
rd=1

6146B tubes - pair, NIB?
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210445281&r=0&t=0&showTutorial=0&ed=981341724&indexURL=0&
rd=1

Tubes - 12AX7/12AT7/7551/6AQ5/12BY7/more!!!
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?
ViewItem&item=1210453771&r=0&t=0&showTutorial=0&ed=981343137&indexURL=0&
rd=1

Sent via Deja.com
http://www.deja.com/

691. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 16:50:12 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3A76F0C4.1269B300@zylay.com>
Source record: 55088
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

Although many of us consume brew while pursuing our hobby, only a few
actually make their own suds.

Scott McClements wrote:
>
> Latho,
>
> I recommend desoldering the "caps" to take them "off", that way you won't
> ruin the leads and could probably sell them at the local Hamfest ;)
>
> Scott McClements.
>
> P.S. rec.radio.amateur.homebrew is for the amateur who builds his/her own
> electronic equipment, primarily related to Amateur Radio.
>
> hypnotism wrote:
>
> > Hey yall.
> > I was curious if anyone knew anything about bottling brew in glass bottles
> > which have twist off caps. I have a bunch of Shiner Bock bottles which use
> > the twist off caps, and i have a circular key chain that i can use to reseal
> > caps on airtight (i tried with vinegar and baking soda). If i clean these
> > out thoroughly and sanitize them, would they be ok to bottle in?
> >
> > If anyone has experience or insight, i would really really appreciate it.
> >
> > -latho

692. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 17:27:15 UTC
From: Scott <yetbbwa@grove.iup.edu>
Message-ID: <3A76F973.7F2741FE@grove.iup.edu>
Source record: 55089
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

I was afraid the only responses I would get would be get a Heil, try this element try that element. First off, you couldn't pry the D-104 out of my cold dead hands. I like it, it just feels right. Add a good electret condenser element with a wide flat response and ~10 bands of EQ and you accomplish whatever *exact* sound you want. Scoop the mids, boost the treb. you can perfect the sound in a few minutes, why would I want to play around with swapping elements when you mount them in their final location and find it sounds different than it did when you tried it out in the open?

Not to mention you got a mic that sounds as good as a studio mic and looks like it belongs in the shack and not a commercial radio station.

Scott McClements.

Scott McClements wrote:

> Hi all,
>
> I have been playing around with different microphones and I am getting
> tired of
> it. I bought some D-104s and put a Panasonic electret condenser full
> range
> element (1K Ohm) in the D-104 head in place of the crystal element (no
> pre-amp).
> The only problem now is, its way too muddy (bassy) for SSB use. I didn't
> want the
> hassles of playing around with capacitors trying to fix up the audio.
>
> Then I found this 8 band equalizer made by W2HIY. I don't like the Radio
> Shack DJ mixing board look of the unit, nor the layout, nor the price.
>
> Then I started looking around and found a 31 band graphic equalizer can
> be had new for
> around $120 (http://www.artroch.com/351/351desc.htm) and used for
> under 100$. I couldn't think of any reason I couldn't wire up my
> microphone to this thing. I was thinking of building
> a box with the standard 8 pin connector on the front and running a 1/4"
> unbalanced
> line into the EQ, then back into the adapter box and out the front to
> the radio. Now, I am
> a novice when it comes to circuit design..but this seems pretty simple.
> The only
> thing I figured I have to worry about is RF getting into the big mess.
> If I wrap

> the power line to the EQ over ferrite and do the same in my box on all
> the lines,
> and use a few capacitors here and there in my adapter box, should I be
> ok? Or will
> this type of EQ just get destroyed by the smallest amount of RF and be a
> headache
> to cure?
>
> This exact kind of control over my microphones response is what I
> desire, but
> is this a feasible project?
>
> Thanks,
>
> Scott McClements.

693. IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 17:44:41 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <KnVaJyAJ2vd6EwLZ@invest.fsbusiness.co.uk>
Source record: 54997

I have data on the IRF 510 but cannot find any information on the HAR desinated part!

Any help appreciated.

(((73)))

Phil G4ZOW

694. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 18:33:19 UTC
From: p <rmread@attglobal.net>
Message-ID: <3a770a36_1@news2.prserv.net>
Source record: 55090
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

I Do!!!!!! beats the rip off UK price.

Bob
Gene <webmaster@zylay.com> wrote in message
news:3A76F0C4.1269B300@zylay.com...
> Although many of us consume brew while pursuing our hobby, only a few
> actually make their own suds.
>
> Scott McClements wrote:
> >
> > Latho,
> >
> > I recommend desoldering the "caps" to take them "off", that way you
won't
> > ruin the leads and could probably sell them at the local Hamfest ;)
> >
> > Scott McClements.
> >
> > P.S. rec.radio.amateur.homebrew is for the amateur who builds his/her
own
> > electronic equipment, primarily related to Amateur Radio.
> >
> > hypnotism wrote:
> >
> > > Hey yall.
> > > I was curious if anyone knew anything about bottling brew in glass
bottles
> > > which have twist off caps. I have a bunch of Shiner Bock bottles
which use
> > > the twist off caps, and i have a circular key chain that i can use to
reseal
> > > caps on airtight (i tried with vinegar and baking soda). If i clean
these
> > > out thoroughly and sanitize them, would they be ok to bottle in?
> > >
> > > If anyone has experience or insight, i would really really appreciate
it.
> > >
> > > -latho

695. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 19:38:30 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A771836.3F54BC7E@rupert.tds-az.lmco.com>
Source record: 55091
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Scott McClements wrote:
>
> I have been playing around with different microphones and I am
> getting tired of it. I bought some D-104s and put a Panasonic
> electret condenser full range element (1K Ohm) in the D-104 head in
> place of the crystal element (no pre-amp). The only problem now is,
> its way too muddy (bassy) for SSB use. I didn't want the hassles of
> playing around with capacitors trying to fix up the audio.
>
> Then I found this 8 band equalizer made by W2HIY. I don't like the
> Radio Shack DJ mixing board look of the unit, nor the layout, nor
> the price.
>
> Then I started looking around and found a 31 band graphic equalizer
> can be had new for around $120 (
> http://www.artroch.com/351/351desc.htm) and used for under 100$. I
> couldn't think of any reason I couldn't wire up my microphone to
> this thing. I was thinking of building a box with the standard 8
> pin connector on the front and running a 1/4" unbalanced line into
> the EQ, then back into the adapter box and out the front to the
> radio. Now, I am a novice when it comes to circuit design..but this
> seems pretty simple. The only thing I figured I have to worry about
> is RF getting into the big mess. If I wrap the power line to the EQ
> over ferrite and do the same in my box on all the lines, and use a
> few capacitors here and there in my adapter box, should I be ok? Or
> will this type of EQ just get destroyed by the smallest amount of
> RF and be a headache to cure?
>
> This exact kind of control over my microphones response is what I
> desire, but is this a feasible project?
>
> Scott McClements wrote:
> >
> > I was afraid the only responses I would get would be get a Heil,
> > try this element try that element. First off, you couldn't pry
> > the D-104 out of my cold dead hands. I like it, it just feels
> > right. Add a good electret condenser element with a wide flat
> > response and ~10 bands of EQ and you accomplish whatever *exact*
> > sound you want. Scoop the mids, boost the treb. you can perfect
> > the sound in a few minutes, why would I want to play around with
> > swapping elements when you mount them in their final location and
> > find it sounds different than it did when you tried it out in the
> > open?

> >
> > Not to mention you got a mic that sounds as good as a studio mic
> > and looks like it belongs in the shack and not a commercial radio
> > station.

Scott,

I'm really not trying to bad mouth in any way, but this is how I see it.

Your project is definitly feasable, but I can't see what kind of return your getting. No one on the other end is ever going to hear the high end of your audio. Your rig is going to filter most of it out, and a tight audio filter on the receive end will wipe out all but about 2.1 KHz.

About the only enhancement that will go over the air is the increased low end, which you want to eliminate anyway.

You have taken the original element out of the D-104, which was already designed and optimized for SSB service, and put in a full range element. Now you have broadcast quality audio coming out of the microphone. Then you are going to put a equalizer between the mike and the radio and adjust it back to the same thing it was before. And in the process, spend a little money.

No one really cares about how smooth your voice is. All anyone wants is to be able to hear and understand you.

I have read:

OPTIMIZING SSB TRANSMIT AUDIO AND REVIEW OF THE W2IHY 8 BAND AUDIO EQUALIZER AND NOISE GATE

http://www.eham.net/articles/1582

It's kind of interesting but very self serving. The guy, W2HIY, is just trying to sell his product. Some people can make a very convincing agrument for just about anything.

Maybe all you need is a speech processor. A lot of new expensive rigs have these processors already built in, but the older rigs don't. If yours doesn't that you might want to try your hand at building one. A fairly simple design is below. All the parts should be available at Radio Shack.

Build An Audio Speech Processor

http://www.rason.org/Projects/speech/speech.htm

If nothing else, it's cheap to build, and if it doesn't do what you want, you can throw it away without worring to much. You may want to do a web search on "ssb audio processor". There is a lot of info on this kind of thing.

Well, I don't know if I have been of any help but good luck anyway.

Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

696. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 20:00:57 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A771D79.FF6D5DF@rupert.tds-az.lmco.com>
Source record: 55093

Dennis Collin wrote:
>
> I'm looking to start building QRP transciever kits. I need to equip a
> bench for such work. There are only a few "big ticket" items I can
> see buying, and the choice might be important. Does anyone have any
> recommendations for:
>

How many QRP transciever kits are you going to build? You only need
one or two. I have 3 and I think that's excessive. :)

Just an initial word of caution. Don't buy any big buck
test equipment unless you already know how to use it and what
features are useful. You will get lots of advice on features
that people think are important, but you won't know for sure
until you try them. Get together with some friends or club
members who have different pieces of test equipment and
know how to use them. Learn from them first and then invest
your money.

A lot of test equipment is very specialized and you may be
better off borrowing. For example, a "grid dip meter" is a
real handy thing to have, but it's not something that your
going to use all the time. Your money might be better spent
on a good antenna analyzer. Granted, you don't need to
measure your antennas all the time, but, once you get to
know this piece of equipment you will find out it can be
used for many many things, including serve as a "grid
dip meter".

> A multimeter? Digital or analog? Features? Price?

People put down Radio Shack a lot and some of it is deserved, but
Radio Shack is a good place for this one. Their top of the line
digital multimeter will only cost you about $60 or $70. Just make
sure you know how to use a multimeter or you will be blowing
fuses all the time. If you are really a "Rank begginer", you
may want to buy one of their cheaper models to learn on. Then
it won't be so bad if you burn it up.

Usually, the more you pay, the more features you get. Whether
these features are useful, or not, depends totally on you and
your ability to use them.

Digital or Analog is almost a religious issue. Some people swear
by analog meters and other like digital. Personally, I was

brought up on analog meters and prefer them, however, I also
have digital meter and they do serve a useful function.

I have a new RS Digital multimeter, an old (20 Years)
RS Analog multimeter and a old (also 20 Years) Triplett
Analog multimeter. I like them all but my favorite is the
Triplett.

> A soldering station? Weller? WLC100 (40 watt adjustable) OK?
> Don't bother, just get a simple iron?

IMHO get a Weller. I am not up on what they have to offer but
I can tell you that my Weller is over 30 years old and still
going strong. And, I can still get parts for it. You may pay
a little more up front, but it's worth it.

Skip the one at Radio Shack. A friend of mine has one. It works
kind of ok, but not as good as the Weller. The Weller will last
a life time.

Don't forget good quality de-soldering tools. Some solder wick
or a good solder sucker is in order. This will help prevent
hacking up your project when you accidentially put a part in
the wrong place.

> A vice to hold PC boards? Panavise? Model?

For all of my work, I use a drill press vice. These are small
vices that allow for angle settings. They are a little heavy,
but that helps it stay in one place when you are working on a
board. I also use lots of light and keep a good magnifying glass
close by. Maybe I'm just getting older but it seems to me that
the print on some of these parts is getting smaller and smaller.

> Of course, I'm open to cost-saving alternatives that some of you have
> found to work (hams tend to be a "thrifty" lot).

I would have said "cheap" but "thrifty" is a much nicer word. ;)

But really, one of the best cost saving alternatives is to go
to a couple of ham fests. Stay away from the big boatanchor
test equipment. There is plenty of good stuff that people just
don't need any more. Many "thrifty" hams buy and sell there.
I know I do.

Also, you could build some of your test equipment. For your
QRP rig it might be handy to have a RF Probe handy during
tune-up. An RF Probe is simple to build and can plug into
that shiney new multimeter that you bought at RS. There, now
you have made that multimeter even more "multi".

Well, enough for now. I hope this gives you a start.

Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

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697. Re: David Clark headsets & electret mikes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 20:06:45 UTC
From: jrobmills@aol.comrx320
Message-ID: <20010130150645.24769.00001673@ng-fh1.aol.com>
Source record: 55092

>I'm looking for information on how to wire it to a common UHF/VHF radio

I found the schematics for mine at,
www.davidclark.com

Rob Mills ~~~

I never met a radio I didn't like - Will Rogers
(You don't know, He might have)

698. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 20:19:12 UTC
From: Boatanchor Bob NA4G <na4g@weedcon3.cropsci.ncsu.edu>
Message-ID: <9577k0abg1@uni00nw.unity.ncsu.edu>
Source record: 55095

Filippone <filippone@my-deja.com> wrote:

Hi Filippone. Your list is good, but, you are forgetting some things
about regens that one must remember to get the most of them.i

> To sum up:

> - large rather than small conductor

Yes, but you don't need to get too carried away. No. 10 is fine.

> - uncoated, or enamel insulated at most

Enamel is good, or teflon coated is good.

> - approximately 1:1 length to diameter ratio

I use about a 1.5:1 ratio, and find that works very well.

> - ribbed former, or better no former at all
> (easier with thick wire)

Use a ribbed former with good insulating properties. Glass would
be good, or isolantite. I find that at usual regen frequencies,
acrylic works good, too.

> - another option: two or more side spacers instead of a full former
> (this is quite common in big coils in old transmitting equipment)

This was typical of better quality regens in the so called ``low-loss''
era of the early to mid 1920's. It still works fine today.

> - also, thin wall low dielectric former (I am tempted to use a large
> lab glass vial or a section of thin walled glass pipe).

Glass will do fine.

But, you need to remember the two most important points about regenerative
detector sets....

1. Uncouple, uncouple, uncouple, uncouple, uncouple.

2. Use the highest impedance grid circuit coupling network that you
can, commensurate with a reasonable recovery time constant.

Uncouple is a key word. 99.99% of regens I have ever run across were
way overcoupled. I use typically a 1pf or less coupling, if capacitive,
or a very wide spaced 1 turn link, if inductive. It is not unknown for
OT regen builders to use as much as 6 inches of coupling (i.e., the
distance between the primary and secondary circuits).

The grid leak/grid capacitor is critical. I always use more than 10 meg ohms grid leak and less than 20pf (ideally around 5-10pf at the usual low HF ranges) of grid coupling. More than that and you are overcoupled. Use the highest leak possible but keep in mind the time recovery constant of the LC circuit in the grid leak/grid capacitor, which can be as long as 10 seconds. You make a tradeoff here. Values around 10meg-25meg are good in my hands, with input capacitors of 5pf ideal, in my hands. The usual 1 meg ohm grid leak and 100pf coupling cap is way, way, way, too much of a load on the grid circuit, broadening out the selectivity. On the other hand, 1000 meg ohms (or stray leakage) and a 20pf grid cap takes forever to recover on a strong CW signal.

IF you set it up correctly, you can easily cut the sideband off a sideband signal with a premier quality regen detector.

If you are putting your own set together, you might try some of the above ideas. I swear by them.

Good Luck

ZUT OM DE NA4G/Bob UP

(I have been running regens as my main mf/hf equipment on cw for 30 years. Properly run, they compete very well with more ``modern'' gear on the bands up to 30m or so. Improperly run, they are a nightmare. QSK is a little hairy with them, but doable.)

> If all the radio's selectivity comes from one LC circuit, I think all
> is worth trying!

True!

> Have you ever heard of a special glue for use on coils? Does Araldite
> ring a bell? I last heard about it perhaps 20 years ago.

That would be the early electron microscopy era, where it was used as an embedding medium for thin sections? Is it still available?

A glass tube with glass standoff rods should do well.

I would expect teflon would do well, too, but cost an arm and a leg to machine.

In the 20's it was not uncommon to use glass rods as the coil supports.

.....

699. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 20:20:35 UTC
From: 'Doc <w5lz@oio.net>
Message-ID: <3A772213.D2E39EA0@oio.net>
Source record: 55094
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Scott,
That's all well and good, butas I asked before,
how do you squeeze all that 'good' audio in to a
3 Khz signal bandwidth for SSB?
'Doc

700. 2N3242 case style and pins

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 20:47:35 UTC
From: Robert John <RAJohnGM@worldnet.att.net>
Message-ID: <HLFd6.42$G62.1898@bgtnsc04-news.ops.worldnet.att.net>
Source record: 55096

Can someone provide the pin connections for a 2N3242 transistor.
Tnx, Bob AA8X

701. Hp 415 d

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 21:06:54 UTC
From: silvio <silvio.poli2@tin.it>
Message-ID: <O1Gd6.39180$Up.370689@twister1.tin.it>
Source record: 54998

many tnx for who can send me information about a helwett packard model 415
D or E ,a surplus equipment used as s.w.r. and a selective reicever for a
1 khz modulate signal.
73 de ik5dgf silvio, silvio.poli2@tin.it

702. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 22:03:00 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <957dmk$b1q$5@woodrow.ucdavis.edu>
Source record: 54999

: http://members.home.net/rbethman/813s.html
: You'll find the info at the above site. While it is not a
: single band amplifier, it shouldn't be too difficult to place it
: on 160 mtrs.
: Enjoy!
: N0DGN

I've looked at the diagram for the above amplifier project and have some thoughts to add.

*****

First: The input tune circuit is almost a must-do. Unless your using a tranceiver with a tube PA, this circuit will be hard to match to many solid state exciters (without their respective built in auto antenna tunner).

Second: The bias supply shows an extra transformer "T2" that one would not really need if the main supply was properly thought out. You would really have to know what your doing in this area if the amplifier is operated grounded grid AB2 as shown.

One method of standby mode cathode current cutoff is to keep the bias constant (at normal value 100% of the time) and interupt the center tap path of the filament transformer in the proper location. A high value series shorted resistor is simply used to develope a cutoff voltage when the unit is in stand by.

Third: Metering the Grid and Plate current is almost another must-do item. Be careful of the position of the grid current metering to ensure your only measuring the grid and not the combination grid/cathode current values.

Fourth: Get rid of RFC5 and replace it with a resistor of proper value. Chokes in the output tank to ground are old news.

Fifth: Make sure to blow a lot of air past the tube base pins and past the glass anode connections. I run almost 4KV on my quad 813 amplifier and it really heats the room up fast.

cheers
skipp@pilot.ucdavis.edu

http://sonic.ucdavis.edu for amateur radio goodies

703. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 22:14:05 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <957g3i$5va$1@uranium.btinternet.com>
Source record: 55000

Dear Filipone,

Yes, you got the right ideas about high Q. Really fairly obvious when you come to think about it.

Araldite is an excellent multi-purpose compound --- except that its electrical properties are not defined. Electrically it is very likely terrible stuff. If it is used to construct RF coil formers use as little as possible. Better not to use it at all.

For high Q coil construction use polystyrene tubes, rods or sheets. For glue use polystyrene "dope". It can be purchased in tubes. Or it can be "home brewed" by disolving polystyrene in benzine or or in some other solvent which will completely evaporate as the 'goo' dries out.

But, I repeat, if you intend to use a coil in a "Q multiplier" circuit, coil loss does not matter because your +ve feedback, or reaction, will entirely compensate for it. Wind any sort of small junk coil and, to fix its mechanical stability, dunk it in a thin solution of shellac disolved in methylated spirits, or polystyrene disolved in benzine, or your XYL's nail varnish.

Or just wind the damn thing and see what happens. You will probably not be disappointed.

I'll let you into a little secret :- I wind my coils on dry toilet-roll tubes, or on empty 35mm film cartons, or on any smaller-diameter plastic tubing. Then I daub some polystyrene dope on the ends to make the winding mechanically secure. It never fails.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Filippone <filippone@my-deja.com> wrote in message
news:956c8rsdv1@nnrp1.deja.com...
> To sum up:
>
> - large rather than small conductor
>
> - uncoated, or enamel insulated at most
>
> - approximately 1:1 length to diameter ratio
>

> - ribbed former, or better no former at all
> (easier with thick wire)
>
> - another option: two or more side spacers instead of a full former
> (this is quite common in big coils in old transmitting equipment)
>
> - also, thin wall low dielectric former (I am tempted to use a large
> lab glass vial or a section of thin walled glass pipe).
>
> Thank you Reg & Mike!
>
> If all the radio's selectivity comes from one LC circuit, I think all
> is worth trying!
>
> Have you ever heard of a special glue for use on coils? Does Araldite
> ring a bell? I last heard about it perhaps 20 years ago.

704. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 22:48:34 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3A7744A7.3C1F0975@sccoast.net>
Source record: 55001
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Scott wrote:
>
> I was afraid the only responses I would get
> would be get a Heil, try this element try that
> element. First off, you couldn't pry the D-104
> out of my cold dead hands. [snip]

I wasn't suggesting that you get rid of your D-104. I was suggesting that you just switch out the element for something more to your liking. However, since you seemed to rule that out also, there is little else I can offer.

Of course, there have been many microphones over the years with tone controls (from a simple knob to equalizer-like sliders), including several now popular with the CB crowd, but I have always felt these were little more than a gimmic (once the sound is adjusted to the preferred point, why continue to have the controls in the way).

However, its your radio, so by all means go for it.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

705. Re: on4aob homebrew site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 22:56:19 UTC
From: la8ak@online.no
Message-ID: <3a774671.87974759@news.online.no>
Source record: 55002

On Tue, 30 Jan 2001 15:12:51 +0100, "ON4AOB" <webmaster@on4aob.com>
wrote:

>Hi !
>
>Visit ON4AOB The populair mamateur radio group of Belgium at :
>http://www.on4aob.com
>
>Regards , 73's
>
>Webmaster@on4aob.com
>
>
>PSE QSL !
>
>
>
>
>
>
Hiernaast datgene wat wij allemaal zijn geworden ... een postkaart !

aber wo ist der HB Seite?

706. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 23:01:46 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A7747DA.E64C156F@win.bright.net>
Source record: 55003

What exactly is your "good RF ground"??? At 6M, the length of wire from
the rig to the ground system may be a significant portion of a
wavelength at 6M. Since the TV is going blank, it sounds like
overload...if it were just interfering you'd probably get squiggles or
bars or something. Can you run the TV system without the amplifier(s)
in line as a test?

Scott

"David J. Moge" wrote:
>
> In brief, I have a multi element TV antenna with a amplifier connecting to 4
> televisions. The house lot is laid out in such a way that it's very hard to
> string antennas up with out having them in close proximity to the TV
> antenna.
>
> At Christmas I found a Six Meter rig under the tree.(MFJ 9406 SSB/CW 10
> Watts) which my wife gave me. I put up a dipole to try it out and to my
> surprise it works quite well. With a antenna tuner I have a 1.3:1 SWR.
>
> My wife hasn't stopped yelling at me sense. Every time I key the mike or try
> out CW the TV's go blank. I have tried a HI PASS filter but that doesn't do
> much go at all.
> My HF rigs cause no problems at all. I do have a good RF ground
>
> WHAT AM I DOING WRONG??? HELP!!!
>
> Any comments and suggestions would be gratefully appreciated.
>
> Thanks

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

707. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-30 23:57:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A7754FF.172F10A4@eznec.com>
Source record: 55006

I'd guess that the HAR is a date or lot code, or a manufacturer identification (Harris Semiconductor)? I don't know of any "special" IRF 510, so I'd use the IRF 510 data you have.

Roy Lewallen, W7EL

Philip de Cadanet wrote:
>
> I have data on the IRF 510 but cannot find any information on the HAR
> desinated part!
>
> Any help appreciated.
>
> (((73)))
>
> Phil G4ZOW
>

708. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 00:19:22 UTC
From: tom_bruhns@agilent.com
Message-ID: <957lm2$3ue$1@nnrp1.deja.com>
Source record: 55008

In article <956c8rsdv1@nnrp1.deja.com>,
Filippone <filippone@my-deja.com> wrote:
> To sum up:

> - also, thin wall low dielectric former (I am tempted to use a large
> lab glass vial or a section of thin walled glass pipe).

Although in a great many applications, the former material isn't all
that important (...yeah, Reg, I use cardboard tubes and PVC pipe
sections too!...), be careful about glass. There are LOTS of
different kinds of glass. Some glasses are fairly high loss. To make
matters worse, if you use glass as an insulator in a high power system
and it starts to heat, its dissipation factor typically increases rather
rapidly, possibly leading to thermal runaway. We had a serious
materials selection problem in one of our products because of exactly
this phenomenon. If you stay with fused quartz, you should be fine!
:-)

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

709. Re: Raising coil Q and Araldite

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 00:36:00 UTC
From: AMDX <AMDX@worldnet.att.net>
Message-ID: <Q5Jd6.3072$vh.100288@bgtnsc05-news.ops.worldnet.att.net>
Source record: 55004

Hi Filippone,
I have some Araldite that I purchased about 15 yrs ago. This stuff is great epoxy! It stiffens in about 5 minutes and usable shortly after that. I don't know if it's available anymore. I think it is made by Ciba- Wait, I'll be back,

I'm back, I went searching , found a site
http://www.vantico-aandt.com/newco/addexn.html
It has Araldite, apparently there are several types click on the DIY link.
I have never tried it on a coil.

--
Mike Knowlton
Panama City Fl.

710. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 00:45:25 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <FeJd6.54307$B6.14967620@news1.rdc1.md.home.com>
Source record: 55005

Skipp - I appreciate your thoughts. Past experience with 813s has shown that they really do NOT need air blown over their pins. In fact simple non mechanical convective cooling does well. This design has been a lot more thought out than you may believe. B&W even duplicated it and sold it as a commercially available amplifier.

The timeframe when this design appeared almost every transmitter or transceiver was tube finals. The copyright of the Sixteenth Edition was 1962.

T2 if you look carefully, is apparently an isolation transformer as the primary and secondary are 110V.
Once again - look carefully as that section is controlled by the VOX relay.

The grid and plate metering ARE there. The meter is singular, but multipurpose through switch position. I believe the components provide the necessary isolation.

RFC5 is a rather standard amplifier design. It is a protection choke, typically 25 mH in the event that there is a breakdown that allows full DC Plate to appear on the output. It becomes essentially a short and takes down the power supply. This keeps folks near the antenna from getting the "advantage" of playing light bulb unknowingly. This technique is used in almost every amplifier design I have ever seen.

N0DGN

"Skipp" <skipp@pilot.ucdavis.edu> wrote

> : http://members.home.net/rbethman/813s.html
> : You'll find the info at the above site. While it is not a
> : single band amplifier, it shouldn't be too difficult to place it
> : on 160 mtrs.
> : Enjoy!
> : N0DGN
>
> I've looked at the diagram for the above amplifier project and have some
> thoughts to add.
>
> *****
>
> First: The input tune circuit is almost a must-do. Unless your using a
> tranceiver with a tube PA, this circuit will be hard to match to many
> solid state exciters (without their respective built in auto antenna
> tunner).
>

> Second: The bias supply shows an extra transformer "T2" that one would not
> really need if the main supply was properly thought out. You would really

> have to know what your doing in this area if the amplifier is operated
> grounded grid AB2 as shown.
>
> One method of standby mode cathode current cutoff is to keep the bias
> constant (at normal value 100% of the time) and interupt the center tap
> path of the filament transformer in the proper location. A high value
> series shorted resistor is simply used to develope a cutoff voltage when
> the unit is in stand by.
>
> Third: Metering the Grid and Plate current is almost another must-do
> item. Be careful of the position of the grid current metering to ensure
> your only measuring the grid and not the combination grid/cathode current
> values.
>
> Fourth: Get rid of RFC5 and replace it with a resistor of proper value.
> Chokes in the output tank to ground are old news.
>
> Fifth: Make sure to blow a lot of air past the tube base pins and past the
> glass anode connections. I run almost 4KV on my quad 813 amplifier and it
> really heats the room up fast.
>
> cheers
> skipp@pilot.ucdavis.edu
>
> http://sonic.ucdavis.edu for amateur radio goodies
>
>

711. Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 01:04:30 UTC
From: gapershi@aol.common
Message-ID: <20010130200430.04734.00001577@ng-mp1.aol.com>
Source record: 55007

This may be of interest to anyone who homebrews MF and HF receivers.
For the past 3 or 4 years I have been working on my own design for a
general coverage receiver. Recently I have made some improvments to
my front end design. I have carefully documented the whole radio and
placed it on a web site. I was able to extend the dynamic range an extra 20dB
from what I had previously achieved. Also some minor tweaks have been
added recently.

I should mention that I am not a ham radio operator, but enjoy shortwave and
medium wave dxing. I have a background in electronics, (25 yrs) but I am
not an engineer.

My radio can be seen at this address:

http://members.aol.com/gapershi/radio.htm

If anyone knows of any homebrew HF radios with good documentation,
I would be interested in seeing them.

Thanks,
Gary Pershin
+++ You can lead a fool to reason, but you can't make him think! +++
<Gapershi>

712. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 02:05:43 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <SrKd6.1$b%6.1280@wa.nnrp.telstra.net>
Source record: 55009
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

I don't think the differential bought much gear reduction.
I wonder if an old automobile gearbox would give appropriate reduction with one of the gears? Hmmm... must be a better way.

Murray

<vk4laj@my-deja.com> wrote in message news:955v08iof1@nnrp1.deja.com...
> No but close.
>
> But I guess if I used an electric motor to drive the differential it
> could be feasible.... but wouldn't the twisting moment on the shaft
> going up the tower be horendous (about 11m)?
>
> Adam VK4LAJ
>
> In article <i_6d6.4$aD6.759@wa.nnrp.telstra.net>,
> "Murray Lang" <muzzle@iexpress.net.au> wrote:
> > I remember my Grandfather (who's callsign I now have) using a car
> > differential near the base of his tower, with a shaft coming through
> the
> > shack window attached to a truck's steering wheel. Direction was
> indicated
> > by a dial on the wall next to the window driven via a pulley on the
> steering
> > shaft. This impressed me greatly as a young child though I guess it's
> > probably not what you had in mind (c:
> >
> > Regards
> > Murray - VK6HL
> >
> > VK4LAJ <vk4laj.SPAM.JAM@loaded-dog.com> wrote in message
> > news:3a74bfa3@grissom...
> > > Hi all and thanks for reading my post
> > >
> > > I have been out of AR for 14 months (due to an accident not loss of
> > > interest) and am now looking to get back into it.
> > >
> > > I am looking at building a lot of my own gear this time around and
> one
> > > project is an antenna rotator. Although I have searched high and
> low on
> > the
> > > internet, I can not find anyone that has built a rotator system from
> > > scratch. I have found a direction indicator but that's all.

> > >
> > > Has anyone built or know of an article that describes building an
> antenna
> > > rotator? If so could you please point me in the right direction or
> send me
> > a
> > > scanned article, but please email me direct after you have removed
> the
> > > SPAMJAM.
> > >
> > > --
> > > Don't forget to remove the SPAM.JAM
> > >
> > > 73
> > > Adam VK4LAJ
> > > E-mail: - vk4laj.SPAM.JAM@loaded-dog.com
> > > WWW: - http://www.loaded-dog.com
> > > Brisbane Australia
> > > CQ Zone 29/ 30
> > > Point your beam at: -27.39.9 South Lat. - 153.3.5 East long
> > > Maiden Head: - QG62mi
> > > Height ASL: - 52m
> > >
> > > My wife says I never listen to her...
> > > at least that's what I think she said?
> > >
> > >
> >
> >
>
>
> Sent via Deja.com
> http://www.deja.com/

713. Re: Looking for cheap 1A op-amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 04:45:22 UTC
From: Jeff Barnhouse <jeff_barnhouse@hotmail.com>
Message-ID: <CLMd6.4853$d4.92646@typhoon.hawaii.rr.com>
Source record: 55010

Without better specification requirements, it is hard to give a good answer...however, based on your 12v power supply requirements and your TO-220 case preference, I would recommend the OPA544T. This is rated for 5 amps, and from 10-35 volts...maybe a bit excessive, but usually runs about 12 1/2 dollars a shot...cheaper then other high-power opamps I've seen.

Good day!
Jeff

"Mike Silva" <mjsilva@my-deja.com> wrote in message news:94vm67$j77$1@nnrp1.deja.com...
> Hi all,
>
> I'm looking for an op-amp with an output capability of about an amp.
> Nothing critical (well, needs to run on 12V), probably a TO-220
> package, and cheaper is better. The LM1875 looks good but too
> expensive and it needs 16V. Thanks for any ideas.
>
> 73,
> Mike, KK6GM
>
>
>
>
>
> Sent via Deja.com
> http://www.deja.com/

714. Engineering Spreadsheet Upload

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 06:41:25 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <4rcf7t48kmn6otg03h4uac2uru742oauec@4ax.com>
Source record: 55027
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

RST Engineering (www.rstengineering.com) is pleased to announce the upload of several engineering spreadsheets for your dining and dancing pleasure. Please use them with our compliments.

WIRE TABLE -- The standard AWG wire table with a calculator for resistance, voltage drop, and temperature rise for any wire gauge from 0000 to 40.

RF WAVES -- Free space path loss, receiver margin, and dbm/microvolt conversion.

SINE OSCILLATOR -- making a fairly low-distortion sine wave oscillator from a couple of opamps and a handful of passive parts.

COMPLEX IMPEDANCE -- Transforming series and parallel r+jx back and forth at various frequencies; adding, subtracting, multiplying, and dividing complex numbers.

MAKING L & C -- making your own inductors and capacitors.

MACHINE SCREW TABLE -- A simple table for screws from 0 to 1/4", sizes, taps, drills, dimensions, washers, and nuts.

STANDARD ATMOSPHERE -- The United States Standard Atmosphere with density, mach, temperature, and pressure. A calculator for pressure at any given altitude.

Please enjoy them with our compliments. If you find any errors (out to the first decimal place) please advise.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

715. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 06:58:13 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <9IOd6.56807$B6.15187271@news1.rdc1.md.home.com>
Source record: 55011

Excuse me. Too much pain medication last night. RFC5 is a 1 mH, but for the same reason. You do not want full plate voltage on the feedline and antenna if the blocking capacitor(s) fail. Usually it is a 2.5 mH.

N0DGN

716. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 07:28:32 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <E9Pd6.21766$s6.1044676@news-west.usenetserver.com>
Source record: 55012

"Boatanchor Bob NA4G" <na4g@weedcon3.cropsci.ncsu.edu> wrote
in message news:9577k0abg1@uni00nw.unity.ncsu.edu about
regenerative receivers.

Excellent advice, Bob!

> Enamel is good, or teflon coated is good.

With large wire spacings and large coil diameter, the
dielectric is not too important. I would prefer enamel wire
from a motor shop to vinyl covered house wire, however,
because of the much higher loss of plasticized PVC.

>> - ribbed former, or better no former at all
>> (easier with thick wire)
>
> Use a ribbed former with good insulating properties. Glass
> would be good, or isolantite. I find that at usual regen
> frequencies, acrylic works good, too.

Actually acrylic will have lower dielectric losses than
glass and many ceramics.

>> - another option: two or more side spacers instead of a
>> full former (this is quite common in big coils in old
>> transmitting equipment)
>
> This was typical of better quality regens in the so called
> "low-loss" era of the early to mid 1920's. It still works
> fine today.

These are easy to make with Plexiglas or Lucite too. Just
file notches to hold the wire.

>> Have you ever heard of a special glue for use on coils?
>> Does Araldite ring a bell? I last heard about it perhaps
> 20 years ago.
>
> That would be the early electron microscopy era, where it
> was used as an embedding medium for thin sections? Is it
> still available?

Araldite is a trade name for many related adhesives and
resins. Today most are generically known as epoxy. Their
dielectric loss properties are not as good as the the old
standby, polystyrene Q-dope.

> I would expect teflon would do well, too, but cost an arm
> and a leg to machine.

Teflon is easy to machine unless you need precision tolerances. Then you need to cool it in liquid nitrogen first. :-) It is somewhat expensive. Acrylic tubing is availabe from most plastics distributors. A section cut from a plastic soft drink bottle (polyethylene terephthalate) makes a reasonably low loss dielectric but it may be too flimsy.

Q-dope is still sold, but you can easily make your own. Get a pint glass bottle and fill it about 3/4 full of toluene (which can still be bought at Home Depot around here). Add polystyrene peanuts. You would be amazed at how many will go in the bottle. Soon you will have a rather sticky mess that looks much like a liquid with fur-balls in it. Cap the bottle tightly and let it sit for a few weeks. Think of the polymer chains as blobs of tangled spaghetti. In the solvent, they will eventually untangle and uncoil. This takes a while so don't think they did not dissolve if the solution looks cloudy the next day.

Eventually almost all of the polystyrene peanuts will dissolve. You may have some sediment (often pigments and contaminants) at the bottom of the bottle. Add some additional toluene if the solution is too viscous (thick to non-chemists).

When using toluene or any other flammable solvent, stay well away from flames or sparks. Avoid breathing the fumes and work in a well ventilated area. Acetone is usually an acceptable substitute for the toluene and it is far less toxic. I have made quite acceptable coil dope either way.

[Some trivia... Originally coil dope took its name from solutions of cellulose esters, which the original coil dopes were made from. In the early days, these were cellulose nitrate and later came cellulose acetate, propionate, or butyrate. In manufacturing these esters, the solutions are still known as dopes. Likewise in cloth wing aricraft, the fabric coatings are called dopes. I have no idea of the origin of the term, however. Of course, sniffing too much of the solvents will turn you into one! (And destroy your liver too!)]

73, Barry WA4VZQ ornitz@usa.net

717. Re: Raising coil Q and Araldite

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 07:37:15 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <ydzae3ArC8d6EAOJ@ifwtech.plus.net>
Source record: 55019

AMDX wrote:
>Hi Filippone,
> I have some Araldite that I purchased about 15 yrs ago. This stuff is great
>epoxy! It stiffens in about 5 minutes and usable shortly after that. I don't
>know if it's available anymore. I think it is made by Ciba- Wait, I'll be
>back,
>
>I'm back, I went searching , found a site
> http://www.vantico-aandt.com/newco/addexn.html
>It has Araldite, apparently there are several types click on the DIY link.
>I have never tried it on a coil.

Araldite was one of the very first epoxy adhesives, but today it's
nothing special.

Used on a coil, it will have just the properties you'd expect from
epoxy:

* reasonably low loss (but not as good as say polystyrene)
* significant temperature coefficient if used for a VFO coil
* strong, but also possibly too strong to allow adjustment by peeling
off turns of thin wire
* good high-temperature performance on a PA or ATU coil (better than
soft thermoplastics, but not as good as ceramic or PTFE)
* very poor lifetime in sunlight.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

718. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 08:04:34 UTC
From: vk4laj@my-deja.com
Message-ID: <958gugpeu1@nnrp1.deja.com>
Source record: 55013
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

Murray I have been thinking about what you said regarding the
differential and also note what you said below

Perhaps the gearbox and shaft drive off a motorcycle would be the order
of the day.... I haven't investigated this but I see no reason why it
couldnt work after all if those gearboxes can handle 75+hp they should
handle an antenna, their compact size has to be a plus too.

73 Adam
VK4LAJ

In article <SrKd6.1$b%6.1280@wa.nnrp.telstra.net>,
"Murray Lang" <muzzle@iexpress.net.au> wrote:
> I don't think the differential bought much gear reduction.
> I wonder if an old automobile gearbox would give appropriate
reduction with
> one of the gears? Hmmm... must be a better way.
>
> Murray

Sent via Deja.com
http://www.deja.com/

719. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 08:49:54 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <LmQd6.1$L67.122@wa.nnrp.telstra.net>
Source record: 55014
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

I'd be interested to know how it all works out for you.

Murray

<vk4laj@my-deja.com> wrote in message news:958gugpeu1@nnrp1.deja.com...
> Murray I have been thinking about what you said regarding the
> differential and also note what you said below
>
> Perhaps the gearbox and shaft drive off a motorcycle would be the order
> of the day.... I haven't investigated this but I see no reason why it
> couldnt work after all if those gearboxes can handle 75+hp they should
> handle an antenna, their compact size has to be a plus too.
>
> 73 Adam
> VK4LAJ
>
> In article <SrKd6.1$b%6.1280@wa.nnrp.telstra.net>,
> "Murray Lang" <muzzle@iexpress.net.au> wrote:
> > I don't think the differential bought much gear reduction.
> > I wonder if an old automobile gearbox would give appropriate
> reduction with
> > one of the gears? Hmmm... must be a better way.
> >
> > Murray
>
>
> Sent via Deja.com
> http://www.deja.com/

720. Re: PLL for Broadcast Radio (87.5-108MHz)?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 10:10:39 UTC
From: TC <cadigant2@uofs.edu>
Message-ID: <3A77E49F.B7490C56@uofs.edu>
Source record: 55022

Tobi,

Several years ago I built a PLL kit from Panaxis to send the audio from my scanner out into the back yard. Works great. I have it set up for mono, but I believe you can also set it up for stereo FM.

I have 2 other (unbuilt) kits for FM. They are from DC Electronics. They are based on the Motorola PLL chip MC145170-1 and controlled by a preprogrammed microcontroller chip PIC 16C54. I got these are so I can eventually learn some more about PLL circuits and build something for 6m. They are priced right. I don't have their e-mail address on hand, but I am sure you can hunt them down on the web.

There is a review of several FM broadcast kits at,
http://www.geocities.com/Area51/Nebula/3736/

hope this helps,
73,
Tim C (wc1f)

721. New UK Amateur Radio QRP Event for 2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 11:12:42 UTC
From: pentode <pentode@ntlworld.com>
Message-ID: <lqSd6.12004$YT3.304202@news6-win.server.ntlworld.com>
Source record: 55015
Cross-posted to: uk.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,sci.electronics.components

South Normanton & District Amateur Radio Club,
in Association with the G-QRP Club, will be holding
"Junction 28 QRP Convention" on Saturday 17th March 2001
at the Village Hall Community Centre, Market Street,
South Normanton, near Alfreton in Derbyshire.
Just 5 minutes from Junction 28 of the M1 motorway and the A38.
This will be a traditional radio event, organised in the true spirit of
amateur radio.
All under cover, there will be lots of traders with components, kits,
vintage and radio surplus, plus special interest groups and club stands.
Lectures throughout the day from Rev.George Dobbs G3RJV,
Rob Mannion G3XFD (PW editor), Tex Swann G1TEX (also from PW)
and Douglas Pitt of the N.B.T.V.A. (Not to be missed!)
Hot and cold food and drinks will be available, plus a licensed bar.
Talk-in will be provided by special event station GB0LOW on S22.
Doors open 10.00am. Admission is just ?1.00. Free prize draw.
Further details from the organiser on 01623 465443.
We look forward to seeing you there!

722. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 11:28:39 UTC
From: Nigel Hewitt <no.spam.please.systems@seikisystems.co.uk>
Message-ID: <TJSd6.6436$Q94.151195@monolith.news.easynet.net>
Source record: 55016
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

"VK4LAJ" wrote
> I am looking at building a lot of my own gear this time around and one
> project is an antenna rotator. Although I have searched high and low on the
> internet, I can not find anyone that has built a rotator system from
> scratch. I have found a direction indicator but that's all.

I did this with an old windscreen wiper motor.

I had a bearing in the roof pitch and dropped
the aerial pole into the roof so I could run
things in the dry.

The motor already has a big step down so it
drove a little pulley with a big pulley on
the bottom of the pole made out of three bits
of chipboard bolted together.

It was gloriously Heath Robinson but worked
a dream for five years till I moved.

I had a 360 degree pot (I've not seen them
recently) driving a panel meter calibrated
in NSEW.

nigelH
G8JFT

723. transistors for 6m

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 11:35:10 UTC
From: MAc <m_bal@friko3.onet.pl>
Message-ID: <958t4f$3op$1@zeus.polsl.gliwice.pl>
Source record: 55017

What CHEAP and easy to find transistors will be good
for 6M few watts TX (CW &ssb).

MAc

724. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 12:19:14 UTC
From: richardh@iinet.net.au
Message-ID: <3a780098.1618536@news.m.iinet.net.au>
Source record: 55018

On Mon, 29 Jan 2001 23:23:04 GMT, berd_kalamunda@techemail.com (Rolie Baldock) wrote:

>This is the third method of SSB and has been around since Weaver
>proposed it in the dark and distant past.
>
The third method as I understand it uses an audio subcarrier at around 1750 Hz for a 300=-3000Hz bandwidth. On receive the RF is direct coverted to audio in the first pair of mixers. The first LO is at a frequency in the middle of the SSB passband (ie carrier+/_ 1750Hz). The I/Q signals are filtered by a sharp LPF at 1800Hz. This has the effect of "folding" the audio around the 1750Hz subcarrier. The audio is then demodulated by a second pair of mixers driven by a LO at 1750Hz in quadrature. The advantage is that you dont need a phase shift network at audio but the Low pass filter must be quite sharp

Richard
http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

725. Re: Wiring up equalizer to microphone.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 14:11:26 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <959opgjfu1@news6.svr.pol.co.uk>
Source record: 55025
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

> Of course, there have been many microphones over the years with tone
> controls (from a simple knob to equalizer-like sliders), including
> several now popular with the CB crowd, but I have always felt these
> were little more than a gimmic (once the sound is adjusted to the
> preferred point, why continue to have the controls in the way).
>
> However, its your radio, so by all means go for it.
==========
Indeed ,although it is a hobby ,things can be overdone .

For a crisp radio communication microphone passing up to 3000 Hz just use a
$1 electret mic capsule.
and a home brew amp which fits in a desk stand (if that's what you prefer)
A simple but effective design /construction project including Hi- and Low
freq boost adjustments can be found in QST - August 1989 , pages 18 - 19 -
20 - 21
The amplifier involves a 2N3904 transistor and a 741 OpAmp .
The circuit needs minimal 9 volts DC supply ,either from a PP battery or
from the transceiver.

Suggest you keep it simple

73 Frank gm0csz.kn6wh@ukrs.org

PS : The electret mic capsule can usually be found in scrap telephones. I
have a number salvaged from phones . Tandy sell a capsule as Electret
Condenser Mike Element Cat. No. 270 -0923

Suggest to keep it simple

726. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 14:17:01 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <IJz6iHAd5Be6EwQN@invest.fsbusiness.co.uk>
Source record: 55026

>I'd guess that the HAR is a date or lot code, or a manufacturer
>identification (Harris Semiconductor)? I don't know of any "special" IRF
>510, so I'd use the IRF 510 data you have.
>
>Roy Lewallen, W7EL
Many thanks Roy.

(((73)))

Phil G4ZOW

727. PLL for Broadcast Radio (87.5-108MHz)?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 16:35:03 UTC
From: acid74@my-deja.com
Message-ID: <959ermina1@nnrp1.deja.com>
Source record: 55021

Hi there...
I want to bulid a FM-Test-Broadcast-Transmitter
is stereo for testing selfmade receivers. The
only problem I've got is that a free running VFO
isn't as stable as I wish. So what I need would
be a PLL for 87.5 to 108MHz in 50kHz steps.
100kHz would also do but not as good as 50. The
circuit shouldn't heve IC's that I've got to
chase to the end of the world. I want to get them
very quickly with not long searching for any
things...

Thanks a lot for you help
Please write to tobiasrichter@12move.de

73s de Tobi

Sent via Deja.com
http://www.deja.com/

728. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 16:41:04 UTC
From: w4pqwhs@aol.com
Message-ID: <20010131114104.14940.00000028@ng-ff1.aol.com>
Source record: 55020

I am in the process of putting the B&W L 1000A on the air.. it came out in the years 56/58 and is exactly the same circuit and layout as the Orr handbook shows.. it does have a built in blower ,the T2 that you mentioned is a 1 to 1 trans 115 volts ,it is used to furnish approx. minus 100 VDC for bias.. I am delighted to finally own this 813 amp ,I have wanted one since the 50s ...Harold W4PQW

.

729. Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 17:46:39 UTC
From: robgrz@my-deja.com
Message-ID: <959j1s$ms1$1@nnrp1.deja.com>
Source record: 55023

I am looking for a good free smith chart program for windows. I've looked around the search engines and have only found old dos programs. Does anyone have any suggestions?

Thanks,
Robert

Sent via Deja.com
http://www.deja.com/

730. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 18:59:21 UTC
From: tom_bruhns@agilent.com
Message-ID: <959na3$r2u$1@nnrp1.deja.com>
Source record: 55024

Well, two suggestions, neither of which is exactly what you asked for:

First, I like WinSmith quite a lot. There are things that could be better about it, but it lets you build a ladder network of R, L, C, lines and transformers, and adjust them easily to quickly visualize transformations on a Smith chart plot, simultaneously at a set of frequencies. But...it costs around $80 as I recall.

Second, there are do-it-yourself solutions. You could program Excel to plot reflection coefficient, and even arrange it to handle some simple ladder network things. Plotting the typical Smith chart lines might be a challenge! You could make quite a decent Smith chart program in SciLab, which is freeware. There are tools to do a user interface something like WinSmith. But it would be a fairly serious programming effort. It would be a very nice contribuiton to the ham/RF community if someone undertook this, though, and made it available.

I know there are a few freeware Smith chart programs out there, and I'm sure someone will post pointers to them, but none I've seen makes me even remotely interested in switching from WinSmith.

Cheers,
Tom

In article <959j1s$ms1$1@nnrp1.deja.com>,
robgrz@my-deja.com wrote:
> I am looking for a good free smith chart program for windows. I've
> looked around the search engines and have only found old dos programs.
> Does anyone have any suggestions?
>
> Thanks,
> Robert
>
> Sent via Deja.com
> http://www.deja.com/
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

731. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 20:18:37 UTC
From: Al Gerbens <agerbens@uswest.net>
Message-ID: <3p_d6.1587$gC1.305748@news.uswest.net>
Source record: 55028

There's some software and links at this site.
http://rf.rfglobalnet.com/software_modeling/categories/25.htm

robgrz@my-deja.com wrote in message <959j1s$ms1$1@nnrp1.deja.com>...
>I am looking for a good free smith chart program for windows. I've
>looked around the search engines and have only found old dos programs.
>Does anyone have any suggestions?
>
>Thanks,
>Robert
>
>
>Sent via Deja.com
>http://www.deja.com/

732. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 20:49:57 UTC
From: robgrz@my-deja.com
Message-ID: <959tpi$1jm$1@nnrp1.deja.com>
Source record: 55029

Thanks for the input. I looked at WinSmith. I would buy it, but I can't find anywhere that will allow immediate download after purchase since I need it asap. I've spent two days now writing my own in Python and wxWindows to make it cross-platform. If anyone is interested then I'll post a link when I get to a usable state.

I would still like to get a like to a good alternative in the mean time.

Robert

In article <959na3$r2u$1@nnrp1.deja.com>,
tom_bruhns@agilent.com wrote:
> Well, two suggestions, neither of which is exactly what you asked for:
>
> First, I like WinSmith quite a lot. There are things that could be
> better about it, but it lets you build a ladder network of R, L, C,
> lines and transformers, and adjust them easily to quickly visualize
> transformations on a Smith chart plot, simultaneously at a set of
> frequencies. But...it costs around $80 as I recall.
>
> Second, there are do-it-yourself solutions. You could program Excel
to
> plot reflection coefficient, and even arrange it to handle some simple
> ladder network things. Plotting the typical Smith chart lines might
be
> a challenge! You could make quite a decent Smith chart program in
> SciLab, which is freeware. There are tools to do a user interface
> something like WinSmith. But it would be a fairly serious programming
> effort. It would be a very nice contribuiton to the ham/RF community
if
> someone undertook this, though, and made it available.
>
> I know there are a few freeware Smith chart programs out there, and
I'm
> sure someone will post pointers to them, but none I've seen makes me
> even remotely interested in switching from WinSmith.
>
> Cheers,
> Tom
>
> In article <959j1s$ms1$1@nnrp1.deja.com>,
> robgrz@my-deja.com wrote:
> > I am looking for a good free smith chart program for windows. I've
> > looked around the search engines and have only found old dos

programs.
> > Does anyone have any suggestions?
> >
> > Thanks,
> > Robert
> >
> > Sent via Deja.com
> > http://www.deja.com/
> >
>
> --
> Tom Bruhns -- K7ITM
>
> Sent via Deja.com
> http://www.deja.com/
>

Sent via Deja.com
http://www.deja.com/

733. Re: Engineering Spreadsheet Upload

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 20:54:32 UTC
From: K0HB <K0HB@arrl.org>
Message-ID: <959u24$1ov$1@nnrp1.deja.com>
Source record: 55030
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <4rcf7t48kmn6otg03h4uac2uru742oauec@4ax.com>,
jim@rst-engr.com wrote:
> RST Engineering (www.rstengineering.com) is pleased to announce the
upload of
> several engineering spreadsheets for your dining and dancing
pleasure. Please
> use them with our compliments.

Nice!

Thanks, Jim, I've bookmarked the "complex impedance" spreadsheet for
sure!

73, Hans, K0HB
--
"We are fellow travelers on a journey between two
eternities, and it's a trip far too brief for me
to be concerned about your speed at the Code of
Morse."

Sent via Deja.com
http://www.deja.com/

734. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 20:59:05 UTC
From: robgrz@my-deja.com
Message-ID: <959uaj$25k$1@nnrp1.deja.com>
Source record: 55031

Thanks for the link. I had been trying to download a few last week but RFGlobalNet was having problems so I couldn't get any. I just found a program I had quite a while ago and hadn't been able to find since. The program is smith_v191.zip at http://rf.rfglobalnet.com/software_modeling/software/25/471.htm if anyone else is looking for a similar program.

Thanks again,
Robert

In article <3p_d6.1587$gC1.305748@news.uswest.net>,
"Al Gerbens" <agerbens@uswest.net> wrote:
> There's some software and links at this site.
> http://rf.rfglobalnet.com/software_modeling/categories/25.htm
>
> robgrz@my-deja.com wrote in message <959j1s$ms1$1@nnrp1.deja.com>...
> >I am looking for a good free smith chart program for windows. I've
> >looked around the search engines and have only found old dos
programs.
> >Does anyone have any suggestions?
> >
> >Thanks,
> >Robert
> >
> >
> >Sent via Deja.com
> >http://www.deja.com/
>
>

Sent via Deja.com
http://www.deja.com/

735. Re: Radio Shack ME-11 DMM serial cable info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 21:10:59 UTC
From: Harold Johnson <w4zcb@ispchannel.com>
Message-ID: <Db%d6.81949$HE2.7667819@news1.onlynews.com>
Source record: 55032

> Radio Shack is selling the ME-11 on clearance and I got one. But I can't
> find anything about the serial port and the pin-outs for a cable to a PC.
> Brand name on the unit is MeTex but that doesn't help either. Any help
would
> be appreciated.

The two I bought work fine with just a male/female 9 pin DB-9 cable. The software allows you to select between using Com 1 or Com 2, these have to be active in the computer to function.

W4ZCB

736. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 22:06:43 UTC
From: k3ky@erols.spamnocom
Message-ID: <95a29jega1@bob.news.rcn.net>
Source record: 55033

I happened to use some Harris IRF-510 parts recently in my building
of the WA2EBY FET power amp design. I have had no evidence of
instability so far operating on 40m only. One would expect that the
Harris and International Rectifier parts would be essentially
identical. Further, I believe I remember reading some industry news
item some years back, announcing some sort of second-sourcing
agreement between the two companies. The Harris parts should
be, in other words, 'authorized'. BTW my parts have the Harris logo
rather than the letters HAR, but I would agree with the guess of
Harris as the manufacturer. I got my items from Dan's Small Parts
and Kits:
http://www.fix.net/dans.html

There is a brief writeup of my experience with the FET power amp
and a couple of photos at:
http://www.angelfire.com/md/k3ky/page60.html

73, David K3KY

In article <KnVaJyAJ2vd6EwLZ@invest.fsbusiness.co.uk>
Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote:

> I have data on the IRF 510 but cannot find any information on the HAR
> desinated part!
>
> Any help appreciated.
>
> (((73)))
>
> Phil G4ZOW
>

737. Rocket Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 23:03:09 UTC
From: steve@btinternet.com
Message-ID: <3a7896cc.11410486@news.btinternet.com>
Source record: 55034

Hi Chaps,
Appart from Ham radio I also do amateur rocketry - I'm making
an all aluminium rocket of about 1.5" diameter. The Rocket will carry
a small 70cms transmitter for tracking. I'd like to use the aluminium
body of the rocket itself as the antenna. Two possibilities occur to
me:-

1) isolate two sections of the body and feed like a dipole.
2) Make a sort of internal gamma match

See a diagram of the two designs at:-
http://www.btinternet.com/~rocketry/ant/ant.gif

The diagrams show a cross section through the rocket - nosecone at the
left. 1) is at the top 2) at the bottom.

While 1) seems to be shore fire I'm tempted to try 2) because I think
it would be a physically stronger. Would 2) work?

I can vary the body length to get 1/2, 3/4 or full wave resonance.

Any comments would be appreciated.

Can anyone explain how gamma matches work - I assume they transform
the feeder impedance to a higher impedance that is tapped off part way
up the dipole?

Steve G8KHW

738. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 23:27:02 UTC
From: berd_kalamunda@techemail.com
Message-ID: <3a789e48.9035217@news.m.iinet.net.au>
Source record: 55035

Hello Richard,

Has anybody tried different frequencies to the half way pilot? After all the audio is not just one frequency and it certainly does not know what the pilot frequency is. The whole idea of the pilot being in the middle of the audio band seems to have no mathematical basis that I have seen. Nor has the folding concept been shown mathematically to have any credence that I have seen.

Regards,

On Wed, 31 Jan 2001 12:19:14 GMT, richardh@iinet.net.au (Richard Hosking) wrote:

>On Mon, 29 Jan 2001 23:23:04 GMT, berd_kalamunda@techemail.com (Rolie
>Baldock) wrote:
>
>>This is the third method of SSB and has been around since Weaver
>>proposed it in the dark and distant past.
>>
>The third method as I understand it uses an audio subcarrier at around
>1750 Hz for a 300=-3000Hz bandwidth. On receive the RF is direct
>coverted to audio in the first pair of mixers. The first LO is at a
>frequency in the middle of the SSB passband (ie carrier+/_ 1750Hz).
>The I/Q signals are filtered by a sharp LPF at 1800Hz. This has the
>effect of "folding" the audio around the 1750Hz subcarrier. The audio
>is then demodulated by a second pair of mixers driven by a LO at
>1750Hz in quadrature. The advantage is that you dont need a phase
>shift network at audio but the Low pass filter must be quite sharp
>
>
>Richard
>http://www.iinet.net.au/~richardh/VK6BRO.htm
>
>zaprichardh@iinet.net.au
>(remove the zap)

--Rolie Baldock. email: <berd_kalamunda@techemail.com>

739. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-01-31 23:29:54 UTC
From: berd_kalamunda@techemail.com
Message-ID: <3a789fa9.9388495@news.m.iinet.net.au>
Source record: 55036

Hello again Richard,

I am a friend of VK6SQ and live not far from him.

On Wed, 31 Jan 2001 12:19:14 GMT, richardh@iinet.net.au (Richard
Hosking) wrote:

>On Mon, 29 Jan 2001 23:23:04 GMT, berd_kalamunda@techemail.com (Rolie
>Baldock) wrote:
>
>>This is the third method of SSB and has been around since Weaver
>>proposed it in the dark and distant past.
>>
>The third method as I understand it uses an audio subcarrier at around
>1750 Hz for a 300=-3000Hz bandwidth. On receive the RF is direct
>coverted to audio in the first pair of mixers. The first LO is at a
>frequency in the middle of the SSB passband (ie carrier+/_ 1750Hz).
>The I/Q signals are filtered by a sharp LPF at 1800Hz. This has the
>effect of "folding" the audio around the 1750Hz subcarrier. The audio
>is then demodulated by a second pair of mixers driven by a LO at
>1750Hz in quadrature. The advantage is that you dont need a phase
>shift network at audio but the Low pass filter must be quite sharp
>
>
>Richard
>http://www.iinet.net.au/~richardh/VK6BRO.htm
>
>zaprichardh@iinet.net.au
>(remove the zap)

--Rolie Baldock. email: <berd_kalamunda@techemail.com>

740. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 00:47:22 UTC
From: David Newkirk <dpnewkirk@home.com>
Message-ID: <3A78B1BE.5B811CFD@home.com>
Source record: 55037

robgrz@my-deja.com wrote:

> I am looking for a good free smith chart program for windows. I've
> looked around the search engines and have only found old dos programs.
> Does anyone have any suggestions?

Although it's not a Smith Chart program per se, Serenade SV, the free-for-the-downloading student version of Ansoft Corporation's Serenade Design Suite (the full version of which includes linear and nonlinear circuit simulation, system simulation, layout and filter synthesis tools), includes Smith Tool, an interactive, Smith-Chart-based matching-network synthesis program that can be invoked from any polar graph produced by Serenade's circuit simulator. You can download Serenade SV's two (large) component files (SerenadeH.exe, which installs the circuit simulator that includes Smith Tool, and SerenadeS.exe, which installs Serenade SV;s system simulator) via the pages that begin at

http://www.ansoft.com/about/academics/sersv/index.cfm

And you can read more about Serenade SV in the January 2001 issue of ARRL's QST magazine.

Best regards,

Dave Newkirk, W9VES
(a technical writer with Ansoft)
dnewkirk@ansoft.com
dpnewkirk@home.com

741. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 01:51:30 UTC
From: marsgal42@hotmail.com
Message-ID: <95aff0hld1@nnrp1.deja.com>
Source record: 55038

In article <3a789e48.9035217@news.m.iinet.net.au>,
berd_kalamunda@techemail.com (Rolie Baldock) wrote:

> Has anybody tried different frequencies to the half way pilot? After
> all the audio is not just one frequency and it certainly does not know
> what the pilot frequency is. The whole idea of the pilot being in the
> middle of the audio band seems to have no mathematical basis that I
> have seen. Nor has the folding concept been shown mathematically to
> have any credence that I have seen.

Weaver explained it pretty well back in 1956.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..." - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

742. Re: Rocket Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 02:55:52 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn97hk1n.cvi.QSB@animas.frontier.net>
Source record: 55039

On Wed, 31 Jan 2001 23:03:09 GMT, steve scribbled:
>Hi Chaps,
> Appart from Ham radio I also do amateur rocketry - I'm making
>an all aluminium rocket of about 1.5" diameter. The Rocket will carry
>a small 70cms transmitter for tracking. I'd like to use the aluminium
>body of the rocket itself as the antenna. Two possibilities occur to
>me:-
>
>1) isolate two sections of the body and feed like a dipole.
>2) Make a sort of internal gamma match

3) Make a slot antenna.

Tho', maybe too difficult to do -- both for the machine work
involved, and for the integrity considerations of the vehicle.

HTH es 73,
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

743. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 03:08:45 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A78D481.9EC2818F@att.net>
Source record: 55040

Seems you have the basic idea. I have never tried an internal gamma.
It may work, but may also interact with the tubing???

I you use the insulator version and a 1/2 wave rocket, you might try a
1:4 balun to help the match.

In either case, Iwould well shield the transmitter. Also if more han
a few hundred milliwatts are used, beware of hi-Z generated arcs vs.
rocket motors when testing.

The gamma:
In simplistic terms, an using a 1/2 wave driven element of a yagi (or
rocket tube) for example...

The center of the 1/2 wave yagi driven element is at low to zero
impedance (therefore we can use a metal support boom at the center).
The ends of the element are very high impedance (exact value depends
on design). Assume the feed coax is 50 ohms. Some point along the
length of the element, between zero (center) and very high impedance
(end), is 50 ohms. The trick is to hook the coax shield to the zero
center point and the center conductor to the 50 ohm point on the
element. The catch is that when you run the center conductor out to
the 50 ohm point (the gamma match rod), inductance is added. To cancel
this inductance a series capacitor of the same reactance is added.

FWIW... I have also experimented with rocketry. A different era.
'Twas back in the mid 60s when I was in high school. Was a member of
SOLAR (Society of Lyncburg Amateur Rocketeers). No commercial stuff
then. All total homebrew - which I still had some pictures. The
rockets were Al irrigation tubing. The small ones were 1' diameter x
3' long. The mid sized were ~1.5" dia x 6-7' long 2 stage with 'chute
recovery. The biguns were 3" tube 12' long. ZOOM!!!! We lost one big
one on the other side of a mountain range. We had a railroad tie
blockhouse and two remote tracking theatolites (how the hell do you
spell?) with sound powered phones to the blockhouse. Rockets were
fueled by zinc dust/sulfur mix and fired using electrical ignition
with safety interlocks. Safety was important and we never even had a
close call, but our sponsor (JayCees) departed company after seeing
our first launch :). We kept going on our own until we were noticed
by Washington DC air control radar and the FAA shut us down (we lasted
~3 years). The highlight was beating the Navy Polaris to the punch by
a few months... We launched a 6 footer from the bottom of a farm
pond. The top of the launch tube (sealed 12" PVC pipe) was about 2-3
feet below the surface. One of our club members got a summer job
offer at Cape Canaveral out of that!
--

Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

744. MI: LARC Swap-N-Shop (Ham Radio, Computers, Electronics) 2-18-01

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 04:08:35 UTC
From: LARC Swap-N-Shop <swap@n8hqg.mi.org>
Message-ID: <7j5e6.87025$ft6.2288228@typhoon.mw.mediaone.net>
Source record: 55041
Cross-posted to: mi.misc,mi.wanted,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

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Sunday February 18, 2001
8:00 - 12:30

The 31st Annual

LIVONIA AMATEUR RADIO CLUB

S W A P - N - S H O P

Buy, sell, electronic equipment
including ham radios, parts, computers etc...

3rd Year at our
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Location: William M Costick Activity Center
28600 W. 11 Mile Road
Farmington Hills, MI

1 1/4 Miles East of Orchard Lake Road
-Exit Orchard Lake Road off I-696
South 1/2 Mile to 11 Mile Road
Left (east) on 11 mile 1 1/4
-Just east of Middlebelt Road
on the North side of the road.

****

Admission: $5
Tables: $16/8ft.
Talkin: 145.35 (-) or 145.17 (-) backup

For additional information call (734) 453-8679
or write swap@larc.mi.org

Visit our Web Site at: http://www.larc.mi.org

Table Reservation form can be found at:

http://www.larc.mi.org/Swap_Form.pdf

Mark your calendars for Sunday February 18, 2001!!!

AND PLEASE TELL ALL YOUR FRIENDS.....

745. MI: LARC Swap-N-Shop (Ham Radio, Computers, Electronics) 2-18-01

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 04:08:41 UTC
From: LARC Swap-N-Shop <swap@n8hqg.mi.org>
Message-ID: <dj5e6.87026$ft6.2288228@typhoon.mw.mediaone.net>
Source record: 55042
Cross-posted to: mi.misc,mi.wanted,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

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Sunday February 18, 2001
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1 1/4 Miles East of Orchard Lake Road
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Left (east) on 11 mile 1 1/4
-Just east of Middlebelt Road
on the North side of the road.

****

Admission: $5
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Talkin: 145.35 (-) or 145.17 (-) backup

For additional information call (734) 453-8679
or write swap@larc.mi.org

Visit our Web Site at: http://www.larc.mi.org

Table Reservation form can be found at:

http://www.larc.mi.org/Swap_Form.pdf

Mark your calendars for Sunday February 18, 2001!!!

AND PLEASE TELL ALL YOUR FRIENDS.....

746. Re: PLL for Broadcast Radio (87.5-108MHz)?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 04:08:51 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <4t5e6.2986$ai.40910@e420r-sjo2.usenetserver.com>
Source record: 55043

<acid74@my-deja.com> wrote ...
> I want to bulid a FM-Test-Broadcast-Transmitter
> is stereo for testing selfmade receivers. The
> only problem I've got is that a free running VFO
> isn't as stable as I wish. So what I need would
> be a PLL for 87.5 to 108MHz in 50kHz steps.
> 100kHz would also do but not as good as 50. The
> circuit shouldn't heve IC's that I've got to
> chase to the end of the world. I want to get them
> very quickly with not long searching for any
> things...

DC Electronics offers a nice PLL-SFM Stereo FM Treansmitter kit at $79.95 I have almost completed constructing mine.

http://www.dckits.com/

RC

747. Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 04:54:08 UTC
From: Dan Goldberg <nospamdgol@home.com>
Message-ID: <QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com>
Source record: 55044

Hi, do you think it would be possible for me to transmit 2 digital signals using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is in fact the case, could anyone please suggest a method that I could use to transmit digital information. Would I need to convert it to analog and then back to digital using DACs/ADCs?

Thanks in advance.

Dan.

748. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 06:00:07 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <95au17$6bv$0@208.207.71.176>
Source record: 55045

"Dr. Barry L. Ornitz" wrote:
>
-dope is still sold, but you can easily make your own. Get
> a pint glass bottle and fill it about 3/4 full of toluene
> (which can still be bought at Home Depot around here). Add
> polystyrene peanuts.

Barry:
Thanks for this good information. My bottle of Q-dope always dries out long before it is empty, and usually can't be opened.

Question: You said "polystyrene" peanuts. Are they the same matereial as what are almost universally known as "styrofoam" peanuts, or they the more rarely seen tough, spongy pellets that appear to be cut off pieces of rod?

Also: Can one thin commercial Q-dope with acetone to prevent it from drying out? I keep a pint of acetone on hand. Or should I go looking for some Tolulene?

73, Dick W0EX

749. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 06:13:43 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <95auqn$8b1$0@208.207.71.176>
Source record: 55046

tom_bruhns@agilent.com wrote:
>
> In article <956c8rsdv1@nnrp1.deja.com>,
> Filippone <filippone@my-deja.com> wrote:
> > To sum up:
>
> > - also, thin wall low dielectric former (I am tempted to use a large
> > lab glass vial or a section of thin walled glass pipe).
>
> Although in a great many applications, the former material isn't all
> that important (...yeah, Reg, I use cardboard tubes and PVC pipe
> sections too!...), be careful about glass. There are LOTS of
> different kinds of glass. Some glasses are fairly high loss. To make
> matters worse, if you use glass as an insulator in a high power system
> and it starts to heat, its dissipation factor typically increases rather
> rapidly, possibly leading to thermal runaway. We had a serious
> materials selection problem in one of our products because of exactly
> this phenomenon. If you stay with fused quartz, you should be fine!
> :-)
>

Every "Large lab glass vial" that I ever saw was Pyrexï¿½ glass, which is what is (was) used by Eimac for the envelope on their high power amplifier tubes. I'd expect, then, that Pyrex should be OK at RF, right? For sure you wouldn't want to use some leaded glass for a former.

Dick

750. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 06:39:20 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <95b0a5$a79$1@wanadoo.fr>
Source record: 54947

Dan,

For a good answer, I think we need more information on your project. What is the data rate of your signals ? What is the distance between the transmitter and the receiver ? And more generally, could you give more details on the application ?

regards

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

Dan Goldberg <nospamdgol@home.com> a &#65533;crit dans le message : QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com...
Hi, do you think it would be possible for me to transmit 2 digital signals using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is in fact the case, could anyone please suggest a method that I could use to transmit digital information. Would I need to convert it to analog and then back to digital using DACs/ADCs?

Thanks in advance.

Dan.

751. Re: Raising coil Q in regen RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 06:48:04 UTC
From: Mike Silva <mjsilva@my-deja.com>
Message-ID: <95b0r2$v69$1@nnrp1.deja.com>
Source record: 54948

Well, "tried" is very much the operative word in this case. But perhaps it is just the case that we are supplying two different interpretations to "just short of oscillation point". I take this to mean some feedback amount close to but below 1/gain -- let's say e.g. 0.99/gain. In this case do you maintain that two circuits of different physical Q will behave identically, or simply that their different Qs will both be multiplied by some similar factor? If you maintain the former then at what feedback < 1/gain do the dissimilar Qs become identical? OTOH, if you just mean that there is *some* feedback for any physical Q that can produce an arbitrarily larger Q+ then I agree with you. In practice, though, the user can't move the regen control in infinitely smaller bits to find that point, and the circuit isn't infinitely stable, so in practice I think we have the first case of feedback = (1-e)/gain, and the two effective Qs will be different due to the different physical Qs of the two circuits.

73,
Mike, KK6GM

In article <956bce$2d8$1@uranium.btinternet.com>,
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
> Hi Mike, do the math and then come back. Reg.
>
> --
> **********
> Regards, Reg, G4FGQ
> Free radio design & modelling software
> http://www.btinternet.com/~g4fgq.regp
>
> **********
>
> Mike Silva <mjsilva@my-deja.com> wrote in message
> news:955lhobcf1@nnrp1.deja.com...
> > In article <954i50$la2$1@uranium.btinternet.com>,
> > "Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
> > > To maximise Q of solenoid coils -
> > >
> > > Don't use pvc insulated wire. For close-wound coils use enamel
> > insulated
> > > magnet wire.
> > >
> > > Wind on a ribbed former. The insulation is then nearly all air.
> >
> > Lacking that I wonder how a square-cross-section coil wound on two
> > insulators, e.g. plastic strips, in the form of an X would do? I'm

> > guessing quite well...
> > >
> > > Don't use a close wound winding. Space adjacent turns such that
> > distance
> > > between wire centres is 1.5 times wire diameter.
> > >
> > > Coil former diameter to length ratio: Don't have long slender
coils.
> > Don't
> > > have short coils with thin wire. It's not critical but length =
> > diameter is
> > > OK.
> > >
> > > If you double all coil former dimensions and reduce number of
turns
> > to give
> > > same inductance then Q approximately doubles. Big coils have big
Q !
> > >
> > > But if you intend to make a super-selective tuning coil by using
> > reaction
> > > around an amplfier just short of oscillation point - why bother ?
> > Any old
> > > coil will do for that. Such coils may be small but should have
> > physically
> > > very stable dimensions.
> >
> > I don't think this is correct. While everything is the same right
at
> > the resonant frequency, I'd expect the off-frequency performance of
a
> > low-Q coil to be worse (wider bandwidth) than a high-Q coil. If
you're
> > right at the zero-resistance point at the resonant frequency
(thanks to
> > feedback) you're still in the positive resistance region off of
> > resonance, so Q should matter (IMHO -- I haven't tried to do the
math).
> >
> > 73,
> > Mike, KK6GM
> >
> >
> >
> > Sent via Deja.com
> > http://www.deja.com/
>
>

Sent via Deja.com
http://www.deja.com/

752. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 08:22:39 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <q29e6.42508$s6.1372550@news-west.usenetserver.com>
Source record: 54950

Hi Dick,

Since your questions will be likely asked by others too,
I'll answer them here.

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:95au17$6bv$0@208.207.71.176...
> Thanks for this good information. My bottle of Q-dope
> always dries out long before it is empty, and usually
> can't be opened.

Drip some fresh solvent into the bottle-cap threads. This
often softens the dried plastic.

> Question: You said "polystyrene" peanuts. Are they the
> same matereial as what are almost universally known as
> "styrofoam" peanuts, or they the more rarely seen tough,
> spongy pellets that appear to be cut off pieces of rod?

The crunchy kind. Styofoam is just one trademarked name
(Dow, I think). I usually use the generic names since when
I worked in the chemical industry and wrote reports, I was
taught to avoid using such trademarks and copyrighted
names.

> Also: Can one thin commercial Q-dope with acetone to
> prevent it from drying out? I keep a pint of acetone on
> hand. Or should I go looking for some Tolulene?

Look on the bottle to see which solvent is currently being
used. You will have better luck thinning it with the same
solvent. Recognizing which is used by smell is second
nature to me, but thinking about it, I find it hard to
describe either smell. To me toluene smells sweeter than
acetone. Since you have acetone, you should recognize its
smell. Polystyrene is somewhat more soluble in toluene than
it is in acetone.

I generally recommend acetone as a good, general purpose
solvent for many applications because it is far less toxic
than most others. It is generally considered about the same
toxicity as isopropyl alcohol. It is a good polar solvent,
where toluene is non-polar. For general degreasing, where a
non-polar solvent is desired, I usually use painter's
naphtha (or Stoddard solvent, the main ingredient in WD-40,
which is a highly refined kerosene distillation cut).

All of these are very flammable, and while acetone and naphtha are not terribly toxic, toluene is fairly bad. It is best to avoid breathing the vapors of any solvent. So work in a very well ventilated area and use safety glasses. If you need to wipe something down with a solvent-soaked rag, wear protective gloves. The nitrile (Buna N) gloves are generally best with solvents.

73, Barry WA4VZQ ornitz@usa.net

753. Re: TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 08:46:47 UTC
From: TruckDrivingMan <tansorg@cs.tu-berlin.de>
Message-ID: <95b7gu$j3a$07$1@news.t-online.com>
Source record: 54952
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

AFAIK,the open 1/4 wave cable is a short circuit for the concerning frequency.Though he should take the frequency of the tv-channel for the 1/4 wave calculation.

Tom

"Paul Keinanen" <keinanen@sci.fi> schrieb im Newsbeitrag news:63a37tcq80ho1indg6aerkfd693bdo1e8d@4ax.com...
> On Fri, 26 Jan 2001 07:30:35 -0500, "Bob Lewis" <rlewis@staffnet.com>
> wrote:
>
>
> >You can make a good inexpensive notch filter by placing a 1/4 wave (on
> >your 6M operating frequency) long piece of coax, shorted on the far
> >end, across the input to the amplifier.
>
> Make that 1/2 wave and you might see a notch :-) on that frequency
> (and remembering to compensate for the velocity factor) if you are
> using shorted stubs.
>
> A 1/4 wave _open_ stub could also be used, but it is harder to tune.
>
>

754. Re: Raising coil Q in regen RX- Glass Properties

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 08:54:56 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <Gw9e6.42509$s6.1375053@news-west.usenetserver.com>
Source record: 54951

"Dick Carroll" <dixie@townsqr.com> wrote in message
news:95auqn$8b1$0@208.207.71.176...
>
> tom_bruhns@agilent.com wrote:
> >
> > Although in a great many applications, the former
> > material isn't all that important (...yeah, Reg, I use
> > cardboard tubes and PVC pipe sections too!...), be
> > careful about glass. There are LOTS of different kinds
> > of glass. Some glasses are fairly high loss. To make
> > matters worse, if you use glass as an insulator in a
> > high power system and it starts to heat, its dissipation
> > factor typically increases rather rapidly, possibly
> > leading to thermal runaway. We had a serious materials
> > selection problem in one of our products because of
> > exactly this phenomenon. If you stay with fused quartz,
> > you should be fine! :-)
> >
>
> Every "Large lab glass vial" that I ever saw was Pyrexï¿½
> glass, which is what is (was) used by Eimac for the
> envelope on their high power amplifier tubes. I'd expect,
> then, that Pyrex should be OK at RF, right?
> For sure you wouldn't want to use some leaded glass for
> a former.

Most large pieces of laboratory glassware are borosilicate glass (Pyrex is one trade name). It can take much higher temperature than "soft" glass. Receiving tubes generally did not use the "hard" glass of transmitting tubes. Glass has a fairly large dielectric constant, and its loss tangent is nothing to brag about. As glass heats, it can become quite conductive. Microwave printed circuit boards are made with quartz fibers in Teflon rather than glass to keep down losses and lower the dielectric constant.

If you have any Aquadag (colloidal graphite) like that used to coat picture tubes, you can easily demonstrate that glass is an ionic conductor. Get a piece of glass rod a few inches long. Wrap two pieces of bare copper wire around it separated about an inch. Coat the wire and glass with Aquadag to hold the wire in place. Connect the wires to an ohmmeter and heat the glass between the wires with a propane torch. Long before the glass softens, you will see its resistance drop. By the time it is at "red heat", it is

conductive enough that you can sustain its heating by passing current through it. Many glass furnaces are started with gas heating, but switch to electrical Joule heating one the glass becomes conductive enough. The relationship between temperature and resistivity of glass is known as the Rasch and Hinrichsen law.

Often in high power, high voltage tubes, you can notice a gradual coloration (usually brown or blue) with use around some of the leads coming through the glass. This is usually not de-vitrification but electrolysis and ion migration in the hot glass.

However, going back to regenerative receivers at HF, I would not worry too much about glass, ceramic, or most plastics. Medicine bottles make excellent coil forms.

73, Barry WA4VZQ ornitz@usa.net

755. Re: Rocket Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 12:05:01 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <Fjce6.8$Hi7.681@wa.nnrp.telstra.net>
Source record: 54953

Could a slot aerial be used instead? (ie Feed a slot in the aluminium).
Just a thought. I've had no actual experience with slot aerials.

Murray - VK6HL

steve <steve@btinternet.com> wrote in message
news:3a7896cc.11410486@news.btinternet.com...
> Hi Chaps,
> Appart from Ham radio I also do amateur rocketry - I'm making
> an all aluminium rocket of about 1.5" diameter. The Rocket will carry
> a small 70cms transmitter for tracking. I'd like to use the aluminium
> body of the rocket itself as the antenna. Two possibilities occur to
> me:-
>
> 1) isolate two sections of the body and feed like a dipole.
> 2) Make a sort of internal gamma match
>
> See a diagram of the two designs at:-
> http://www.btinternet.com/~rocketry/ant/ant.gif
>
> The diagrams show a cross section through the rocket - nosecone at the
> left. 1) is at the top 2) at the bottom.
>
> While 1) seems to be shore fire I'm tempted to try 2) because I think
> it would be a physically stronger. Would 2) work?
>
> I can vary the body length to get 1/2, 3/4 or full wave resonance.
>
> Any comments would be appreciated.
>
> Can anyone explain how gamma matches work - I assume they transform
> the feeder impedance to a higher impedance that is tapped off part way
> up the dipole?
>
> Steve G8KHW
>

756. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 12:14:08 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <+NQ3TLAQMVe6Ew3X@invest.fsbusiness.co.uk>
Source record: 54958

Hello David,

>I happened to use some Harris IRF-510 parts recently in my building
>of the WA2EBY FET power amp design. I have had no evidence of
>instability so far operating on 40m only. One would expect that the
>Harris and International Rectifier parts would be essentially
>identical. Further, I believe I remember reading some industry news
>item some years back, announcing some sort of second-sourcing
>agreement between the two companies. The Harris parts should
>be, in other words, 'authorized'. BTW my parts have the Harris logo
>rather than the letters HAR, but I would agree with the guess of
>Harris as the manufacturer. I got my items from Dan's Small Parts
>and Kits:
>http://www.fix.net/dans.html
>
>There is a brief writeup of my experience with the FET power amp
>and a couple of photos at:
>http://www.angelfire.com/md/k3ky/page60.html
>
>73, David K3KY
Thank you for your input.

Could you tell me where the above FET pa article is published?

I have used two of these FET's in Fritz Raab's class-E pa and have also
had good results.

Thank you also for the URL's.

(((73)))

Phil G4ZOW

757. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 12:15:00 UTC
From: wmeara@clix.pt
Message-ID: <3a795231.1095204@news.clix.pt>
Source record: 54949

Woody: Very interesting. You should put together a web page on this. I too was involved in rocketry and ham radio as a kid, but our rockets were the tamer, less exciting Estes vehicles (Estes "Model Rocketeers Code made us swear not to engage in the kind of stuff you were doing!") Our Club was the "Waters Edge Rocket Research Society" See http://www.erols.com/wmeara (lots of homebrew radio stuff there also)
73 Bill N2CQR CU2JL

On Thu, 01 Feb 2001 03:08:45 GMT, Woody <woody.white@att.net> wrote:

>FWIW... I have also experimented with rocketry. A different era.
>'Twas back in the mid 60s when I was in high school. Was a member of
>SOLAR (Society of Lyncburg Amateur Rocketeers). No commercial stuff
>then. All total homebrew - which I still had some pictures. The
>rockets were Al irrigation tubing. The small ones were 1' diameter x
>3' long. The mid sized were ~1.5" dia x 6-7' long 2 stage with 'chute
>recovery. The biguns were 3" tube 12' long. ZOOM!!!! We lost one big
>one on the other side of a mountain range. We had a railroad tie
>blockhouse and two remote tracking theatolites (how the hell do you
>spell?) with sound powered phones to the blockhouse. Rockets were
>fueled by zinc dust/sulfur mix and fired using electrical ignition
>with safety interlocks. Safety was important and we never even had a
>close call, but our sponsor (JayCees) departed company after seeing
>our first launch :). We kept going on our own until we were noticed
>by Washington DC air control radar and the FAA shut us down (we lasted
>~3 years). The highlight was beating the Navy Polaris to the punch by
>a few months... We launched a 6 footer from the bottom of a farm
>pond. The top of the launch tube (sealed 12" PVC pipe) was about 2-3
>feet below the surface. One of our club members got a summer job
>offer at Cape Canaveral out of that!
>--
>Woody, WB4QXE
>For Ham Radio homebrewing and
>Scanning Electron Microscope Images,
>visit: http://woody.white.home.att.net

758. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 14:00:35 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95bq4b$n2d$1@neptunium.btinternet.com>
Source record: 54954

It depends on what you want to use a Smith Chart for.

If the purpose is design or analysis or performance of transmission lines with given terminations, or computation of what the terminating impedance must be for a given input impedance, then small professional-grade programs are available from the website below.

They are much more accurate, faster and easier to use than charts. They cover the whole electrical spectrum whereas Smith charts are useful at only at HF. Also transform from series R+jX to parallel equivalents, and reverse. Smith charts are obsolete in this new Century.

Download in a few seconds each, programs RJELINE2, RJELINE3, COAXPAIR.

Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

<robgrz@my-deja.com> wrote in message news:959j1s$ms1$1@nnrp1.deja.com...
> I am looking for a good free smith chart program for windows. I've
> looked around the search engines and have only found old dos programs.
> Does anyone have any suggestions?
>
> Thanks,
> Robert
>
>
> Sent via Deja.com
> http://www.deja.com/

759. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 14:14:09 UTC
From: richardh@iinet.net.au
Message-ID: <3a796e75.1876187@news.m.iinet.net.au>
Source record: 54955

Rolie
OK on being in WA - we should met as there dont seem to be too many
"serious" experimenters in WA
the rational for the subcarrier at 1750 Hz is that it is approx half
way between 300 and 3000 Hz. I think the folding analogy does make
sense - I thought I understood it all at one time.

Richard.

On Wed, 31 Jan 2001 23:29:54 GMT, berd_kalamunda@techemail.com (Rolie
Baldock) wrote:

>Hello again Richard,
>
>I am a friend of VK6SQ and live not far from him.
>
>On Wed, 31 Jan 2001 12:19:14 GMT, richardh@iinet.net.au (Richard
>Hosking) wrote:
>
>>On Mon, 29 Jan 2001 23:23:04 GMT, berd_kalamunda@techemail.com (Rolie
>>Baldock) wrote:
>>
>>>This is the third method of SSB and has been around since Weaver
>>>proposed it in the dark and distant past.
>>>
>>The third method as I understand it uses an audio subcarrier at around
>>1750 Hz for a 300=-3000Hz bandwidth. On receive the RF is direct
>>coverted to audio in the first pair of mixers. The first LO is at a
>>frequency in the middle of the SSB passband (ie carrier+/_ 1750Hz).
>>The I/Q signals are filtered by a sharp LPF at 1800Hz. This has the
>>effect of "folding" the audio around the 1750Hz subcarrier. The audio
>>is then demodulated by a second pair of mixers driven by a LO at
>>1750Hz in quadrature. The advantage is that you dont need a phase
>>shift network at audio but the Low pass filter must be quite sharp
>>
>>
>>Richard
>>http://www.iinet.net.au/~richardh/VK6BRO.htm
>>
>>zaprichardh@iinet.net.au
>>(remove the zap)
>
>--Rolie Baldock. email: <berd_kalamunda@techemail.com>

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

760. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 15:06:23 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <95bu1f$h54$2@ausnews.austin.ibm.com>
Source record: 54957

In <q29e6.42508$s6.1372550@news-west.usenetserver.com>, "Dr. Barry L. Ornitz"
<ornitz@usa.net> writes:
>Hi Dick,
>
>Since your questions will be likely asked by others too,
>I'll answer them here.
>
>"Dick Carroll" <dixie@townsqr.com> wrote in message
>news:95au17$6bv$0@208.207.71.176...
>> Thanks for this good information. My bottle of Q-dope
>> always dries out long before it is empty, and usually
>> can't be opened.
>
>Drip some fresh solvent into the bottle-cap threads. This
>often softens the dried plastic.
>
>> Question: You said "polystyrene" peanuts. Are they the
>> same matereial as what are almost universally known as
>> "styrofoam" peanuts, or they the more rarely seen tough,
>> spongy pellets that appear to be cut off pieces of rod?
>
>The crunchy kind. Styofoam is just one trademarked name
>(Dow, I think). I usually use the generic names since when
>I worked in the chemical industry and wrote reports, I was
>taught to avoid using such trademarks and copyrighted
>names.
>
>> Also: Can one thin commercial Q-dope with acetone to
>> prevent it from drying out? I keep a pint of acetone on
>> hand. Or should I go looking for some Tolulene?
>
>Look on the bottle to see which solvent is currently being
>used. You will have better luck thinning it with the same
>solvent. Recognizing which is used by smell is second
>nature to me, but thinking about it, I find it hard to
>describe either smell. To me toluene smells sweeter than
>acetone. Since you have acetone, you should recognize its
>smell. Polystyrene is somewhat more soluble in toluene than
>it is in acetone.
>
>I generally recommend acetone as a good, general purpose
>solvent for many applications because it is far less toxic
>than most others. It is generally considered about the same
>toxicity as isopropyl alcohol. It is a good polar solvent,

>where toluene is non-polar. For general degreasing, where a
>non-polar solvent is desired, I usually use painter's
>naphtha (or Stoddard solvent, the main ingredient in WD-40,
>which is a highly refined kerosene distillation cut).
>
>All of these are very flammable, and while acetone and
>naphtha are not terribly toxic, toluene is fairly bad. It
>is best to avoid breathing the vapors of any solvent. So
>work in a very well ventilated area and use safety glasses.
>If you need to wipe something down with a solvent-soaked
>rag, wear protective gloves. The nitrile (Buna N) gloves
>are generally best with solvents.
>
> 73, Barry WA4VZQ ornitz@usa.net

I seem to remember a warning on the last can of Acetone that I bought warning that it may be a liver carcinogen (I'm not sure whether this is due to the Acetone itself, or due to a contaminant in it). In any case, please be sure to read and heed all appropriate warnings on the container. Additionally, it may be worth obtaining a MSDS on the chemicals in use.

Dave - WA4QAL

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

761. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 15:08:14 UTC
From: Al Gerbens <agerbens@uswest.net>
Message-ID: <bYee6.1016$_N1.110078@news.uswest.net>
Source record: 54956

These programs are great, thanks.

Reg Edwards wrote in message <95bq4b$n2d$1@neptunium.btinternet.com>...
>It depends on what you want to use a Smith Chart for.
>
>If the purpose is design or analysis or performance of transmission lines
>with given terminations, or computation of what the terminating impedance
>must be for a given input impedance, then small professional-grade programs
>are available from the website below.
>
>They are much more accurate, faster and easier to use than charts. They
>cover the whole electrical spectrum whereas Smith charts are useful at only
>at HF. Also transform from series R+jX to parallel equivalents, and
>reverse. Smith charts are obsolete in this new Century.
>
>Download in a few seconds each, programs RJELINE2, RJELINE3, COAXPAIR.
>
>Not zipped up. Run immediately.
>---
>**********
>Regards, Reg, G4FGQ
>Free radio design & modelling software
>http://www.btinternet.com/~g4fgq.regp
>
>**********
>
><robgrz@my-deja.com> wrote in message news:959j1s$ms1$1@nnrp1.deja.com...
>> I am looking for a good free smith chart program for windows. I've
>> looked around the search engines and have only found old dos programs.
>> Does anyone have any suggestions?
>>
>> Thanks,
>> Robert
>>
>>
>> Sent via Deja.com
>> http://www.deja.com/
>
>

762. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 16:34:13 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <95ched$su8$1@news5.svr.pol.co.uk>
Source record: 54962

> I seem to remember a warning on the last can of Acetone that I
> bought warning that it may be a liver carcinogen (I'm not sure
> whether this is due to the Acetone itself, or due to a contaminant
> in it). In any case, please be sure to read and heed all
> appropriate warnings on the container. Additionally, it may be
> worth obtaining a MSDS on the chemicals in use.
==========
If I remember well , nail polish remover is in fact acetone.

73 Frank gm0csz.kn6wh@ukrs.org

763. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 19:07:05 UTC
From: Dan Goldberg <nospamdgol@home.com>
Message-ID: <ttie6.54011$_8.1676578@news1.rdc1.bc.home.com>
Source record: 54960

The data rate is negligible, on the order of bytes/s. I will likely however need to send 2 or 3 of these digital streams. The range need only be a metre or two at most. The application is for transmitting positional data from an optical encoder. The optical encoder will be on a moving (rotating) object which makes the use of a wire lead very difficult. The rotating object will have a free range of rotational motion so any wires could get snagged or tangled and restrict motion.

Ideally I'd like to be able to build this out of readily available parts, and it shouldn't cost outrageous amounts.

Thanks for your reply, I'd really appreciate some suggestions.

Dan.

> Dan,
>
> For a good answer, I think we need more information on your project. What
is
> the data rate of your signals ? What is the distance between the
transmitter
> and the receiver ? And more generally, could you give more details on the
> application ?
>
> regards
>
> --
>
> 73 de F4DAY
>
> Jean-Fran&#65533;ois FOURCADIER
>
> Dan Goldberg <nospamdgol@home.com> a &#65533;crit dans le message :
> QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com...
> Hi, do you think it would be possible for me to transmit 2 digital signals
> using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is in
fact
> the case, could anyone please suggest a method that I could use to
transmit
> digital information. Would I need to convert it to analog and then back to
> digital using DACs/ADCs?
>
> Thanks in advance.
>
> Dan.

>
>
>
>
>

764. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 20:00:03 UTC
From: tom_bruhns@agilent.com
Message-ID: <95cf7t$84v$1@nnrp1.deja.com>
Source record: 54961

In article <3A79C0FD.DD84C5DE@aeronix.com>,
"Craig A. Ferris" <cferris@aeronix.com> wrote:
> Why do you say Smith charts are only useful at HF??? Please explain.

Actually, I believe he went on to write that they are "obsolete". Mind you, there are those of us who don't share that opinion. In fact, my Smith chart seems to work just fine at audio frequencies...and hasn't failed to work yet when I've called on it in 2001. To me, it remains a valuable visualization tool which helps me anticipate what will happen when I add or subtract elements in a ladder network, or change their values, and with a computer-aided chart, there's absolutely no sacrifice of accuracy. (Note that it's easy to read a paper Smith chart to the accuracy needed for a great many engineering applications, and it's easily powered by a brain and a pencil in the field.)

As with any tool, if you don't find it useful, don't use it. But don't assume it's not useful to others. A bit like "proving" that a bumble-bee can't fly??

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

765. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 20:03:10 UTC
From: "Craig A. Ferris" <cferris@aeronix.com>
Message-ID: <3A79C0FD.DD84C5DE@aeronix.com>
Source record: 54959

Why do you say Smith charts are only useful at HF??? Please explain.

73,
Craig NR4E

Reg Edwards wrote:

> It depends on what you want to use a Smith Chart for.
>
> If the purpose is design or analysis or performance of transmission lines
> with given terminations, or computation of what the terminating impedance
> must be for a given input impedance, then small professional-grade programs
> are available from the website below.
>
> They are much more accurate, faster and easier to use than charts. They
> cover the whole electrical spectrum whereas Smith charts are useful at only
> at HF. Also transform from series R+jX to parallel equivalents, and
> reverse. Smith charts are obsolete in this new Century.
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> Download in a few seconds each, programs RJELINE2, RJELINE3, COAXPAIR.
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> Not zipped up. Run immediately.
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> **********
> Regards, Reg, G4FGQ
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>
> <robgrz@my-deja.com> wrote in message news:959j1s$ms1$1@nnrp1.deja.com...
> > I am looking for a good free smith chart program for windows. I've
> > looked around the search engines and have only found old dos programs.
> > Does anyone have any suggestions?
> >
> > Thanks,
> > Robert
> >
> >
> > Sent via Deja.com
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766. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 20:54:42 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <I8IGEXBS0ce6EAXR@ifwtech.plus.net>
Source record: 54963

Reg Edwards wrote:
>If the purpose is design or analysis or performance of transmission
>lines with given terminations, or computation of what the terminating
>impedance must be for a given input impedance, then small professional-
>grade programs are available from the website below.
>
>They are much more accurate, faster and easier to use than charts. They
>cover the whole electrical spectrum whereas Smith charts are useful at
>only at HF. Also transform from series R+jX to parallel equivalents,
>and reverse. Smith charts are obsolete in this new Century.

I agree with Reg, if numbers are what you want. There's nothing more frustrating than playing the geometry-construction game on a paper chart, and watching the drawing errors mount up.

On the other hand, Smith charts are wonderful as a thinking tool. Don't think of it as a calculator - that really is obsolete - but simply learn to read it like a map.

There are about six things you need to know in order to read a Smith chart like a map, but words are the wrong way to teach something that is essentially visual. Find out more if you can - you won't regret it!

The ideal software is something that gives you the accurate numbers *and* the intuitive graphical features of the Smith chart too. One Windows program with those features is Z-MATCH marketed by Number One Systems, UK: http://www.numberone.com/ds_zmatch.htm
The only problem is the "professional" price.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

767. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 22:09:18 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC806EF7D78@www.premiersi.com>
Source record: 54856

```
Perhaps a single data stream, with "address" information such as a 1-byte
stream ID?
```

"Dan Goldberg" <nospamdgol@home.com> wrote in message
news:ttie6.54011$_8.1676578@news1.rdc1.bc.home.com...
> The data rate is negligible, on the order of bytes/s. I will likely
however
> need to send 2 or 3 of these digital streams. The range need only be a
metre
> or two at most. The application is for transmitting positional data from
an
> optical encoder. The optical encoder will be on a moving (rotating) object
> which makes the use of a wire lead very difficult. The rotating object
will
> have a free range of rotational motion so any wires could get snagged or
> tangled and restrict motion.
>
> Ideally I'd like to be able to build this out of readily available parts,
> and it shouldn't cost outrageous amounts.
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> Thanks for your reply, I'd really appreciate some suggestions.
>
> Dan.
>
>
> > Dan,
> >
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What
> is
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the
> > application ?
> >
> > regards
> >
> > --
> >
> > 73 de F4DAY
> >
> > Jean-Fran&#65533;ois FOURCADIER

> >
> > Dan Goldberg <nospamdgol@home.com> a crit dans le message :
> > QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com...
> > Hi, do you think it would be possible for me to transmit 2 digital
signals
> > using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is in
> fact
> > the case, could anyone please suggest a method that I could use to
> transmit
> > digital information. Would I need to convert it to analog and then back
to
> > digital using DACs/ADCs?
> >
> > Thanks in advance.
> >
> > Dan.
> >
> >
> >
> >
> >
>

768. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 22:10:05 UTC
From: k3ky@erols.spamnocom
Message-ID: <95cmrt$9ff$1@bob.news.rcn.net>
Source record: 54964

The WA2EBY FET amplifier appeared in a two-part article in
QST Magazine, March and April 1999.
73, David K3KY

In article <+NQ3TLAQMVe6Ew3X@invest.fsbusiness.co.uk>
Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote:

> Hello David,
>
>>I happened to use some Harris IRF-510 parts recently in my building
>>of the WA2EBY FET power amp design. I have had no evidence of
>>instability so far operating on 40m only. One would expect that the
>>Harris and International Rectifier parts would be essentially
>>identical. Further, I believe I remember reading some industry news
>>item some years back, announcing some sort of second-sourcing
>>agreement between the two companies. The Harris parts should
>>be, in other words, 'authorized'. BTW my parts have the Harris logo
>>rather than the letters HAR, but I would agree with the guess of
>>Harris as the manufacturer. I got my items from Dan's Small Parts
>>and Kits:
>>http://www.fix.net/dans.html
>>
>>There is a brief writeup of my experience with the FET power amp
>>and a couple of photos at:
>>http://www.angelfire.com/md/k3ky/page60.html
>>
>>73, David K3KY
> Thank you for your input.
>
> Could you tell me where the above FET pa article is published?
>
> I have used two of these FET's in Fritz Raab's class-E pa and have also
> had good results.
>
> Thank you also for the URL's.
>
> (((73)))
>
> Phil G4ZOW

769. Re: 813s in Grounded Grid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 22:20:23 UTC
From: k3ky@erols.spamnocom
Message-ID: <95cnf7cct1@bob.news.rcn.net>
Source record: 54965

Your 813 comments are interesting, Skipp- especially the part
about running nearly 4KV on them. I would love to hear a bit
more about how you are running them- the highest band you
have run with 4-813, what kind of plate current, what kind of
power output you have seen, etc. Oh, yes- and what modes?

I have two HB GG 813 amps here with pairs of tubes. One runs
with a very stiff 2500V supply, and typical output is around 7-800W
cw. The other amp has a very poorly regulated supply, idling at
~3300V and running about 2500V key down. Power output is
similar. From what I had read over the years, I thought I was
pushing it at 3300V. Just wondering what your key up and key
down plate voltage runs.
Thanks, 73, David K3KY
P.S. I cool both of my amps with ~100cfm muffin fans blowing
across the envelopes and plate caps.

In article <957dmk$b1q$5@woodrow.ucdavis.edu>
Skipp <skipp@pilot.ucdavis.edu> wrote:

> : http://members.home.net/rbethman/813s.html
> : You'll find the info at the above site. While it is not a
> : single band amplifier, it shouldn't be too difficult to place it
> : on 160 mtrs.
> : Enjoy!
> : N0DGN
>
> I've looked at the diagram for the above amplifier project and have some
> thoughts to add.
>
> *****
>
> First: The input tune circuit is almost a must-do. Unless your using a
> tranceiver with a tube PA, this circuit will be hard to match to many
> solid state exciters (without their respective built in auto antenna
> tunner).
>
> Second: The bias supply shows an extra transformer "T2" that one would not
> really need if the main supply was properly thought out. You would really
> have to know what your doing in this area if the amplifier is operated
> grounded grid AB2 as shown.
>
> One method of standby mode cathode current cutoff is to keep the bias
> constant (at normal value 100% of the time) and interupt the center tap
> path of the filament transformer in the proper location. A high value

> series shorted resistor is simply used to develope a cutoff voltage when
> the unit is in stand by.
>
> Third: Metering the Grid and Plate current is almost another must-do
> item. Be careful of the position of the grid current metering to ensure
> your only measuring the grid and not the combination grid/cathode current
> values.
>
> Fourth: Get rid of RFC5 and replace it with a resistor of proper value.
> Chokes in the output tank to ground are old news.
>
> Fifth: Make sure to blow a lot of air past the tube base pins and past the
> glass anode connections. I run almost 4KV on my quad 813 amplifier and it
> really heats the room up fast.
>
> cheers
> skipp@pilot.ucdavis.edu
>
> http://sonic.ucdavis.edu for amateur radio goodies
>

770. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 22:29:27 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3A79E347.FDFBF589@mwci.net>
Source record: 54966

Ian White, G3SEK wrote:

> On the other hand, Smith charts are wonderful as a thinking tool. Don't
> think of it as a calculator - that really is obsolete - but simply learn
> to read it like a map.

The Smith charts in programs such as ARRL Radio Designer and Harmonica are very useful for designing amplifiers, oscillators and matching networks using L, C and xmission lines in a Z0 system environment. The ability to get gain, stability and noise figure circles and the input/output reflection coefficients that provide the desired performance over a wide frequency range is hard to duplicate using nothing but equations. The visual aspect adds insight that is almost impossible to get otherwise.

There is a two part QEX article for the Radio Designer program that is available from the ARRL QEX website.

Bill W0IYH

771. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 22:32:20 UTC
From: Gullik Webjörn <webjorn@flysta.net>
Message-ID: <3A79E3F4.6C085819@flysta.net>
Source record: 54967

Hej Lasse,

I still think dual mixers is the easiest way to do this. Mini-Circuits
have suitable components. If you need precise quadrature, a fixed LO, a
power splitter, and two pieces of coax differing by 90 deg , each feedind
a mixer combined with a VCO
feeding the RF port of said mixers at 0 deg difference. Assume first LO of
1000 Mhz, VCO of 1020 to 1140 Mhz will give you 20 - 140 out of the mixers
in quadrature over a wide range. If you dont like cutting coax, use first
LO of 2000, divide with two FFs and you have 1000 out with 90 deg
difference

If the tuning range had been narrower, you could have used a PLL.
The characteristic of the mixer type PLL is lock at exactly 90 deg diff.

If there is any level info in the 20 - 140 mhz signal, then the mixer
version
will preserve that.

Gullik

Lasse wrote:

> Hi
> I am looking for any information regarding the generation of
> quadrature signals.
>
> It needs to be wideband, i e 20-140 MHz or so...
> Using all-pass filters seems to be a viable way, but where do I find
> any design information. Searching the internet reveals several sources
> but they are old, very old, hard to find!
>
> If you have any information please post it here
>
> Thanks
> Lasse SM5GLC

772. Re: Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-01 23:45:07 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t7jt878n71644f@corp.supernews.com>
Source record: 54968

get your ham ticket and you'll have more fun, a lot more..
good luck..
hank wd5jfr

"Gapershi" <gapershi@aol.common> wrote in message
news:20010130200430.04734.00001577@ng-mp1.aol.com...
> This may be of interest to anyone who homebrews MF and HF receivers.
> For the past 3 or 4 years I have been working on my own design for a
> general coverage receiver. Recently I have made some improvments to
> my front end design. I have carefully documented the whole radio and
> placed it on a web site. I was able to extend the dynamic range an extra
20dB
> from what I had previously achieved. Also some minor tweaks have been
> added recently.
>
> I should mention that I am not a ham radio operator, but enjoy shortwave
and
> medium wave dxing. I have a background in electronics, (25 yrs) but I am
> not an engineer.
>
> My radio can be seen at this address:
>
> http://members.aol.com/gapershi/radio.htm
>
> If anyone knows of any homebrew HF radios with good documentation,
> I would be interested in seeing them.
>
> Thanks,
> Gary Pershin
> +++ You can lead a fool to reason, but you can't make him think! +++
> <Gapershi>

773. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 00:23:20 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A7A007A.22FC@pop.removethistomailme.net>
Source record: 54969

Bill Meara wrote:
>
> Woody: Very interesting. You should put together a web page on this.
> I too was involved in rocketry and ham radio as a kid, but our
> rockets were the tamer, less exciting Estes vehicles (Estes "Model
> Rocketeers Code made us swear not to engage in the kind of stuff you
> were doing!")

Yeah, when I was a kid I personally made it a point of honor to break as
many of those rules as possible. I never managed to get a bird hung up
in a power line, so that one still bugs me. Besides that one, I believe
there was one other safety rule that I never got around to infringing,
but I can't remember what it was. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
---

774. Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 00:51:56 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <Txne6.43714$s6.1541249@news-west.usenetserver.com>
Source record: 54970

<glass2@glass2.lexington.ibm.com> wrote in message
news:95bu1f$h54$2@ausnews.austin.ibm.com...
> I seem to remember a warning on the last can of Acetone that I
> bought warning that it may be a liver carcinogen (I'm not sure
> whether this is due to the Acetone itself, or due to a contaminant
> in it). In any case, please be sure to read and heed all
> appropriate warnings on the container. Additionally, it may be
> worth obtaining a MSDS on the chemicals in use.

Acetone is listed as being non-carcinogenic by NTP, IARC, ACGIH and OSHA. I used to work for the company whose long history of safely working with acetone convinced the EPA to remove it from the SARA 313 list (Eastman Kodak).

Like most solvents, acetone can certainly harm the liver and kidneys. Just as it is a good degreaser for cleaning parts, it also dissolves the fat from cells in the liver and kidney. Skin dermatitis may result from this same action on the skin. This is the reason I suggested the use of Nitrile gloves, safety glasses, and working in a well ventilated area. As I noted, acetone is similar to isopropyl alcohol in its toxicity. Drinking an ounce will probably not kill you (but the hangover and other nasty effects may make you wish it did). Ethyl alcohol (ethanol - the drinking kind) will also de-fat your liver and kidneys, and also cause intoxication and brain damage.

But if you compare the toxicity of acetone, isopropanol, and ethanol to commercial brake and carbureter cleaners, brake fluid, antifreeze, gasoline, etc. - you will find them to be pretty tame in comparison. This is not to say you should treat them as harmless; it merely says you should treat the other materials with considerable care.

73, Barry WA4VZQ ornitz@usa.net

775. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 00:59:35 UTC
From: Bahremu <bahremu@yahoo.com>
Message-ID: <95d0eg025ds@enews3.newsguy.com>
Source record: 54972

You sure can do it.
Your digital signal need a "1" or ON state and a very distinct "0" or OFF state, so use a 1200Hz tone for zero bit, and 2400Hz tone for the one bit. This methode was used for the old tape drives (remember them?). After you run your origonal signal into a digital signal then use that as a control to generate the 1.2kHz and 2.4kHz. Send those into the input of the xmitter, and all is good from there. To return the two tones to digital signals so that they can be send through ther DAC you can count zero crossings, and the rest I leave to you.

If you can find the book "Computer Peripherals that you can build" the general diagrams are in there.
G'Luck with you project

-- Bahremu

--
Live Fast.
Love Hard.
Leave A Beatiful Corpse.
Koalas are stronger then the look.
"Dan Goldberg" <nospamdgol@home.com> wrote in message
news:ttie6.54011$_8.1676578@news1.rdc1.bc.home.com...
> The data rate is negligible, on the order of bytes/s. I will likely
however
> need to send 2 or 3 of these digital streams. The range need only be a
metre
> or two at most. The application is for transmitting positional data from
an
> optical encoder. The optical encoder will be on a moving (rotating) object
> which makes the use of a wire lead very difficult. The rotating object
will
> have a free range of rotational motion so any wires could get snagged or
> tangled and restrict motion.
>
> Ideally I'd like to be able to build this out of readily available parts,
> and it shouldn't cost outrageous amounts.
>
> Thanks for your reply, I'd really appreciate some suggestions.
>
> Dan.
>
>
> > Dan,

> >
> > For a good answer, I think we need more information on your project.
What
> is
> > the data rate of your signals ? What is the distance between the
> transmitter
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> > application ?
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> > regards
> >
> > --
> >
> > 73 de F4DAY
> >
> > Jean-Fran&#65533;ois FOURCADIER
> >
> > Dan Goldberg <nospamdgol@home.com> a &#65533;crit dans le message :
> > QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com...
> > Hi, do you think it would be possible for me to transmit 2 digital
signals
> > using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is in
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> > the case, could anyone please suggest a method that I could use to
> transmit
> > digital information. Would I need to convert it to analog and then back
to
> > digital using DACs/ADCs?
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> > Thanks in advance.
> >
> > Dan.
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> >
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> >
>
>

776. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 01:38:22 UTC
From: robgrz@my-deja.com
Message-ID: <95d32d$r3p$1@nnrp1.deja.com>
Source record: 54971

I've actually been trying to download these for a couple of days. I got serenades.exe, but I couldn't get serenadeh.exe. I kept getting a 124k file then the download would end even though the page showed that it was a 31meg file. I just tried again today and the page now shows the size as 124k, but when I run it I'm told that it isn't a valid program. Any thoughts?

Robert

In article <3A78B1BE.5B811CFD@home.com>,
dpnewkirk@home.com wrote:
> robgrz@my-deja.com wrote:
>
> > I am looking for a good free smith chart program for windows. I've
> > looked around the search engines and have only found old dos
programs.
> > Does anyone have any suggestions?
>
> Although it's not a Smith Chart program per se, Serenade SV, the
> free-for-the-downloading student version of Ansoft Corporation's
Serenade
> Design Suite (the full version of which includes linear and nonlinear
> circuit simulation, system simulation, layout and filter synthesis
> tools), includes Smith Tool, an interactive, Smith-Chart-based
> matching-network synthesis program that can be invoked from any polar
> graph produced by Serenade's circuit simulator. You can download
Serenade
> SV's two (large) component files (SerenadeH.exe, which installs the
> circuit simulator that includes Smith Tool, and SerenadeS.exe, which
> installs Serenade SV;s system simulator) via the pages that begin at
>
> http://www.ansoft.com/about/academics/sersv/index.cfm
>
> *And* you can read more about Serenade SV in the January 2001 issue of
> ARRL's QST magazine.
>
> Best regards,
>
> Dave Newkirk, W9VES
> (a technical writer with Ansoft)
> dnewkirk@ansoft.com
> dpnewkirk@home.com
>
>

Sent via Deja.com
http://www.deja.com/

777. "THANK YOU" TVI 6 Meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 02:33:45 UTC
From: "David J. Moge" <n1rzb@mailops.com>
Message-ID: <3a7a1bf0@excalibur.gbmtech.net>
Source record: 54973
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Thanks to all who responded to my call for help about 6 Meter TVI. I have a good base of information from which to work from.

Thanks
"73"
Dave, N1RZB

778. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 03:27:39 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <95d9fp02pcb@news2.newsguy.com>
Source record: 54975

I think I would consider sending your 2 channels alternately (time division) or do something to make sure the state changes on the 2 channels don't happen at the same time. Given your low data rate, shouldn't be a problem.

I'm suspecting that with digital signals like that you aren't going to get real good channel separation, so some other way to split your channels would be good, or perhaps give it a little help. Either case would make the receiving circuitry a little more complex, but at least it isn't the moving part.

Depending on your sensors, I'd be more inclined to use a PIC to generate the tones, this also gives you some flexibility in multiplexing etc. and the circuitry is likely to be a lot simpler. Also, the PIC is a pretty low power device and your power supply will also need to move along with the sensor, so I suspect the lighter the better.

Perhaps an even simpler approach is to use the PIC to key an oscillator and use some sort of on-off code, rather than tones. You would need some sort of computation on the receiving end in any case, and a little Epson oscillator can be had for $3. It's probably way smaller than your FM transmitter, and it and the PIC can be run for days off a 9 volt battery. Your receiving setup would be a little different, but still not rocket science.

didleydadidah

779. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 04:17:46 UTC
From: Terry Sanford <tsanford@nf.sympatico.ca>
Message-ID: <3A7A3542.D6045A90@nf.sympatico.ca>
Source record: 54974

> Dennis Collin wrote:>
> > I'm looking to start building QRP transciever kits. I need to equip a
> > bench for such work.
>

Then K7MEM wrote:

A well thought out friendly and helpful list of advice.

Now, IMHO, that's the way to greet and encourage people into the electronics hobby.

Not turn them off by 'snide' and 'superior' comments.

Well done.

780. Good beach antenna?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 04:45:03 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <95de0f$hk0$1@agate.berkeley.edu>
Source record: 54976
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

hi,

I just finished building my first QRP rig; heck, my first transceiver of any kind. I am so excited that it works; I'm thinking of places I can take my radio now, where I couldn't before.

We always take our vacation on the beach each spring (Nag's Head, NC) and I wondered about operating from the beach. I fly there, so bringing supports such as a mast is not really an option. Bringing a roll of thin wire for a 40m dipole wouldn't be so bad, though. But then what would I do with it, just lay the dipole on the sand?

Anyone have any better QRP beach antenna suggestions?

tnx,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

781. Re: Transmitting Digital Signals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 07:00:13 UTC
From: Dan Goldberg <nospamdgol@home.com>
Message-ID: <1Wse6.56482$_8.1823281@news1.rdc1.bc.home.com>
Source record: 54977

Interesting, thank you. I can't envision any method of transmitting or receiving data, since it's not my area of expertise but I can see how that would be pretty easy to implement with a programmable microprocessor or PIC or something of that sort.

Thank you also for the book title. I'll try to find it at my university library.

Dan.

> You sure can do it.
> Your digital signal need a "1" or ON state and a very distinct "0" or OFF
> state, so use a 1200Hz tone for zero bit, and 2400Hz tone for the one bit.
> This methode was used for the old tape drives (remember them?). After you
> run your origonal signal into a digital signal then use that as a control
to
> generate the 1.2kHz and 2.4kHz. Send those into the input of the xmitter,
> and all is good from there. To return the two tones to digital signals so
> that they can be send through ther DAC you can count zero crossings, and
the
> rest I leave to you.
>
> If you can find the book "Computer Peripherals that you can build" the
> general diagrams are in there.
> G'Luck with you project
>
> -- Bahremu
>
> --
> Live Fast.
> Love Hard.
> Leave A Beatiful Corpse.
> Koalas are stronger then the look.
> "Dan Goldberg" <nospamdgol@home.com> wrote in message
> news:ttie6.54011$_8.1676578@news1.rdc1.bc.home.com...
> > The data rate is negligible, on the order of bytes/s. I will likely
> however
> > need to send 2 or 3 of these digital streams. The range need only be a
> metre
> > or two at most. The application is for transmitting positional data from
> an
> > optical encoder. The optical encoder will be on a moving (rotating)
object
> > which makes the use of a wire lead very difficult. The rotating object

> will
> > have a free range of rotational motion so any wires could get snagged or
> > tangled and restrict motion.
> >
> > Ideally I'd like to be able to build this out of readily available
parts,
> > and it shouldn't cost outrageous amounts.
> >
> > Thanks for your reply, I'd really appreciate some suggestions.
> >
> > Dan.
> >
> >
> > > Dan,
> > >
> > > For a good answer, I think we need more information on your project.
> What
> > is
> > > the data rate of your signals ? What is the distance between the
> > transmitter
> > > and the receiver ? And more generally, could you give more details on
> the
> > > application ?
> > >
> > > regards
> > >
> > > --
> > >
> > > 73 de F4DAY
> > >
> > > Jean-Fran&#65533;ois FOURCADIER
> > >
> > > Dan Goldberg <nospamdgol@home.com> a &#65533;crit dans le message :
> > > QZ5e6.51375$_8.1564003@news1.rdc1.bc.home.com...
> > > Hi, do you think it would be possible for me to transmit 2 digital
> signals
> > > using a stereo FM kit (ie Veronica, etc.)? I suspect not. If this is
in
> > fact
> > > the case, could anyone please suggest a method that I could use to
> > transmit
> > > digital information. Would I need to convert it to analog and then
back
> to
> > > digital using DACs/ADCs?
> > >
> > > Thanks in advance.
> > >
> > > Dan.

> > >
> > >
> > >
> > >
> > >
> >
> >
>
>

782. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 13:33:47 UTC
From: Kawaya <on5wv@RadioLink.net>
Message-ID: <4mdl7tkbjtd257u4sdiv4l5l3fd1r2n9ol@4ax.com>
Source record: 54978

On Thu, 1 Feb 2001 19:51:56 -0500, "Dr. Barry L. Ornitz"
<ornitz@usa.net> wrote:

>
><glass2@glass2.lexington.ibm.com> wrote in message
>news:95bu1f$h54$2@ausnews.austin.ibm.com...
>> I seem to remember a warning on the last can of Acetone that I
>> bought warning that it may be a liver carcinogen ...

>Acetone is listed as being non-carcinogenic by NTP, IARC,
>ACGIH and OSHA. I used to work for the company whose long
>history of safely working with acetone convinced the EPA to
>remove it from the SARA 313 list (Eastman Kodak)....

How does MethylEthylKetone compare to Acetone?

783. Valpey 100kHz crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 14:22:32 UTC
From: Andre Montald <andre.montald@chello.be>
Message-ID: <loze6.3971$jd3.87367@news.chello.be>
Source record: 54979

Hello,

Is there anybody out there who could help me with the pin-layout of a not too old octal base Valpey type VCO-2 100kHz (sealed in a blue color 5.5cm high metal cylinder) cristal. I suspect it contains a heater element as well since a temp = 75°C is mentionnend as well.
I am looking for a page on the net who could give me a typical application diagram as well? I intend to use it as a reference oscillator and the type of oscillator circuit to be used.

Thanks

Andre / ON7UM

784. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 14:27:37 UTC
From: dcollin@connix.com
Message-ID: <3a7abff9.556060@news.mybizz.net>
Source record: 54980

On Fri, 02 Feb 2001 04:17:46 GMT, Terry Sanford
<tsanford@nf.sympatico.ca> wrote:

>Then K7MEM wrote:
>
>A well thought out friendly and helpful list of advice.
>
>Now, IMHO, that's the way to greet and encourage people into the electronics
>hobby.
>
>Not turn them off by 'snide' and 'superior' comments.
>
>Well done.

Martin, K7MEM, replied to me personally by email with the same message, and I replied back to him privately. Yes, his was a very thoughtful and informative message. One of very few.

I've been very active in the aviation newgroups, where anyone can ask any question at any time, and information and advice is freely shared.

I've been around long enough to have met all sorts of people. There are always those whose knowledge gives them an air of superiority. I guess they forgot that they started from square one, too.

Actually, that's why I posted in the first place. A local ham was recommending, actually pontificating, that a builder must have this, and that, of that brand, etc, etc. It seemed to me that most builders with experience (and a budget) have learned what's essential and what's not.

Thankfully, there are good folks like Martin. I now have my workbench "equipped" with what I need, and have learned to solder well enough to build a kit (I hope ... grin!). I'm not a "brand new" ham, licensed since '92, a shack full of Japanese radios, yard full of antennas, etc. But the Heathkit era was over before I came along in radio and I've never built anything more than dipole antennas, and never soldered anything other than connectors and water pipe.

I've also met several very helpful hams on 30 meters, who, at the mention of building a QRP kit, were ready to offer plenty of practical advice.

"I won't live long enough to make every mistake, therefore I resolve to learn from the mistakes of others"

785. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 14:27:51 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <95eg57$ih4$2@ausnews.austin.ibm.com>
Source record: 54981

In <Txne6.43714$s6.1541249@news-west.usenetserver.com>, "Dr. Barry L. Ornitz"
<ornitz@usa.net> writes:
>
><glass2@glass2.lexington.ibm.com> wrote in message
>news:95bu1f$h54$2@ausnews.austin.ibm.com...
>> I seem to remember a warning on the last can of Acetone that I
>> bought warning that it may be a liver carcinogen (I'm not sure
>> whether this is due to the Acetone itself, or due to a contaminant
>> in it). In any case, please be sure to read and heed all
>> appropriate warnings on the container. Additionally, it may be
>> worth obtaining a MSDS on the chemicals in use.
>
>Acetone is listed as being non-carcinogenic by NTP, IARC,
>ACGIH and OSHA. I used to work for the company whose long
>history of safely working with acetone convinced the EPA to
>remove it from the SARA 313 list (Eastman Kodak).
>
>Like most solvents, acetone can certainly harm the liver and
>kidneys. Just as it is a good degreaser for cleaning parts,
>it also dissolves the fat from cells in the liver and
>kidney. Skin dermatitis may result from this same action on
>the skin. This is the reason I suggested the use of Nitrile
>gloves, safety glasses, and working in a well ventilated
>area. As I noted, acetone is similar to isopropyl alcohol
>in its toxicity. Drinking an ounce will probably not kill
>you (but the hangover and other nasty effects may make you
>wish it did). Ethyl alcohol (ethanol - the drinking kind)
>will also de-fat your liver and kidneys, and also cause
>intoxication and brain damage.
>
>But if you compare the toxicity of acetone, isopropanol, and
>ethanol to commercial brake and carbureter cleaners, brake
>fluid, antifreeze, gasoline, etc. - you will find them to be
>pretty tame in comparison. This is not to say you should
>treat them as harmless; it merely says you should treat the
>other materials with considerable care.
>
> 73, Barry WA4VZQ ornitz@usa.net

Thanks for a very informative posting. I stand corrected.

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

786. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 14:47:28 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95ehjf$5j$1@uranium.btinternet.com>
Source record: 54982

Francine wrote -
> > Why do you say Smith charts are only useful at HF??? Please explain.
>
> Yes,I wonder why that is too.
==========
Background -

Smith did not "invent" Smith charts so much as simplify much older charts which had been in use even before the end of the 19th century to solve power and telephone transmission line problems. And indeed a wide variety of problems in other engineering fields.

In mathematical terms, the old charts provided a graphical means of performing extremely complicated and tedious calculations involving complex hyperbolic functions. Amonst other uses they solved equations such as Tanh(A+jB) = X+jY which occur very frequently in the analysis of performance of all transmission lines.

Before the age of computers they were absolutely essential labour-saving tools. They were faster than slide rules, trig-tables, log tables, etc, but not so accurate of course. They consisted of a whole stack of charts and were still very cumbersome to use.

When in the 1930's many transmission engineers were shifting attention to carrier telephony, HF world-wide and VHF radio, etc, it was realised the old graphical aids could be simplified and greatly reduced in number by assuming the characteristic impedance Zo of HF lines to be a pure resistance Ro, the reactive component jXo of real lines in many cases being small enough to be ignored. This, for example, reduced hyperbolic functions to Sin(A) = X and InvSinh(A+jB) to Log(x), with corresponding simplification of charts.

Smith, around 1940 I think, then an employee of Bell, was the first person to have the newly simplified charts printed and his name attached to them. They were quickly snatched up and put to use in the design of ground and airborne radar systems. After the war came TV.

One consequence of setting the angle of Zo to zero is to imply that conductor loss per unit length is identical to dielectric loss per unit length - which it never is ! On the other hand this does not begin to matter until a line is long enough for the actual loss to be noticeable. Radio amateurs are concerned only with short lengths of low-loss lines. There are other consequences.

The exact formula for Zo is -

Ro+jXo = Sqrt((R+jwL)/(G+jwC)) ohms.

So Smith charts can be misleading and inaccurate unless w = 2*Pi*F is large enough to make

Zo = Sqrt(L/C). ie., a lossless transmission line.

But the angle of Zo of real lines approaches -45 degrees at power, audio frequencies and VLF

Similar discrepancies occur when considering velocity. Smith's lines always have a velocity factor of unity but, of course, it is easy to apply a correction if it is remembered a correction may be needed. But even the correction is guesswork.

A Smith Chart is incapable of showing how an SWR as high as 2.414 can arise. According to Smith an SWR greater than unity is impossible. Beware of using his charts as educational tools.

The sentiment attached to Smith Charts is understandable. But in the age of the PC the young busy engineer has tools of exact precision, labour-saving in the extreme, and covering all frequencies from 1Hz to 1GHz. And just as educational.

I have a book of 6-figure mathematical tables. Also a beautiful 12" slide rule in a pigskin leather carrying case, with a strap for attachment to the owners belt, in excellent working order. Ocasionally I take it out of its drawer and handle it for a while with fond memories.

But I never use it.

And in 57 years of association with transmission lines, from 0.1 Hz to 3 GHz, I have never used a Smith Chart either.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

787. 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 15:30:04 UTC
From: fedtmule1980@my-deja.com
Message-ID: <95ejph$22u$1@nnrp1.deja.com>
Source record: 54983

Hi all!

I am trying to build a 60 Mhz oscilator with no more than 25 Khz drift.
I want to use it in a Idea I got: an Osc. + a mixer infront of a
ordinery FM-radio (88-108MHz) the point is to make a 100 MHz IF. so I
can lissen to transmission om 150-160 Mhz.
I have tryed with just a colpit-osc. but it drift too much (3-10 MHz!!)

HELP!

Kind Regards
Jan Rasmussen, Denmark

Sent via Deja.com
http://www.deja.com/

788. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 16:02:46 UTC
From: "Gerhard W. Hoffmann" <ghf@hochfrequenz.com>
Message-ID: <3A7ADA26.A46F970E@hochfrequenz.com>
Source record: 54986

robgrz@my-deja.com wrote:
>
> I've actually been trying to download these for a couple of days. I
> got serenades.exe, but I couldn't get serenadeh.exe. I kept getting a
> 124k file then the download would end even though the page showed that
> it was a 31meg file. I just tried again today and the page now shows
> the size as 124k, but when I run it I'm told that it isn't a valid
> program. Any thoughts?

I had the same problem here.

73, Gerhard dk4xp

789. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 16:10:53 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3A7ADC0D.341E3FD7@mwci.net>
Source record: 54984

Reg Edwards wrote:

> A Smith Chart is incapable of showing how an SWR as high as 2.414 can arise.
> According to Smith an SWR greater than unity is impossible.

Baloney.

> Beware of using
> his charts as educational tools.

More baloney.

Bill W0IYH

790. Re: Wide band 90 degrees phase shift

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 16:11:36 UTC
From: lasse.moell@swipnet.se
Message-ID: <3a7adb3d.25660450@news.lin.foa.se>
Source record: 54985

Hej Gullik
The use of mixers are not really possible (or desirable) in this case!
The 90 degree phase-shift is to produce a Butler matrix for beam
forming i.e. in a direction finding system. Due to the wideband
performance of the antenna the mixers will severly limit the dynamic
range of the antenna!

Using simple phase-shifting filters will give me 1 degree accuracy and
uses only simple passive components.

Next step will be to synthesize the phase shift digitally, using 4
receiver channels rather than 2 or 3 as used today.

Thanks anyway for you taking the time
Cheers
Lasse SM5GLC

On Thu, 01 Feb 2001 23:32:20 +0100, Gullik =?iso-8859-1?Q?Webj=F6rn?=
<webjorn@flysta.net> wrote:

>Hej Lasse,
>
>I still think dual mixers is the easiest way to do this. Mini-Circuits
>have suitable components. If you need precise quadrature, a fixed LO, a
>power splitter, and two pieces of coax differing by 90 deg , each feedind
>a mixer combined with a VCO
>feeding the RF port of said mixers at 0 deg difference. Assume first LO of
>1000 Mhz, VCO of 1020 to 1140 Mhz will give you 20 - 140 out of the mixers
>in quadrature over a wide range. If you dont like cutting coax, use first
>LO of 2000, divide with two FFs and you have 1000 out with 90 deg
>difference
>
>If the tuning range had been narrower, you could have used a PLL.
>The characteristic of the mixer type PLL is lock at exactly 90 deg diff.
>
>If there is any level info in the 20 - 140 mhz signal, then the mixer
>version
>will preserve that.
>
>Gullik
>
>Lasse wrote:
>
>> Hi
>> I am looking for any information regarding the generation of
>> quadrature signals.

>>
>> It needs to be wideband, i e 20-140 MHz or so...
>> Using all-pass filters seems to be a viable way, but where do I find
>> any design information. Searching the internet reveals several sources
>> but they are old, very old, hard to find!
>>
>> If you have any information please post it here
>>
>> Thanks
>> Lasse SM5GLC
>

791. Re: 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 18:15:02 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <95etei$l5t$1@wanadoo.fr>
Source record: 54988

There is probably something wrong in your achievement. The drift of a well designed Colpitts oscillator is about 1/1000 of the output frequency, i.e. 60 kHz in your project. You can even get 1/10000 short term with special thermical and mechanical care.
So, check the design, and specially the bias of the oscillator transistor. Do you use a buffer ? It's important to isolate the oscillator and the load.

I don't understand very well your project. The ordinary FM receiver are designed for wideband FM (the channels are about 200 kHz wide). If you use such as a receiver for narrow band receiving, the results will be very poor.

good luck !

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

<fedtmule1980@my-deja.com> a &#65533;crit dans le message :
95ejph$22u$1@nnrp1.deja.com...
Hi all!

I am trying to build a 60 Mhz oscilator with no more than 25 Khz drift.
I want to use it in a Idea I got: an Osc. + a mixer infront of a ordinery FM-radio (88-108MHz) the point is to make a 100 MHz IF. so I can lissen to transmission om 150-160 Mhz.
I have tryed with just a colpit-osc. but it drift too much (3-10 MHz!!)

HELP!

Kind Regards
Jan Rasmussen, Denmark

Sent via Deja.com
http://www.deja.com/

792. Marconi crystal oven - info pse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 18:20:19 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <qTCe6.896$u7.2655@nntpserver.swip.net>
Source record: 54989

Looking for information on a Marconi Crystal oven type F3006-0.
Cylinder shaped with L=150 mm, dia =65 mm.
8-polar socket.

tnx
/Christer
sm6pxj

793. Re: Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 18:31:29 UTC
From: k6jq@pacbell.net
Message-ID: <D1De6.15$Tx5.29098@news.pacbell.net>
Source record: 54990

In article <t7jt878n71644f@corp.supernews.com>, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

> get your ham ticket and you'll have more fun, a lot more.. good luck..
> hank wd5jfr

What makes you think this? Gary seems to be an avid receiver enthusiast.
I have no idea why he'd have more fun transmitting. Anyway...

> "Gapershi" <gapershi@aol.common> wrote in message
> news:20010130200430.04734.00001577@ng-mp1.aol.com...
>> This may be of interest to anyone who homebrews MF and HF receivers.
>> For the past 3 or 4 years I have been working on my own design for a
>> general coverage receiver. Recently I have made some improvments to my
>> front end design. I have carefully documented the whole radio and
>> placed it on a web site. I was able to extend the dynamic range an
>> extra
> 20dB
>> from what I had previously achieved. Also some minor tweaks have been
>> added recently.

Very interesting web page, very cool. I like the relative simplicity and
economy of using only one good VCO combined with logic to divide out the
necessary frequencies. Of course, using a in-band IF is going to hurt the
IF rejection capability but 10.7MHz isn't likely to have strong signals.

Did you pursue using a higher first IF (45MHz-ish seems popular in the similar
commercially-made receivers) and running a single VCO over the range of
45-75MHz? You'd have to locate a decent roofing filter at the high-IF but
I suspect little else would change appreciably in your front end.

The 45-75MHz synthesizer could dispense with the division logic, too. The problem
is that the loop 'N' would increase considerably if you run a single-loop, which
potentially degrades the LO close-in phase noise behavior (it depends on loop
bandwidth, the VCO quality and the reference quality). Have you considered a
dual-loop mix-down configuration?

Overall, pretty impressive! Very, very cool.

Dana K6JQ
dana@dioxine.com

794. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 19:29:30 UTC
From: tom_bruhns@agilent.com
Message-ID: <95f1qb$g8c$1@nnrp1.deja.com>
Source record: 54991

In article <95ehjf$5j$1@uranium.btinternet.com>,
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
...
> A Smith Chart is incapable of showing how an SWR as high as 2.414 can
arise.
> According to Smith an SWR greater than unity is impossible.

Perhaps you were thinking of reflection coefficient magnitude? (There
are those of us who might disagree even if that were the case...)

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

795. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 20:14:12 UTC
From: tom_bruhns@agilent.com
Message-ID: <95f4ebirq1@nnrp1.deja.com>
Source record: 54992

As you noted, Martin gave you quite a bit of good advice! I hope a couple more comments might help.

For soldering irons, I've been using Weller WTCP stations. I've gotten three of them (ok, ok, the last one is for spare parts if needed!) over the years, all industrial surplus and never more than $10 as I recall. If you find one in a surplus store, check it out. If the sleeve that holds the tips on has not been mashed by overzealous plier-wielding techs, and if you can pull the tip in and out and hear the thermostat clicking, and if you can plug it in there and it heats to melt solder within one minute, I'd recommend it as a good buy, especially if it's in the $10 or less price range. (NEVER use pliers to tighten the sleeve on these; the wonderful design works fine finger-tight.)

I agree with Martin: digital or analog meter depends on the use and personal preference. But you can get some really cheap ones that are quite servicable. Radio Shack, mpja.com, and Harbor Freight all come to mind. You may eventually decide that a full-featured digital meter is the way to go, but save that for a while.

There are some really, really handy things you can build for yourself. I have a circuit tracer I designed and built 25 years ago that's still wonderful to use. (I really should post an article on it sometime!) It won't turn on semiconductor junctions, and can distinguish by pitch the difference between a short and as little as one ohm. Runs ten years on a single AA cell, no pwr switch. And it's fairly simple to build, about 5 transistors. Also, there are some wonderful little qizmos on http://www.techlib.com/, especially the "Curious C Beeper" at http://www.techlib.com/electronics/c_beeper.html. Poke around: there are other web sites with neat home-built gadgets helpful on the hobby bench.

Back before I managed to get some decent commercial equipment, I spent quite a bit of my hobby time building my own instruments. Some of it, I still use, like the circuit tracer. Other things that I'm glad I built and still use are bench power supplies. My feeling is that you can never have enough of those! But with LM317 and LM337 regulator chips, you can pretty easily build a 1.2V -to- 25V power supply, plus and minus. I find it especially valuable to have that range, plus something that covers logic circuits at maybe a bit more current. (Even a fixed +5V supply would do there,
until everything goes to 1.5, 1.8, 2.5, 3.3 and 5V!!). This may be getting into the holier-than area, but I couldn't live long at my hobby bench without some sort of scope and some sort of signal sources...if I

were starting all over with very low budget, I'd still be keeping my eyes open for a decent used scope. It's possible to homebrew some decent signal sources; all depends on what you decide is important.

Finally, don't overlook the possibility of donations. Over the years I've accumulated an awful lot of junque...things that are perfectly good for building with, but which I've come to realize I'm very unlikely to use. I'll bet there are lots of others out there like me. I would be quite happy to find a local struggling hobbiest that I could give some things to. I'd even make a semi-permanent loan of a very decent scope to someone I thought deserved it and could put it to good use. If you can find someone locally like that, you may also find an "elmer" or mentor in the bargain, someone that can give you guidance and save you from some of the blunders (but hopefully let you make enough blunders of your own that you learn from them. God knows, I've learned a lot from mine!)

Hope these are useful additional thoughts.

Cheers,
Tom
K7ITM

In article <3a75f9d2.1202464@news.mybizz.net>,
dcollin@connix.com (Dennis Collin) wrote:
> I'm looking to start building QRP transciever kits. I need to equip a
> bench for such work. There are only a few "big ticket" items I can
> see buying, and the choice might be important. Does anyone have any
> recommendations for:
>
> A multimeter? Digital or analog? Features? Price?
>
> A soldering station? Weller? WLC100 (40 watt adjustable) OK? Don't
> bother, just get a simple iron?
>
> A vice to hold PC boards? Panavise? Model?
>
> Of course, I'm open to cost-saving alternatives that some of you have
> found to work (hams tend to be a "thrifty" lot).
>
> Thanks.
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

796. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 20:43:30 UTC
From: tom_bruhns@agilent.com
Message-ID: <95f65g$ka7$1@nnrp1.deja.com>
Source record: 54993

In article <3a75f9d2.1202464@news.mybizz.net>,
dcollin@connix.com (Dennis Collin) wrote:

> A vice to hold PC boards? Panavise? Model?

Panavise is really nice, but for alternatives at lower price, you might check http://www.mpja.com/product.asp?product=11240+TL. I have one of these, and while it can't do all a panavise system can, you might find it servicable. It opens to about 2 inches max. I'm sure there are other similar ones available, perhaps locally. (I also have a larger bench vise for mechanical things...this little one would not do for serious mechanical work.)

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

797. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 21:11:25 UTC
From: "Craig A. Ferris" <cferris@aeronix.com>
Message-ID: <3A7B227D.1B31855F@aeronix.com>
Source record: 54987

Thank you for your enlightenment. And to think the amount of money that was wasted on my education. I was under the impression that I could calculate attenuation, swr, stability and gain, and most importantly, match impedances using this antiquated chart. What was I thinking?

George P. Burdell is rolling over in his grave.

73,
Craig NR4E

Reg Edwards wrote:

> Francine wrote -
> > > Why do you say Smith charts are only useful at HF??? Please explain.
> > >
> > > Yes,I wonder why that is too.
> ============================
> Background -
>
> Smith did not "invent" Smith charts so much as simplify much older charts
> which had been in use even before the end of the 19th century to solve power
> and telephone transmission line problems. And indeed a wide variety of
> problems in other engineering fields.
>
> In mathematical terms, the old charts provided a graphical means of
> performing extremely complicated and tedious calculations involving complex
> hyperbolic functions. Amonst other uses they solved equations such as
> Tanh(A+jB) = X+jY which occur very frequently in the analysis of performance
> of all transmission lines.
>
> Before the age of computers they were absolutely essential labour-saving
> tools. They were faster than slide rules, trig-tables, log tables, etc, but
> not so accurate of course. They consisted of a whole stack of charts and
> were still very cumbersome to use.
>
> When in the 1930's many transmission engineers were shifting attention to
> carrier telephony, HF world-wide and VHF radio, etc, it was realised the old
> graphical aids could be simplified and greatly reduced in number by assuming
> the characteristic impedance Zo of HF lines to be a pure resistance Ro, the
> reactive component jXo of real lines in many cases being small enough to be
> ignored. This, for example, reduced hyperbolic functions to Sin(A) = X and
> InvSinh(A+jB) to Log(x), with corresponding simplification of charts.
>
> Smith, around 1940 I think, then an employee of Bell, was the first person
> to have the newly simplified charts printed and his name attached to them.

> They were quickly snatched up and put to use in the design of ground and
> airborne radar systems. After the war came TV.
>
> One consequence of setting the angle of Zo to zero is to imply that
> conductor loss per unit length is identical to dielectric loss per unit
> length - which it never is ! On the other hand this does not begin to
> matter until a line is long enough for the actual loss to be noticeable.
> Radio amateurs are concerned only with short lengths of low-loss lines.
> There are other consequences.
>
> The exact formula for Zo is -
>
> Ro+jXo = Sqrt((R+jwL)/(G+jwC)) ohms.
>
> So Smith charts can be misleading and inaccurate unless w = 2*Pi*F is large
> enough to make
>
> Zo = Sqrt(L/C). ie., a lossless transmission line.
>
> But the angle of Zo of real lines approaches -45 degrees at power, audio
> frequencies and VLF
>
> Similar discrepancies occur when considering velocity. Smith's lines always
> have a velocity factor of unity but, of course, it is easy to apply a
> correction if it is remembered a correction may be needed. But even the
> correction is guesswork.
>
> A Smith Chart is incapable of showing how an SWR as high as 2.414 can arise.
> According to Smith an SWR greater than unity is impossible. Beware of using
> his charts as educational tools.
>
> The sentiment attached to Smith Charts is understandable. But in the age of
> the PC the young busy engineer has tools of exact precision, labour-saving
> in the extreme, and covering all frequencies from 1Hz to 1GHz. And just as
> educational.
>
> I have a book of 6-figure mathematical tables. Also a beautiful 12" slide
> rule in a pigskin leather carrying case, with a strap for attachment to the
> owners belt, in excellent working order. Ocasionally I take it out of its
> drawer and handle it for a while with fond memories.
>
> But I never use it.
>
> And in 57 years of association with transmission lines, from 0.1 Hz to 3
> GHz, I have never used a Smith Chart either.
> ----
> **********
> Regards, Reg, G4FGQ
> Free radio design & modelling software
> http://www.btinternet.com/~g4fgq.regp

>
> **********

798. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 21:22:43 UTC
From: la8ak@online.no
Message-ID: <3a7b1c30.175638990@news.online.no>
Source record: 54994

On Fri, 02 Feb 2001 00:23:20 GMT, John Miles
<jmiles@pop.removethistomailme.net> wrote:

>Bill Meara wrote:
>>
>> Woody: Very interesting. You should put together a web page on this.
>> I too was involved in rocketry and ham radio as a kid, but our
>> rockets were the tamer, less exciting Estes vehicles (Estes "Model
>> Rocketeers Code made us swear not to engage in the kind of stuff you
>> were doing!")
>
>Yeah, when I was a kid I personally made it a point of honor to break as
>many of those rules as possible. I never managed to get a bird hung up
>in a power line, so that one still bugs me. Besides that one, I believe
>there was one other safety rule that I never got around to infringing,
>but I can't remember what it was. :)
>
>-- jm
>
>---
>http://www.qsl.net/ke5fx
>Note: My E-mail address has been altered to avoid spam
>---

.....just wonder how you steer the rocket when fuel is used, or
just leave it in space?

JM
LA8AK

799. Re: 2N3242 case style and pins

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 22:42:18 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <bw0WhHAKfze6Ewx9@g3ohx.demon.co.uk>
Source record: 54995

In article <HLFd6.42$G62.1898@bgtnsc04-news.ops.worldnet.att.net>,
Robert John <RAJohnGM@worldnet.att.net> writes
>Can someone provide the pin connections for a 2N3242 transistor.
>Tnx, Bob AA8X
>
>

Bob.
Here is a copy of some info which I posted some time ago. It describes how to identify the pins of an unknown bipolar transistor. If you don't know which polarity the VOM leads are when measuring ohms, measure with another VOM - or practise on a known transistor. Any use??
Ian.

[Start]
There's a simple, old-fashioned method of finding out which (bipolar) transistor lead is which. All you need is multimeter (VOM) set to measure resistance (I use my trusty AVO) and a wet finger. IMPORTANT NOTE: You also need to know what polarity the test leads are when you are measuring resitance (the AVO red '+' voltage lead is NEGATIVE, and the black '-' voltage lead is POSITIVE. Not all meters do this).

First, you need to identify the base. Assume that you are going to measure a good NPN transistor.

A transistor is essentially two diodes, back-to-back. An NPN transistor looks like this --|<|>|-- , and a PNP like this --|>|<|-- .
c b e c b e
The base-to-collector and base-to-emitter connections will give the usual 'forward biassed diode' (should be low resistance) with the meter connected one way round, and the 'reversed biassed diode' (should be open-circuit) the other way round. Connect the meter between pairs of leads in turn and find the lead which is 'common'. This is the base.

You next need to find out which of the other two transistor leads is the collector and which is the emitter. For an NPN transistor, connect the meter POSITIVE lead to one, and the NEGATIVE to the other. The reading should show a high resistance. Now apply a wet finger between the positive lead and the base. This applies forward bias to the base, the transistor now conducts, and the resistance drops to a relatively low value (note that the wetness of the finger and the pressure applied affect the reading!). Now reverse the meter and again apply the wet finger from positive to base. Note which way round gives the lowest meter reading. This is when the meter positive lead is connected to the collector. You have now effectively identified all three transistor leads.

For a PNP transistor, the same method applies, but the meter will be the other way round. If the meter readings are not as expected, you will also be able to find out if the transistor is faulty (eg O/C base-emitter, S/C collector-emitter, etc).
[Finish]

800. Re: IRF510 HAR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-02 23:22:28 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <0s5lLBA0E0e6EwlX@invest.fsbusiness.co.uk>
Source record: 54996

>The WA2EBY FET amplifier appeared in a two-part article in
>QST Magazine, March and April 1999.
>73, David K3KY
Many thanks David.

(((73)))

Phil G4ZOW

801. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 02:37:56 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <95fqui02mpl@news2.newsguy.com>
Source record: 54897

A number of folks have suggested a DMM - I would disagree.

It's pretty rare that you ever need to measure something to more than 2 significant figures, and that is easy to get from an analog meter. On the other hand, you frequently need to asjust something for min or max, and that is a lot harder on a DMM than on an analog meter.

The key thing is to get a meter with a high input impedance. Almost all DMMs seem to have an 11 Meg input impedance which is nice, and turns out to be a convenient number, too. You may have to hunt around a bit to find an analog meter with a good input impedance but it's important.

Somewhere along the way of your first few kits, you will also want an RF probe. This is something you build, rather than buy. Exactly how you build it depends on the meter you are plugging it into, so even if you can't come up with an 11 Meg meter, at least get a meter you KNOW the impedance of.

didleydadidah

802. FS: SMA to N bulkhead connector.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 03:40:15 UTC
From: novatech@eskimo.com
Message-ID: <95fuiv$pd1$1@eskinews.eskimo.com>
Source record: 54898
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I have a bunch (more than 30 left) of Solitron Microwave part
SF1132-6001 SMA to N bulkhead receptacle. These are NEW OLD STOCK,
still sealed in the little plastic bags. Datecode is 7913. These cross
to a Pasternak Enterprises part PE9104 which they sell for $35.95.

There's a photo at:

http://novatech-instr.com/Ebay_Images/dscn0148.jpg

Let me know how many you want and make an offer. Last sale was about
$8 each. These need a better home than my "J.B."

Thanks.

Steve.
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

803. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 03:57:54 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10102022240500.16828-100000@Gloria.CAM.ORG>
Source record: 54900

On Fri, 2 Feb 2001, WB8RCR wrote:

> A number of folks have suggested a DMM - I would disagree.
>
> It's pretty rare that you ever need to measure something to more than 2
> significant figures, and that is easy to get from an analog meter. On the
> other hand, you frequently need to asjust something for min or max, and that
> is a lot harder on a DMM than on an analog meter.
>
> The key thing is to get a meter with a high input impedance. Almost all
> DMMs seem to have an 11 Meg input impedance which is nice, and turns out to
> be a convenient number, too. You may have to hunt around a bit to find an
> analog meter with a good input impedance but it's important.
>
> Somewhere along the way of your first few kits, you will also want an RF
> probe. This is something you build, rather than buy. Exactly how you build
> it depends on the meter you are plugging it into, so even if you can't come
> up with an 11 Meg meter, at least get a meter you KNOW the impedance of.
>
> didleydadidah
>
>
I'd agree with you about the need for seeing a peak over a precise value,
but I think I'd still aim someone towards a DMM.

One reason is that DMMs have become common, just as in the old days you
could get a crummy VOM in all kinds of places. You can get a simple DMM
at the local Radio Shack or hardware store, and you can get it for under
twenty dollars. You may have to hunt for a VOM, and I suspect that it
will cost you more. Remember, those low end VOMs that were available
everywhere were often not so great, while the design of the DMM probably
ensurs that it loads the circuit under test less.

Probably someone dosn't want to stay with a $20 DMM, but it gets one
started, and the experience of using it helps the newcomer to evaluate
what they actually need before spending big money.

I think the prime reason I'd suggest a DMM over a an analog meter is
the memory of my first meter. It was a VOM, probably not completely bottom
of the line, that someone gave me, complete with the back missing.
I kept forgetting to change the switch, and soon the needle was bent
a bit from either leaving it in the ohms position when reading voltage,
or not setting the voltage range high enoug. It didn't take that
much longer before the meter was bent too far to make the VOM useful.

That won't be happening with a digital meter. An overvoltage, especially at transistor levels, will not be damaging to a digital meter. And while I suppose the low end ones may lack them, the fuses in DMMs have saved my meters a number of times.

That leaves the issue of peaking. ANd that could be one of the simple first projects that someone tackles before building a complete transceiver kit. Some surplus meter, even a tuning meter out of a "stereo" receiver, and op-amp or two, and some resistors, and you've got a simple equivalent to a VTVM. It lacks a scale, but then you have the DMM for that, and what you want this meter for is trends.

This sort of thing has appeared in some handbooks, it is in the 1993 edition but not the 2001. And the idea is in "Solid State Design for the Radio Amateur" which is still a great book for someone interested in this sort of thing, though the meter shown could be improved with more recent, and higher input impedance, op-amps.

Michael VE2BVW

804. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 03:58:10 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <t7n0dipbbh2n20@corp.supernews.com>
Source record: 54899

A masterpiece of obfuscation.

John, K6QQ, a Smith Chart user.

> Background -
>
> Smith did not "invent" Smith charts so much as simplify much older
charts
> which had been in use even before the end of the 19th century to solve
power
> and telephone transmission line problems. And indeed a wide variety of
> problems in other engineering fields.
>
> In mathematical terms, the old charts provided a graphical means of
> performing extremely complicated and tedious calculations involving
complex
> hyperbolic functions. Amonst other uses they solved equations such as
> Tanh(A+jB) = X+jY which occur very frequently in the analysis of
performance
> of all transmission lines...
> And in 57 years of association with transmission lines, from 0.1 Hz to
3
> GHz, I have never used a Smith Chart either.

Much to your loss.

805. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 04:08:11 UTC
From: "Al, N2NKB"
Message-ID: <LuLe6.27950$cN.1265813@bgtnsc07-news.ops.worldnet.att.net>
Source record: 54901

I learned a new word today...
ob&#65533;fus&#65533;cate tr.v. ob&#65533;fus&#65533;cat&#65533;ed, ob&#65533;fus&#65533;cat&#65533;ing, ob&#65533;fus&#65533;cates. 1. To make so confused or opaque as to be difficult
to perceive or understand. 2. To render indistinct or dim; darken. --ob&#65533;fus&#65533;ca&#65533;tion n.
Al

```
John Moriarity wrote in message ...
>A masterpiece of obfuscation.
>
>John, K6QQ, a Smith Chart user.
>
>> Background -
>>
>> Smith did not "invent" Smith charts so much as simplify much older
>charts
>> which had been in use even before the end of the 19th century to solve
>power
>> and telephone transmission line problems. And indeed a wide variety of
>> problems in other engineering fields.
>>
>> In mathematical terms, the old charts provided a graphical means of
>> performing extremely complicated and tedious calculations involving
>complex
>> hyperbolic functions. Amonst other uses they solved equations such as
>> Tanh(A+jB) = X+jY which occur very frequently in the analysis of
>performance
>> of all transmission lines...
>> And in 57 years of association with transmission lines, from 0.1 Hz to
>3
>> GHz, I have never used a Smith Chart either.
>
>Much to your loss.
>
>
>
```

806. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 07:23:42 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <7nOe6.80$q53.3791@news-west.usenetserver.com>
Source record: 54902

"Kawaya" <on5wv@RadioLink.net> wrote in message
news:4mdl7tkbjtd257u4sdiv4l5l3fd1r2n9ol@4ax.com...

> How does MethylEthylKetone compare to Acetone?

It is somewhat more toxic than acetone, but still less dangerous than the chlorinated solvents or aromatics (benzene, toluene, xylene). It is not considered a carcinogen. The odor of MEK does not bother me too much, but the odor of methyl isobutyl ketone can give me a headache within minutes.

As a comparison, the permissible exposure levels and short term maximum exposure levels for acetone and methyl ethyl ketone (MEK) are shown below:

Acetone Methyl Ethyl Ketone
OSHA PEL 1000 ppm 200 ppm
OSHA STEL 300 ppm
ACGIH PEL 750 200 ppm
ACGIH STEL 1000 ppm 300 ppm

OSHA - Occupational Safety and Health Administration
ACGIH - Americal Council of Government and Industrial Hygienists
ppm - part per million (by volume in air)

73, Barry WA4VZQ ornitz@usa.net

807. Re: incuctance-toroids and turns

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 08:42:35 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <MvPe6.1029$u7.3225@nntpserver.swip.net>
Source record: 54903

http://www.fix.net/jparker/tools/toroiddesign.htm

808. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 08:50:48 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <3dhn7tsk2vo492ftligk6ur0seam238gd9@4ax.com>
Source record: 54913

"Henry Kolesnik" <wd5jfr@oklahoma.net>
shared these priceless pearls of wisdom:

->if you could only have about 12 different transistors for general ham use
->from audio to 1.2 gHz , power supplies and 10 watts max, what would your
->list include?

2N2222a plastic for general purpose nickel NPN applications
2N2907 plastic ditto for PNP
2N5770 plastic for RF small signal to 500 MHz.
TIP29/TIP30 for power NPN/PNP

That's all I use until it gets application-specific, like watts at a gig or
milliohms of saturated conductance.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

809. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 10:03:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95gkvr$38p$1@uranium.btinternet.com>
Source record: 54904

Tom wrote:
> "Reg Edwards"wrote:
> ...
> > A Smith Chart is incapable of showing how an SWR as high as 2.414 can
> arise.
> > According to Smith an SWR greater than unity is impossible.
>
> Perhaps you were thinking of reflection coefficient magnitude? (There
> are those of us who might disagree even if that were the case...)
==========

Thanks Tom for correcting my slip of the tongue (pen, keyboard).

Yes, it is the Reflection Coefficient which the Smith Chart asserts cannot rise above unity whereas on real lines the RC can approach 1 + sqrt(2).

Would you be one of those chart worshippers who disagrees ?
;o) ;o) ;o)

Reg, G4FGQ

810. Re: 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 15:16:02 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A7C206E.4EB85F04@GTE.net>
Source record: 54905

fedtmule1980@my-deja.com wrote:

> Hi all!
>
> I am trying to build a 60 Mhz oscilator with no more than 25 Khz drift.
> I want to use it in a Idea I got: an Osc. + a mixer infront of a
> ordinery FM-radio (88-108MHz) the point is to make a 100 MHz IF. so I
> can lissen to transmission om 150-160 Mhz.
> I have tryed with just a colpit-osc. but it drift too much (3-10 MHz!!)
>
> HELP!

Spring for a crystal.

Dale W4OP

811. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 16:42:26 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A7C34F1.14A8@pacbell.net>
Source record: 54908

Reg Edwards wrote:
>
> Tom wrote:
> > "Reg Edwards"wrote:
> > ...
> > > A Smith Chart is incapable of showing how an SWR as high as 2.414 can
> > arise.
> > > According to Smith an SWR greater than unity is impossible.
> >
> > Perhaps you were thinking of reflection coefficient magnitude? (There
> > are those of us who might disagree even if that were the case...)
> ============================
>
> Thanks Tom for correcting my slip of the tongue (pen, keyboard).
>
> Yes, it is the Reflection Coefficient which the Smith Chart asserts cannot
> rise above unity whereas on real lines the RC can approach 1 + sqrt(2).
>
> Would you be one of those chart worshippers who disagrees ?
> ;o) ;o) ;o)
> ----
> Reg, G4FGQ

Hi Reg,
I'm not a chart worshipper, but I do appreciate the fact
that when I draw a curve on a Smith chart, the chart shows values
at an infinite number of points between the ends of the curve.
No digital computer can do that. Of course, computers can draw
curves, too, which are good enough, but if you measure the time it
takes to turn on a computer, load the software, enter the parameters,
and click the mouse, you'll find you haven't saved much time over
just reaching for a piece of paper and drawing a curve on it with
a compass.

Tom Donaly KA6RUH

812. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 17:12:57 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95hea7$5i8$1@uranium.btinternet.com>
Source record: 54906

Francine, I've nothing against Smith's transmission line charts except their limitations. They've proved their worth over the last 60 years. But, as with any other tool, users should understand or at least be very aware of the limitations.

Here's another one: It can arise that least loss on a line does not occur when the line is in a matched condition. But any analysis method which makes the same assumptions as Smith's simplifications will give no indication of this.

Your habit of calculating first and then checking by an alternative, independent, graphical method is what I have done myself on countless occasions. If both answers fall in the same ball park then all's right with the World. If not - then panic stations.

Incidentally when RC = 1.5, SWR = -5 (minus 5). ;o)

Regards, Reg, G4FGQ
http://www.btinternet.com/~g4fgq.reg

francine <francine@multiweb.nl> wrote in message
news:1eo92zq.1wmmwopvx76tcN@[212.58.191.56]...
> Hi Reg,
>
> Thanks for your reply.
>
> > Francine wrote -
> > > > Why do you say Smith charts are only useful at HF??? Please explain.
> > >
> > > Yes,I wonder why that is too.
> > ==========
> >
> > A Smith Chart is incapable of showing how an SWR as high as 2.414 can
arise.
> > According to Smith an SWR greater than unity is impossible. Beware of
using
> > his charts as educational tools.
>
> As Tom said, you probably meant reflection co�fficient magnitude.
> When reflection co�fficient mag = 1, vswr is infinite.
>
> > The sentiment attached to Smith Charts is understandable. But in the age
of
> > the PC the young busy engineer has tools of exact precision,
labour-saving

> > in the extreme, and covering all frequencies from 1Hz to 1GHz. And just
as
> > educational.
>
> I agree with you that you do not have to use the chart to design these
> days. I must admit I calculate and plot the results on a smith chart,
> accept to determine the length of a line. I use the chart to do that for
> me, but that's because I like to do something with the program to give
> me a feeling that I have a visual interaction of things. i.e. play a bit
> with the controls and see what happens with the results. It gives one a
> good idea in "What happens if I do this".
> But, h...that's personal.
>
> --
> francine

813. FS: D-104 junker for Drake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 17:38:16 UTC
From: k9sqg@aol.com
Message-ID: <20010203123816.24442.00000593@ng-bd1.aol.com>
Source record: 54907

Have a poor condition D-104 with the smaller size phone plug for the Drake tube gear. Has the coil cord, etc. and all parts seem to be there. I have no way to test it. $15 shipped to your door.

73s,

Evan

814. Re: 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 20:50:35 UTC
From: la8ak@online.no
Message-ID: <3a7c1dff.241647526@news.online.no>
Source record: 54909

On Fri, 02 Feb 2001 15:30:04 GMT, fedtmule1980@my-deja.com wrote:

>Hi all!
>
>I am trying to build a 60 Mhz oscilator with no more than 25 Khz drift.
>I want to use it in a Idea I got: an Osc. + a mixer infront of a
>ordinery FM-radio (88-108MHz) the point is to make a 100 MHz IF. so I
>can lissen to transmission om 150-160 Mhz.
>I have tryed with just a colpit-osc. but it drift too much (3-10 MHz!!)
>
>HELP!
>
>
>Kind Regards
>Jan Rasmussen, Denmark
>
you could use a 15 or 20MHz xtal osc to injection-lock it with loose
connection (small capacitor), or simply use xtal oscillator on 60MHz

I have often seen 60MHz xtals available as surplus, but believe they
are usually readily available low price xtals at electronics dealers

815. Re: Raising coil Q in regen RX- Glass Properties

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 20:59:07 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <AUBQ4GAbEHf6EwZg@g3ohx.demon.co.uk>
Source record: 54911

In article <Gw9e6.42509$s6.1375053@news-west.usenetserver.com>, Dr. Barry L. Ornitz <ornitz@usa.net> writes
>
>"Dick Carroll" <dixie@townsqr.com> wrote in message
>news:95auqn$8b1$0@208.207.71.176...
>>
>> tom_bruhns@agilent.com wrote:
>> >
>> > Although in a great many applications, the former
>> > material isn't all that important (...yeah, Reg, I use
>> > cardboard tubes and PVC pipe sections too!...), be
>> > careful about glass. There are LOTS of different kinds
>> > of glass. Some glasses are fairly high loss. To make
>> > matters worse, if you use glass as an insulator in a
>> > high power system and it starts to heat, its dissipation
>> > factor typically increases rather rapidly, possibly
>> > leading to thermal runaway. We had a serious materials
>> > selection problem in one of our products because of
>> > exactly this phenomenon. If you stay with fused quartz,
>> > you should be fine! :-)
>> >
>>
>> Every "Large lab glass vial" that I ever saw was Pyrexï¿½
>> glass, which is what is (was) used by Eimac for the
>> envelope on their high power amplifier tubes. I'd expect,
>> then, that Pyrex should be OK at RF, right?
>> For sure you wouldn't want to use some leaded glass for
>> a former.
>
>Most large pieces of laboratory glassware are borosilicate
>glass (Pyrex is one trade name). It can take much higher
>temperature than "soft" glass. Receiving tubes generally
>did not use the "hard" glass of transmitting tubes. Glass
>has a fairly large dielectric constant, and its loss tangent
>is nothing to brag about. As glass heats, it can become
>quite conductive. Microwave printed circuit boards are made
>with quartz fibers in Teflon rather than glass to keep down
>losses and lower the dielectric constant.
>
>If you have any Aquadag (colloidal graphite) like that used
>to coat picture tubes, you can easily demonstrate that glass
>is an ionic conductor. Get a piece of glass rod a few
>inches long. Wrap two pieces of bare copper wire around it
>separated about an inch. Coat the wire and glass with

>Aquadag to hold the wire in place. Connect the wires to an
>ohmmeter and heat the glass between the wires with a propane
>torch. Long before the glass softens, you will see its
>resistance drop. By the time it is at "red heat", it is
>conductive enough that you can sustain its heating by
>passing current through it. Many glass furnaces are started
>with gas heating, but switch to electrical Joule heating one
>the glass becomes conductive enough. The relationship
>between temperature and resistivity of glass is known as the
>Rasch and Hinrichsen law.
>
>Often in high power, high voltage tubes, you can notice a
>gradual coloration (usually brown or blue) with use around
>some of the leads coming through the glass. This is usually
>not de-vitrification but electrolysis and ion migration in
>the hot glass.
>
>However, going back to regenerative receivers at HF, I would
>not worry too much about glass, ceramic, or most plastics.
>Medicine bottles make excellent coil forms.
>
>
> 73, Barry WA4VZQ ornitz@usa.net
>

Assessing loss in coil formers (from, I think, RSGB RadCom 'Technical Topics' some time ago....

Put the intended coil former in microwave oven. As microwave ovens don't like operating with no load, also put in a small cup of water. Run the oven for a short time (say, until the water is nearly boiling). Now feel the former. If it is still cold(ish), then the RF losses are small. If it isn't, they aren't.

73,
Ian.

816. favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 21:38:02 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t7ouhtonr1fpa8@corp.supernews.com>
Source record: 54910

if you could only have about 12 different transistors for general ham use
from audio to 1.2 gHz , power supplies and 10 watts max, what would your
list include?
tnx
hank wd5jfr

817. Re: FS: D-104 junker for Drake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 22:15:59 UTC
From: k9sqg@aol.com
Message-ID: <20010203171559.05989.00000538@ng-fz1.aol.com>
Source record: 54912

The D-104 has been spoken for. Thanks for all the nice inquiries.

73s,

Evan

818. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-03 23:10:16 UTC
From: JD <dyson@jdyson.com>
Message-ID: <F70f6.189$c5.133510@news1.iquest.net>
Source record: 54914

For small signal (and very inexpensive cost) my stash includes:

Medium/low noise at medium impedance, good for video:
2n3904 (npn), 2n3906(pnp)

Medium/low noise at low impedance, larger geometry than above:
2n4403(pnp)

Medium/low noise at higher impedances
2n5087(pnp), 2n5089(npn)

If I was stranded on a desert island, and could have only one transistor,
for an NPN, I'd pick a 2n3904, for PNP, I'd pick a 2n3906. They don't have
the best noise characterists, or the highest ft... However, they don't have
any real handicaps either. They seem to work fairly well balanced in
characteristics. The 2n2222a/2n2907a are also good, but the "standard"
versions are really metal.

"Jim Weir" <jim@rst-engr.com> wrote in message
news:3dhn7tsk2vo492ftligk6ur0seam238gd9@4ax.com...
> "Henry Kolesnik" <wd5jfr@oklahoma.net>
> shared these priceless pearls of wisdom:
>
> ->if you could only have about 12 different transistors for general ham use
> ->from audio to 1.2 gHz , power supplies and 10 watts max, what would your
> ->list include?
>
> 2N2222a plastic for general purpose nickel NPN applications
> 2N2907 plastic ditto for PNP
> 2N5770 plastic for RF small signal to 500 MHz.
> TIP29/TIP30 for power NPN/PNP
>
> That's all I use until it gets application-specific, like watts at a gig or
> milliohms of saturated conductance.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

819. WTB ART-13

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 01:40:51 UTC
From: enigma_y_2000@hotmail.com
Message-ID: <3a7cb314.48540070@news.usfamily.net>
Source record: 54915

Hi,

I'm looking for an ART-13, any condition. State price, cond. and
where shipping from.

Thanks,

Bob

820. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 01:55:03 UTC
From: la8ak@online.no
Message-ID: <3a7c96be.272563295@news.online.no>
Source record: 54916

On Sat, 03 Feb 2001 00:50:48 -0800, Jim Weir <jim@rst-engr.com> wrote:

>->if you could only have about 12 different transistors for general ham use
>->from audio to 1.2 gHz , power supplies and 10 watts max, what would your
>->list include?
>
>2N2222a plastic for general purpose nickel NPN applications
BC547 or 2N3904

>2N2907 plastic ditto for PNP
BC557 or 2N3906
using cascode connection for higher voltage applications

>2N5770 plastic for RF small signal to 500 MHz.
NPN: BF199 and BFR96
PNP: BF324

>TIP29/TIP30 for power NPN/PNP
BD139/BD140,
MJE340 is available as free at this end (used)

2N3866 (2N4427) and BFR90, BFR96 for RF low power applications up to
above 1.3GHz

2N7000, VN2410 n-channel FET switch
MPF102 n-channel JFET
J177 p-channel JFET
>
>That's all I use until it gets application-specific, like watts at a gig or
>milliohms of saturated conductance.

-jm
LA8AK

821. Re: Raising coil Q in regen RX- Glass Properties

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 01:55:03 UTC
From: la8ak@online.no
Message-ID: <3a7c95eb.272352751@news.online.no>
Source record: 54917

On Sat, 3 Feb 2001 20:59:07 +0000, Ian Jackson
<ianjackson@g3ohx.demon.co.uk> wrote:

>Assessing loss in coil formers (from, I think, RSGB RadCom 'Technical
>Topics' some time ago....
>
while it doesn't apply for regen-receivers, it might be worth
mentioning it for DC-receivers, it may be a good idea to put a
Q-multiplier in the RF amplifier to improve front-end selectivity

73
-jm
LA8AK

822. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 02:16:59 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A7CBCED.7E490721@att.net>
Source record: 54918

Our rockets were ballistic. They left the launch stand with a calculated 10 to 15 Gs acceleration - usually going where they were pointed*, but not reaching escape velocity. Fuel was exhausted in just a few seconds. I shot a rocket in the air, It came to ground... I usually knew where :) We calculated the acceleration by filming (8mm) the launch. Knowing the field of view and the frames/second we could calculate the average acceleration over that distance (maybe ~300 m). It was probably even higher at take-off - We never launched any animals!

*We once had a timing malfunction on a 2m long one. The second stage fired when pointed down. Burried itself several feet into hard, dry red clay!

Woody

> .....just wonder how you steer the rocket when fuel is used, or
> just leave it in space?
>
> JM
> LA8AK

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

823. WTB: 10K slug for a Bird Model 43 Wattmeter:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 02:24:49 UTC
From: yardleyite@aol.com
Message-ID: <20010203212449.05585.00000565@ng-da1.aol.com>
Source record: 54919

If anyone has a Bird 10K slug for a model 43 wattmeter for sale please let me know. I need one for a QRP amp project - hi hi!
73 de Joe
Cro N3IBX

824. Help - Spec for a TRW PT4236c

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 02:57:27 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <981255580.16192.0.nnrp-09.9e98acde@news.demon.co.uk>
Source record: 54920
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design,sci.electronics.repair

Hello and thanks

I am looking for transistor data for a TRW PT4236c
it is in the RF power amp stage of a 70Mhz PMR radio
and I am looking to cannibalise the PA strip to use on 50Mhz
(6m Amateur Band).
Can any one point me to a URL with the data or have you got
a data sheet.

Thanks Martin

--
~~~~~~
Remove :-
_NOSPAM_FOR_ME_
from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~

825. 8049/8051 basd morse code tutor?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 06:20:17 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3A7CF4BF.119D3F1@primeline.net>
Source record: 54921
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

Does anybody have plans for an 8051 series (8031) or 8049 (8035) based
morse code tutor, including ASM source code and/or a compiled rom image?
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

826. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 09:18:00 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3a7d1e1b.2452820@news.cantech.net.au>
Source record: 54922

On Sat, 03 Feb 2001 08:42:26 -0800, Donaly <dtdonaly@pacbell.net>
wrote:

>Hi Reg,
> I'm not a chart worshipper, but I do appreciate the fact
>that when I draw a curve on a Smith chart, the chart shows values
>at an infinite number of points between the ends of the curve.
>No digital computer can do that. Of course, computers can draw
>curves, too, which are good enough, but if you measure the time it
>takes to turn on a computer
(snip)

You mean to say that you turn your computer OFF?

827. Delco Transistor DTS 401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 14:10:02 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <95k15ralp1@news5.svr.pol.co.uk>
Source record: 54925

In the remains of a power supply unit I have are a number of Delco ,type DTS 401 transistors.

According to a reference database it is a NPN type transistor in a TO 3 enclosure (like the well known 2N3055) . Its application is stated as : line deflection.
Question : What is the (max) rated current for the device.

The intended new application is that of an electronic shunt for a 12 V lead-acid battery system charged by solar panels and a wind driven generator.

TIA for any advice

73 Frank gm0csz.kn6wh@ukrs.org

828. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 14:22:37 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t7qpdil02e9sfb@corp.supernews.com>
Source record: 54923

i've heard that the 2N2222 is "better" in some apps than the 2N3904..
if this is the consensus why is this the case?
tnx
hank
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t7ouhtonr1fpa8@corp.supernews.com...
> if you could only have about 12 different transistors for general ham use
> from audio to 1.2 gHz , power supplies and 10 watts max, what would your
> list include?
> tnx
> hank wd5jfr
>
>

829. Homebrew Newbie, Transmitter Design.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 16:34:04 UTC
From: Michael Ransburg <daneel@tux.org>
Message-ID: <95k09s$312$1@nnrp1.deja.com>
Source record: 54924

Hello!

I'm a homebrew newbie. I built some of the kits available from quasar electronics and other kit selling sites (mostly fm transmitter and receivers) and I learned a lot from this. I think I know how a transmitter works in theory, but I still have problems to match the things I know with what I see on the circuit board (so...where _do_ we have the oscillator here...?).

Let me give you some ideas of what I pretend to know already. Please correct me if something is flawed, I appreciate it _very_ much.

To build a transmitter you first need some power source. Then you need an oscillator which resonates at a specific frequency, depending on the inductor (coil & core) and the capacitor. The + plate of the capacitor gets charged with electrons by the power source. Once loaded it will start to discharge through the inductor, causing it to build a electromagnetic field holding the power of the capacitor. As soon as the capacitor is discharged, the em field will collapse and the power of the field will flow to the other plate of the condensator and the game will start again. I can imagine that this causes the amperage to raise and fall continously, is that the sinus wave?

Ok, so you got a continous raise and fall in amperage, this occurs with a given frequency, the frequency we want to transmit on. It's just a sinus wave without information at this point, so we get an electronic microphone hooked up to the circuit. Such a microphone is some sort of condensator. I'm not sure how it works exactly, but I guess it converts noise into amperage in some way, so we got the same as with the oscillator above, only that this wave contains information.

Next step is to modulate this wave onto our sinus wave (depending on what sort of modulation you use this happens by changing frequency or amplitude) and send it to the antenna which will radiate the modulated wave as electromagnetic waves.

Ok, this is my understanding of a transmitter.

I know how transistors, resistors, condensators and so on work - in theory.

I found a very simple fm transmitter schematic here:
http://www.aaroncake.net/circuits/fmtrans.htm

I tried to find out how it works, but I hat not much success until now. I know that if I figure this one out, bigger schematics won't be such a problem anymore, because you always got the same components, just more

of them.

So, what I'm asking for is if someone can help me figuring this schematic out, or another one of a transmitter if he / she prefers one.

I'll try to start with the one on the above url:

I find it easiest to look which way the power flows in the first parts of a seconds when connected, to establish the power circuit.

The power always flows from + to -. So it will first flow to the bottom of the schematic, where it comes to a crosspoint. Let's look at the left side first. So it will flow to the left, getting to the first resistor R5, flowing through it and getting to the collector part of Q2 and to the resistor R4. At the same time it flows through resistor R6 and charges the positive plate of C4. Some reduced amperage comes to the base of Q2. C4 acts as some sort of filter which will only let ac through (what exactly does that mean? I _suppose_ that it will only let the amperage waves produced by the mic through?). However, when someone speaks in front of the mic it will produce amperage waves / impulses flowing from the + side of the mic through C4 and amplifying the collector amperage on Q2. The amplified amperage gets outputted at the emitter of the transistor Q2 and flows to the minus pole of the battery, the resistor R2, the condensator C1 and the resistor R1. It is used at the base of the transistor Q1.

I guess the oscillator in this circuit is the inductor L2 and the condensator C5. So the sinus amperage comes to the collector of the transistor Q1 and gets amplituded by the "noise" of the microphone which is on the base of the transistor Q1. Is this the FM modulation process?

The modulated (?) amperage is outputted at the transistor Q1 and somehow gets to the antenna...I'm not really sure how this happens...

Ok, this is my understanding. I would be _very_ _very_ grateful if anyone could extend my horizon with some explanations, well documented schematics and specially with an explanation for the schematic I tried to explain above.

You should have an impression of what I know at the moment, so I'd be also grateful about book suggestions, if you can make one.

Thank you very much and sorry for the lengthy post... :)

cheers
mike

--
http://unfolded.com
Personal, Photos, Studies, Interests, Projects, Work & Links

Sent via Deja.com
http://www.deja.com/

830. Mixers? AD8343

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 17:38:24 UTC
From: baby HUey <na@na.na>
Message-ID: <kkgf6.5$lE2.9950@nnrp3.sbc.net>
Source record: 54926

What do you all think about the Analog Devices AD8343 Active Mixer. Suppose to have the lowest distortion/noise figures in the industry. Any thoughts about this for 0 - 30Mhz range with LO of 45 - 75Mhz

Thanks

831. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 19:01:48 UTC
From: JD <dyson@jdyson.com>
Message-ID: <JAhf6.210$c5.149061@news1.iquest.net>
Source record: 54927

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t7qpdil02e9sfb@corp.supernews.com...
>
> i've heard that the 2N2222 is "better" in some apps than the 2N3904..
> if this is the consensus why is this the case?
>
The 2N2222 appears to be slightly larger geometry, with higher capacitance,
but gain that holds out for higher currents.

The 2N3904 appears to have very slightly higher gain at low (up to 10ma) currents,
and is more 'nimble' (lower capacitance.)

Much of the high-current ability of the 2n2222(a) is lost, unless you have a
larger package version of it (e.g. TO-5), but for switching, the lower drop
at the same current can be useful.

The 2n2222 would be better balanced in linear applications for a >330mw package,
while the 2n3904 can use more of its 'useful' beta/ft current ranges within package
limitations.

For high-current applications, several parallel, emitter resistor balanced 2n3904
can often be used where a 2n2222 might normally be advantageously over the
2n3904. This application isn't desirable for low-offset switching though.

Both transistors are very useful devices, and even though they aren't quite totally
interchangable, they are very close to being so. My review of the two transistor
types is almost splitting hairs, because for the majority of typical benchtop applications,
the transistors are interchangable.

John

832. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 20:46:28 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95kf1u$3ar$1@uranium.btinternet.com>
Source record: 54928

Ian said -
> The ideal software is something that gives you the accurate numbers
> *and* the intuitive graphical features of the Smith chart too. One
> Windows program with those features is Z-MATCH marketed by Number One
> Systems, UK: http://www.numberone.com/ds_zmatch.htm
> The only problem is the "professional" price.
==========

Hi Ian,

It's hardly the ideal program when you get a precision version of the Smith chart plus 8-digit (?) numbers, complete with all the errors in the first digit which Smith built into it. At low enough frequencies the errors are orders of magnitude.

They who use such programs are liable to suffer from delusions of accuracy.

Do they come with a Government health warning on the package ?

Reg, G4FGQ

833. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 20:55:21 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t7rgdtle47u53a@corp.supernews.com>
Source record: 54929

thanks..
i'm still depending on experience with CK722 & 2N35...
and themn 2N1300 series, a little dated wouldn't you say..
that's why asked the question..

"JD" <dyson@jdyson.com> wrote in message
news:JAhf6.210$c5.149061@news1.iquest.net...
>
> "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t7qpdil02e9sfb@corp.supernews.com...
> >
> > i've heard that the 2N2222 is "better" in some apps than the 2N3904..
> > if this is the consensus why is this the case?
> >
> The 2N2222 appears to be slightly larger geometry, with higher
capacitance,
> but gain that holds out for higher currents.
>
> The 2N3904 appears to have very slightly higher gain at low (up to 10ma)
currents,
> and is more 'nimble' (lower capacitance.)
>
> Much of the high-current ability of the 2n2222(a) is lost, unless you have
a
> larger package version of it (e.g. TO-5), but for switching, the lower
drop
> at the same current can be useful.
>
> The 2n2222 would be better balanced in linear applications for a >330mw
package,
> while the 2n3904 can use more of its 'useful' beta/ft current ranges
within package
> limitations.
>
> For high-current applications, several parallel, emitter resistor balanced
2n3904
> can often be used where a 2n2222 might normally be advantageously over the
> 2n3904. This application isn't desirable for low-offset switching though.
>
> Both transistors are very useful devices, and even though they aren't
quite totally
> interchangable, they are very close to being so. My review of the two
transistor
> types is almost splitting hairs, because for the majority of typical

benchtop applications,
> the transistors are interchangable.
>
> John
>
>

834. New Site To Visit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 21:24:54 UTC
From: maverick <vanguard@net-link.net>
Message-ID: <3a7dca29$0$30005$6d6c75b@news.execpc.com>
Source record: 54930

Visit: www.tunsobuns.com

hope ou enjoy

835. info on mgf4314

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 22:22:12 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A7DD614.E1D52384@dialpoint.net>
Source record: 54931

Does anyone have any info on a MGF4314 gasfet ? The Mitisubichie site
does not have it listed.

836. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 22:28:48 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <rMjMajAgedf6EAMU@ifwtech.plus.net>
Source record: 54933

Reg Edwards wrote:
>Ian said -
>> The ideal software is something that gives you the accurate numbers
>> *and* the intuitive graphical features of the Smith chart too. One
>> Windows program with those features is Z-MATCH marketed by Number One
>> Systems, UK: http://www.numberone.com/ds_zmatch.htm
>> The only problem is the "professional" price.
>====================================
>
>Hi Ian,
>
>It's hardly the ideal program when you get a precision version of the Smith
>chart plus 8-digit (?) numbers, complete with all the errors in the first
>digit which Smith built into it. At low enough frequencies the errors are
>orders of magnitude.
>
>They who use such programs are liable to suffer from delusions of accuracy.
>
As far as I'm aware, the only limitation that particular program shares with the paper chart is the assumption that the characteristic impedance of the line is purely resistive. Otherwise I believe it uses the full transmission line equations (including line loss) to compute its results. The chart format is merely for visualisation and optional input.

You may be almost unique in having spent your career in areas where the Smith chart *doesn't* work - VLF, very long lines and so on. Thus you've learned all about its shortcomings, but you say you have never actually used it to see what it *can* do. For the rest of us, it works just fine (or close enough) as a visual aid to *understanding* transmission lines and matching problems.

I agree with you that the days of the Smith chart as a calculation tool are over. I've tried lots of impedance calculators, and even wrote one of my own (http://www.ifwtech.com/g3sek/netcalc/netcalc.htm), but all they give me is numbers. They don't give me the *understanding* that a Smith chart can.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

837. Re: Homebrew Newbie, Transmitter Design.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 22:29:26 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t7rlubra6h8nfb@corp.supernews.com>
Source record: 54932

get a Radio Amateurs Handbook by ARRL..
most book stores have it..
or you can get an older one at a used bookstore..
the info is all in there..
other good pubs include any military, Navy , Air Force , Army on basic
electronics..
they have tons on transmitters, step by step...
another good one is Basic Solid-State Electronics by Van Valkenburgh..
you need to start with the understanding fo the basics and build from there
and you'll have fun..
if you miss the basic elements you'll struggle, sweat and probably give up
becasue you're not having fun..
good luck
hank wd5jfr
"Michael Ransburg" <daneel@tux.org> wrote in message
news:95k09s$312$1@nnrp1.deja.com...
> Hello!
>
> I'm a homebrew newbie. I built some of the kits available from quasar
> electronics and other kit selling sites (mostly fm transmitter and
> receivers) and I learned a lot from this. I think I know how a
> transmitter works in theory, but I still have problems to match the
> things I know with what I see on the circuit board (so...where _do_ we
> have the oscillator here...?).
>
> Let me give you some ideas of what I pretend to know already. Please
> correct me if something is flawed, I appreciate it _very_ much.
>
> To build a transmitter you first need some power source. Then you need
> an oscillator which resonates at a specific frequency, depending on the
> inductor (coil & core) and the capacitor. The + plate of the capacitor
> gets charged with electrons by the power source. Once loaded it will
> start to discharge through the inductor, causing it to build a
> electromagnetic field holding the power of the capacitor. As soon as
> the capacitor is discharged, the em field will collapse and the power
> of the field will flow to the other plate of the condensator and the
> game will start again. I can imagine that this causes the amperage to
> raise and fall continously, is that the sinus wave?
>
> Ok, so you got a continous raise and fall in amperage, this occurs with
> a given frequency, the frequency we want to transmit on. It's just a
> sinus wave without information at this point, so we get an electronic
> microphone hooked up to the circuit. Such a microphone is some sort of
> condensator. I'm not sure how it works exactly, but I guess it converts

> noise into amperage in some way, so we got the same as with the
> oscillator above, only that this wave contains information.
>
> Next step is to modulate this wave onto our sinus wave (depending on
> what sort of modulation you use this happens by changing frequency or
> amplitude) and send it to the antenna which will radiate the modulated
> wave as electromagnetic waves.
>
> Ok, this is my understanding of a transmitter.
>
> I know how transistors, resistors, condensators and so on work - in
> theory.
>
> I found a very simple fm transmitter schematic here:
> http://www.aaroncake.net/circuits/fmtrans.htm
>
> I tried to find out how it works, but I hat not much success until now.
> I know that if I figure this one out, bigger schematics won't be such a
> problem anymore, because you always got the same components, just more
> of them.
>
>
> So, what I'm asking for is if someone can help me figuring this
> schematic out, or another one of a transmitter if he / she prefers one.
>
>
> I'll try to start with the one on the above url:
>
> I find it easiest to look which way the power flows in the first parts
> of a seconds when connected, to establish the power circuit.
>
> The power always flows from + to -. So it will first flow to the bottom
> of the schematic, where it comes to a crosspoint. Let's look at the
> left side first. So it will flow to the left, getting to the first
> resistor R5, flowing through it and getting to the collector part of Q2
> and to the resistor R4. At the same time it flows through resistor R6
> and charges the positive plate of C4. Some reduced amperage comes to
> the base of Q2. C4 acts as some sort of filter which will only let ac
> through (what exactly does that mean? I _suppose_ that it will
> only let the amperage waves produced by the mic through?). However,
> when someone speaks in front of the mic it will produce amperage
> waves / impulses flowing from the + side of the mic through C4 and
> amplifying the collector amperage on Q2. The amplified amperage gets
> outputted at the emitter of the transistor Q2 and flows to the minus
> pole of the battery, the resistor R2, the condensator C1 and the
> resistor R1. It is used at the base of the transistor Q1.
>
> I guess the oscillator in this circuit is the inductor L2 and the
> condensator C5. So the sinus amperage comes to the collector of the
> transistor Q1 and gets amplituded by the "noise" of the microphone

> which is on the base of the transistor Q1. Is this the FM modulation
> process?
>
> The modulated (?) amperage is outputted at the transistor Q1 and
> somehow gets to the antenna...I'm not really sure how this happens...
>
>
> Ok, this is my understanding. I would be _very_ _very_ grateful if
> anyone could extend my horizon with some explanations, well documented
> schematics and specially with an explanation for the schematic I tried
> to explain above.
>
> You should have an impression of what I know at the moment, so I'd be
> also grateful about book suggestions, if you can make one.
>
>
> Thank you very much and sorry for the lengthy post... :)
>
> cheers
> mike
>
> --
> http://unfolded.com
> Personal, Photos, Studies, Interests, Projects, Work & Links
>
>
> Sent via Deja.com
> http://www.deja.com/

838. vco kit 5-5.3mhz wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 22:48:22 UTC
From: tony <bigtoe300@yahoo.com>
Message-ID: <95km6h$c7g$1@neptunium.btinternet.com>
Source record: 54934

dose anyone have any idea were i can buy such an animal

839. Last hours of auction 4CX5000, SK300 Socket, 6146B, and more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-04 22:58:59 UTC
From: Me myself and I <No_one@LaOL.com>
Message-ID: <3A7DDFEF.548C2D46@LaOL.com>
Source record: 54935

```
!!!4 MOTOROLA STAR TAC CELL PHONES & ACC!!!!
4CX5000 Transmitter Tetrode
SK300 Socket&Chimney for 4CX5000/10000/15000
6146B tubes - pair, NIB?
Tubes - 12AX7/12AT7/7551/6AQ5/12BY7/more!!!
```

840. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 00:37:48 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A7DF5DC.7EC555A8@win.bright.net>
Source record: 54936

2N2222A has better specs, but I can remember direct comparisons. I
almost always use the 2222 for just about every generic application that
needs a small signal transistor.

Scott
N0EDV

Henry Kolesnik wrote:
>
> i've heard that the 2N2222 is "better" in some apps than the 2N3904..
> if this is the consensus why is this the case?
> tnx
> hank
> "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
> news:t7ouhtonr1fpa8@corp.supernews.com...
> > if you could only have about 12 different transistors for general ham use
> > from audio to 1.2 gHz , power supplies and 10 watts max, what would your
> > list include?
> > tnx
> > hank wd5jfr
> >
> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

841. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 01:13:49 UTC
From: la8ak@online.no
Message-ID: <3a7dfd6b.52999427@news.online.no>
Source record: 54937

On Sun, 4 Feb 2001 14:55:21 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>thanks..
>i'm still depending on experience with CK722 & 2N35...
>and themn 2N1300 series, a little dated wouldn't you say..
>that's why asked the question..
it's a greater challenge to use CK722 and 2N1302, particular for VHF

842. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 01:41:45 UTC
From: JD <dyson@jdyson.com>
Message-ID: <Grnf6.214$c5.157056@news1.iquest.net>
Source record: 54938

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:t7rgdtle47u53a@corp.supernews.com...
> thanks..
> i'm still depending on experience with CK722 & 2N35...
> and themn 2N1300 series, a little dated wouldn't you say..
> that's why asked the question..
>
Well, if you want/need any more opinions or application/design
help with simple circuitry, I am willing to give you some help.

One thing that would be fairly useful to someone who wants to
start designing circuits, is a copy of spice. I happen to use a
personally compiled version of spice2g6 with whatever models
that I can scrounge up. I have the same version compiled for
NT/2000 and FreeBSD, and works rather reliably, with some undesired
personality (not perfectly) for my own use.

The commercial version are much better, and handle end conditions
better, since spice 2g6 has a certain amount of personality all
by itself!!!

Otherwise, for simple design advice, feel free to send messages, or
ask on the net.

John

843. SK-800B Socket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 01:45:45 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <dBnf6.133$ha.152723@ratbert.tds.net>
Source record: 54939

Hi All,
I am working on a homebrew HF amp using a 4CX1500B tube. I have the tube and chimney, but no socket. Anyone got an SK-800B socket for sale. Used is OK as long as working with bypass caps.

Regards,
Jeff W8CQ
w8cq@arrl.net

844. SK-800B Socket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 01:46:12 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <EBnf6.134$ha.152462@ratbert.tds.net>
Source record: 54940

Hi All,
I am working on a homebrew HF amp using a 4CX1500B tube. I have the tube and chimney, but no socket. Anyone got an SK-800B socket for sale. Used is OK as long as working with bypass caps.

Regards,
Jeff W8CQ
w8cq@arrl.net

845. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 01:56:37 UTC
From: JD <dyson@jdyson.com>
Message-ID: <IFnf6.215$c5.157287@news1.iquest.net>
Source record: 54941

"Scott" <acepilot@win.bright.net> wrote in message
news:3A7DF5DC.7EC555A8@win.bright.net...
>
> 2N2222A has better specs, but I can remember direct comparisons. I
> almost always use the 2222 for just about every generic application that
> needs a small signal transistor.
>
2N2222A is better for higher currents, but it has higher capacitance. The 2N2222A has a (important) collector to base capacitance of 8pf, while the 3904 has about 4pf. The 2n3904 is a lower current part, and appears to be essentially a smaller version of the 2n2222... The 2n3904's Beta peaks at about 10ma, while the 2n2222a peaks at about 40-50ma.

I wouldn't agree that one is better than the other, but one is better in lower current apps, and the other is slightly better for higher current apps. The disadvantage of the one more optimal for higher currents doesn't normally have more power dissipation capability. In order to use the higher current abilities of the 2n2222a, you have to run it at lower voltage... Given this fact, except in low voltage applications, it is just as good to parallel and carefully current-divide amongst multiple 2n3904s.

True 2n3904's cost about 4-5cents each, but to get to that price level for 2n2222as, you probably have to find mps2222a parts. (When I buy transistors, I tend to buy in quantities of 100-500, since they are so very cheap now.)

John

846. Re: Delco Transistor DTS 401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 04:24:52 UTC
From: k9opo@netusa1.qlf.net
Message-ID: <3a7e2a21.26798547@news.skyenet.net>
Source record: 54942

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>In the remains of a power supply unit I have are a number of Delco ,type DTS
>401 transistors.
>
>According to a reference database it is a NPN type transistor in a TO 3
>enclosure (like the well known 2N3055) . Its application is stated as :
>line deflection.
>Question : What is the (max) rated current for the device.

The DTS-401 is a higher voltage, lower current device compared to the
2N3055.

DTS-401 specs:
max Ic: 2.0 amps
Vceo(sus) @Ic: 300v @ 100ma
hFE @Ic: 20-100@500ma

That's the basics. If you need more, contact me.

Roger Grady k9opo@netusa1.qlf.net
To reply by email, remove "qlf." from address

847. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 10:38:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95lvt9mhu1@uranium.btinternet.com>
Source record: 54943

Ian White, G3SEK wrote
> As far as I'm aware, the only limitation that particular program shares
> with the paper chart is the assumption that the characteristic impedance
> of the line is purely resistive. Otherwise I believe it uses the full
> transmission line equations (including line loss) to compute its
> results. The chart format is merely for visualisation and optional
> input.
==========
Obviously the program seller hopes to sell it at an inflated price by
associating it with the deserved popularity of the Smith Chart. A sales
gimmic !

But how ridiculous it is to deliberately spoil the ability of a computer
program by obliging it to conform to the technical shortcomings of an
accompanying status symbol.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

848. 8950 Vacuum tube ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 11:16:14 UTC
From: mystique224@home.com
Message-ID: <3A7E8DE4.13E4191E@home.com>
Source record: 54944

Good Morning Everyone,
I am posting this unusual request because I had a customer bring in this piece of equipment the other day. It is a Ham series amplifier that uses three 8950 final tubes and 1 8950 tube as the driver. Anyway, all of the tubes are less than 30% on my tube tester. After some research, I have found that these tubes are extremely hard to find and when you do find some, they are usually used and very expensive. My question to you fine intelligent people is "Is there a replacement tube of similar characteristics that I can substitute for the 8950's or maybe a modification that can be done to allow the amplifier to use another type of tube?" After doing my research, and correct me if I am wrong, it seems the 8950 tubes use a 12VAC heater voltage instead of the normal 6VAC. Any and all help is greatly appreciated in advance.

Sincerely,
James, Owner/Operator
Eagle_Tronics

849. Re: 8950 Vacuum tube ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 11:41:58 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3A7E918E.2B42A790@netscape.net>
Source record: 54945

mystique224@home.com wrote:
>
> Good Morning Everyone,
> I am posting this unusual request because I had a customer bring in
> this piece of equipment the other day. It is a Ham series amplifier that
> uses three 8950 final tubes and 1 8950 tube as the driver. Anyway, all
> of the tubes are less than 30% on my tube tester. After some research, I
> have found that these tubes are extremely hard to find and when you do
> find some, they are usually used and very expensive. My question to you
> fine intelligent people is "Is there a replacement tube of similar
> characteristics that I can substitute for the 8950's or maybe a
> modification that can be done to allow the amplifier to use another type
> of tube?" After doing my research, and correct me if I am wrong, it
> seems the 8950 tubes use a 12VAC heater voltage instead of the normal
> 6VAC. Any and all help is greatly appreciated in advance.
>
> Sincerely,
> James, Owner/Operator
> Eagle_Tronics

6KD6 is the same tube, with a 6 volt filament. You can wire two in
series and use them for replacements

850. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 11:55:21 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A7E94A9.AED618E8@win.bright.net>
Source record: 54946

Oops, I CAN'T remember direct comparison parameters.

Scott

Scott wrote:
>
> 2N2222A has better specs, but I can remember direct comparisons. I
> almost always use the 2222 for just about every generic application that
> needs a small signal transistor.
>
> Scott
> N0EDV
>
> Henry Kolesnik wrote:
> >
> > i've heard that the 2N2222 is "better" in some apps than the 2N3904..
> > if this is the consensus why is this the case?
> > tnx
> > hank
> > "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
> > news:t7ouhtonr1fpa8@corp.supernews.com...
> > > if you could only have about 12 different transistors for general ham use
> > > from audio to 1.2 gHz , power supplies and 10 watts max, what would your
> > > list include?
> > > tnx
> > > hank wd5jfr
> > >
> > >
>
> --
> --Scott--
> 1986 Corben Junior Ace N3642
> http://corbenflyer.tripod.com/
> RV-4 under construction (tail feathers)
>
> Gotta Fly or Gonna Die!

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

851. Re: Homebrew Newbie, Transmitter Design.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 12:25:39 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <95m65701aae@news1.newsguy.com>
Source record: 54847

Mike

These 'real simple' schematics aren't always the best thing to study. Quite often there are some shortcuts used, tricks being played, etc.

If you look at the circuit, the audio is being applied across the oscillator, Q1, after being amplified by Q2.

Any diode has a capacitance across it. Perhaps more interestingly, the capacitance changes depending on the voltage across it. This behavior is exploited in varactor diodes, but is true to a degree in all diodes, and even 'normal' diodes are sometimes used as part of a tuning circuit by exploiting this behavior.

A bipolar transistor can be thought of as 2 diodes, back to back, so twice as much capacitance.

In this circuit, the voltage being output by audio amplifier Q2 is applied across the oscillator transistor Q1. C5/L2 make up the tuned circuit which determines the frequency, but some of Q1's capacitance comes into play, too. Normally, it would be constant and ignored. But the voltage from the audio amplifier is causing the capacitance of Q1 to change, thus shifting the frequency by changing the capacitance in the tuned circuit.

This also is likely changing the amplitude, and I doubt the frequency modulation is especially linear. Thus, except for experimental purposes, this really isn't a useful frequency modulation circuit. (Amplitude modulation of an FM signal is considered a very bad thing for a variety of reasons.)

I would suggest starting by studying CW transmitters first. They are a lot simpler, and there are a number of commercial, or sort of commercial, rigs whose schematics are on line, often with very good descriptions of how the circuit works.

Try taking a peek at http://www.qsl.net/k8iqy/, http://www.redhotradio.com/ (go to Red Hot 20 information for the schematics), http://www.elecraft.com (download the K1 manual), http://www.fix.net/~jparker/norcal/smk1/smk1announce.htm (schematics are actually back on the Red Hot page), and probably best of all, http://engphys.mcmaster.ca/~elmer101/

Hope this helps,
didleydadidah

852. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 13:53:35 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <95mb8v$jt4$2@ausnews.austin.ibm.com>
Source record: 54849

In <t7ouhtonr1fpa8@corp.supernews.com>, "Henry Kolesnik" <wd5jfr@oklahoma.net> writes:
>if you could only have about 12 different transistors for general ham use
>from audio to 1.2 gHz , power supplies and 10 watts max, what would your
>list include?
>tnx
>hank wd5jfr

It seems that no one has mentioned any UJT (UniJunction Transistors) yet.
Also, I've noticed a lack of FETs (and MOSFETs). Do SCR/Triacs count as
transistors?

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

853. Re: Rocket Antenna -Plus some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 14:00:02 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <95mbl2$jt4$3@ausnews.austin.ibm.com>
Source record: 54848

In <3A7CBCED.7E490721@att.net>, Woody <woody.white@att.net> writes:
>Our rockets were ballistic. They left the launch stand with a
>calculated 10 to 15 Gs acceleration - usually going where they were
>pointed*, but not reaching escape velocity. Fuel was exhausted in just
>a few seconds. I shot a rocket in the air, It came to ground... I
>usually knew where :) We calculated the acceleration by filming (8mm)
>the launch. Knowing the field of view and the frames/second we could
>calculate the average acceleration over that distance (maybe ~300 m).
>It was probably even higher at take-off - We never launched any
>animals!
>
>*We once had a timing malfunction on a 2m long one. The second stage
>fired when pointed down. Burried itself several feet into hard, dry
>red clay!
>
>Woody
>--
>Woody, WB4QXE
>For Ham Radio homebrewing and
>Scanning Electron Microscope Images,
>visit: http://woody.white.home.att.net

Did you take into account the increased acceleration due to the reduced mass of the rocket fuel as the flight progressed? Of course, with most small rockets, the mass of the fuel is probably almost insignificant compared to the rest of the vehicle weight, so the acceleration may not change much. However, another aspect of the acceleration is the rate at which the fuel is consumed, and this is related to the shape of the combustion chamber/solid fuel shape. Finally, while most small rockets don't go high enough to have air resistance change significantly, it can affect higher flying rockets.

I suppose it would be possible to mount a small accelerometer in a model rocket, and have the data downlinked via a UHF link. It might be interesting to downlink this and integrate it to determine rocket speed and altitude.

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

854. Rally info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 16:00:57 UTC
From: Shaun Scannell <Shaun.Scannell@nospambtinternet.com>
Message-ID: <95milc$f3h$1@neptunium.btinternet.com>
Source record: 54850

Maidstone Rally Sunday 13th May 2001.

see http://website.lineone.net/g3trf for more details

855. Re: Delco Transistor DTS 401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 16:26:03 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-0502010826030001@dhcp-40-174.caltech.edu>
Source record: 54851

In article <95k15ralp1@news5.svr.pol.co.uk>, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>In the remains of a power supply unit I have are a number of Delco ,type DTS
>401 transistors.
>
>According to a reference database it is a NPN type transistor in a TO 3
>enclosure (like the well known 2N3055) . Its application is stated as :
>line deflection.
>Question : What is the (max) rated current for the device.
>
>The intended new application is that of an electronic shunt for a 12 V
>lead-acid battery system charged by solar panels and a wind driven
>generator.
>
>TIA for any advice
>
>73 Frank gm0csz.kn6wh@ukrs.org

DTS-401 Video horizontal and vertical output transistor.

Vcex 400VDC, Vceo 400VDC, Vebo, 5VDC Peak IC 5A, IC 2A, Ib 1A

Above data from Delco GM data sheet dated October 1969

73 Tom WB6IQD

856. Re: 8049/8051 basd morse code tutor?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 19:42:23 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3a7f01d3@news.svn.net>
Source record: 54853
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

Hi, Gary -

QST has published *two* sets of plans, one each circa 1988 and 1997 or so. The latter one was by an author named Stanton. The files for the processor are at the ARRL Web site (www.arrl.org). You can probably find it using Stanton as a search item.

I was planning on building one to get my Extra but jumped for an MFJ unit instead. Worked, too!

Best regards -

Jim Horn, WB9SYN/6

857. Need manual fo HP1220A o'scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 22:10:22 UTC
From: Larry <n0sa@earthlink.net>
Message-ID: <ixFf6.2631$iM6.359836@newsread1.prod.itd.earthlink.net>
Source record: 54854

I need a manual for an older Hewlett Packard HP1220A o'scope. Any help would be appreciated.
Thanks Larry N0SA

858. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 22:16:18 UTC
From: "Craig A. Ferris" <cferris@aeronix.com>
Message-ID: <3A7F2632.292BFB03@aeronix.com>
Source record: 54852

A reflection coefficient greater than 1??? When RC is equal to 1, ALL power
is reflected.
With a RC of 2.414, 5.8 times the power is reflected. Your transmission line
generates power.
You should patent it.

73,
Craig NR4E

Reg Edwards wrote:

> Tom wrote:
> > "Reg Edwards"wrote:
> > ...
> > > A Smith Chart is incapable of showing how an SWR as high as 2.414 can
> > arise.
> > > According to Smith an SWR greater than unity is impossible.
> >
> > Perhaps you were thinking of reflection coefficient magnitude? (There
> > are those of us who might disagree even if that were the case...)
> ============================
>
> Thanks Tom for correcting my slip of the tongue (pen, keyboard).
>
> Yes, it is the Reflection Coefficient which the Smith Chart asserts cannot
> rise above unity whereas on real lines the RC can approach 1 + sqrt(2).
>
> Would you be one of those chart worshippers who disagrees ?
> ;o) ;o) ;o)
> ----
> Reg, G4FGQ

859. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-05 22:29:36 UTC
From: tom_bruhns@agilent.com
Message-ID: <95n9g3$m15$1@nnrp1.deja.com>
Source record: 54855

Craig,

Consider if you will a piece of RG-58 or other small line at 1MHz. No need to go to audio as Reg might suggest (to get really large reactive components in Z0). Then put a reasonably high Q inductor with about +j50 reactance on that line as a load. Let's say it's 0.5+j50. The line characteristic impedance will be somewhat capacitive, let's say 50-j3...I think it's actually a bit more than tnat. Now...what's the reflection coefficient magnitude? When I calculate it, it's greater than unity.

I'd suggest that you NOT get hung up in assigning a physical significance to that. Someone once suggested to me that the formula for calculating reflection coefficient (given Z0 and Zload) is incorrect, but on careful, ahem, reflection, I decided it was just fine as it's normally given. Good idea to go back to a clear definition of reflection coefficient and not read anything into it that isn't given by the definition or justified by math relationships with other concepts.

Cheers,
Tom

In article <3A7F2632.292BFB03@aeronix.com>,
"Craig A. Ferris" <cferris@aeronix.com> wrote:
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ALL power
> is reflected.
> With a RC of 2.414, 5.8 times the power is reflected. Your
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> generates power.
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> 73,
> Craig NR4E
>
> Reg Edwards wrote:
>
> > Tom wrote:
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sqrt(2).
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> > ;o) ;o) ;o)
> > ----
> > Reg, G4FGQ
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

860. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 01:02:22 UTC
From: tom_bruhns@agilent.com
Message-ID: <95nieq$u42$1@nnrp1.deja.com>
Source record: 54857

In article <Pine.LNX.4.10.10102022240500.16828-100000@Gloria.CAM.ORG>,
Michael Black <blackm00@Gloria.CAM.ORG> wrote:
>
>
> On Fri, 2 Feb 2001, WB8RCR wrote:
>
> > A number of folks have suggested a DMM - I would disagree.

...

> I'd agree with you about the need for seeing a peak over a precise
value,
> but I think I'd still aim someone towards a DMM.

No matter which way you choose to go, here are a couple of "cheap
tricks."

First, you can make a simple voltage-to-tone converter that makes it
very easy to peak or dip something with no need to look at a meter.
It's at least as responsive as an analog meter, and lets you keep your
vision focussed on a tuning wand or the like, instead of the meter. You
can use this instead of or in addition to a meter, or even add it to a
meter. In this case, it's most likely easier to add to an analog meter.

Second, you can build a simple circuit to give you high input impedance
for an analog meter...or even for a DMM. You can even put some gain
with it. An op amp non-inverting amplifier, battery powered, can work
with signals up to 10 volts easily, or even a bit beyond, without going
to a high voltage op amp, and that's enough for a lot of solid state
work. Put a resistor in series with the input and clamp diodes to
protect against connecting to higher voltages. With some care, you can
get to exceptionally tiny input currents and super high resistance, if
that's important to you. Back before DMMs were common, I longed for
more DC sensitivity in my analog meter, wanting to measure millivolts.
A gain-of-ten (or more) op amp circuit will let you see such small
signals. (Use a low offset, low drift amp, and/or provide an offset
null control.)

Cheers,
Tom

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

861. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 02:00:08 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95nlp9rus1@plutonium.btinternet.com>
Source record: 54858

Hello Craig,

As you have found, your trial calculation gives an impossible result.
Perhaps the formulae you have used to calculate forward and reflected power
make the same assumptions as Smith and others adopted in order to generate
curves which could be usefully printed on a flat rather than on a useless
3-dimensional sheet of paper.

Hint 1: When calculating power from volts and current it is essential to
take into account their relative phases.

Hint 2: On REAL lines the current and voltage are not in phase with each
other because the characteristic impedance Zo is never a pure resistance.

As Ian, G3SEK, pointed out, one of Smith's convenient assumptions was that
Zo is always a pure resistance. It never is. Oliver Heaviside, of
ionospheric-layer fame, realised this way back in 1875 or thereabouts when
he solved fundamental problems relating to distortion of telegraph signals
along transmission lines and a little later distortion in telephone lines.
Data rates even in those days were of great importance. Those solutions,
ridiculed for years by Oxbridge PhD blockheads, are today equally applicable
to transmission of digital signals and TV waveforms.

It was American engineering mathematicians such as Carson and Armstrong who
took Heaviside's work into the 20th century and into radio. The Yanks, if
nothing else, are essentially practical !
--
Regards, Reg, G4FGQ
****

Craig A. Ferris <cferris@aeronix.com> wrote in message
news:3A7F2632.292BFB03@aeronix.com...
> A reflection coefficient greater than 1??? When RC is equal to 1, ALL
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> is reflected.
> With a RC of 2.414, 5.8 times the power is reflected. Your transmission
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> generates power.
> You should patent it.
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> 73,
> Craig NR4E
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> > rise above unity whereas on real lines the RC can approach 1 + sqrt(2).
> >
> > Would you be one of those chart worshippers who disagrees ?
> > ;o) ;o) ;o)
> > ----
> > Reg, G4FGQ
>

862. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 02:28:58 UTC
From: tom_bruhns@agilent.com
Message-ID: <95nnh2$2h8$1@nnrp1.deja.com>
Source record: 54859

In article <95gkvr$38p$1@uranium.btinternet.com>,
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
...
> Yes, it is the Reflection Coefficient which the Smith Chart asserts
cannot
> rise above unity whereas on real lines the RC can approach 1 +
sqrt(2).

Hi Reg,

OK, can we get down to brass tacks here? Are you suggesting that when I scale all impedances by Z0 that I can't read correct values from the chart, that they are inherently incorrect? Did you happen to quit drawing the grid lines right at a unit circle from the origin??

Specific example: scale to Z0 = 50-j10. Then, rho = 0+j1 results from a load of Z = 10+j50. The normalized impedance point that plots to is 0+j1, which seems right to me. For rho = sqrt(1/2)+j*sqrt(1/2), the load is +j2.414*Z0, which again is just what I expect from the chart...in fact quite in general, the chart simply plots for grid lines a field of Z(normalized) = (1+rho)/(1-rho), and you are not constrained to do that for |rho| <= 1 even though the printed charts typically stop the grid lines there, out of convenience. So I come down to the ultimate question: is it not true that Z = Z0 * (1+rho)/(1-rho)?

Note that the instructions for plotting normalized Z for rho = 0+j2.4142 say it will be -0.707+j0.707; so if my transmission line Z0 is 705-j705, then a load of 0+j997 ohms results in a reflection coefficient of 0+j2.4142. I _still_ don't have any problem with that... the bumble bee is still flying just fine, thank you.

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

863. Help on INTEC Mariner 2500 SSB and SEA 112

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 04:03:38 UTC
From: randy_radio@my-deja.com
Message-ID: <95nt2m$723$1@nnrp1.deja.com>
Source record: 54860

Hello. I have two marine radios here, one the INTEC that I am trying to get on HAM bands and the SEA 112 that came along for the ride. Neither unit will go into xmit when the PTT is pushed on the mike. The mikes PTT line on the INTEC terminates on a Molex connector. What pins on the Molex do I need to jumper together? Also is there a jumper on the antenna coupler jack needed to enable the xmiter? I do not have the antenna couplers for either unit. I also need the programming info for the INTEC. It uses a diode matrix for the synth. and it has 3!!! xtal ovens in it plus a Collins mechanical filter. I would like to get this radio on 80 and 40
meters.

Thank you,
Randy KB8ASO

p.s. Where would I get the EPROMS on the SEA programmed if I decided to do so?

Sent via Deja.com
http://www.deja.com/

864. HP 10544A oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 06:24:05 UTC
From: Rex Pearson <perisonr@dingoblue.net.au>
Message-ID: <3a7f9887$0$16395$7f31c96c@news01.syd.optusnet.com.au>
Source record: 54861

Does anybody have a copy of the circuit for the HP10544A oven oscillator, I am mostly interested in the temperature control circuit as mine has lost temp control.

Thanks

Rex
VK8RH

865. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-06 08:21:49 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <vsOf6.243$c5.188559@news1.iquest.net>
Source record: 54862

<glass2@glass2.lexington.ibm.com> wrote in message
news:95mb8v$jt4$2@ausnews.austin.ibm.com...
> In <t7ouhtonr1fpa8@corp.supernews.com>, "Henry Kolesnik" <wd5jfr@oklahoma.net> writes:
> >if you could only have about 12 different transistors for general ham use
> >from audio to 1.2 gHz , power supplies and 10 watts max, what would your
> >list include?
> >tnx
> >hank wd5jfr
>
> It seems that no one has mentioned any UJT (UniJunction Transistors) yet.
> Also, I've noticed a lack of FETs (and MOSFETs). Do SCR/Triacs count as
> transistors?
>
UJT's are useful for quick, one-off oscillators and certain kinds of timing
circuits. I don't normally deal with that sort of thing where I want a quick,
one-off kind of design for that sort of application. I have seldom messed with
SCR/Triacs also, but when they are applicable, they are a wonderful solution.

I am very fond of working with FETs. They are a different sort of challenge to
bias or optimize a circuit with. Note that I tend to work with low frequencies
(30MHz or less), so my choice of JFET tends to be optimized for that application.
Many of the higher frequency fets (e.g. 2n4416, 2n5486, j310) have good application
in low-medium frequency situations, but using them with conventional resistor
load, ac-coupled applications need to be carefully considered due to the biasing
issues. (It isn't really hard to use them, but the wide idss/vp spreads makes the
designer have to be aware of the issue.) Working with Fets is sometimes somewhat
like designing with Germanium transistors in low current circuitry, but requiring
even more care to get the ultimate or maximum performance.

Jfets can be very useful in super-low noise, but high speed, low distortion applications
where bipolars can give the designer some grief... Jfets do sometimes have more
noise than theory might imply though. Jfets also provide a linear resistor capability
that tends to be more theoretically interesting than practical (it can be used, but there
are serious
issues of device specification spreads.) Using the device in the ohmic region mode
is really wonderful when applicable. There are some tricks that can almost eliminate
the distortion (even better than the device alone.)

You might have to look to someone else regarding Mosfets, because my only
significant experience has been with the 3n128, the old dual gate things (e.g. 3n140)
and some of the other obsolete (RCA) fets with the substrate available as a low gm gate.

I don't mess with power RF, but I am sure that there are individuals who have good
suggestions for that technology.

John

866. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 11:29:35 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <0jbr59.cjq.ln@localhost.localdomain>
Source record: 54871

Dennis Collin wrote:

> I'm looking to start building QRP transciever kits. I need to equip a
> bench for such work. <snip>

> A multimeter? Digital or analog? Features? Price?

Analog meters do a better job of measuring changing voltage/current.
Don't buy an expensive one, a cheap one is almost as accurate and
will probably last longer. My Altai HC-2020S (20K/V) cost 17 UKP
and has already given ten years of good service.

Multimeters are so cheap that you might consider buying a
digital one as well.

> A soldering station? Weller? WLC100 (40 watt adjustable) OK? Don't
> bother, just get a simple iron?

Soldering stations are nice but they are quite expensive. An 18W
Antex iron will suffice for most amateur work. If you intend to do
a lot of desoldering, you will probably need a 25W iron.

Once you have a multimeter, an iron and a roll of solder, you
can build a lot of useful test equipment.

A diode probe for measuring RF voltages.

A dip meter for checking the resonant frequency of tuned circuits.

An absortion wavemeter for checking for spurious signal from your HB TX.

SWR meter, noise bridge or impedance bridge and so on.................

73, Happy Homebrewing.

Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.1

867. Re: any original rci2950 gurus'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 12:45:55 UTC
From: gilles <hack@cracker.ca>
Message-ID: <3A814413.D2790002@cracker.ca>
Source record: 54863

hi,
played with 2 radios like yours,

the freq knob is one of the common trouble on this radio

2 solutions

first: order a new switch BUT in the past the new switchs were NOT always

better. It's a guess to try it.

second: use up and down push button.

which mod would you do, come back with your jumper story....

on the quite side

geokf4ucc@yahoo.com wrote:

> hope someone can help me -- I have probably one of the first rci2950s
> and need some help -- Ive checked the mods in qrz and it doesnt seem
> to apply to mine I cant find any JP2 and my JP1 isnt the same either.
> also am having problems with the freq tuning knob {it goes down when I
> want it to go up} any help will be appreciated pse sent you e-mail
> adress and i will get back to you. thanks/george

868. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 14:27:09 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <95s0ia$vf8$1@news8.svr.pol.co.uk>
Source record: 54869

> Other than power supply crowbars, what ham applications do
> SCRs have? Ditto UJTs - what would a ham do with them?
==========
SCRs are excellent to get a stabilised HV for RF valve amplifiers .
See QEX July-August 1999. page 50 and following.
Article by VE6AXW.
Example : 2400 V , 0 -1 ampere with 2400 V @ no load and 2397 V @ full
load
SRCs are used in primary winding of HV transformer .

No RFI reported.

73 Frank gm0csz.kn6wh@ukrs.org

869. Re: Electrical Engineering Student with a possible senior project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 14:34:29 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3A815CF5.EEAE9881@ix.netcom.com>
Source record: 54864

Hi Matt -- well I don't know what ISS is. But to transmit just about anywhere -- you will need a license. For ham license -- see URL:
http://www.arrl.org/hamradio.html
To build your own transceiver can be fairly simple to very complex. For some ideas -- see URL:
http://ac6v.com/homebrew.htm
There you will find some moderately simple projects as well as two good books on "Build Your Own Intelligent Amateur Radio Transceiver" and "Radio Receiver Projects You Can Build." Going thru the HomeBrew projects will find a transmitter as well -- but you must be licensed.
You may want to consider a kit -- see URL:
http://ac6v.com/kits.htm
I have built projects in the past and although time consuming it is rewarding. Todays technology makes it difficult to build anything approaching a modern transceiver.

Read the reviews on "Build Your Own Intelligent Amateur Radio Transceiver" at Amazon. com
The author is Randy Lee Henderson
Good Luck
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

Matt wrote:

> Hello all,
> As the subject says, I am an Engineering student at a school in Michigan
> (Oakland University), and I would like to build and design my own transiever
> so I can TRY to communicate with ISS.
>
> I am posting this because I would like to hear some feedback about my
> idea. I also have a few questions: Has anyone designed and built their own
> radio, if so, how did it go and how long did it take you?
>
> Thanks for reading,
>
> -Matt Rizzo

870. Intech Mariner 2500 manual wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 15:49:34 UTC
From: randallr@healthall.com
Message-ID: <95rqqa$i6j$1@nnrp1.deja.com>
Source record: 54865

Hello. I have a Intech Mariner 2500 that I am trying to resurect. I need the programming info, the pin out of the molex plug on the back or a complete service manual. It is an oldie (20 years.).

Thank you,
Randy KB8ASO

--
Randy E. Randall
KB8ASO
Milan, IN.

Sent via Deja.com
http://www.deja.com/

871. ME-11 DMM serial cable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 16:38:42 UTC
From: LLConner <llconner@gte.net>
Message-ID: <mSeg6.2013$2H3.135994@dfiatx1-snr1.gtei.net>
Source record: 54866

For those who want to make a cable for the Radio Shack ME-11 DMM. I found that a straight through cable does not work if ALL the pins are used. If you only use 2,3,4,5,8 in a 9 pin to 9 pin cable it works fine.

Larry

872. Re: 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 16:47:40 UTC
From: la8ak@online.no
Message-ID: <3a80fc84.44460903@news.online.no>
Source record: 54868

On Tue, 06 Feb 2001 14:19:29 GMT, fedtmule1980@my-deja.com wrote:

>
>I need 60 MegaHertz not KiloHertz and that will give a drift of 6 Mhz
>witch is too much!
>
....and the drift is important, but you don't know how much you need?

873. 2A3 substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 16:49:16 UTC
From: Jack Taylor <n7oo@theriver.com>
Message-ID: <g0fg6.326121$IP1.10802704@news1.giganews.com>
Source record: 54867

Anyone have thoughts on a substitute for the 2A3 tube? FET equivalent?

73 de Jack

874. Radio Kits group at Yahoo

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 18:06:36 UTC
From: JimMc <jim30004@my-deja.com>
Message-ID: <95s2r3$q7i$1@nnrp1.deja.com>
Source record: 54870

If you're interested in building radio kits come join the Radiokits group at Yahoo:

http://groups.yahoo.com/group/radiokits

Ask questions, share stories, check out the links to various kit sources, and remember the good old days when most of us started in radio by building our own kit.

Jim

Sent via Deja.com
http://www.deja.com/

875. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 18:54:55 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <95s5lvjvq1@ausnews.austin.ibm.com>
Source record: 54872

In <95p9he$bb8$1@nnrp1.deja.com>, marsgal42@hotmail.com writes:
>In article <95mb8v$jt4$2@ausnews.austin.ibm.com>,
> wa4qal@vnet.ibm.com wrote:
>
>> It seems that no one has mentioned any UJT (UniJunction
>> Transistors) yet. Also, I've noticed a lack of FETs (and
>> MOSFETs). Do SCR/Triacs count as transistors?
>
>Other than power supply crowbars, what ham applications do
>SCRs have? Ditto UJTs - what would a ham do with them?
>
>If you want FETs, the standards in my shack include
>2N3819/2N4416. The applications of small-signal MOSFETs
>are fairly limited nowadays, but I have a few BF981s
>in the junkbox just in case. Power MOSFETs are fun to
>play with (I've built things with IRF510s in them), but
>tend to be something you buy for a specific project.
>Ditto GaAsFETs - I tend not to buy them unless I have
>a project in mind for them. Or have just scored some
>samples and am trying to figure out what to do with
>them. :-)
>
>Laura Halliday VE7LD "Que les nuages soient notre
>Grid: CN89mg pied a terre..." - Hospital/Shafte
>
>
>Sent via Deja.com
>http://www.deja.com/

UJTs make extremely simple oscillators, although the output waveform is more of a sawtooth than a sine wave. You can use them to build blinking lights, using only four components (UJT, resistor, capacitor, LED).

They seem to be the forgotten transistor, at least, judging by their availability. They're almost as hard to find as germanium transistors.

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

876. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 19:50:28 UTC
From: Laura Halliday <marsgal42@hotmail.com>
Message-ID: <95s8u1gp1@nnrp1.deja.com>
Source record: 54874

In article <95s0ia$vf8$1@news8.svr.pol.co.uk>,
"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

> SCRs are excellent to get a stabilised HV for RF valve amplifiers .
> See QEX July-August 1999. page 50 and following.
> Article by VE6AXW.
> Example : 2400 V , 0 -1 ampere with 2400 V @ no load and 2397 V @
full
> load
> SRCs are used in primary winding of HV transformer .
>
> No RFI reported.

Interesting. Thanks.

Still sounds like something you would buy for a specific
project, rather than something you would stock in your
junkbox...
--
Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

Sent via Deja.com
http://www.deja.com/

877. Re: ME-11 DMM serial cable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 19:55:00 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A81A814.2EE131A2@clifto.com>
Source record: 54873

```
LLConner wrote:
> For those who want to make a cable for the Radio Shack ME-11 DMM. I found
> that a straight through cable does not work if ALL the pins are used. If you
> only use 2,3,4,5,8 in a 9 pin to 9 pin cable it works fine.

Any idea what the meter does with 1, 6, 7, and/or 9?

--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

878. Re: ME-11 DMM serial cable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 20:06:15 UTC
From: Denver Braughler <Braughler@bwcc.com>
Message-ID: <3A81AAB7.7B476D3B@bwcc.com>
Source record: 54875

"Clifton T. Sharp Jr." wrote:
> LLConner wrote:
> > For those who want to make a cable for the Radio Shack ME-11 DMM. I found
> > that a straight through cable does not work if ALL the pins are used. If you
> > only use 2,3,4,5,8 in a 9 pin to 9 pin cable it works fine.
>
> Any idea what the meter does with 1, 6, 7, and/or 9?

Here is an example on another device:
http://support.baynetworks.com/library/tpubs/html/switches/bstack/350F/9300992C/A_71.HTM

879. Re: 2A3 substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 20:29:33 UTC
From: la8ak@online.no
Message-ID: <3a81afdb.13376020@news.online.no>
Source record: 54876

On Wed, 07 Feb 2001 16:49:16 GMT, "Jack Taylor" <n7oo@theriver.com>
wrote:

>Anyone have thoughts on a substitute for the 2A3 tube? FET equivalent?
>

>
believe the AC heated cathode is a problem with semiconductors -
meaning that a modification is needed, but is another heater voltage
available, like 6.3V, then 6V6 is a suggestion

-jm

880. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 20:58:52 UTC
From: tom_bruhns@agilent.com
Message-ID: <95scu5$4jr$1@nnrp1.deja.com>
Source record: 54877

For a slightly different slant on things:

MMBT2222A; MMBT2907A
MMBT6429L; MMBT5087L
BFR92
MMBF4416L
MMBFU310L
2N7002
MTD3055VL; MTD2955V perhaps
MJD44H11; MJD45H11 perhaps

In article <t7ouhtonr1fpa8@corp.supernews.com>,
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote:
> if you could only have about 12 different transistors for general ham
use
> from audio to 1.2 gHz , power supplies and 10 watts max, what would
your
> list include?
> tnx
> hank wd5jfr
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

881. Woden UM3 modulation transformer. Seeking specifications.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 21:19:09 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <aYig6.21656$Ee3.553100@news6-win.server.ntlworld.com>
Source record: 54878

Many thanks if you can help me with the specifications for the Woden UM3 modulation transformer.

Rich.
--
Please add an, "s" to "newsgroup" in email address to reply direct.

882. tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 21:38:59 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <95sf9i$6vp$1@nnrp1.deja.com>
Source record: 54880

Here's the stuff of the tkind used in those bubbling Cray supercomputers of old: www.ausimont.com/docs/gald_heat.html

Non flammable, nonconductive, nontoxic, comes in many grades. I only wonder if it takes gradients of several kV/cm w/o breaking down!

The co. is Italian, but they have plants in the US as well.

Have fun!

Filippone

Sent via Deja.com
http://www.deja.com/

883. Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 21:44:29 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3a81b9a5.1524289@news.sprint.ca>
Source record: 54879

I have a homebrew 13V, 20A power supply I am just finisishing testing. Most of the time it works just fine. However, on three occasions it has blown its 25amp fuse which sits between the overvoltage thyristor (SCR) and the filter capacitors. I believe the thyristor is triggering. The overvoltage circuit is the same as that found in "The Art of Electronics": a 15.1v zener diode going to ground through a 0.1uF cap and a 100 ohm resistor, the zener triggering a 30 amp thryristor. The occasions when the fuse has blown have been 1) rapid increase in drawing 5 then 20 amps 2) when I had a bad connection to a circuit drawing 2 amps and it sparked at the terminals. This suggests to me that a voltage transient of some sort might be triggering the zener to over 15.7 volts thereby in turn triggering the gate of the SCR.

The regulator and other circuits appear to be working very well and there are no intermittent shorts elesewhere in the supply. I hesitate to test that it definetely is the overvoltage circuit by disconnecting it temporarily to see if the problem disappears. Any suggestions out there on how do deal with this problem??

Larry VE6MK

****
to send direct email remove "fake" from address

884. Re: Raising coil Q in regen RX - Materials and Q-dope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 22:03:05 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <95sgmj$8h5$1@nnrp1.deja.com>
Source record: 54882

Hi Barry!

I didn't know it at the time, but I had made Q-dope already!

I was attempting to manufacture napalm, and I needed a gelling agent that would retain the molecule soup called gasoline. I remembered reading smtg about palm oil, but as soon as I discovered that polyester foam would dissolve in gas, I knew I had a recipe.

I would have had more fun if I also had time to synthesize a low velocity propellant that would ensure both ignition and inertial droplet dispersion. Unluckily I was in Physics school back then, and we couldn't mess up too much with chemicals...

Last night a good friend of mine told me she can provide me with a some high grade ammonium nitrate.

Oh, only 20 years too late!

- Don't worry, I ONLY worked on experimental scale devices, never more than a few ounces at a time, and with no illwill twd anyone...

F.

Sent via Deja.com
http://www.deja.com/

885. Re: Relay Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 22:11:08 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A81C7FC.DFDF332C@dialpoint.net>
Source record: 54881

It is doubtful that you could use the same relays for anything much above 30 mhz. The segments in them are probably nowhere neat 50 ohms and are long in terms of wavelength. That means that you have inserted a piece of transmission line that is somewhat lossey but more important is that the impedance bump in the line. To do the switching at those frequencies you need some kind of coax realy rated for the frequencies that you are using.

Marc Passy wrote:
>
> In the 2001 ARRL Handbook, they have a remote-controlled antenna relay
> project that uses conventional 250VAC, 15A DPDT power relays (contacts
> wired in parallel) with 12 VDC coils to switch between several HF
> antennas, with the highest freq switched about 28 MHz.
>
> My Question is:
> Can these same relays be used for higher Freq operation - 145, 435 MHZ?
>
> What are the problems with using these? Looking at the cost of coax
> relays, this seems to be a no-brainer, but my economic common sense says
> coax relays wouldn't be so much if they're weren't some big downside I'm
> missing.
>
> Marc, KD5LUR
> -

886. Re: 20Mhz TXCO source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 22:15:26 UTC
From: tom_bruhns@agilent.com
Message-ID: <95shdk$96o$1@nnrp1.deja.com>
Source record: 54883

One or many? Exactly 20MHz, or just close? New or used/surplus?
Price range of interest?

Cheers,
Tom

In article <HH0g6.45$D13.91738@nnrp2.sbc.net>,
"baby HUey" <na@na.na> wrote:
> Anyone have a good source for TXCO, 20Mhz TXCO?
>
> Thanks
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

887. Re: Raising coil Q in regen RX- Glass Properties

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 22:27:17 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <95si3o$9r3$1@nnrp1.deja.com>
Source record: 54884

Ian Jackson <ianjackson@g3ohx.demon.co.uk> wrote:
> If it is still cold(ish), then the RF losses are small. If
> it isn't, they aren't.

Ian, I used to share this belief, but I now have my doubts. A microwave oven works at one well defined frequency. Isn't that a f. that is easily absorbed by water?

And, isn't deionized water also a pretty decent electrical insulator? (I even saw it used in hydraulic remote control of high voltage switches!). Yet, pure water does heat a lot in a microwave....

I find this confusing enuf not to trust the method. I'd rather try this diathermic treatment at HF before deciding if a dielectric is low loss at that frequency.

What do you think?

Filippone

Sent via Deja.com
http://www.deja.com/

888. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 22:54:39 UTC
From: la8ak@online.no
Message-ID: <3a81ca0f.20085012@news.online.no>
Source record: 54885

On Wed, 07 Feb 2001 20:58:52 GMT, tom_bruhns@agilent.com wrote:

>For a slightly different slant on things:
>
>MMBT2222A; MMBT2907A
>MMBT6429L; MMBT5087L
>BFR92
>MMBF4416L
>MMBFU310L
>2N7002
>MTD3055VL; MTD2955V perhaps
>MJD44H11; MJD45H11 perhaps
>
>
a different suggestion. Seems you are in a group of two of my friends
who use SMD, the other is LA7MI, I still like to drill holes in pcb

Suppose 2N7002 is similar to my favourite 2N7006 - particularly
popular here since I got 2500 items for free, somebody may say VN2222
or VN2408 - provided you know the use

could write a list of which transistors used here, but it has little
or no interest for anybody else, 2-300 different types, based on the
availability and sources/friends who persuade me to help them to get
rid of some components. When I got 3000 of BC238B, I really do not
care whether you call it 2N2222, 2N4401 or 2N3904
In Europe we use the term TUN (transistor universal NPN), while you
tend to say 2N2222
and still in order of communication, when accurate data is not
important, we may call it 2N2222 on this newsgroup, BC547 on another

The only but important problem remains, how to be aware of the
available ressource. One suggestion is to mark the PNP devices with
BLUE paint, and the NPN with RED, and forget the specifications -
except for very very special purposes and VHF/UHF/SHF.

73,
Jan-Martin
LA8AK
>
>In article <t7ouhtonr1fpa8@corp.supernews.com>,
> "Henry Kolesnik" <wd5jfr@oklahoma.net> wrote:
>> if you could only have about 12 different transistors for general ham
>use
>> from audio to 1.2 gHz , power supplies and 10 watts max, what would
>your

>> list include?
>> tnx
>> hank wd5jfr
>>
>>
>
>--
>Tom Bruhns -- K7ITM
>
>
>Sent via Deja.com
>http://www.deja.com/

889. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 23:03:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A81D438.C3742C9@eznec.com>
Source record: 54886

The Smith chart is easily extended to include values of reflection coefficient greater than one. This is often used for amplifier stability analysis and oscillator design. For examples, see Fig 6.2 in Vendelin, Pavio, and Rohde, _Microwave Circuit Design Using Linear and Nonlinear Techniques_ (Wiley, 1990), Fig. 2-27 in Rhea, _Oscillator Design and Computer Simulation_ (Noble, 1995), or Figs. 2.2.4 and 2.2.5 in Gonzalez, _Microwave Transistor Amplifiers_ (Prentice Hall, 1984).

The limitation of real characteristic impedances would be a severe handicap in the MF and below world where Reg apparently spent most of his career. But with decent quality cable at HF and above, the error introduced by the limitation is typically much smaller than your ability to discern it. And 50 ohms resistive is so widely used for network design that the limitation is no handicap at all in the vast majority of circuit applications. The Smith chart continues to be a wonderfully intuitive tool for many design problems. If accuracy beyond a couple of significant digits is necessary, the engineer should think carefully about the reproducibility of the design using real world components in a real environment. And in that case, computer analysis of not only the design itself but of the effect of component and environment variations is called for.

Roy Lewallen, W7EL

tom_bruhns@agilent.com wrote:
>
> Without going back to specific articles, I'm remembering that you've
> commented on two specific shortcomings of the Smith chart: that you
> must scale only to real values of reference impedance and that you
> cannot use the chart with reflection coefficient magnitudes greater
> than unity. I don't have any trouble using it with reference
> impedances which are reactive, and I don't have any trouble using it
> to see reflection coefficients greater than unity. The numbers I gave
> were my perhaps feeble attempt to demonstrate that.
>
> In words, the Smith chart is simply a normalized impedance (and/or
> admittance) grid overlaid on a linear complex reflection coefficient
> plane, and some enhancements to use with that grid/plane. As far as I
> know (and indeed as far as the equations and specific numerical examples
> show), the grid may extend well beyond the commonly plotted circle, if
> it suits your needs for a particular problem.
> . . .

890. Re: Electrical Engineering Student with a possible senior project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 23:09:27 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <95skk101jii@news1.newsguy.com>
Source record: 54888

Let me emphasize some things that Rod said...

You can build a transceiver to be as simple or as complex as you desire. A perfectly useable transceiver can be designed and built in a weekend, or it can take many years. You can spend $20 in parts, or you can spend $2000 in parts. These are all design decisions that you make.

Rod also pointed out that you need a license to transmit on any frequency. What he didn't clarify is that you need a radio amateur license to transmit in the U.S. using a radio that you built. There are no other license categories that can operate equipment they build. There are certain categories of transmission that can be engaged in without a license, but they all require that you use equipment which has been type-accepted by the FCC.

That being said, since getting an FCC license, while a worthwhile goal, might not fit in your semester (although to an EE student it shouldn't be real tough), Michigan has plenty of amateurs, and I don't think it would be all that tough to come up with someone who would help you with the project, then operate it on your behalf. (Unfortunately, I'm a couple hours from Oakland so I can't be of a lot of help here).

I have personally designed and built the weekend special sort of radio, so I know it's perfectly possible. I have also built, but not designed, the 6 month flavor. Not far from you, up in Fenton, is one of the best radio designers on the planet. I don't offhand know of anyone in your neighborhood, but it shouldn't be too tough to find someone.

didleydadidah

"Matt" <mrizzo79@home.com> wrote in message
news:Ul4g6.284610$hD4.69257517@news1.rdc1.mi.home.com...
> Hello all,
> As the subject says, I am an Engineering student at a school in
Michigan
> (Oakland University), and I would like to build and design my own
transiever
> so I can TRY to communicate with ISS.
>
> I am posting this because I would like to hear some feedback about my
> idea. I also have a few questions: Has anyone designed and built their
own
> radio, if so, how did it go and how long did it take you?
>
> Thanks for reading,
>

> -Matt Rizzo
>
>
>

891. Re: 20Mhz TXCO source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 23:55:45 UTC
From: baby HUey <na@na.na>
Message-ID: <58lg6.72$bZ4.4810@nnrp1.sbc.net>
Source record: 54887

A few, exactly 20Mhz, brand new.

<tom_bruhns@agilent.com> wrote in message
news:95shdk$96o$1@nnrp1.deja.com...
> One or many? Exactly 20MHz, or just close? New or used/surplus?
> Price range of interest?
>
> Cheers,
> Tom
>
> In article <HH0g6.45$D13.91738@nnrp2.sbc.net>,
> "baby HUey" <na@na.na> wrote:
> > Anyone have a good source for TXCO, 20Mhz TXCO?
> >
> > Thanks
> >
> >
>
> --
> Tom Bruhns -- K7ITM
>
>
> Sent via Deja.com
> http://www.deja.com/

892. Re: Electrical Engineering Student with a possible senior project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-07 23:56:47 UTC
From: Denver Braughler <Braughler@bwcc.com>
Message-ID: <3A81E0BF.C3E4F72A@bwcc.com>
Source record: 54889

AC6V wrote:
> I don't know what ISS is.
International Space Station

893. Re: 20Mhz TXCO source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 00:23:45 UTC
From: tom_bruhns@agilent.com
Message-ID: <95sou8$g3e$1@nnrp1.deja.com>
Source record: 54890

In article <58lg6.72$bZ4.4810@nnrp1.sbc.net>,
"baby HUey" <na@na.na> wrote:
> A few, exactly 20Mhz, brand new.

A Google search for "TCXO" turned up lots of hits on manufacturers'
sites. Raltron, Temex, Vectron, ... If that doesn't do it, try
scanning the ads in "RF Design" magazine. (I have a couple OK 20.48MHz
ones but those wouldn't help.)

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

894. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 01:10:33 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A81F209.670F4B22@win.bright.net>
Source record: 54891

They made germanium transistors ;) ??? I can remember the first glass
transistors such as the 6146, 12AT7, 6KD6, etc. ;)

Scott
N0EDV

glass2@glass2.lexington.ibm.com wrote:
>
> In <95p9he$bb8$1@nnrp1.deja.com>, marsgal42@hotmail.com writes:
> >In article <95mb8v$jt4$2@ausnews.austin.ibm.com>,
> > wa4qal@vnet.ibm.com wrote:
> >
> >> It seems that no one has mentioned any UJT (UniJunction
> >> Transistors) yet. Also, I've noticed a lack of FETs (and
> >> MOSFETs). Do SCR/Triacs count as transistors?
> >
> >Other than power supply crowbars, what ham applications do
> >SCRs have? Ditto UJTs - what would a ham do with them?
> >
> >If you want FETs, the standards in my shack include
> >2N3819/2N4416. The applications of small-signal MOSFETs
> >are fairly limited nowadays, but I have a few BF981s
> >in the junkbox just in case. Power MOSFETs are fun to
> >play with (I've built things with IRF510s in them), but
> >tend to be something you buy for a specific project.
> >Ditto GaAsFETs - I tend not to buy them unless I have
> >a project in mind for them. Or have just scored some
> >samples and am trying to figure out what to do with
> >them. :-)
> >
> >Laura Halliday VE7LD "Que les nuages soient notre
> >Grid: CN89mg pied a terre..." - Hospital/Shafte
> >
> >
> >Sent via Deja.com
> >http://www.deja.com/
>
> UJTs make extremely simple oscillators, although the output waveform
> is more of a sawtooth than a sine wave. You can use them to build
> blinking lights, using only four components (UJT, resistor, capacitor,
> LED).
>
> They seem to be the forgotten transistor, at least, judging by their
> availability. They're almost as hard to find as germanium transistors.
>

> Dave
>
> P.S. Standard Disclaimer: I work for them, but I don't speak for them.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

895. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 01:10:41 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A81F211.ABAF5AFF@win.bright.net>
Source record: 54892

We used SCR's as Power Amps in the transmitters we used to send messages
to submarines here at the Navy ELF transmitter site. We used them to
convert DC back to AC at around 60Hz frequencies and then out the
antenna. Unfortunately, we don't have a ham band at 60 Hz!

Scott
N0EDV

glass2@glass2.lexington.ibm.com wrote:
>
> In <95p9he$bb8$1@nnrp1.deja.com>, marsgal42@hotmail.com writes:
> >In article <95mb8v$jt4$2@ausnews.austin.ibm.com>,
> > wa4qal@vnet.ibm.com wrote:
> >
> >> It seems that no one has mentioned any UJT (UniJunction
> >> Transistors) yet. Also, I've noticed a lack of FETs (and
> >> MOSFETs). Do SCR/Triacs count as transistors?
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> >Ditto GaAsFETs - I tend not to buy them unless I have
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> >them. :-)
> >
> >Laura Halliday VE7LD "Que les nuages soient notre
> >Grid: CN89mg pied a terre..." - Hospital/Shafte
> >
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> >Sent via Deja.com
> >http://www.deja.com/
>
> UJTs make extremely simple oscillators, although the output waveform
> is more of a sawtooth than a sine wave. You can use them to build
> blinking lights, using only four components (UJT, resistor, capacitor,
> LED).
>
> They seem to be the forgotten transistor, at least, judging by their

> availability. They're almost as hard to find as germanium transistors.
>
> Dave
>
> P.S. Standard Disclaimer: I work for them, but I don't speak for them.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

896. looking for plans to build a phone patch.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 01:29:52 UTC
From: Tracy Rankin <ve9dwf@nbnet.nb.ca>
Message-ID: <kEmg6.5201$TR6.160189@sodalite.nbnet.nb.ca>
Source record: 54894

Hi, I am looking for diagrams / plans too construct a home brewed phone
patch for a HF radio .
Not having much luck on the web ..

please contact me at
ve9dwf@nbnet.nb.ca(nospam)

897. Re: 20Mhz TXCO source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 01:34:19 UTC
From: baby HUey <na@na.na>
Message-ID: <wAmg6.232$eF3.107215@nnrp3.sbc.net>
Source record: 54893

Thanks much
<tom_bruhns@agilent.com> wrote in message
news:95sou8$g3e$1@nnrp1.deja.com...
> In article <58lg6.72$bZ4.4810@nnrp1.sbc.net>,
> "baby HUey" <na@na.na> wrote:
> > A few, exactly 20Mhz, brand new.
>
> A Google search for "TCXO" turned up lots of hits on manufacturers'
> sites. Raltron, Temex, Vectron, ... If that doesn't do it, try
> scanning the ads in "RF Design" magazine. (I have a couple OK 20.48MHz
> ones but those wouldn't help.)
>
> --
> Tom Bruhns -- K7ITM
>
>
> Sent via Deja.com
> http://www.deja.com/
>

898. Re: looking for plans to build a phone patch.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 01:53:27 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A81FD7A.D691E3D6@att.net>
Source record: 54895

At least some of the older ARRL handbooks have articles. Though a bit
disjoint, my 1973 copy has one. If you cannot locate, I could scan
the slightly yellow pages send (3-4 pages). I built one, but it was
before I was documenting my projects so well. Expect was based on the
aforementioned article.
Woody

Tracy Rankin wrote:
>
> Hi, I am looking for diagrams / plans too construct a home brewed phone
> patch for a HF radio .
> Not having much luck on the web ..
>
> please contact me at
> ve9dwf@nbnet.nb.ca(nospam)
--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

899. New PSK Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 02:01:46 UTC
From: Dave deSouza <g3vfp@btinternet.com>
Message-ID: <95surq$h1f$1@uranium.btinternet.com>
Source record: 54896

Hello all.

Just to say I have added PAL-PSK software to the files on my download page. It is relatively new psk software from Erik VK7AAB. It has waterfall, and scope display. Can be used with upto three channels, and has a logging report utility built in. Developed using Visual Basic, with the PSK Core taken from Moe AE4JY's excellent work. Easy to set up, it is worth taking a look at. This version was completed on Dec 18th 2000.

Have a play with it, and see what you think.

http://www.btinternet.com/~g3vfp/download.html

Regards,

Dave G3VFP.

900. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 02:57:19 UTC
From: cjX@hth.com
Message-ID: <3a81e00c.12775935@news.sverige.net>
Source record: 54797
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

901. Re: 2A3 substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 03:42:47 UTC
From: wb0poz@prodigy.net
Message-ID: <95t4m6$2dik$1@newssvr05-en0.news.prodigy.com>
Source record: 54799

Why not just buy a Svetlana or Sovtek?

Jack Taylor <n7oo@theriver.com> wrote in message
news:g0fg6.326121$IP1.10802704@news1.giganews.com...
> Anyone have thoughts on a substitute for the 2A3 tube? FET equivalent?
>
> 73 de Jack
>
>
>

902. Re: Good IF Amplifier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 03:44:33 UTC
From: wb0poz@prodigy.net
Message-ID: <95t4pd$6q5q$1@newssvr05-en0.news.prodigy.com>
Source record: 54798

I always like a string of 3 transformer coupled 6BA6s. Good AVC action and selectivity if you choose the right transformers.

73 John

baby HUey <na@na.na> wrote in message news:PG0g6.44$D13.91534@nnrp2.sbc.net...
> Can anyone point me in the direction of a good IF Amp. I know the MC1350P is
> used quite a bit but is there anything else out there with much better
> performance (low noise, good gain)
>
> Thanks.
>
>

903. PCB Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 05:27:46 UTC
From: auto111798@hushamil.com
Message-ID: <3A822E52.93B04395@hushamil.com>
Source record: 54800

Does anyone know of any PCB software that is easy to use? I am just looking to make a basic circuit board. I don't need features like autorouting etc.

Josh

904. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 05:55:41 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <lwqg6.2180$fk2.150747@e3500-chi1.usenetserver.com>
Source record: 54801

"Filippone" <filippone@my-deja.com> wrote in message
news:95sf9i$6vp$1@nnrp1.deja.com...
> Here's the stuff of the tkind used in those bubbling Cray
> supercomputers of old:
> www.ausimont.com/docs/gald_heat.html
>
> Non flammable, nonconductive, nontoxic, comes in many
> grades. I only wonder if it takes gradients of several
> kV/cm w/o breaking down!

Comparing the HT110 product to water, since they have
similar boiling points, shows some interesting comparisons.

Water has about 2/3 the viscosity meaning it is easier to
pump.

Water has about 4 times the heat capacity, meaning that for
equal masses heated an equal number of degrees, the water
will absorb 4 times the heat.

Water has about 10 times the the thermal conductivity giving
better heat transfer.

And most significantly, water has about 36 times greater
latent heat of vaporization.

So for purely liquid cooling, water is the better performer,
and for vaporization cooling, water is the far superior
performer.

This stuff might be fine for a CRAY and its modest cooling
requirements, but for a several hundred kilowatt
transmitter, it is not likely to replace water any time
soon.

They rated the breakdown voltage as 40 KV/inch.

73, Barry WA4VZQ ornitz@usa.net

905. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 05:58:10 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <t84dalq82ao406@corp.supernews.com>
Source record: 54802

I wasn't going to say anything, but two of my favorites
haven't been mentioned. They are both on the edge
of obsolescence (but then, isn't everything?).

For small signal RF, I have long used the 2N5179.

For medium power RF (like strong RF or IF amplifier
stages), the 2N5109 (or the NEC 2SC1252).

But remember, I'm a retired "old fa**".

73,

John, K6QQ

906. Re: Raising coil Q in regen RX- Glass Properties

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 06:10:26 UTC
From: "Dr. Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <aKqg6.2207$fk2.153763@e3500-chi1.usenetserver.com>
Source record: 54803

"Filippone" <filippone@my-deja.com> wrote in message
news:95si3o$9r3$1@nnrp1.deja.com...
> Ian, I used to share this belief, but I now have my
> doubts. A microwave oven works at one well defined
> frequency. Isn't that a f. that is easily absorbed by
> water?

I am not sure how many times this needs to be said...

Microwave ovens operate at different frequencies in
different countries.

Microwave ovens do not operate at any resonant frequency of
water molecules.

Water is a broadband absorber (lossy dielectric) at an
extremely broad range of frequencies.

> And, isn't deionized water also a pretty decent electrical
> insulator? (I even saw it used in hydraulic remote
> control of high voltage switches!). Yet, pure water does
> heat a lot in a microwave....

The heating has nothing to do with actual elecrical
conduction. What you are seeing is hindered rotation of the
water molecule as its dipole tries to align with the applied
electric field. The rotation requires energy and it is this
energy converted into heat.

Adding a small amount salt to distilled water causes a huge
increase in its DC conductivity, but it only increases the
microwave losses slightly.

73, Barry WA4VZQ ornitz@usa.net

907. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 06:29:05 UTC
From: JD <dyson@jdyson.com>
Message-ID: <HWqg6.282$c5.229946@news1.iquest.net>
Source record: 54804

"John Moriarity" <k6qq@hdo.net> wrote in message news:t84dalq82ao406@corp.supernews.com...
> I wasn't going to say anything, but two of my favorites
> haven't been mentioned. They are both on the edge
> of obsolescence (but then, isn't everything?).
>
> For small signal RF, I have long used the 2N5179.
>
> For medium power RF (like strong RF or IF amplifier
> stages), the 2N5109 (or the NEC 2SC1252).
>
> But remember, I'm a retired "old fa**".
>
Don't feel bad, there is almost always a need for custom, non IC solutions. The parts that you noted are RF parts, and I don't think that other such suggestions were made. Those do appear to be good choices for miscellaneous RF applications. The 2n5179 works at frequencies higher than the 2n3904 type parts. You have suggested some parts that carry father through VHF into low UHF.

Good suggestions, especially for a Ham radio group!!! Don't feel bad about being an old fart, because I am one also!!!

John

908. Re: Good IF Amplifier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 07:37:47 UTC
From: tom_bruhns@agilent.com
Message-ID: <95ticb$42k$1@nnrp1.deja.com>
Source record: 54806

Analog Devices, for sure, and I think Burr-Brown (TI/Burr-Brown), have some voltage-controlled amplifiers. The AD ones I'm thinking of have a low noise amp preceeded by a resistive ladder network with the "tap" driven by the control voltage. The result is control very nearly linear in dB, and good overload performance in that lower gain results in higher input intercept point. The noise, as I recall, is pretty respectable, though not necessarily state-of-the-art.

Cheers,
Tom

(I'd also consider just using a good wide dynamic range op amp...but I'm kinda interested in just enough gain to get into a good ADC...)

In article <PG0g6.44$D13.91534@nnrp2.sbc.net>,
"baby HUey" <na@na.na> wrote:
> Can anyone point me in the direction of a good IF Amp. I know the MC1350P is
> used quite a bit but is there anything else out there with much better
> performance (low noise, good gain)
>
> Thanks.
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

909. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 07:41:28 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <95tiifhe1@wanadoo.fr>
Source record: 54805

There are probably very short pulses when the circonstances you mention occur.

First of all, try to identify the pulses, SCR disconnected, with a storage scope. Maybe the solution is a kind of very light RF filtering: a little capacitor across the SCR or something similar. Be sure you kill the pulse itself. Don't act just on the trigger of the SCR.

Good luck !

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

Larry Gagnon <lagagnon@fakesprint.ca> a &#65533;crit dans le message : 3a81b9a5.1524289@news.sprint.ca...
I have a homebrew 13V, 20A power supply I am just finisishing testing. Most of the time it works just fine. However, on three occasions it has blown its 25amp fuse which sits between the overvoltage thyristor (SCR) and the filter capacitors. I believe the thyristor is triggering. The overvoltage circuit is the same as that found in "The Art of Electronics": a 15.1v zener diode going to ground through a 0.1uF cap and a 100 ohm resistor, the zener triggering a 30 amp thryristor. The occasions when the fuse has blown have been 1) rapid increase in drawing 5 then 20 amps 2) when I had a bad connection to a circuit drawing 2 amps and it sparked at the terminals. This suggests to me that a voltage transient of some sort might be triggering the zener to over 15.7 volts thereby in turn triggering the gate of the SCR.

The regulator and other circuits appear to be working very well and there are no intermittent shorts elesewhere in the supply. I hesitate to test that it definetely is the overvoltage circuit by disconnecting it temporarily to see if the problem disappears. Any suggestions out there on how do deal with this problem??

Larry VE6MK

****
to send direct email remove "fake" from address

910. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 08:33:58 UTC
From: Brian Kline WA6QDP <arp94539@my-deja.com>
Message-ID: <95tllm$75l$1@nnrp1.deja.com>
Source record: 54807

I wonder if the regulators loop response is under damped.
In that case in response to a load increase the output voltage would initially decrease and then the regulator feed back loop would cause it to rise back toward the desired voltage, but because of delay in the feed back loop the voltage would over shoot the desired voltage and then drop back to the desired voltage.

This can be observed with a storage oscilloscope on the supply output and switching on and off the maximum load.
You may be able to observe it on a conventional oscilloscope if the transient is slow enough.

This is a standard test that I run on new power supplies that I am going to use to power radio equipment. 12 V supplies that were designed for applications that had a relatively constant load will some times have a terrible transient response to a load change of 0 to 100% which a transmitter effectively produces every time it is keyed. Some times it is necessary to place a preload on the power supply to help tame this type of problem.

You can explore the SCR triggering problem by placing a medium value resistor (100 ohms) in series with the anode lead. In this way when the SCR is triggered it will not blow the fuse or stress the components but will allow you to see if the SCR is being triggered.
A LED with a 1K series resistor placed in parallel will give you a visual indication of the SCR being fired.

Brian Kline
WA6QDP

Sent via Deja.com
http://www.deja.com/

911. Re: Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 09:35:47 UTC
From: "mikael.nordman" <mikael.nordman@lmf.ericsson.se>
Message-ID: <3A826873.96016907@lmf.ericsson.se>
Source record: 54808

Nice work !

I building a homebrew page also, but documentation is hard :-)

I have some schematics of my next design already on the page,
which can be found here:
http://www.piuha.net/~mnordman

73 de Mikael

Gapershi wrote:
>
> This may be of interest to anyone who homebrews MF and HF receivers.
> For the past 3 or 4 years I have been working on my own design for a
> general coverage receiver. Recently I have made some improvments to
> my front end design. I have carefully documented the whole radio and
> placed it on a web site. I was able to extend the dynamic range an extra 20dB
> from what I had previously achieved. Also some minor tweaks have been
> added recently.
>
> I should mention that I am not a ham radio operator, but enjoy shortwave and
> medium wave dxing. I have a background in electronics, (25 yrs) but I am
> not an engineer.
>
> My radio can be seen at this address:
>
> http://members.aol.com/gapershi/radio.htm
>
> If anyone knows of any homebrew HF radios with good documentation,
> I would be interested in seeing them.
>
> Thanks,
> Gary Pershin
> +++ You can lead a fool to reason, but you can't make him think! +++
> <Gapershi>

912. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 11:05:33 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <95tunh$8sk$1@neptunium.btinternet.com>
Source record: 54809

Roy Lewallen wrote
> The limitation of real characteristic impedances would be a severe
> handicap in the MF and below world where Reg apparently spent most of
> his career
==========
Entirely irrelevant and wildly incorrect !

But it does raise questions about the motive in mentioning it.

913. Re: 60Mhz Osc, how??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 11:06:38 UTC
From: fedtmule1980@my-deja.com
Message-ID: <95tujs$di7$1@nnrp1.deja.com>
Source record: 54810

In article <3a80fc84.44460903@news.online.no>,
LA8AK@Online.NO wrote:
> On Tue, 06 Feb 2001 14:19:29 GMT, fedtmule1980@my-deja.com wrote:
>
> >
> >I need 60 MegaHertz not KiloHertz and that will give a drift of 6 Mhz
> >witch is too much!
> >
> ....and the drift is important, but you don't know how much you need?
>
>

The the chanals sep. is 50 Khz, but a normail radio is 300 Khz wide
(?), so between 50-300 Khz schuld be o.k.
I will try to make by Feedback from Colector to emitter with a X-tal of
20 Mhz (3.harmony) or a 60Mhz.

Sent via Deja.com
http://www.deja.com/

914. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 11:36:50 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <95u0bp$k95$1@wanadoo.fr>
Source record: 54811

I agree entirely with Brian. The eventual under damping is then a design problem of the power supply. The preload can help, but if the transient voltage response is not satisfactory after you put a reasonable preload (up to 1/10 of the maximum load), you need to optimize the feed back loop. It's not very easy. When you attempt to modify the values of the feed back loop (resistors and capacitors) there is a risk of oscillations.
You can use a power switching transistor and a low frequency square wave generator to switch on and off a resistive load at a convenient rythm and speed up the set up process.
That's the way I use to optimize other feedback loops like PLL: I slightly alter the division ratio at a very low frequency and I observe the shape of the system response.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

Brian Kline WA6QDP <arp94539@my-deja.com> a &#65533;crit dans le message : 95tllm$75l$1@nnrp1.deja.com...
I wonder if the regulators loop response is under damped.
In that case in response to a load increase the output voltage would initially decrease and then the regulator feed back loop would cause it to rise back toward the desired voltage, but because of delay in the feed back loop the voltage would over shoot the desired voltage and then drop back to the desired voltage.

This can be observed with a storage oscilloscope on the supply output and switching on and off the maximum load.
You may be able to observe it on a conventional oscilloscope if the transient is slow enough.

This is a standard test that I run on new power supplies that I am going to use to power radio equipment. 12 V supplies that were designed for applications that had a relatively constant load will some times have a terrible transient response to a load change of 0 to 100% which a transmitter effectively produces every time it is keyed. Some times it is necessary to place a preload on the power supply to help tame this type of problem.

You can explore the SCR triggering problem by placing a medium value resistor (100 ohms) in series with the anode lead. In this way when the SCR is triggered it will not blow the fuse or stress the components but will allow you to see if the SCR is being triggered.
A LED with a 1K series resistor placed in parallel will give you a

visual indication of the SCR being fired.

Brian Kline
WA6QDP

Sent via Deja.com
http://www.deja.com/

915. Re: any original rci2950 gurus'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 15:35:24 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3a82b96b.3288716@netnews.worldnet.att.net>
Source record: 54812

gilles: I tried several times to reach u using the email adress on
this header but it cameback twice -- I could really use some advise
with my 2950 problem -- howabout sending me another msg wid another
adress to kf4ucc@hotmail.com

On Wed, 07 Feb 2001 12:45:55 GMT, gilles <hack@cracker.ca> wrote:

>hi,
>played with 2 radios like yours,
>
>the freq knob is one of the common trouble on this radio
>
>2 solutions
>
>first: order a new switch BUT in the past the new switchs were NOT always
>
>better. It's a guess to try it.
>
>second: use up and down push button.
>
>which mod would you do, come back with your jumper story....
>
>on the quite side
>
>geokf4ucc@yahoo.com wrote:
>
>> hope someone can help me -- I have probably one of the first rci2950s
>> and need some help -- Ive checked the mods in qrz and it doesnt seem
>> to apply to mine I cant find any JP2 and my JP1 isnt the same either.
>> also am having problems with the freq tuning knob {it goes down when I
>> want it to go up} any help will be appreciated pse sent you e-mail
>> adress and i will get back to you. thanks/george
>

916. Re: looking for plans to build a phone patch.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 15:49:34 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3A82C00E.41C67EA6@rupert.tds-az.lmco.com>
Source record: 54813

Tracy Rankin wrote:
>
> Hi, I am looking for diagrams / plans too construct a home brewed phone
> patch for a HF radio .
> Not having much luck on the web ..
>
> please contact me at
> ve9dwf@nbnet.nb.ca(nospam)

I understand that you might want to build one, just for the sake
of building. However, there are a lot of phone patches that come
up for sale in rec.radio.swap, on E-Bay, and at all the local
ham fests. They usually are going for only $15. You can save
yourself a lot of work and headaches finding parts by just
picking up a used one.

The most common ones are the old Heathkit HD-19 and HD-15
phone patches. You might want to get the schematics of these
uints to get an idea of what you are building. They are pretty
simple. The schematics for these are available at

http://members.accessus.net/~dwentz/kb9jja/heathkit/

for the HD-15

http://www.circuitarchive.co.uk/heath.htm

for the HD-15 & HD-19

Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

917. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 15:52:33 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A82C0C0.440B@pacbell.net>
Source record: 54815

Reg Edwards wrote:
>
> Roy Lewallen wrote
> > The limitation of real characteristic impedances would be a severe
> > handicap in the MF and below world where Reg apparently spent most of
> > his career
> ==========
> Entirely irrelevant and wildly incorrect !
>
> But it does raise questions about the motive in mentioning it.

For low frequency lines, it's possible to modify the line in
such a way as to make Z0 a real number by making R/L=G/C. This
makes Z0 equal to the square root of L/C. Heaviside and Preece
argued this all out in the 19th century in relation to distortion
in telephone lines. This is elementary and I'm surprised none of
the controversialists on this newsgroup has bothered to mention it.

Tom Donaly KA6RUH

918. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 16:39:29 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <67Ag6.118099$t4.1321090@e420r-sjo2.usenetserver.com>
Source record: 54814

"JJ OKK" wrote in ...
> I used to work in a paint shop in General Motors and we almost bathed
> in solvents every day, cleaning cup guns, pressure pots, spray booths,
> mixing paint, etc. That was 20 years ago and I've since retired and
> seem to have no problems from the experience except skin on my hands
> tends to crack in winter.
>
> Am I out of trouble, do you think? The solvents we used every day
> were MEK, Toluol, Acetone, Dow 200 Silicone, epoxy catalysts,
> tricloro-ethelene and similar products. Is any of this on the
> "residuals" list? I appreciate your sharing your expertise for us.

Indeed, I worked in a plastics shop where the old shop sink had running water in one faucet, and runnig acetone (or sometimes MEK) in the other! This was 30-35 years ago and I don't percieve any ill effects.

RC

919. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 17:37:11 UTC
From: user
Message-ID: <69m58ts97plj035oe0v56crqssb01hgj0f@4ax.com>
Source record: 54816

In this news thread Larry Gagnon commented:

>I have a homebrew 13V, 20A power supply I am just finisishing testing.
>Most of the time it works just fine. However, on three occasions it
>has blown its 25amp fuse which sits between the overvoltage thyristor
>(SCR) and the filter capacitors. I believe the thyristor is
>triggering. The overvoltage circuit is the same as that found in "The
>Art of Electronics": a 15.1v zener diode going to ground through a
>0.1uF cap and a 100 ohm resistor, the zener triggering a 30 amp
>thryristor.
I note in Astron and others, a .1 or so is from the gate to the
cathode (probably in a bypass function) and a 4.7uf to 10uf is usually
across the resistor to filter out narrow pulses and in some a second
100 ohm is from the resistor/capacitor/zener junction to the gate.
--
Eddie Seymour,WB4MLE
Delete the capital letters:
wb4mleAT@mindspringDOT.com

920. Re: Good IF Amplifier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 17:39:39 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a82d7bd.6894946@news.aepnet.org>
Source record: 54817

On Thu, 08 Feb 2001 07:37:47 GMT, tom_bruhns@agilent.com wrote:

K6OLG published "A High-Performance AGC/IF Subsystem" in QST, May
1996. He used the AD600. A circuit board was available from FAR.

I bought all of the stuff and have it about half built but never
finished, so I can't comment on the performance. I was going to use
it in my HB receiver in place of a couple of MC1590 I-F amps and HB
AGC system.

Gotta get back to that some day.

Wes N7WS

>Analog Devices, for sure, and I think Burr-Brown (TI/Burr-Brown), have
>some voltage-controlled amplifiers. The AD ones I'm thinking of have
>a low noise amp preceeded by a resistive ladder network with the "tap"
>driven by the control voltage. The result is control very nearly
>linear in dB, and good overload performance in that lower gain results
>in higher input intercept point. The noise, as I recall, is pretty
>respectable, though not necessarily state-of-the-art.
>
>Cheers,
>Tom
>
>(I'd also consider just using a good wide dynamic range op amp...but
>I'm kinda interested in just enough gain to get into a good ADC...)
>
>In article <PG0g6.44$D13.91534@nnrp2.sbc.net>,
> "baby HUey" <na@na.na> wrote:
>> Can anyone point me in the direction of a good IF Amp. I know the
>MC1350P is
>> used quite a bit but is there anything else out there with much better
>> performance (low noise, good gain)
>>
>> Thanks.
>>
>>
>
>--
>Tom Bruhns -- K7ITM
>
>
>Sent via Deja.com
>http://www.deja.com/

921. Re: Woden UM3 modulation transformer. Seeking specifications.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 18:28:04 UTC
From: Richard Fullerton <newsgroup_email@ntlworld.com>
Message-ID: <nCBg6.24207$Ee3.607971@news6-win.server.ntlworld.com>
Source record: 54818

I got the info on UM1, UM2, UM3, and UM4. Lucky me.

922. FS: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 19:01:07 UTC
From: arnoldg@sf.telia.no
Message-ID: <3a82ec7b.293507@news.telia.no>
Source record: 54819
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I have some EL 37 valves for sale. All NOS and made by Mullard, but
some are rebranded Haltron.
You will find them at my web site http://www.demostenes.no

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

923. Re: Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 19:40:14 UTC
From: "Mr. Mister" <kld68@my-deja.com>
Message-ID: <95usms$990$1@nnrp1.deja.com>
Source record: 54820

I love the case, and the front panel gives it a nice Buck Rogers look.

One thing I miss about the old tube radios is the ornate cases that made them look like a piece of furniture or something that at least belonged in prominant view.

Still at my folks house, in the basement (for the last 20 years), is a Sears 5-band radio with cats eye tuner and a 78 turntable which uses steel needles. The thing is huge standing about waist high. It also has a 12 inch electromagnetic speaker. Lovely item.

In article <20010130200430.04734.00001577@ng-mp1.aol.com>,
gapershi@aol.common (Gapershi) wrote:
> This may be of interest to anyone who homebrews MF and HF receivers.
> For the past 3 or 4 years I have been working on my own design for a
> general coverage receiver. Recently I have made some improvments to
> my front end design. I have carefully documented the whole radio and
> placed it on a web site. I was able to extend the dynamic range an
extra 20dB
> from what I had previously achieved. Also some minor tweaks have been
> added recently.
>
> I should mention that I am not a ham radio operator, but enjoy
shortwave and
> medium wave dxing. I have a background in electronics, (25 yrs) but I
am
> not an engineer.
>
> My radio can be seen at this address:
>
> http://members.aol.com/gapershi/radio.htm
>
> If anyone knows of any homebrew HF radios with good documentation,
> I would be interested in seeing them.
>
> Thanks,
> Gary Pershin
> +++ You can lead a fool to reason, but you can't make him think! +++
> <Gapershi>
>

Sent via Deja.com
http://www.deja.com/

924. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 20:02:40 UTC
From: tom_bruhns@agilent.com
Message-ID: <95uu0raio1@nnrp1.deja.com>
Source record: 54821

In article <95tunh$8sk$1@neptunium.btinternet.com>,
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
>
> Roy Lewallen wrote
> > The limitation of real characteristic impedances would be a severe
> > handicap in the MF and below world where Reg apparently spent most
of
> > his career
> ==========
> Entirely irrelevant and wildly incorrect !
>
> But it does raise questions about the motive in mentioning it.

Hmmm...I think you've quoted that out of context. I think Roy's comment was firmly in the context of Smith charts: _IF_ they are limited to handling (being normalized to) real Z0 only, that would be a handicap in the in a world where lines commonly have a complex Z0. I quite frankly have a lot of respect for someone who spent a lot of time working on lines where the simplification of assuming real Z0 was inappropriate, in an era before ready availability of calculators with hyperbolic functions, and personal computers with scientific spreadsheet programs and the like.

(Of course, as I've said, I don't believe that Smith charts _are_ limited to real-valued normalizations, nor to |rho|<=1. And I also don't believe that one always has the option to use lines that have real-valued Z0 at all frequencies of interest. A Smith chart displayed on a computer screen, where the computer takes care of rapid, accurate calculations, lets me easily use the visualizations I find so helpful while removing the tedium of part value calculations,normalization and plotting, and making it easy to read all sorts of different values to whatever precision is appropriate.)

Cheers,
Tom

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

925. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 20:08:20 UTC
From: tom_bruhns@agilent.com
Message-ID: <95uubfanj1@nnrp1.deja.com>
Source record: 54822

In article <3A81F211.ABAF5AFF@win.bright.net>,
Scott <acepilot@win.bright.net> wrote:
> We used SCR's as Power Amps in the transmitters we used to send
messages
> to submarines here at the Navy ELF transmitter site. We used them to
> convert DC back to AC at around 60Hz frequencies and then out the
> antenna. Unfortunately, we don't have a ham band at 60 Hz!
>
> Scott
> N0EDV

Perhaps things have changed, but the chart I just looked at says the spectrum below 9kHz is unassigned. AFAIK, we are free to use it as hams. I suppose we might get someone's attention if we started to put significant power out at, say, 1kHz.

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

926. TM-V7 WIRELESS REMOTE PROJECT STATUS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 20:20:08 UTC
From: "F.A.C.T." <atomski@EUnet.yu>
Message-ID: <3A82FF78.77B55ADC@EUnet.yu>
Source record: 54825
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.amateur,rec.radio.amateur.digital.misc

INTRODUCTION

Hello again,
my name is Vladimir and my HAM callsign is YZ7REA.
This is my second addressing to the general HAM population worldwide
in regards to this project. For those of you that are familiar with
the project goal I can say that I'm not gonna bore you too much. But
on the other hand I'll give a "short" brief about this project for those
that don't know whatta heck I'm talking about.
"TM-V7 WIRELESS REMOTE"... Sounds interesting? Well it sure is!
And it's simple too! For all of you that are familiar with this KENWOOD
mobile radio and own/would like to own one, this project will open a
whole new view. The goal of this project is to separate the detachable
front panel from the radio and establish the digital communication
between them at distances of several miles or even more. Why? For many
reasons. If you live in a heavily populated area and have problems with
TVI, live in an area where the density of HAMs is big or you just wanna
be "on a top of a hill" and be able to make contacts at larger distances
without using a lot of power or spending a lot of money on directional
antennas, rotators and tracking/positioning systems this project will
give you all that you need.

DISCLAIMER

Before I go further with explaining how the system will work
I have to say that this project will NOT be in compliance with laws in
some states or countries. Respect that as you respect the HAM code that
prevents you from transmitting outside the boundaries of amateur bands.
First of all let me tell you that I won't be selling this system to
anyone nor will I sell schematic diagrams or any PCB's etc. This is my
idea and I want to share it with HAMs worldwide. So, what you choose to
do with it is your own business. All I ask of you is that you mention
my name and callsign if and when you post any info about this project
on/in discussion forums, publications magazines etc. Second, if any of
you should choose to use my idea for commercial purposes I ask that
you write me an e-mail notifying me about that. Third and the last,
I'm not going to responsible if any of you choose to use this system
even if it means breaking the law in their country/state.

TECHNICAL STUFF

I'm working on the system whenever I have spare time on my
hands (and that ain't often). So, I'll keep you informed as the project
develops.

1. General info

According to the KENWOOD TM-V7 service manual the four pins that you
can see when you remove the front panel (LCD/control unit) are:

-----
[o] pin 4 - 9.6V
[o] pin 3 - GND
[o] pin 2 - Data out
[o] pin 1 - Data in

After measurement with an oscilloscope and volt meter I found this
data to be TRUE. What you should know is that data communication is
asynchronous with speed of 3125 bps (3K2). The control unit checks
to see if the panel is connected to the radio every 0.5 seconds and
if it misses two counts it assumes the panel is taken off and shuts
off the radio. So, this means that you need a FULL-DUPLEX link to
be able to connect these two together. The easiest (I'm not saying
the best) way is to use pair of full-duplex radios on 900MHz, 23cm,
13cm or any other band that has a "amateur digital communications"
slice of the spectrum in it. Of course you have to be sure to use
the band that is legal for this stuff e.g.: packet radio link freq.
I'm using a 3cm ATV FM transmitter with 5 sub carriers on each side
and no video "carrier". You can use any carrier from 5-8.28 MHz.
You'll need to relay the following signals from the CONTROL PANEL
to the radio:

1. PTT, UP and DOWN button control*
2. MICROPHONE
3. PANEL DATA OUT (3125 bps)
4. DATA TERMINAL TX
(connection from PC, packet modem, SB etc. max. 9K6)
5. AUX (used for remote switching of PA's etc.)

You'll need to receive the following signals from the radio:

1. VHF RX AUDIO
2. UHF RX AUDIO
3. PANEL DATA IN (3125 bps)
4. DATA TERMINAL RX
(connection to PC, packet modem, SB etc. max. 9K6)
5. AUX (used for remote switching indication etc.)

* Three button control via a single wire/carrier can be achieved by
using the 3 different tones. Something like CTCSS, but they can be any
frequency even hearable from couple of hundred Hz up to couple of KHz.
By using a PLL DETECTOR on the other side you can precisely determine
which button/key has been pressed.

2. Transmitter(s)

You can use many solutions from cross-band (example 23/13cm)
to in-band full-duplex radios. I leave this to you to decide. As I said

I will be using 3cm amateur microwave radios, both for PANEL and RADIO side of the link. Small antennas, little power, huge gain, simplicity of construction, great directivity and the most important thing good frequency separation in free space at antennas just couple of feet apart are why I decided to use this band for my project. As little as 10mW and a 36" dish will cover the distance of more than 15 miles if line-of-site is present.

3. Receiver(s)

Commercial LNB's, SAT dishes and SAT receivers with small mods can be used.

4. MODULATORS/DEMODULATORS

This really depends on the type of radio that you're planning to use, but bear this in mind. All the signals you need to relay are in fact NBFM signals. This means that you DON't have to use WBFM sound carriers like I did. There are certainly much better solutions than mine but this one, as I said before, was the easiest one for me since I already had some equipment that I wasn't using.

5. COSTS

This is also very relative, but if you use some old uW equipment for 3cm like I did it comes very cheap to have such a system. All taken in consideration the total cost for this system shouldn't exceed $150.

5. LIMITATIONS

Laws that prohibit this type of data transfer, line-of-site is a must, very bad weather like heavy rain, snow thick fog etc. can downgrade the system reliability. More than one TM-V7 WIRELESS REMOTE system at the same frequency in each other signal path can probably interfere with each other (I haven't tried this). And probably more...

6. BENEFITS

Just think about it for a sec!

Well I'll rap it up for now. Feel free to ask any questions regarding the system, but please don't ask for any schematics 'couse I still haven't drawn them yet. They're all in my head for now. I'll probably put more info on my web page later on once my system is up and running and monitored for some time.

****
I'd like to thank KENWOOD for "helping" me with this project and directing me to the nearest KENWOOD dealer to spend $40 for the Service Manual. Also thanks to KENWOOD technical support who told me that if they gave me the DFK-3C for this project they'd go bankrupt. :) I know that they get all kinds of weird requests every day, but I also know that every Tom, Dick and Harry don't make something like this and share it with fellow HAMs all around the globe.

****

As for me... No medals please! :) I'm proud to be a HAM!

Your HAM friend from YU-land
YZ7REA Vladimir

927. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 20:35:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A830328.28A3A03D@eznec.com>
Source record: 54823

I have to plead ignorance in not having read Heaviside's and Preece's 19th century works, nor ever having had to design telephone transmission systems. Is this modification commonly done, and why? And briefly, how is the line constructed or modified to make this happen? You're pretty well stuck with R for a given conductor size, so it appears you'd have to intentionally increase shunt loss G and/or make the nominal high-frequency impedance (sqrt(L/C)) extraordinarily high. You can't get a very high L/C ratio in practice with reasonable conductor spacing, so my guess is that you'd end up having to intentionally increase G. Or is it just done by periodically inserting lumped inductors? But this is pure speculation on my part -- it's not clear to me why you'd necessarily want or need a purely real Z0 in the first place. Why is it done?

It's possible that it hasn't been mentioned because of the general lack of experience of the posters (some of us at least) in dealing with low frequency lines. I had thought Reg had, but I seem to have been mistaken on that account.

Incidentally, my motive for mentioning it was an attempt to understand why Reg feels that not being able to easily normalize a Smith chart to a complex impedance is such a handicap, while the multitudes of daily users of the charts aren't bothered. Since I was wrong about his MF and below experience, I'm again at a loss to explain it.

Roy Lewallen, W7EL

Donaly wrote:
>
> Reg Edwards wrote:
> >
> > Roy Lewallen wrote
> > > The limitation of real characteristic impedances would be a severe
> > > handicap in the MF and below world where Reg apparently spent most of
> > > his career
> > ==========
> > Entirely irrelevant and wildly incorrect !
> >
> > But it does raise questions about the motive in mentioning it.
>
> For low frequency lines, it's possible to modify the line in
> such a way as to make Z0 a real number by making R/L=G/C. This
> makes Z0 equal to the square root of L/C. Heaviside and Preece
> argued this all out in the 19th century in relation to distortion
> in telephone lines. This is elementary and I'm surprised none of

> the controversialists on this newsgroup has bothered to mention it.
>
> Tom Donaly KA6RUH

928. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 20:42:45 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A832E91.6487699A@home.com>
Source record: 54824

It's liquid teflon!

... and to think that we used vegetable oil in the Cantenna.

Where is Cray anymore?

"Dr. Barry L. Ornitz" wrote:

> "Filippone" <filippone@my-deja.com> wrote in message
> news:95sf9i$6vp$1@nnrp1.deja.com...
> > Here's the stuff of the tkind used in those bubbling Cray
> > supercomputers of old:
> > www.ausimont.com/docs/gald_heat.html
> >
> > Non flammable, nonconductive, nontoxic, comes in many
> > grades. I only wonder if it takes gradients of several
> > kV/cm w/o breaking down!
>
> Comparing the HT110 product to water, since they have
> similar boiling points, shows some interesting comparisons.
>
> Water has about 2/3 the viscosity meaning it is easier to
> pump.
>
> Water has about 4 times the heat capacity, meaning that for
> equal masses heated an equal number of degrees, the water
> will absorb 4 times the heat.
>
> Water has about 10 times the the thermal conductivity giving
> better heat transfer.
>
> And most significantly, water has about 36 times greater
> latent heat of vaporization.
>
> So for purely liquid cooling, water is the better performer,
> and for vaporization cooling, water is the far superior
> performer.
>
> This stuff might be fine for a CRAY and its modest cooling
> requirements, but for a several hundred kilowatt
> transmitter, it is not likely to replace water any time
> soon.
>
> They rated the breakdown voltage as 40 KV/inch.
>

> 73, Barry WA4VZQ ornitz@usa.net

929. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 21:19:25 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A830D5D.42F7@pacbell.net>
Source record: 54828

Reg was going on about the Smith Chart assuming a real Z0, when
in fact, as Tom Bruhns pointed out, the assumption isn't necessary.
Evidently, in the early days of telephony, the distance one could
transmit a signal was limited by the dispersiveness of the line.
Heaviside realized that, given the condition that R/L = G/C,
the phase velocity of a given line would be the reciprocal of
the square root of LC. This is a constant which would, theoretically,
produce a distortionless line. Heaviside advocated the use of
lumped inductors spaced along the line to provide the needed inductance.
British electrical engineers of the time didn't think much of this idea,
so it was left to an American, George A. Campbell, working for The
American Bell Company to design the first practical coil.
I don't know whether or not anyone cares about low frequency
transmission
lines any more. I posted what I did to gently remind Reg that the
assumption that all transmission lines have a large reactive component
at
low frequencies is not always valid.

Tom Donaly KA6RUH

Roy Lewallen wrote:
>
> I have to plead ignorance in not having read Heaviside's and Preece's
> 19th century works, nor ever having had to design telephone transmission
> systems. Is this modification commonly done, and why? And briefly, how
> is the line constructed or modified to make this happen? You're pretty
> well stuck with R for a given conductor size, so it appears you'd have
> to intentionally increase shunt loss G and/or make the nominal
> high-frequency impedance (sqrt(L/C)) extraordinarily high. You can't get
> a very high L/C ratio in practice with reasonable conductor spacing, so
> my guess is that you'd end up having to intentionally increase G. Or is
> it just done by periodically inserting lumped inductors? But this is
> pure speculation on my part -- it's not clear to me why you'd
> necessarily want or need a purely real Z0 in the first place. Why is it
> done?
>
> It's possible that it hasn't been mentioned because of the general lack
> of experience of the posters (some of us at least) in dealing with low
> frequency lines. I had thought Reg had, but I seem to have been mistaken
> on that account.
>
> Incidentally, my motive for mentioning it was an attempt to understand
> why Reg feels that not being able to easily normalize a Smith chart to a
> complex impedance is such a handicap, while the multitudes of daily

> users of the charts aren't bothered. Since I was wrong about his MF and
> below experience, I'm again at a loss to explain it.
>
> Roy Lewallen, W7EL
>

930. Re: transistors for 6m

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 21:48:35 UTC
From: Steve Drury <steve@hamlab.freeserve.co.uk>
Message-ID: <95v43j$pg9$1@news7.svr.pol.co.uk>
Source record: 54827

Try the 2sc1971 from Mitsubishi, 7 watts out but neg feedback required at
50MHz. Never tried to run them in class B though.
Steve

MAc <m_bal@friko3.onet.pl> wrote in message
news:958t4f$3op$1@zeus.polsl.gliwice.pl...
> What CHEAP and easy to find transistors will be good
> for 6M few watts TX (CW &ssb).
>
> MAc
>
>

931. Re: PCB Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-08 22:19:45 UTC
From: Lloyd Thomson <thomson@aros.nospam.net>
Message-ID: <95v2bc$o1t$1@news.aros.net>
Source record: 54826

you may want to check out the two packages from Ivex - winamp and winboard. Both fairly simple to use, and available as shareware. You can order a copy from http://www.mouser.com or you can check Ivex at their web site for some downloads. (www.ivex.com)

73
Lloyd Thomson KD7JCG

<auto111798@hushamil.com> wrote in message
news:3A822E52.93B04395@hushamil.com...
> Does anyone know of any PCB software that is easy to use? I am just
> looking to make a basic circuit board. I don't need features like
> autorouting etc.
>
> Josh
>

932. TOKO ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 00:52:20 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t86fqbkaa3bq5d@corp.supernews.com>
Source record: 54829

My Racal Dana 1992 counter uses small pushbutton switches that are a little
over 1/4" on a side and about 1/2 long ...
they have two pins that solder on a pcb..
there are 32 of these on a 1992 and many are bad..
racal has a $50 min order..
the back of the switch has the following:
TOKO 3J and A above one pin and I above the other..
anyone knw where i can purchase these?
tnx
hank wd5jfr

933. Re: 2A3 substitute?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 01:20:21 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <oBHg6.330610$IP1.11024736@news1.giganews.com>
Source record: 54830

The 6A3 is almost identical except for filament requirements.

73, Bob K6DDX

934. Re: pi-network tank question 'loading?'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 01:20:38 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <GBHg6.6244$gb1.343499@news4.aus1.giganews.com>
Source record: 54831

You need to load the amplifier sufficiently so that it's not getting overdriven by the source. That said, if you load it too heavily (too little capacitance on the loading capacitor) you will get lower efficiency.

So it's a tradeoff between efficiency and power handling. That's why the newer rigs putting out 200 Watts instead of the old standard 100 Watts have become so popular. You can hit the amplifier hard, load it heavily, and get plenty of output.

But it's always wise, as you do, to make sure you are still getting more output when you are driving harder. Try driving with a CW signal, a series of dots from a keyer, while adjusting for maximum output power. It the peak output is close to the legal limit and the current isn't too high, you can stop there.

1. Adjust the drive to the point where the output stops increasing.
2. Adjust loading (and then tuning) to get more output.
3. Increase the drive again.
4. Repeat steps 1, 2, and 3, with step 1 or 2 as the last one.
5. Verify that you are not exceeding legal output power. If you are, back down the drive.
6. If you can't get the power you think you should, perhaps your exciter needs more output or the amplifier power supply needs checking.

73, Bob K6DDX

935. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 02:30:09 UTC
From: Harry Brown <harryhbrown@earthlink.net>
Message-ID: <RCIg6.194$ZJ5.15605@newsread2.prod.itd.earthlink.net>
Source record: 54832

Robert,

If someone else has not already suggested it, an excellent FREE Smith Chaer Program is Motorola's MIMP program. It should be available from the Motorola semi web page. If not, I can e-mail a copy.

73, Harry, W3IIT
harryhbrown@earthlink.net

<robgrz@my-deja.com> wrote in message news:959j1s$ms1$1@nnrp1.deja.com...
> I am looking for a good free smith chart program for windows. I've
> looked around the search engines and have only found old dos programs.
> Does anyone have any suggestions?
>
> Thanks,
> Robert
>
>
> Sent via Deja.com
> http://www.deja.com/
>

936. CONAR - The Barbarian

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 07:32:02 UTC
From: Bis Wichy <wd0hco@ev1.net>
Message-ID: <3a839d77_2@newsa.ev1.net>
Source record: 54833

GOT CONAR ???

http://www.megacycles.com

click "CONAR The Barbarian"

MORE THAN YOU EVER WANTED TO KNOW !!!!

937. Re: pi-network tank question 'loading?'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 07:38:09 UTC
From: tom_bruhns@agilent.com
Message-ID: <9606p1$b81$1@nnrp1.deja.com>
Source record: 54834

Elaborating a bit on what Bob wrote: Too lightly loaded and too much drive and you'll get flat-topping in a linear amp, though for CW you might not notice the difference...but you're wasting the tube's capability. Too heavily loaded and the tube can't conduct hard enough to pull the instantaneous plate voltage very low and efficiency suffers. Heavily loaded means you've reflected a low load resistance to the plate circuit, and the load line is asking for a lot of current, possibly more than the tube can deliver. Lightly loaded means you've reflected a high load resistance to the plate circuit, and the tube never conducts as much current as it could be conducting. "Optimum" is generally somewhere between those extremes. But optimum also involves tube life and distortion.

As for the efficiency you're seeing: I'd say it's not too bad for AB. I recall that the FCC used to give me a slightly disbelieving look when I said that our broadcast transmitter was running right around 80%...the were calibrated to 75% for class C. Theoretical max for class B is pi/4, I believe, but that assumes the tube will conduct at zero plate voltage, which of course it won't. And AB is marginally less efficient than B, the degree depending on the bias.

Cheers,
Tom

In article <t819p5eb6eg7b9@corp.supernews.com>,
retxeh@blazenet.net wrote:
> starting from having 'to much' loading capacitance, and proceeding
> to having 'to little' loading capacitance, what is meant by the
> term 'heavily loaded', and 'lightly loaded'?
>
> To which side would best efficiency be, and would best power
> transfer be at the same point?
>
> I ask this in referance to a single 4CX250, or a single 4CX400
> running on the 20 meter band.
>
> I have been running about 1700v at 300mils, and getting only about
> 300 watts output CW. About 58% eff in AB1. This seems poor to me,
> and the heat is in the plate, not the tank components, as I have
> carefully checked everything.
>
>

--
Tom Bruhns -- K7ITM

Sent via Deja.com
http://www.deja.com/

938. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 08:29:55 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <9609q0$e9u$1@nnrp1.deja.com>
Source record: 54835

Barry,

Thank you for all the comparisons!
I guessed it would be thermally inferior, but not to thi extent.

I think the only real advantage of this stuff lies in that you can
bathe solid state electronics in it.

It may be good for low power tubes, but I have no idea if it has ever
been tried.

Do you know if high power transmitter cooling systems include water
conditioning, or at least monitoring? Also, more to the point, do you
know if they're designed to require water to retain a degree of
electrical insulation?

JW,

As for Cray, I think the co. went under or got bought out a while ago.

If you search for "Cray supercomputer display" you may find something -
I remember reading of a co. that kept one for show. Yet I'd be
surprised if none at all were in use.

I think they do have display value. They had a radial layout aimed at
keeping wiring short that gave them a sci-fi look. Some had windows and
lights on their sides, and you supposedly could see the coolant bubble
away.

BR

F.

Sent via Deja.com
http://www.deja.com/

939. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 08:48:49 UTC
From: Filippone <filippone@my-deja.com>
Message-ID: <960atg$f3e$1@nnrp1.deja.com>
Source record: 54836

Johnny,

I think there is a chance component in dealing with those substances.

Usually, the direct short/medium term toxic effects do show up rather predictably, and you're out of danger by now.

On the other hand, the cancer risk is a bit different, i.e. being exposed to them is like casting dice. There is a probability that something will go wrong and that a molecule will alter the DNA in a cell so that it starts multiplying.

Nobody know exactly how that happens, although the statistical evidence is by now rather good for many substances and many related types of tumors.

Some tumors develop quite quickly after exposure, others have long latency periods.

I'm sure Dr. Ornitz will concur, at least in part. I guess the risk of contracting tumors decreases as time goes by uneventfully after exposure, but I don't know much about that.

In my case, I had repeated exposure to gasoline (at one point I found myself with my mouth and face full of it due to a bizarre syphoning effect in a motorbike's tank!), chlorinated solvents, and formaldehide.

That was over 20 yrs ago. I've been tested for four types of cancer on four different occasions, but I've been lucky so far.

Filippone

Sent via Deja.com
http://www.deja.com/

940. Re: favorite transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 12:08:40 UTC
From: Scott <acepilot@win.bright.net>
Message-ID: <3A83DDC8.2498F802@win.bright.net>
Source record: 54837

Well, that's probably true, but most of us don't have room for a 1/2
wave dipole at 60 Hz anyway ;)

The Navy ELF antennas are approximately 14 and 28 miles long. Way
short and quite inneficient, but it does work.

Here's some basic info on ELF http://www.haarp.alaska.edu/haarp/elf.html
and some good info on the HAARP project
http://www.haarp.alaska.edu/haarp/index.html

Scott
N0EDV

tom_bruhns@agilent.com wrote:
>
> In article <3A81F211.ABAF5AFF@win.bright.net>,
> Scott <acepilot@win.bright.net> wrote:
> > We used SCR's as Power Amps in the transmitters we used to send
> messages
> > to submarines here at the Navy ELF transmitter site. We used them to
> > convert DC back to AC at around 60Hz frequencies and then out the
> > antenna. Unfortunately, we don't have a ham band at 60 Hz!
> >
> > Scott
> > N0EDV
>
> Perhaps things have changed, but the chart I just looked at says the
> spectrum below 9kHz is unassigned. AFAIK, we are free to use it as
> hams. I suppose we might get someone's attention if we started to put
> significant power out at, say, 1kHz.
>
> --
> Tom Bruhns -- K7ITM
>
> Sent via Deja.com
> http://www.deja.com/

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

941. Re: Radio Kits group at Yahoo

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 14:54:34 UTC
From: dialcover@webtv.net
Message-ID: <1932-3A8404AA-12@storefull-123.iap.bryant.webtv.net>
Source record: 54838

"THE GOOD OLD DAYS" WERE BEFORE THERE WERE KITS.

disregard caps, visual problem
Bill Turner WA0ABI
1117 Pike Street
Saint Charles, MO 63301
636-949-2210 (FAX TOO)

942. Re: TOKO ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 15:57:25 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3A841365.6D33ED75@ix.netcom.com>
Source record: 54839

Henry Kolesnik wrote:
>
> My Racal Dana 1992 counter uses small pushbutton switches that are a little
> over 1/4" on a side and about 1/2 long ...
> they have two pins that solder on a pcb..
> there are 32 of these on a 1992 and many are bad..
> racal has a $50 min order..
> the back of the switch has the following:
> TOKO 3J and A above one pin and I above the other..
> anyone knw where i can purchase these?
> tnx
> hank wd5jfr

Hank,
By the time you've replaced all the switches, you'll be well over the
$50 minimum order level.... But I don't think that Racal have any in
stock anyway. Seriously though, there is a very near equivalent in the
Jameco Catalog that I *have* used, about 30 cents each, from memory.
Buttons are a bit loose but can be fixed with a drop of hot melt glue.
One tip, it is in some cases much easier to replace just the elastomeric
membrane inside the switch, than to desolder the switch itself,
especially those under the ICs, as you will see when you look at the
front panel. I have not tried this with the Jameco switches, only with
the originals. If you do have any good ones you can do this trick with
the inaccessible ones. Also if any of the switches have gone, then
they will likely all go soon, unless they have been replaced previously.

Great counter though!

Dan AC6AO

943. Sauturday 17th March UK QRP Amateur Radio Event

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 16:10:15 UTC
From: pentode <pentode@ntlworld.com>
Message-ID: <3DUg6.925$zz4.21405@news2-win.server.ntlworld.com>
Source record: 54840
Cross-posted to: uk.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.boatanchors,sci.electronics.components

South Normanton & District Amateur Radio Club,
in association with the G-QRP Club, are holding what
promises to be the year's main amateur radio event
in this area.
"Junction 28 QRP Convention", will be held on Saturday
17th March 2001, at the Village Hall Community Centre.
Market Street, South Normanton, near Alfreton in Derbyshire.
Located just 5 minutes from Junction 28 of the M1 motorway
and the A38, this will be a traditional radio event, organised
in the true spirit of amateur radio.
All under cover, there will be a good variety of stallholders
with components, kits, vintage and radio surplus, plus the
G-QRP Club stand, club stands and special interest groups.
There is a programme of lectures by Rev.george Dobbs G3RJV,
Rob Mannion G3XFD (Editor of Practical Wireless), Tex Swann
G1TEX (Also from Practical Wireless) and Douglas Pitt of the
Narrow Bandwidth TV Association (NBTVA) who will giving a talk
and live demonstration of mechanical television.
Hot and cold food and drinks will be available, plus a licensed bar.
Talk-in will be provided by GB0LOW on S22.
Doors open 10.00am.Admission is just ?1.00. FREE PRIZE DRAW.
Further details from the organiser on 01623 465443.
We look forward to seeing you there!

944. Re: Acetone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 16:14:47 UTC
From: jflanders2@home.com
Message-ID: <3a84162d.481491217@news>
Source record: 54841

On Thu, 8 Feb 2001 08:39:29 -0800, "Richard Crowley"
<rcrowley7@xprt.net> wrote:

>"JJ OKK" wrote in ...
>> I used to work in a paint shop in General Motors and we almost bathed
>> in solvents every day, cleaning cup guns, pressure pots, spray booths,
>> mixing paint, etc. That was 20 years ago and I've since retired and
>> seem to have no problems from the experience except skin on my hands
>> tends to crack in winter.
>>
>> Am I out of trouble, do you think? The solvents we used every day
>> were MEK, Toluol, Acetone, Dow 200 Silicone, epoxy catalysts,
>> tricloro-ethelene and similar products. Is any of this on the
>> "residuals" list? I appreciate your sharing your expertise for us.
>
>Indeed, I worked in a plastics shop where the old shop sink had running
>water in one faucet, and runnig acetone (or sometimes MEK) in the other!
>This was 30-35 years ago and I don't percieve any ill effects.
>
>RC
>
>
I ran into a guy at a campground a few years ago who was a retired
automobile painter. He told me that he had ruined his lungs without
knowing it during his working years by breathing the fumes he was told
not to. He was incapacitated somehow - don't remember the details.

Apparently some can get by with no problems and others suffer. Maybe
like Russian Roulette?

Jerry W4UK

945. FS: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 17:31:48 UTC
From: arnoldg@sf.telia.no
Message-ID: <3a842992.536878@news.telia.no>
Source record: 54842
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I have still some EL 37 valves for sale. All NOS and made by Mullard,
but some are rebranded Haltron.
You will find them at my web site http://www.demostenes.no

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

946. Re: Pye Westminster Help.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 19:12:51 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <981747622.20164.1.nnrp-13.9e98acde@news.demon.co.uk>
Source record: 54844
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

Thank you all whom posted

73 Martin

Martin John Hallsworth wrote in message
<980621941.6686.0.nnrp-01.9e98acde@news.demon.co.uk>...
>Hello,
>I was having a root round in the shed I have come across an abandoned
>project - it is a Pye Westminster, I have no longer got information
>on Westminster's and this is a "special" set ie it is not a W15FM the
>set is not a Whitehall before you all jump on that it is FM only has
>10 Tx and 6 Rx channels I think it is most likely half of a 2 rig set up
>and is remote controlled.
>
>It is longer than a W15 by 4 or 5 inches (100 - 125mm), the standard
>PA strip has the final transistor stage missing and in the extra space
>at the back of the rig is an add on amplifier stage (High power I think
>maybe 25 watts or more) and a "current limiter" PCB.
>
>The ID plate has the following markings
>Cat N° AT90148
>Ser N° 81493
>Code BL01 VEEX
>
>from the code number I remember it to be
>"V" spec IF filters (25Khz)
>"E" band Tx (68 - 88 MHz)
>"E" band Rx (68 - 88 MHz)
>I do not know what the "X" means
>Can any one identify what this rig is and more importantly has any one got
>details or circuit details. I am looking to use the PA for 50 Mhz on my
>FT690
>so any help much appreciated.
>
>Thanks Martin G1GYC
>
>--
>~~~~~~
>Remove :-
>_NOSPAM_FOR_ME_
>from return address to reply or click this link
>

>mailto:martin@g1gyc.demon.co.uk
>~~~~~~
>
>
>
>
>

947. VLF/LF Propagation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 19:33:16 UTC
From: Joe McElvenney <joemac@xic.demon.co.uk>
Message-ID: <VA.00000186.01c8c122@xic.demon.co.uk>
Source record: 54843

Hi,

I am in need of a few pointers to information on the effects of propagation changes on the short term accuracy of time and frequency signals at LF and VLF. Some months ago there was a mention here of a list or newsgroups where this had been kicked around but unfortunately I didn't bookmark it at the time.

Any info as to likely sites would be much appreciated. I have, of course, got the search engines churning here myself but any extra input would be very helpful.

TIA de Joe, G3LLV

948. Re: Radio Kits group at Yahoo

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 19:44:31 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A84489F.5A80A65F@coqui.net>
Source record: 54845

Bill Turner wrote:
>
> "THE GOOD OLD DAYS" WERE BEFORE THERE WERE KITS.
>
> disregard caps, visual problem
> Bill Turner WA0ABI
> 1117 Pike Street
> Saint Charles, MO 63301
> 636-949-2210 (FAX TOO)

Geez, Bill, I see radio kits in the early 20's magazines. Just
when were the "good old days"?

Bill Meacham
Vieques, PR

949. Re: ME-11 DMM serial cable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 21:06:32 UTC
From: LLConner <llconner@gte.net>
Message-ID: <rZYg6.5080$WV5.162715@paloalto-snr1.gtei.net>
Source record: 54846

Clifton,

I haven't gotten around to looking at the other pins and their possible use.
But if I do, I'll post the information. I feel that is what makes these
Newgroups so useful.

Larry
"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3A81A814.2EE131A2@clifto.com...
> LLConner wrote:
> > For those who want to make a cable for the Radio Shack ME-11 DMM. I
found
> > that a straight through cable does not work if ALL the pins are used. If
you
> > only use 2,3,4,5,8 in a 9 pin to 9 pin cable it works fine.
>
> Any idea what the meter does with 1, 6, 7, and/or 9?
>
> --
>
+-
+-+
> | Cliff Sharp | Hate spam? Take the Boulder Pledge!
|
> | WA9PDM |
http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
>
+-
+-+

950. FS Systron-Donner 4 GHz Frequency Counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 22:25:26 UTC
From: John Klewer <n6ax@pacbell.net>
Message-ID: <3A846E56.C8C7BF78@pacbell.net>
Source record: 54747
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.equipment

I have for sale a Systron Donner counter model 6244A, compact size (approx 9"W x 3" H x 15" D) covers DC to 4 GHz (tested to over 5.5 GHz) and is one of their phase-locking counters. When you input a signal the counter acquires it a d displays it in less than a second!

Counter has a built-in 10 MHz high-stability oven stabilized reference oscillator, is in extremely clean cosmetic condition and works on all ranges just as it should.

I want $175.00 obo for the counter plus shipping from 92870

Thanks

John

951. Re: CONAR - The Barbarian + BBC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 23:07:54 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A84A178.3714DC09@home.com>
Source record: 54748

Drake had a sale on the xtals for the 2B about two years ago.

I haven't ever seen Conar on EBay (not that would want to buy one).
What is amazing to me is that the Knight Star Roamer goes for a
centi-buck.

Bis Wichy wrote:

> GOT CONAR ???
>
> http://www.megacycles.com
>
> click "CONAR The Barbarian"
>
> MORE THAN YOU EVER WANTED TO KNOW !!!!

952. Re: TOKO ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-09 23:51:57 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t890l2hsboio14@corp.supernews.com>
Source record: 54749

these TOKO switches are weird..
all are stuck!!
i removed one and took it apart and for the life of me i can't tell how or why it used to work..
there are only 4 parts to the one i disassebled..
1. pushbutton, it just pulls off
2. the plunger, you can wiggle it out..
3. inside the plunger there's a black sort of piston..
4. and last the switch body with the contacts which are part of the solder pins for mounting..

i don't know if someone took this apart before and lost some pieces..
i have a good counter but i'm not about to experiment with it till i find replacements..
it's a neat counter..
sooner or later, i hope i will find a source for TOKO momentary pushbutton switches or a close substitution.
so far the TOKO site hasn't been of any help, i gues maybe i'll call them monday..
mouser and digi-key have nothing..
i can't access the MCM electronics site..
i'll try Jameco next..
thanks
hank wd5jfr

"Dan Rae" <rae4@ix.netcom.com> wrote in message news:3A841365.6D33ED75@ix.netcom.com...
>
>
> Henry Kolesnik wrote:
> >
> > My Racal Dana 1992 counter uses small pushbutton switches that are a little
> > over 1/4" on a side and about 1/2 long ...
> > they have two pins that solder on a pcb..
> > there are 32 of these on a 1992 and many are bad..
> > racal has a $50 min order..
> > the back of the switch has the following:
> > TOKO 3J and A above one pin and I above the other..
> > anyone knw where i can purchase these?
> > tnx
> > hank wd5jfr
>
>
>

> Hank,
> By the time you've replaced all the switches, you'll be well over the
> $50 minimum order level.... But I don't think that Racal have any in
> stock anyway. Seriously though, there is a very near equivalent in the
> Jameco Catalog that I *have* used, about 30 cents each, from memory.
> Buttons are a bit loose but can be fixed with a drop of hot melt glue.
> One tip, it is in some cases much easier to replace just the elastomeric
> membrane inside the switch, than to desolder the switch itself,
> especially those under the ICs, as you will see when you look at the
> front panel. I have not tried this with the Jameco switches, only with
> the originals. If you do have any good ones you can do this trick with
> the inaccessible ones. Also if any of the switches have gone, then
> they will likely all go soon, unless they have been replaced previously.
>
> Great counter though!
>
> Dan AC6AO

953. Knight-Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 00:02:18 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <e3KOWNvkAHA.268@cpmsnbbsa07>
Source record: 54750
Cross-posted to:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

FS: Knight Kit T-150 am/cw xmtr w/book and a D-104 mic on grip to talk
stand. Case is not the best but the front panel looks almost original. 2,
6146 spare finals.
$100..... Fred 940-321-2029 fred-palmer@msn.com

954. ICOM IC-O2AT

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 00:11:16 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <umA#WSvkAHA.270@cpmsnbbsa07>
Source record: 54751
Cross-posted to:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

ICOM IC-O2AT handheld in excellent condition. Late SN..Comes with a drop in type battery but no drop in charger. Battery is rechargeable with a cigarette lighter plug in cable which also operates the radio.The radio also includes all of my original shop and factory info on the O2AT series as well as a manual. The receiver has been opened up to receive the WX channels. My experience with ICOM covered 17 years in Dallas.
$125 Fred 940-321-2029 fred-palmer@msn.com

955. Delcom

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 00:16:23 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <e5rSrVvkAHA.237@cpmsnbbsa07>
Source record: 54752
Cross-posted to:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Delcome 2 m handheld is virtually identical to the ICOM IC-2AT but a bit more modern TT pad and a battery lock. Includes original battery case (empty) as well as a drop in type battery with a battery adapter and cable for charging. 4/.1 watts

956. MFJ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 00:20:18 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <eZaJaXvkAHA.359@cpmsnbbsa07>
Source record: 54753
Cross-posted to:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

MFJ-1112 multiple (6) dc outlets. Fred 940-321-2029
fred-palmer@msn.com $15

957. Storno 9000 mods ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 01:04:15 UTC
From: la8ak@online.no
Message-ID: <3a8491f3.99690828@news.online.no>
Source record: 54754

is some info available for circuits and modifications of Storno
CQM9000 ?

73,
Jan-Martin
LA8AK

958. Repeater....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 03:50:28 UTC
From: Matt Lawrence <mattlawrence@snet.net>
Message-ID: <YV2h6.27008$OD.10547974@typhoon.snet.net>
Source record: 54755

I once saw something like this on eBay but never since. Here is what I want to do (Build or buy). This device has an audio input, and a mic output (like a 4 or 5 pin) to go to another radio as a transmitter. So, what it does is this: Audio coming in through the audio input keys the mic circut and send the audio through it. So, I'd have the audio input coming from my scanner and the mic output connected to my Kenwood Mobile radio. When sound came from the scanner, it would transmit this sound over the mobile radio. I hope this makes sense. Anyway, what is this device called and is it easy to build? Or, where can I buy such a beast?

Thanks,
Matt

959. Repeater...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 03:50:40 UTC
From: Matt Lawrence <mattlawrence@snet.net>
Message-ID: <6W2h6.27009$OD.10547895@typhoon.snet.net>
Source record: 54756

I once saw something like this on eBay but never since. Here is what I want to do (Build or buy). This device has an audio input, and a mic output (like a 4 or 5 pin) to go to another radio as a transmitter. So, what it does is this: Audio coming in through the audio input keys the mic circut and send the audio through it. So, I'd have the audio input coming from my scanner and the mic output connected to my Kenwood Mobile radio. When sound came from the scanner, it would transmit this sound over the mobile radio. I hope this makes sense. Anyway, what is this device called and is it easy to build? Or, where can I buy such a beast?

Thanks,

960. Old Motorola VHF tranceivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 05:15:41 UTC
From: mcalhoun@ksu.edu
Message-ID: <962ipt$jcc@unix1.cc.ksu.edu>
Source record: 54758

I'm finishing a course (as a substitute-teacher) at a "Technical College"
(used to be called a "Vo-Tech School" for a teacher who is dying, and in
my classroom are some twenty or so Motorola mobile radios T81XTA7DA3BK
and a few of what look like "base" units (but I didn't think to look for
a model number) given to the school by the Kansas Dept. of Transportation
(or maybe the Highway Patrol) when it moved to an 800-MHz trunking system.

The school has absolutely no use for them (it does not teach any course
even remotely related to radios or radio repair), and the xcvrs are just
occupying much-needed space.

Does ANYONE have a use for these things?

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

961. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 05:21:18 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <id4h6.1068$8o4.146677@monger.newsread.com>
Source record: 54759

"Filippone" <filippone@my-deja.com> wrote in message
news:9609q0$e9u$1@nnrp1.deja.com...
> Barry,
>
> Do you know if high power transmitter cooling systems include water
> conditioning, or at least monitoring?

They pretty much leave the monitoring up to the operator.
Then again I worked on the little 200 KW ones as well as induction heating
and ISM units.

> Also, more to the point, do you
> know if they're designed to require water to retain a degree of
> electrical insulation?

Sho nuff. We used distilled, or deionized water.
Wreaks havoc with brass fittings.
Most tubes have a "getter" installed at the inlet to keep the corosion down.

Roger (K8RI)

>
>
> JW,
>
> As for Cray, I think the co. went under or got bought out a while ago.
>
> If you search for "Cray supercomputer display" you may find something -
> I remember reading of a co. that kept one for show. Yet I'd be
> surprised if none at all were in use.
>
> I think they do have display value. They had a radial layout aimed at
> keeping wiring short that gave them a sci-fi look. Some had windows and
> lights on their sides, and you supposedly could see the coolant bubble
> away.
>
>
>
> BR
>
>
> F.
>
>
> Sent via Deja.com
> http://www.deja.com/

962. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 05:55:15 UTC
From: "Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <VH4h6.2221$q4.10338@e420r-sjo3.usenetserver.com>
Source record: 54760

"Filippone" <filippone@my-deja.com> wrote in message
news:9609q0$e9u$1@nnrp1.deja.com...

> Do you know if high power transmitter cooling systems include water
> conditioning, or at least monitoring? Also, more to the point, do you
> know if they're designed to require water to retain a degree of
> electrical insulation?

Commercial water-cooled transmitting tubes use distilled and deionized water. It is normal to include continuous conductivity measurement devices to monitor the water for a buildup of conductive contaminants.

Vapor cooled (evaporative) tubes also need distilled and deionized water. In addition to the problem of conductivity, any buildup of contaminants will reduce the heat transfer of the tube's anode.

A good discussion of this may be found in the Eimac book, "The Care and Feeding of Power Grid Tubes."

73, Barry WA4VZQ ornitz@usa.net

963. Re: VLF/LF Propagation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 06:52:29 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <qy5h6.375$hi2.913@nntpserver.swip.net>
Source record: 54761

Check the LWCA (Longwave Club of America) homepage:
http://www.lwca.org/

And look for "Propagation Article Update"

73
Christer
sm6pxj

Joe McElvenney wrote ...
> I am in need of a few pointers to information on the effects
>of propagation changes on the short term accuracy of time and
>frequency signals at LF and VLF.

964. Re: CONAR - The Barbarian + BBC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 06:52:45 UTC
From: Mike Silva <mjsilva@my-deja.com>
Message-ID: <962ofs$gi5$1@nnrp1.deja.com>
Source record: 54762

In article <3A84A178.3714DC09@home.com>,
JW <jdwalton@home.com> wrote:
> Drake had a sale on the xtals for the 2B about two years ago.
>
> I haven't ever seen Conar on EBay (not that would want to buy one).
> What is amazing to me is that the Knight Star Roamer goes for a
> centi-buck.

It's all about memories, of course -- stuff we either had or wished we had. I put together a Star Roamer as a kid and enjoyed the heck out of it, but when I got better radios I took it apart for parts :(I found one on ebay a while back and got very lucky -- the seller mis-spelled Star Roamer as Star Romer and so I got it for about $20. Now to find a $20 Ameco (or Amico...) AC-1 to go with it!

73,
Mike, KK6GM

Sent via Deja.com
http://www.deja.com/

965. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 08:43:39 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <HurnSZA78Ph6EAbF@ifwtech.plus.net>
Source record: 54763

Roger Halstead wrote:
>> Also, more to the point, do you
>> know if they're designed to require water to retain a degree of
>> electrical insulation?
>
>Sho nuff. We used distilled, or deionized water. Wreaks havoc with
>brass fittings. Most tubes have a "getter" installed at the inlet to
>keep the corosion down.
>
Right - I remember a nuclear reactor engineer who worked with heat exchangers containing molten sodium on one side and pure, clean water on the other. He said all the problems were with the nasty aggressive substance that corroded everything it touched... namely, water.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

966. Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 11:38:10 UTC
From: la8ak@online.no
Message-ID: <3a8525a9.137510944@news.online.no>
Source record: 54764

Clapp oscillator seems to be disregarded over 40 years ago, and little information is shown in amateur handbooks, often amateur style authors seems to think it is bad, so no need to discuss it, but for some applications it may still be worth considering.

Need some info on capacitor relations for the Clapp-oscillator. I am well aware of problems with varying output, but tuned frequency range is small, and the 2.2MHz signal is fed to CMOS divider for 136-138kHz output

May use BF199 in the VFO, with 10nf between emitter-basis and 3n3 to ground, 300pf tank capacitor and 20 H coil. Could the tank capacitance be larger? Copyed a circuit designed by OZ6NF in 1963, for 4.2-4.4MHz, but he used AF124 (=2N1744), is actual yfe substantially higher for germanium transistors than silicon?

73
Jan-Martin
LA8AK

967. Re: Radio Kits group at Yahoo

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 11:38:10 UTC
From: la8ak@online.no
Message-ID: <3a849603.100731670@news.online.no>
Source record: 54765

On Fri, 9 Feb 2001 08:54:34 -0600 (CST), dialcover@webtv.net (Bill Turner) wrote:

>"THE GOOD OLD DAYS" WERE BEFORE THERE WERE KITS.
>
>disregard caps, visual problem
>Bill Turner WA0ABI

obviously long before you're born

968. PCIM 177 info wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 11:45:10 UTC
From: Lars Bjoern Schaumburg-Muller OZ1CJX <lbsm@nospam.dk>
Message-ID: <3A8529C6.E27523FD@nospam.dk>
Source record: 54766

I have come across a frequency readout module of this type, but I have
no documentation.
I have tried the usual search engines, but the only site that seemed to
have some information was in finnish :-(
Any onfo would be welcome.

TIA es vy 73 de Lars / OZ1CJX

969. PCIM 177 info wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 11:47:21 UTC
From: Lars Bjoern Schaumburg-Muller OZ1CJX <lbsm@nospam.dk>
Message-ID: <3A852A49.45952B5A@nospam.dk>
Source record: 54767

I have come across a frequency readout module of this type, but I have
no documentation.
I have tried the usual search engines, but the only site that seemed to
have some information was in finnish :-(
Any info would be welcome.

TIA es vy 73 de Lars / OZ1CJX

970. Re: CONAR - The Barbarian + BBC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 13:05:43 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A856561.C6BF5EE6@home.com>
Source record: 54768

I checked on EBay and there is a CONAR up for sale!

Mike Silva wrote:

> In article <3A84A178.3714DC09@home.com>,
> JW <jdwalton@home.com> wrote:
> > Drake had a sale on the xtals for the 2B about two years ago.
> >
> > I haven't ever seen Conar on EBay (not that would want to buy one).
> > What is amazing to me is that the Knight Star Roamer goes for a
> > centi-buck.
>
> It's all about memories, of course -- stuff we either had or wished we
> had. I put together a Star Roamer as a kid and enjoyed the heck out of
> it, but when I got better radios I took it apart for parts :(I found
> one on ebay a while back and got very lucky -- the seller mis-spelled
> Star Roamer as Star Romer and so I got it for about $20. Now to find a
> $20 Ameco (or Amico...) AC-1 to go with it!
>
> 73,
> Mike, KK6GM
>
> Sent via Deja.com
> http://www.deja.com/

971. Re: Repeater...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 15:23:35 UTC
From: TC <cadigant2@uofs.edu>
Message-ID: <3A855CF6.C8DCD520@uofs.edu>
Source record: 54769

Matt,
I think you are looking for is sometimes called a "mobile extender". This is a vox circuit which just keys up when a voice is heard in one radio. One was described (and then updated) in 73 Amateur Radio Today, November 1993. This was a 2 way circuit... sounds like you would need just 1/2 of it. Easy to build. If you can't find the article drop me a note.

Tim C. (wc1f)

972. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 16:30:17 UTC
From: Zorn Jr Robert L <zorn@bucknell.edu>
Message-ID: <Pine.OSF.4.30.0102101114330.26970-100000@coral.bucknell.edu>
Source record: 54770

If the SCR gate is monitoring the regulated output.
I had a similar problem with a low current supply. It appears that
when the load current changed rapidly the regulator overcompensated
and the output voltage went high long enough to trigger the SCR.
Placing a 100 uF cap at the output fixed the problem. The output
current of my supply was only 0.5 A.

> I have a homebrew 13V, 20A power supply I am just finisishing testing.
> Most of the time it works just fine. However, on three occasions it
> has blown its 25amp fuse which sits between the overvoltage thyristor
> (SCR) and the filter capacitors. I believe the thyristor is
> triggering. The overvoltage circuit is the same as that found in "The
> Art of Electronics": a 15.1v zener diode going to ground through a
> 0.1uF cap and a 100 ohm resistor, the zener triggering a 30 amp
> thryristor. The occasions when the fuse has blown have been 1) rapid
> increase in drawing 5 then 20 amps 2) when I had a bad connection to a
> circuit drawing 2 amps and it sparked at the terminals. This suggests
> to me that a voltage transient of some sort might be triggering the
> zener to over 15.7 volts thereby in turn triggering the gate of the
> SCR.
>
> The regulator and other circuits appear to be working very well and
> there are no intermittent shorts elesewhere in the supply. I hesitate
> to test that it definetely is the overvoltage circuit by disconnecting
> it temporarily to see if the problem disappears. Any suggestions out
> there on how do deal with this problem??
>
> Larry VE6MK
>
>
> **********
> to send direct email remove "fake" from address
>

973. Help - UTC S-58 Spec

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 17:02:48 UTC
From: Trav & JoAnn <tdwalter@netins.net>
Message-ID: <962htb$4u5$1@ins21.netins.net>
Source record: 54757

If someone has an old catalog I sure would appreciate the DC voltage rating of the S-58 rectifier filament xfmr.

Thanks, Trav WX0Y

974. Rig Modification ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 17:50:10 UTC
From: wb3egx@aol.com
Message-ID: <20010210125010.26087.00000296@ng-mo1.aol.com>
Source record: 54771

I am looking into the possibilities of modifying a Radio Shack 10 mtr rig
to operate on a different Ham band. Is it possible and what would be required
to move it to 12, 15 or ideally 20 mtrs?? NASA does not have me on their speed
dial, but I do like to tinker with projects that show a glimmer of hope. 73's
and Thanks
Doug / WB3EGX

975. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 18:17:15 UTC
From: k9sqg@aol.com
Message-ID: <20010210131715.06603.00000392@ng-bk1.aol.com>
Source record: 54772

It is not necessarily good design to put that fuse before the filter caps...

976. Murata 455 KHz SSB filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 18:27:50 UTC
From: Juan <novalid@novalid.com>
Message-ID: <9640u8$jq8$1@diana.bcn.ttd.net>
Source record: 54773

I need a CFJ455K murata 455 KHz IF filter for SSB, but I think is discontinued. I read the Murata page, but, I didn't found an equivalent part.
Someone could help me? Where can I buy this kind of filters?

Thanks for reading this.

Juan, EA6NP

blurpea6np@blurparrl.net

Sorry, remove the blurps. ;-)

977. military jeep radio R-392/URR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 18:47:02 UTC
From: cd1048@airmail.net
Message-ID: <CD23408B8615C9A1.B84BA6E19B2E573D.C9A632703C5AF419@lp.airnews.net>
Source record: 54774

This radio is rough, all parts are here and is in ribbed case. Look it
up on yahoo or e-bay--- best offer --great for parts
Located in Midlothian-- 972-723-3285
don't want to ship

978. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 19:10:31 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <Hmgh6.78717$R5.3782821@news1.frmt1.sfba.home.com>
Source record: 54775

The Clapp oscillator has been superceeded by the Vackar oscillator, which is generally
considered to be the ultimate VFO technology. Unfortunately, it is not well documented
in the literature. I think it was in Ham Radio once. I have never been able to get a copy
of Vackar's original paper. Since you are in Europe, you may have a better chance of
getting a copy of the Vackar paper, which was in something like the Proceedings of the Tesla
Institute.

Rick Karlquist N6RK

J M Noeding <la8ak@online.no> wrote in message
news:3a8525a9.137510944@news.online.no...
> Clapp oscillator seems to be disregarded over 40 years ago, and little
> information is shown in amateur handbooks, often amateur style authors
> seems to think it is bad, so no need to discuss it, but for some
> applications it may still be worth considering.
>
> Need some info on capacitor relations for the Clapp-oscillator. I am
> well aware of problems with varying output, but tuned frequency range
> is small, and the 2.2MHz signal is fed to CMOS divider for 136-138kHz
> output
>
> May use BF199 in the VFO, with 10nf between emitter-basis and 3n3 to
> ground, 300pf tank capacitor and 20�H coil. Could the tank capacitance
> be larger? Copyed a circuit designed by OZ6NF in 1963, for 4.2-4.4MHz,
> but he used AF124 (=2N1744), is actual yfe substantially higher for
> germanium transistors than silicon?
>
> 73
> Jan-Martin
> LA8AK

979. General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 20:17:48 UTC
From: Nick Kennedy <nkennedy@tcainternet.com>
Message-ID: <t8b8e5od7auca6@corp.supernews.com>
Source record: 54776

A ham in our club gave me a GR 1603A impedance bridge today. No manual.

Anybody got any pointers on how to use the thing? I assume I need to hook an AF source to the "generator" terminals. The "unknown" terminals are pretty self-explanatory. And I'm not sure about the "detector" terminals. A diode detector and meter movement? Or oscilloscope?

I wonder how useful this thing can be to the typical homebrewer that already has L & C measuring gizmos. Ought to fun to play with anyhow. Tips and resources appreciated.

73--Nick, WA5BDU

980. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 21:43:41 UTC
From: la8ak@online.no
Message-ID: <3a85a4c3.170053319@news.online.no>
Source record: 54777

On Sat, 10 Feb 2001 19:10:31 GMT, "Richard Karlquist" <rick@area.com>
wrote:

>The Clapp oscillator has been superceeded by the Vackar oscillator, which is
>generally considered to be the ultimate VFO technology.
> Unfortunately, it is not well documented in the literature.
> I think it was in Ham Radio once. I have never been
>able to get a copy of Vackar's original paper.
> Since you are in Europe, you may have a better
>chance of getting a copy of the Vackar paper,
> which was in something like the
>Proceedings of the Tesla Institute.
>
>Rick Karlquist N6RK
>

Hi

Vackar/Tezla and Seiler oscillator types are described in several
notes and articles in CQ, QST, Radio Communication and other since the
50's.
I prefer the Seiler type, because it seems to be easier to oscillate
without too complex calculation, but it was sometimes strange when
Tezla didn't oscillate.
It was a very good article in the Danish magazine 'OZ' in 1957,
describing forward conductance and calculation of maximum shunt
capacitors, seems you could use a 6K7 valve with .01 capacitors from
grid and anode to ground.

For some applications it is no problem that the oscillation level
varies, particularly if you feed the signal through a limiter and a
schmidt trigger, then Clapp oscillator is favoured because of it's
simplicity over the later types.

73, Jan-Martin
LA8AK

981. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 22:11:55 UTC
From: Nick Kennedy <nkennedy@tcainternet.com>
Message-ID: <t8bf42effs5130@corp.supernews.com>
Source record: 54778

> On Sat, 10 Feb 2001 19:10:31 GMT, "Richard Karlquist" <rick@area.com>
> wrote:
>
> >The Clapp oscillator has been superceeded by the Vackar oscillator, which
is
> >generally considered to be the ultimate VFO technology.
> > Unfortunately, it is not well documented in the literature.

There's a Vackar VFO and pretty good discussion of it in the 1998 ARRL Handbook. (May be in the latest edition too--I don't have one later than 1998.)

Nick, WA5BDU

982. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 23:09:04 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <dNBR6jAQoch6EAro@ifwtech.plus.net>
Source record: 54779

Richard Karlquist wrote:
>The Clapp oscillator has been superceeded by the Vackar oscillator, which is
>generally
>considered to be the ultimate VFO technology. Unfortunately, it is not well
>documented
>in the literature. I think it was in Ham Radio once. I have never been
>able to get a copy
>of Vackar's original paper. Since you are in Europe, you may have a better
>chance of
>getting a copy of the Vackar paper, which was in something like the
>Proceedings of the Tesla
>Institute.
>
The Vackar oscillator is featured in post-1995 ARRL Handbooks, in the
chapter on oscillators and synthesizers. This chapter is a fresh
approach to the subject, and well worth reading.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

983. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-10 23:29:40 UTC
From: "Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <s8kh6.3120$4p.193793@e3500-chi1.usenetserver.com>
Source record: 54780

"J M Noeding" <la8ak@online.no> wrote in message
news:3a8525a9.137510944@news.online.no...
> Clapp oscillator seems to be disregarded over 40 years
> ago, and little information is shown in amateur handbooks,
> often amateur style authors seems to think it is bad, so
> no need to discuss it, but for some applications it may
> still be worth considering.

The Clapp oscillator is basically a Colpitts oscillator
where the inductor in the low-pass feedback network has been
replaced with a series tuned circuit making the feedback
network a bandpass arrangement. The original publication
is:

J. K. Clapp, "An Inductance-Capacitance Oscillator of
Unusual Frequency Stqbility," Proceedings of the Institute
of Radio Engineers, Vol. 36, pp. 356-359, March, 1948.

> Need some info on capacitor relations for the Clapp-
> oscillator. I am well aware of problems with varying
> output, but tuned frequency range is small, and the 2.2MHz
> signal is fed to CMOS divider for 136-138kHz output.

The ratio of the two capacitors shunting the series tuned
network is determined by the amount of feedback needed. A
typical ratio of 1 to 3 is often used.

> May use BF199 in the VFO, with 10nf between emitter-basis
> and 3n3 to ground, 300pf tank capacitor and 20H coil.
> Could the tank capacitance be larger? Copyed a circuit
> designed by OZ6NF in 1963, for 4.2-4.4MHz, but he used
> AF124 (=2N1744), is actual yfe substantially higher for
> germanium transistors than silicon?

These capacitor values seem somewhat large and reversed. As
a good starting point, the emitter-ground capacitor should
have a reactance of about -j75 to -j100 ohms, or about 1 nF
in your case. The base-emitter capacitor should be smaller;
I would suggest something in the order of 470 to 680 pF.
Using 200 pF as the tuning capacitance, the coil would be
about 26 uH. The BF199 may have too high an f(sub)T for
such a low frequency oscillator leading to VHF parasitic
oscillations. I would consider using a transistor with an
f(sub)T no higher than 30 to 50 MHz for best results. For
high stability, you generally want the tuning capacitor to
be much smaller than the feedback capacitors. So I would

also consider lowering the tuning capacitor value and increasing the inductance.

73, Barry L. Ornitz WA4VZQ ornitz@usa.net

984. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 00:30:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A85DD12.4B361517@eznec.com>
Source record: 54781

You're correct that a circuit has to generate power to have a reflection coefficient greater than one. You'll encounter this negative resistance condition in some active circuits such as oscillators or amplifier inputs, where the Smith chart is also used. Also, in some phased arrays, one or more elements send power toward the source, so there's a negative resistance looking into the transmission lines to those elements from the source. The power is, of course, coupled from the other elements. For sure, though, you'll never see a reflection coefficient greater than one in a totally passive circuit.

Roy Lewallen, W7EL

"Craig A. Ferris" wrote:
>
> A reflection coefficient greater than 1??? When RC is equal to 1, ALL power
> is reflected.
> With a RC of 2.414, 5.8 times the power is reflected. Your transmission line
> generates power.
> You should patent it.
>
> 73,
> Craig NR4E

985. Re: PCIM 177 info wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 01:59:14 UTC
From: crabtreejr@aol.com
Message-ID: <20010210205914.12464.00000393@ng-fp1.aol.com>
Source record: 54782

Lars Bjoern Schaumburg-Muller OZ1CJX lbsm@nospam.dk on 2/10/01 posted:

>I have come across a frequency readout module of this type, but I have
>no documentation.
>I have tried the usual search engines, but the only site that seemed to
>have some information was in finnish :-(
>Any onfo would be welcome.
>
>TIA es vy 73 de Lars / OZ1CJX

Hello Lars

You need to help us here. I assume that you have one of these in you possession. I do not have information on the PCIM 177 but do have it on similar modules. Is the large integrated circuit a MSM5527 or something similar? There may also be a pre-scalar, for example a MSL2318. Any part numbers would help.

Please respond directly to me to save newsgroup bandwidth.

73 John KC0GGH
crabtreejr@aol.com

986. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 02:30:01 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A85F928.4748@pacbell.net>
Source record: 54783

Ian White, G3SEK wrote:
>
> Richard Karlquist wrote:
> >The Clapp oscillator has been superceeded by the Vackar oscillator, which is
> >generally
> >considered to be the ultimate VFO technology. Unfortunately, it is not well
> >documented
> >in the literature. I think it was in Ham Radio once. I have never been
> >able to get a copy
> >of Vackar's original paper. Since you are in Europe, you may have a better
> >chance of
> >getting a copy of the Vackar paper, which was in something like the
> >Proceedings of the Tesla
> >Institute.
> >
> The Vackar oscillator is featured in post-1995 ARRL Handbooks, in the
> chapter on oscillators and synthesizers. This chapter is a fresh
> approach to the subject, and well worth reading.
>
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

My 1998 version of the ARRL Handbook has a schematic of G3PDM's
Vackar VFO. For temperature compensation it uses an Oxley
"Tempatrimmer." Does anyone know what this is, or how to get one?

Tom Donaly KA6RUH

987. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 05:48:40 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <t8c9smbs65p746@corp.supernews.com>
Source record: 54784

> My 1998 version of the ARRL Handbook has a schematic of G3PDM's
> Vackar VFO. For temperature compensation it uses an Oxley
> "Tempatrimmer." Does anyone know what this is, or how to get one?

Hi Tom,

The "Tempatrimmer" is a differential capacitor with the rotor attached to a bi-metallic strip which moves as the temperature changes, like a thermostat. At a constant temperature, you can rotate the capacitor shaft without changing the total capacitance. Temperature change *will* change the effective capacitance.

You use it as part of the trimming capacitance of your oscillator.

The idea is that you start your oscillator, measure the frequency of oscillation, and then after it has completely warmed up, return it to the original frequency with the Tempatrimmer.

Presumably, it will thereafter compensate for temperature changes (between the starting and ending temperatures, at least). This assumes that the change in frequency is linear with temperature, or at least is the same law as the Tempatrimmer.

It works pretty well. I have two of them, purchased in the '60s, that have been re-used several times. They were made by a U.K. firm named Oxley. I don't know if they are in business any more.

73,

John, K6QQ
Alturas, CA

988. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 08:48:14 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <JFAdKpAOHlh6EAZn@ifwtech.plus.net>
Source record: 54785

Donaly wrote:
>Ian White, G3SEK wrote:
>>
>> Richard Karlquist wrote:
>> >The Clapp oscillator has been superceeded by the Vackar oscillator, which is
>> >generally
>> >considered to be the ultimate VFO technology. Unfortunately, it is not well
>> >documented
>> >in the literature. I think it was in Ham Radio once. I have never been
>> >able to get a copy
>> >of Vackar's original paper. Since you are in Europe, you may have a better
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>> >getting a copy of the Vackar paper, which was in something like the
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>> http://www.ifwtech.com/g3sek
>
>My 1998 version of the ARRL Handbook has a schematic of G3PDM's
>Vackar VFO. For temperature compensation it uses an Oxley
>"Tempatrimmer." Does anyone know what this is, or how to get one?

The schematic says "Oxley Tempatrimmer (see text)." The answer is on the
next page!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

989. AD831 mixer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 15:27:36 UTC
From: Martin Farrell <Martin@hobbit.nu>
Message-ID: <A6pdNiAo9qh6Ewar@hobbit.nu>
Source record: 54786

Hello,

Can anyone tell me what the GND pins do in this mixer. I'm confused by the fact that Analog's data shows them connected to ground in both single and dual supply circuits. The data sheet is totally silent on their usage.

--
Martin G8ASG

990. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 17:25:19 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A86CAFF.7FD5@pacbell.net>
Source record: 54791

Ian White, G3SEK wrote:
>
> Donaly wrote:
> >Ian White, G3SEK wrote:
> >>
> >> Richard Karlquist wrote:
> >> >The Clapp oscillator has been superceeded by the Vackar oscillator, which is
> >> >generally
> >> >considered to be the ultimate VFO technology. Unfortunately, it is not well
> >> >documented
> >> >in the literature. I think it was in Ham Radio once. I have never been
> >> >able to get a copy
> >> >of Vackar's original paper. Since you are in Europe, you may have a better
> >> >chance of
> >> >getting a copy of the Vackar paper, which was in something like the
> >> >Proceedings of the Tesla
> >> >Institute.
> >> >
> >> The Vackar oscillator is featured in post-1995 ARRL Handbooks, in the
> >> chapter on oscillators and synthesizers. This chapter is a fresh
> >> approach to the subject, and well worth reading.
> >>
> >> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> >> 'In Practice' columnist for RadCom (RSGB)
> >> http://www.ifwtech.com/g3sek
> >
> >My 1998 version of the ARRL Handbook has a schematic of G3PDM's
> >Vackar VFO. For temperature compensation it uses an Oxley
> >"Tempatrimmer." Does anyone know what this is, or how to get one?
>
> The schematic says "Oxley Tempatrimmer (see text)." The answer is on the
> next page!
>
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

Yes, it says, "The Oxley Tempatrimmer used by G3PDM was a rare
and expensive component, used commercially only in very high
quality equipment and it may no longer be made." Later, it
goes on to advocate the use of GM4ZNX' temperature compensating
bridge. Fine, but if that kind of explanation was used thoughout
the Handbook, we simple-minded home-brewers would find ourselves
spending more and more of our time on the psychotherapist's couch

complaining about the purposelessness of it all.

Tom Donaly KA6RUH

991. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 17:35:26 UTC
From: Donaly <dtdonaly@pacbell.net>
Message-ID: <3A86CD5E.1C36@pacbell.net>
Source record: 54792

John Moriarity wrote:
>
> > My 1998 version of the ARRL Handbook has a schematic of G3PDM's
> > Vackar VFO. For temperature compensation it uses an Oxley
> > "Tempatrimmer." Does anyone know what this is, or how to get one?
>
> Hi Tom,
>
> The "Tempatrimmer" is a differential capacitor with the rotor
> attached to a bi-metallic strip which moves as the temperature
> changes, like a thermostat. At a constant temperature, you can
> rotate the capacitor shaft without changing the total capacitance.
> Temperature change *will* change the effective capacitance.
>
> You use it as part of the trimming capacitance of your oscillator.
>
> The idea is that you start your oscillator, measure the frequency
> of oscillation, and then after it has completely warmed up,
> return it to the original frequency with the Tempatrimmer.
>
> Presumably, it will thereafter compensate for temperature
> changes (between the starting and ending temperatures,
> at least). This assumes that the change in frequency is
> linear with temperature, or at least is the same law as the
> Tempatrimmer.
>
> It works pretty well. I have two of them, purchased in the
> '60s, that have been re-used several times. They were made
> by a U.K. firm named Oxley. I don't know if they are in
> business any more.
>
> 73,
>
> John, K6QQ
> Alturas, CA

Hi, John,
thanks for the clear, concise, lucid explanation. For
years, I've wondered just what these magical gadgets were, why
they were difficult to get, and why they weren't used in more
homebrew designs.

Thanks,
Tom Donaly KA6RUH

992. Delcom 2m

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 17:36:52 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <OYqIS$ElAHA.273@cpmsnbbsa07>
Source record: 54787
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Delcome 2 m handheld is virtually identical to the ICOM IC-2AT but a bit more modern TT pad and a battery lock. Includes original battery case (empty) as well as a drop in type battery with a battery adapter and cable for charging. 4/.1 watts Fred 940-321-2029
fred-palmer@msn.com

993. Delcom

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 17:50:51 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <OG#cDHFIAHA.280@cpmsnbbsa07>
Source record: 54788
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Delcome 2 m handheld is virtually identical to the ICOM IC-2AT but a
bit more modern TT pad and a battery lock. Includes original battery case
(empty) as well as a drop in type battery with a battery adapter and cable
for charging. 4/.1 watts Fred 940-321-2029
fred-palmer@msn.com

994. Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 18:10:51 UTC
From: Alex Wiecek VE3GOP <alexwiecek@my-deja.com>
Message-ID: <966kj6avt1@nnrp1.deja.com>
Source record: 54790

Hi all, I've been trying to find some information on the effects of wire size in toroid inductors. Looking at the formula used to calculate the inductance of a toroid, it seems that the size is not even specified. Does that mean that I would get pretty much the same results whether I was to use #22 or #28 wire?

I'd appreciate any info..

73's Alex VE3GOP

Sent via Deja.com
http://www.deja.com/

995. Re: Rig Modification ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 18:12:42 UTC
From: goldreged@aol.comJUNKBLOK
Message-ID: <20010211131242.26070.00000451@ng-cd1.aol.com>
Source record: 54789

The Radio Shack rigs are generally non Moddable.... THat's why you never see a CB'er w/ a Rat Shack rig...
The RCI 2970 is a Great rig that works quite a few bands at 150W output & is reasonably priced.
http://www.rfwiz.com/
has them for aVERY reasonable price...
Try to beat his price, if you can.... He will beat the price by $10.
How can ya go wrong?
Ed G.
KB1DQX
(Please Remove "JUNKBLOK" to E-mail.
Unless it's a Flame.)

996. Re: AZ 11 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 19:23:27 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <969grselg1@news8.svr.pol.co.uk>
Source record: 54713
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

> I have now a good stock of the old rectifier valve AZ 11. They are all
> NOS and in mint condition. They are rebranded Haltron, but I guess
> they are made originally by Philips. The price is NOK 128.80 each or
> about US$ 14.60
==========
Unless you are desperate to keep equipment with this rectifying valve in its
original state, 2pcs 1N4007 or similar diode would be be an excellent
replacement ,costing peanuts ie < US$ 0.146

73 Frank gm0csz.kn6wh@ukrs.org

997. Re: Rig Modification ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 19:43:44 UTC
From: Alex Wiecek VE3GOP <alexwiecek@my-deja.com>
Message-ID: <966q1f$f68$1@nnrp1.deja.com>
Source record: 54793

I am only aware of three modifications to the unit but not what you'd be looking for. The one that comes the closest to your liking would be the transmit/receive lower limit expansion down to 26 MHz from 28.

73 Alex VE3GOP

In article <20010210125010.26087.00000296@ng-mo1.aol.com>, wb3egx@aol.com (WB3EGX) wrote:
> I am looking into the possibilities of modifying a Radio Shack 10 mtr rig
> to operate on a different Ham band. Is it possible and what would be required
> to move it to 12, 15 or ideally 20 mtrs?? NASA does not have me on their speed
> dial, but I do like to tinker with projects that show a glimmer of hope. 73's
> and Thanks
> Doug / WB3EGX
>

Sent via Deja.com
http://www.deja.com/

998. rci2950 still looking for mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 20:14:38 UTC
From: geokf4ucc@hotmail.com
Message-ID: <3a86ee23.2246431@netnews.worldnet.att.net>
Source record: 54794

I have probably the first ranger and I want know if it can do to
following;

Would like to get the freq range up past 29.7mhz so i can build a
transverter to 2 meters and use the RS satelite up link on 245.9 mhz.
The radio only has a jp1 and jp2 and moving them does not raise the
freqs to 30mhz and there is no cpu reset button like the posted mods
and there is no jp3 etc xx ok thanks/george

999. Re: Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 20:20:32 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <xtCh6.7026$sp6.2860@newsfeed.slurp.net>
Source record: 54796

Wire size doesn't change the inductance. It can change the Q due to the change in resistance. The change in resistance between #22 and #28 for the length of wire used in most applications will not have much affect.

1000. Re: Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 20:20:53 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A86F594.D1812012@att.net>
Source record: 54795

Alex,
My understanding is that wire size has little affect on inductance.
It is important in that it will affect how many turns you can get on a
given sized torroid. I would expect that there would be minor effects
on interwinding capacitance and Q. I typically use the largest wire
which will conveniently fit. This will provide the best mechanical
strength and highest Q, all else being the same.
73, Woody

Alex Wiecek VE3GOP wrote:
>
> Hi all, I've been trying to find some information on the effects of wire
> size in toroid inductors. Looking at the formula used to calculate the
> inductance of a toroid, it seems that the size is not even specified.
> Does that mean that I would get pretty much the same results whether
> I was to use #22 or #28 wire?
>
> I'd appreciate any info..
>
> 73's Alex VE3GOP
>
> Sent via Deja.com
> http://www.deja.com/

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1001. FS: AZ 11 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-11 20:31:24 UTC
From: arnoldg@sf.telia.no
Message-ID: <3a86f569.1593204@news.telia.no>
Source record: 54697
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I have now a good stock of the old rectifier valve AZ 11. They are all
NOS and in mint condition. They are rebranded Haltron, but I guess
they are made originally by Philips. The price is NOK 128.80 each or
about US$ 14.60

Regards,

Arnold Goks yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

1002. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 01:28:12 UTC
From: "Gerhard W. Hoffmann" <ghf@hochfrequenz.com>
Message-ID: <3A873C2C.A35583D2@hochfrequenz.com>
Source record: 54698

John Moriarity wrote:
>
> > My 1998 version of the ARRL Handbook has a schematic of G3PDM's
> > Vackar VFO. For temperature compensation it uses an Oxley
> > "Tempatrimmer." Does anyone know what this is, or how to get one?

> The "Tempatrimmer" is a differential capacitor with the rotor
> attached to a bi-metallic strip which moves as the temperature
> changes, like a thermostat. At a constant temperature, you can
> rotate the capacitor shaft without changing the total capacitance.
> Temperature change *will* change the effective capacitance.

The Sommerkamp/Yeasu FT505/FT500 had something similar 25 years ago:
a differential capacitor + 2 ceramic capacitors of same value but
different TK.

73, Gerhard

--
gerhard@hochfrequenz.com _____
on the air: DK4XP \ ________o________ | CECI N'EST PAS
in the air: D-1441 ______ --===== .]]]]|> UN PIPER
° `------`0'' |

1003. Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 02:43:41 UTC
From: LEE MIDDLETON <leemiddleton@home.com>
Message-ID: <x5Ih6.111465$KP3.30852064@news3.rdc1.on.home.com>
Source record: 54699
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I'm new to electronics and I am trying to build a small FM transmitter. The circut contains a 3-18 pF adjustable cap fo tuning. I can't seem to find any info on how these work. I assume that I turn what looks like a "screw head" inside, in order to change the capacitance. Does one turn cover the whole range, or many turns? Any information would be greatly apreciated

1004. Re: Good IF Amplifier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 02:52:14 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <ydIh6.4780$X61.330332@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54700

The best one that I have seen so far is the Phillips TDA1572. This is the one that is used in the AOR7030. The good thing about this chip is that it has an AM detector on board, along with its own AGC system. Another good thing is that the 1572 has a buffered 50 Ohm I.F. output, for feeding SSB detectors, etc.
Although it is touted as an AM receiver on a chip, the I.F. and demodulator portions are the most useful parts.
On a final note, I have been using this chip in my own receiver designs for a few years, with good results.

Pete Gianakopoulos
Chicago, Il.

baby HUey <na@na.na> wrote in message
news:PG0g6.44$D13.91534@nnrp2.sbc.net...
> Can anyone point me in the direction of a good IF Amp. I know the MC1350P is
> used quite a bit but is there anything else out there with much better
> performance (low noise, good gain)
>
> Thanks.
>
>

1005. Re: Improvements to my homebrew .3 - 30 MHz receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 03:15:41 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <xzlh6.4807$X61.332294@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54701

Nice job, Gary.

Pete

Gapershi <gapershi@aol.common> wrote in message
news:20010130200430.04734.00001577@ng-mp1.aol.com...
> This may be of interest to anyone who homebrews MF and HF receivers.
> For the past 3 or 4 years I have been working on my own design for a
> general coverage receiver. Recently I have made some improvments to
> my front end design. I have carefully documented the whole radio and
> placed it on a web site. I was able to extend the dynamic range an extra
20dB
> from what I had previously achieved. Also some minor tweaks have been
> added recently.
>
> I should mention that I am not a ham radio operator, but enjoy shortwave
and
> medium wave dxing. I have a background in electronics, (25 yrs) but I am
> not an engineer.
>
> My radio can be seen at this address:
>
> http://members.aol.com/gapershi/radio.htm
>
> If anyone knows of any homebrew HF radios with good documentation,
> I would be interested in seeing them.
>
> Thanks,
> Gary Pershin
> +++ You can lead a fool to reason, but you can't make him think! +++
> <Gapershi>

1006. Re: Murata Ceramic filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 03:17:23 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <7BIh6.4813$X61.331292@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54702

I have used these filters over the past few years. These are 4 element
ladder filters. They aren't too bad.

Pete Gianakopoulos
Chicago, Il.

Dale Parfitt <GTE/parinc@GTE.net> wrote in message
news:3A75E2A5.746368B3@GTE.net...
> Hi,
> Is anyone using the Murata CFU series of ceramic filters in homebrew HF
> receivers? I have collected a number of these over the years in 3 KHz
> 6dB BW.
> Their site indicates 6dB insertion loss and 2K in/out Z.
>
> Dale W4OP
>

1007. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 03:34:45 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A8759D5.21A97CFB@coqui.net>
Source record: 54703
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

LEE MIDDLETON wrote:
>
> I'm new to electronics and I am trying to build a small FM transmitter. The
> circut contains a 3-18 pF adjustable cap fo tuning. I can't seem to find
> any info on how these work. I assume that I turn what looks like a "screw
> head" inside, in order to change the capacitance. Does one turn cover the
> whole range, or many turns? Any information would be greatly apreciated

There's different types. If its the type that just continues
rotating with no stop, then the range 3-18 pf will be in 180
degrees of rotation. Lets say you're going clockwise, it will
increase from 3 to 18pf and as you pass the halfway point it will
start decreasing back to 3pf. If you cannot see the moving
plates, its hard to determine where max and min are.
A compression trimmer will have a screw that will usually
"tighten" if you go clockwise 6 or 8 turns. Thats max capacity.

Bill Meacham
Vieques, PR

1008. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 04:13:09 UTC
From: Michal K <k7michal@home.com>
Message-ID: <B6ACCC19.150B%k7michal@home.com>
Source record: 54704
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

HI Lee.

I think that the capacitor is probably one of those that you just turn it one in order to go from 3 to 18 pf. But just to be on the safe side you can do this little experiment to see if my theory is correct.

Hook up a 50 MEGA ohm resistor in series with the cap and attach it a 12 VAC voltage source. The esiest thing for the AC source is a transformer. If you can get a function generator and set the frequency higher then you could use a smaller value resistor, but the transformer is fine. Now, assuming the frequency of the transformer is at 60 Hz you should get these readings.

When the Cap is at 18 pF then the voltage drop across the resistor should be about 3.86 v. When the cap is at 3 pF then the voltage drop across the resistor should be 0.67 v. This way you will know when the 3 pF starts and when the 18 pF ends.

If you don't get the same values then remember that the higher the value of the cap the higher the voltege drope across the resistor.

> From: "LEE MIDDLETON" <leemiddleton@home.com>
> Organization: Excite@Home - The Leader in Broadband http://home.com/faster
> Newsgroups:
> alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.a
> mateur.homebrew,rec.radio.amateur.misc
> Date: Mon, 12 Feb 2001 02:43:41 GMT
> Subject: Newbie question on variable capacitors
>
> I'm new to electronics and I am trying to build a small FM transmitter. The
> circut contains a 3-18 pF adjustable cap fo tuning. I can't seem to find
> any info on how these work. I assume that I turn what looks like a "screw
> head" inside, in order to change the capacitance. Does one turn cover the
> whole range, or many turns? Any information would be greatly apreciated
>
>

1009. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 08:15:03 UTC
From: k3ky@erols.spamnocom
Message-ID: <968627qnj1@bob.news.rcn.net>
Source record: 54705

WB5DJE ended up using a Seiler type VFO in his 40 meter cw transceiver
in April 1980 Ham Radio Magazine. He wrote:
"I had an interesting experience with this VFO in the design stages.
I started with a Colpitts oscillator, which seemed to work very well.
However, when I keyed the transmitter it shifted by about 650 Hz.
After working on shielding and buffering, and still stuck with a 300
Hz shift, I threw it out and designed the Seilor, which, without any
shielding, shifts only about 25 HZ when the transmitter is keyed and
sounds as if it is crystal controlled."
I might add that I built my version of his circuit using a silicon
capacitance diode and a 10-turn pot for tuning, and mine sounds
rock-steady as well. Highly recommended. 73, David K3KY

In article <3a85a4c3.170053319@news.online.no>
la8ak@online.no (J M Noeding) wrote:

> On Sat, 10 Feb 2001 19:10:31 GMT, "Richard Karlquist" <rick@area.com>
> wrote:
>

> Vackar/Tezla and Seiler oscillator types are described in several
> notes and articles in CQ, QST, Radio Communication and other since the
> 50's.
> I prefer the Seiler type, because it seems to be easier to oscillate
> without too complex calculation, but it was sometimes strange when
> Tezla didn't oscillate.
> It was a very good article in the Danish magazine 'OZ' in 1957,
> describing forward conductance and calculation of maximum shunt
> capacitors, seems you could use a 6K7 valve with .01 capacitors from
> grid and anode to ground.
>
> For some applications it is no problem that the oscillation level
> varies, particularly if you feed the signal through a limiter and a
> schmidt trigger, then Clapp oscillator is favoured because of it's
> simplicity over the later types.
>
> 73, Jan-Martin
> LA8AK

1010. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 09:03:35 UTC
From: 'Doc <w5lz@oio.net>
Message-ID: <3A87A6E7.F5B8B806@oio.net>
Source record: 54706
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

LEE MIDDLETON wrote:
>
> I'm new to electronics and I am trying to build a small FM transmitter. The
> circut contains a 3-18 pF adjustable cap fo tuning. I can't seem to find
> any info on how these work. I assume that I turn what looks like a "screw
> head" inside, in order to change the capacitance. Does one turn cover the
> whole range, or many turns? Any information would be greatly apreciated

Lee,
Sounds like your talking about a 'trimmer' capacitor. If
so, then they usually have a multi-turn adjustment.
'Doc

1011. Re: Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 12:56:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A87DD7C.1A9DC8F6@eznec.com>
Source record: 54707

Wire size makes almost no difference in either inductance or Q of a toroid, within reason. "Within reason" means that hair-fine wire might noticeably lower the Q, and wire so large that it won't conform to the core can lower the inductance and Q a bit. If you've got access to old QST magazines, see "Choosing Wire Size for Toroidal Inductors", in Technical Correspondence, QST, April 1983, p. 39, for some measurements.

Roy Lewallen, W7EL

Alex Wiecek VE3GOP wrote:
>
> Hi all, I've been trying to find some information on the effects of wire
> size in toroid inductors. Looking at the formula used to calculate the
> inductance of a toroid, it seems that the size is not even specified.
> Does that mean that I would get pretty much the same results whether
> I was to use #22 or #28 wire?
>
> I'd appreciate any info..
>
> 73's Alex VE3GOP
>
> Sent via Deja.com
> http://www.deja.com/

1012. Re: Delcom

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 13:11:15 UTC
From: sefritts@bellsouth.net
Message-ID: <3a87e0ea.31772188@news.lig.bellsouth.net>
Source record: 54708
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

On Sun, 11 Feb 2001 11:50:51 -0600, "fred-palmer"
<fred-palmer@email.msn.com> wrote:

>Delcome 2 m handheld is virtually identical to the ICOM IC-2AT but a
>bit more modern TT pad and a battery lock. Includes original battery case
>(empty) as well as a drop in type battery with a battery adapter and cable
>for charging. 4/.1 watts Fred 940-321-2029
>fred-palmer@msn.com
>
>
hOW MUCH?

1013. Re: Repeater....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 13:13:47 UTC
From: sefritts@bellsouth.net
Message-ID: <3a87e172.31908137@news.lig.bellsouth.net>
Source record: 54709

On Fri, 9 Feb 2001 22:50:28 -0500, "Matt Lawrence"
<mattlawrence@snet.net> wrote:

>I once saw something like this on eBay but never since. Here is what I want
>to do (Build or buy). This device has an audio input, and a mic output
>(like a 4 or 5 pin) to go to another radio as a transmitter. So, what it
>does is this: Audio coming in through the audio input keys the mic circut
>and send the audio through it. So, I'd have the audio input coming from my
>scanner and the mic output connected to my Kenwood Mobile radio. When sound
>came from the scanner, it would transmit this sound over the mobile radio.
>I hope this makes sense. Anyway, what is this device called and is it easy
>to build? Or, where can I buy such a beast?
>
>Thanks,

I dont think you can retransmit that on Amateur freqs.
>Matt
>
>

1014. Re: Looking for cheap 1A op-amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 13:15:46 UTC
From: arm@helix.nih.gov
Message-ID: <6mRh6.98$SH2.28281@mencken.net.nih.gov>
Source record: 54710

Consider boosting the current output of a normal op amp
with a transistor in a emitter follower configuration.

Mike Silva (mjsilva@my-deja.com) wrote:
: Hi all,
:
: I'm looking for an op-amp with an output capability of about an amp.
: Nothing critical (well, needs to run on 12V), probably a TO-220
: package, and cheaper is better. The LM1875 looks good but too
: expensive and it needs 16V. Thanks for any ideas.
:
: 73,
: Mike, KK6GM
:
:
:
:
:
: Sent via Deja.com
: http://www.deja.com/

--

Andrew R. Mitz, Biomedical Engineer arm@helix.nih.gov
Laboratory of Systems Neuroscience
Section on Neurophysiology
National Institute of Mental Health
Bethesda, Maryland 20892-4401

1015. Inquiry - HW-101 - No time to play.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 18:40:31 UTC
From: Curtis Scholl <cscholl@izzy.net>
Message-ID: <3A882E1F.A5027CFC@izzy.net>
Source record: 54711

Hi Folks:

I want to sell my HW 101. I just don't have the time for rag chewing and QSL hunting anymore. I thought I had enough time, but I am more involved with amateur rocketry now and need the time for building tracking transmitters on the VHF/UHF bands.

The 101 is in good condition, works on all bands, 80-10 and may need some tuneup, but I haven't had many problems with it. It was modified by the previous owners by the addition of a power switch on the inside of the upper case, a push button on, push off, to replace a failed original pot switch.

This unit is a workhorse not a pristine vanity piece. And it has "character" in the form of a leg missing on the CW filter switch. The power supply is decent, and the power cable is a rebuild.

Does anyone out there have any desire to own this unit? Please reply by email to cscholl@izzy.net

Thanks

Curtis Scholl

1016. Re: Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 19:00:07 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A883265.172860D1@GTE.net>
Source record: 54712

Alex Wiecek VE3GOP wrote:

> Hi all, I've been trying to find some information on the effects of wire
> size in toroid inductors. Looking at the formula used to calculate the
> inductance of a toroid, it seems that the size is not even specified.
> Does that mean that I would get pretty much the same results whether
> I was to use #22 or #28 wire?
>
> I'd appreciate any info..
>
> 73's Alex VE3GOP
>
> Sent via Deja.com
> http://www.deja.com/

Hi Alex,

Contact Amidon and ask for their catalog- it will answer all of your
questions.
Dale W4OP

1017. FS: Portable "wind-up" multi-band Dipole's.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 20:52:08 UTC
From: ARS--KC8BCR@webtv.net
Message-ID: <16815-3A884CF8-29@storefull-136.iap.bryant.webtv.net>
Source record: 54715
Cross-posted to:
rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

After marketing our wind-up reel antenna for SWL's, several hams have approached us about manufacturing a DIPOLE model. So we've done just that and call it the "YoYo-Tenna Deluxe". We've taken two of our YoYo-Tenna wind-up antennas and combined them into a PL-259 coax fitting. You can add coax...or...just plug it straight into your rig or tuner! 40 ft. per reel, so operation is from 10 thru 40 meters. (One ham suggested "stacking" them...or running them in series to cover 75/80 and 160. I'll leave that up to you guys...) If you want to see what a single reel looks like, please visit our website. - http://qth.com/dwm - Remember, no shipping and handling will be charged on the Deluxe model since you are ordering two...and we give free shipping on two or more YoYo-Tennas. (Total cost - $29.90)

Thanks for your time and 73!

Bill - WA8MEA @ Jackson Co., Michigan QRP Club Station - KC8BCR
http://qth.com/dwm

1018. FA: Teledyne RF Relays

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 20:57:56 UTC
From: hsvtron <hsvtron@hotmail.com>
Message-ID: <3A884E54.3C6B932C@hotmail.com>
Source record: 54714
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Teledyne RF Relays 412t-26 (Set of 95)
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1214156775

Teledyne RF Relay 422D-26 (set of 2)
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1214170989

RF Relays HI-G JMAPT 26M & JMAPT-26XM (set)
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1214162475

1019. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 21:33:09 UTC
From: la8ak@online.no
Message-ID: <3a881608.330146479@news.online.no>
Source record: 54716

On Mon, 12 Feb 2001 02:28:12 +0100, "Gerhard W. Hoffmann"
<ghf@hochfrequenz.com> wrote:

>John Moriarity wrote:
>> =
>
>> > My 1998 version of the ARRL Handbook has a schematic of G3PDM's
>> > Vackar VFO. For temperature compensation it uses an Oxley
>> > "Tempatrimmer." Does anyone know what this is, or how to get one?
>
>> The "Tempatrimmer" is a differential capacitor with the rotor
>> attached to a bi-metallic strip which moves as the temperature
>> changes, like a thermostat. At a constant temperature, you can
>> rotate the capacitor shaft without changing the total capacitance.
>> Temperature change *will* change the effective capacitance.
>
>The Sommerkamp/Yeasu FT505/FT500 had something similar 25 years ago:
>a differential capacitor + 2 ceramic capacitors of same value but
>different TK.
>
>73, Gerhard

indeed, but don't expect European inventions to go to America!
Wasn't Yaesu/Sommerkamp rigs constructed in HB0?

73, Jan-Martin, LA8AK

1020. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 21:54:42 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <CYYh6.89406$B6.21526022@news1.rdc1.md.home.com>
Source record: 54717
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Sorry Doc! But every rig I have here now and have ever had - trimmers are
NOT multi turn.

"'Doc" <w5lz@oio.net> wrote in message
>
>
> LEE MIDDLETON wrote:
> >
> > I'm new to electronics and I am trying to build a small FM transmitter.
The
> > circut contains a 3-18 pF adjustable cap fo tuning. I can't seem to
find
> > any info on how these work. I assume that I turn what looks like a
"screw
> > head" inside, in order to change the capacitance. Does one turn cover
the
> > whole range, or many turns? Any information would be greatly apreciated
>
> Lee,
> Sounds like your talking about a 'trimmer' capacitor. If
> so, then they usually have a multi-turn adjustment.
> 'Doc

1021. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 22:15:20 UTC
From: 'Doc <w5lz@oio.net>
Message-ID: <3A886078.103BD5E4@oio.net>
Source record: 54718
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

B-Squared wrote:
>
> Sorry Doc! But every rig I have here now and have ever had - trimmers are
> NOT multi turn.
>

How about that. But there are multi-turn trimmer caps.
'Doc

1022. Re: rci2950 still looking for mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 23:00:12 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A886AFC.9140501B@grove.iup.edu>
Source record: 54720

http://www.rciweb.com/freemods.html

geokf4ucc@hotmail.com wrote:

> I have probably the first ranger and I want know if it can do to
> following;
>
> Would like to get the freq range up past 29.7mhz so i can build a
> transverter to 2 meters and use the RS satelite up link on 245.9 mhz.
> The radio only has a jp1 and jp2 and moving them does not raise the
> freqs to 30mhz and there is no cpu reset button like the posted mods
> and there is no jp3 etc xx ok thanks/george

1023. NEW SSTV SOFTWARE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 23:13:41 UTC
From: Dave deSouza <g3vfp@btinternet.com>
Message-ID: <969qt0$2hl$1@plutonium.btinternet.com>
Source record: 54721

Hi All.

Just to say that Mako JA3HHT has released his Alpha test versions of his new SSTV software called MM-SSTV. I have it on my download page if you are interested in having a play :-).

http://www.btinternet.com/~g3vfp

Cheers,

Dave G3VFP

1024. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-12 23:30:17 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <4bsg8t8cmdamnfg2carjo9ti65jqpv9m9h@4ax.com>
Source record: 54722
Cross-posted to:
alt.electronics,alt.electronics.analog,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"B-Squared" <rbethman@home.com>
shared these priceless pearls of wisdom:

->Sorry Doc! But every rig I have here now and have ever had - trimmers are
->NOT multi turn.

Most vintage and some notsovintage radios have the Arco mica trimmers in them
and they are all multiturn multiplate capacitors. As you get up into microwave,
the quality piston trimmers (JFD et al) are all multiturn.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1025. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 00:17:58 UTC
From: axolotl <kevin@shorecomp.com>
Message-ID: <3A887D35.140E14F@shorecomp.com>
Source record: 54723

The 1603 is a Z-Y admittance bridge generally used at UHF frequencies. It can provide vector measurements of impedance, slowly and painfully. The generator is a UHF signal generator. The detector can be a diode detector. You will then convert the admittance values (shown on the the lever position) to L and C impedance. They still work as well as they ever did. I've been looking for one to show my son how to do basic measurements (not pushing a button and having a number pop up).

Hope it helps

Kevin Gallimore

Nick Kennedy wrote:

> A ham in our club gave me a GR 1603A impedance bridge today.

1026. High performance 2m receiver - cavity filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 00:25:41 UTC
From: la8ak@online.no
Message-ID: <3a887bef.356237275@news.online.no>
Source record: 54724

LA6LCA is constructing a hgih performance 2m ssb transceiver using tunable 4 stage 4-5MHz IF BPF, 70MHz xtal filter on LO, doubled to 140MHz with no further amplification to feed the high-level diodemixer

I wonder if it is possible to do it the other way around using a super selective 2m tunable cavity filter tuning 144.000-144.500MHz segment

What sort of selectivity can be achieved with 2 stage og 2x 2stage RX filters? I could connect the BPF after the BFT66 pre-amp

Is any information available for possible 2m cavity filters on the web? My operation is mainly around 144.050 +/- 25kHz and 144.275 +/-50kHz, so a compromise filter could have 100-150kHz bandwidth but I would prefer a variable filter with minimum selectivity - provided temperature stability isn't too much problem

Is it impossible or can it be achieved?

73
Jan-Martin
LA8AK

1027. Re: Repeater....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 01:18:16 UTC
From: Chris <csnichol@netusa1.net>
Message-ID: <3A888B58.3755@netusa1.net>
Source record: 54719

Here's what I do. I have one of those 49mhz VOX operated headset units. I put it next to the scanner speaker. Then I can carry my handheld scanner around the the premises, tuned to the 49 Mhz freq and hear the remote scanner. Of course the usual antenna mods can be done to increase the range of the 49Mhz transmitter but in my case it is not necessary.

Chris

Steve Fritts wrote:
>
> On Fri, 9 Feb 2001 22:50:28 -0500, "Matt Lawrence"
> <mattlawrence@snet.net> wrote:
>
> >I once saw something like this on eBay but never since. Here is what I want
> >to do (Build or buy). This device has an audio input, and a mic output
> >(like a 4 or 5 pin) to go to another radio as a transmitter. So, what it
> >does is this: Audio coming in through the audio input keys the mic circut
> >and send the audio through it. So, I'd have the audio input coming from my
> >scanner and the mic output connected to my Kenwood Mobile radio. When sound
> >came from the scanner, it would transmit this sound over the mobile radio.
> >I hope this makes sense. Anyway, what is this device called and is it easy
> >to build? Or, where can I buy such a beast?
> >
> >Thanks,
>
> I dont think you can retransmit that on Amateur freqs.
> >Matt
> >
> >

1028. Re: FS Systron-Donner 4 GHz Frequency Counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 01:57:32 UTC
From: James Huffman <Jamesh@accessus.net>
Message-ID: <3A88948C.2E3C6F3@accessus.net>
Source record: 54725
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.equipment

interested, still got it.
jamesh

John Klewer wrote:

> I have for sale a Systron Donner counter model 6244A, compact size
> (approx 9"W x 3" H x 15" D) covers DC to 4 GHz (tested to over 5.5 GHz)
> and is one of their phase-locking counters. When you input a signal the
> counter acquires it a d displays it in less than a second!
>
> Counter has a built-in 10 MHz high-stability oven stabilized reference
> oscillator, is in extremely clean cosmetic condition and works on all
> ranges just as it should.
>
> I want $175.00 obo for the counter plus shipping from 92870
>
> Thanks
>
> John

1029. Re: Bottling with used twist off bottles

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 02:00:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A88953F.330245FD@eznec.com>
Source record: 54726
Cross-posted to: alt.beer,rec.crafts.brewing,rec.food.drink.beer,rec.radio.amateur.homebrew

It would be nice if folks responding to this would remove rec.radio.amateur.homebrew from the list of groups to post it to. Radio amateurs ("hams") call homebuilt equipment "homebrew", so the topic of that group is homebuilt radio equipment, not beermaking. Some hams do both kinds of homebrewing, for sure, but even they post their beermaking questions on other groups.

Thanks, and bon apetit!

Roy Lewallen, W7EL

hypnotism wrote:
>
> Hey yall.
> I was curious if anyone knew anything about bottling brew in glass bottles
> which have twist off caps. I have a bunch of Shiner Bock bottles which use
> the twist off caps, and i have a circular key chain that i can use to reseal
> caps on airtight (i tried with vinegar and baking soda). If i clean these
> out thoroughly and sanitize them, would they be ok to bottle in?
>
> If anyone has experience or insight, i would really really appreciate it.
>
> -latho

1030. Re: Newbie question on variable capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 03:15:42 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <96a8su$m3s$1@news.hawaii.edu>
Source record: 54727
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

B-Squared wrote:
>
>Sorry Doc! But every rig I have here now and have ever had - trimmers are
>NOT multi turn.

Unless they're compression trimmers. Then they are multi-turn.
73, Jeff KH6O

1031. Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 03:54:20 UTC
From: TC Dufresne <tdufres@radiks.net>
Message-ID: <zb2i6.832$2U3.300462@nntp1.onemain.com>
Source record: 54728

Hey all, just finished a homebrew receiver, all BC band only, but lots of fun. Some minor problems, can anyone help me? When I turn 'er on, it sounds like its way "overdriven". The 8 ohm speaker will click and pop like its being overdriven, then if I turn it WAY down, she'll be ok, but of course, the volume is practically nil! Some specifics... Homebrew (as mentioned) uses two UA 741 for amps, connected in series, two small transistors, a 2N3904 and a 2N3906, and some diodes and resistors. Really, that and a variable cap and coil of course, but that's about it! Where can I start? I thought maybe too much voltage or something so I tried decreasing V from 12V to 9V, same thing...Checked and re-checked all values of resistors... BTW, dunno where I found the schematic, but I designed a PCB for it. Was loads of fun..... Would be happy to send specifics or even schematic if you felt it would help..
Tom
KC0GXX

1032. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 05:50:08 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <kW3i6.89849$R5.3990994@news1.frmt1.sfba.home.com>
Source record: 54729

Anyone want to buy a GR 1602-B UHF admittance bridge?

Rick Karlquist N6RK
rick@area.com

axolotl <kevin@shorecomp.com> wrote in message
news:3A887D35.140E14F@shorecomp.com...
> The 1603 is a Z-Y admittance bridge generally used at UHF frequencies. It
can
> provide vector measurements of impedance, slowly and painfully. The
generator is
> a UHF signal generator. The detector can be a diode detector. You will
then
> convert the admittance values (shown on the the lever position) to L and C
> impedance. They still work as well as they ever did. I've been looking for
one
> to show my son how to do basic measurements (not pushing a button and
having a
> number pop up).
>
> Hope it helps
>
> Kevin Gallimore
>
> Nick Kennedy wrote:
>
> > A ham in our club gave me a GR 1603A impedance bridge today.
>

1033. ARRL 2m 25W Brick Amp for handhelds Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 07:20:09 UTC
From: David Johnson <djohnsn@home.com>
Message-ID: <3A88E0ED.12B1B081@home.com>
Source record: 54730

Hello,

I am considering building the 2m 25w Brick amp that is shown in "The ARRL Handbook 2000" on pg 13.44. The amp uses Toshiba's S-AV7 power module. I was wondering if anyone has built this amp., and what there experience with, and thoughts on it are.

Also, does anyone know where I can find the S-AV7?

TIA,

David Johnson
KD6EUH

1034. Re: High performance 2m receiver - cavity filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 07:46:13 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <p5mh8tgjsae9tnhgjhbv349vsnm9aalsgb@4ax.com>
Source record: 54731

On Tue, 13 Feb 2001 00:25:41 GMT, la8ak@online.no (J M Noeding) wrote:

>What sort of selectivity can be achieved with 2 stage og 2x 2stage RX
>filters? I could connect the BPF after the BFT66 pre-amp

According to some old (1994) brochures from Sinclabs, their
SBP-144-4N1 four cavity bandpass filter had a 1 MHz bandwidth with 2.1
dB passband attenuation (and thus usable only after a preamplifier :-)
and the response was down at -90 dB around 120 MHz and 153 MHz.

Cavity resonators usually have spurious responses at frequencies very
far away from the intended frequency f, typically at 3f or 5f, but
unfortunately none of the published graphs extended that far.

Apparently this is some miniature design, since the dimensions were
only 64 x 216 x 280 mm, while a full size 1/4 wave construction will
require about 500 mm.

Typical full size repeater cavities are usually configured as bandstop
filters, but apparently at least some could be configured as bandpass
cavities as well.

It would be desirable to have an as high unloaded Q as possible, since
the unloaded Q / loaded Q ratio determines the passband attenuation
and the loaded Q of course determines the passband width. Apparently
each of the four cavities in the example above, had a Qu/Ql ratio
around 15, thus the unloaded Q would have to be in the order of 1000
.. 2000 (it is a bit hard to estimate due to the interstage coupling
in a multiresonator design).

>
>Is any information available for possible 2m cavity filters on the
>web? My operation is mainly around 144.050 +/- 25kHz and 144.275
>+/-50kHz, so a compromise filter could have 100-150kHz bandwidth
>but I would prefer a variable filter with minimum selectivity -
>provided temperature stability isn't too much problem

Bury the resonators in the ground and the temperature will not vary
too rapidly :-).

Paul OH3LWR

1035. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 08:33:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A88F169.15D3819D@eznec.com>
Source record: 54732

I've got an otherwise pretty useless Icom R-1 wide coverage receiver I use as the detector. A diode or similar untuned detector is fine if you're working indoors on physically small items. But when you measure an antenna outdoors, your antenna is picking up all sorts of signals from TV and broadcast stations, paging transmitters, and the like unless you really live out in the sticks. The diode detector will merrily rectify these as well as the applied signal, giving you bad readings or a total inability to get a null. You have to use a tuned detector like a receiver to prevent this if received signals are a problem. If the interfering signals aren't too close to the frequency you're testing at, you can get by with a simple detector preceded with a tuned circuit, bandpass filter, trap, or whatever is necessary to separate them.

Some years back I rented a very expensive digital HP impedance meter for a consulting job. It was super on the bench, but just about useless trying to measure a vertical because of very strong AM BC reception. I ended up using a borrowed ancient tube type bridge that had a preselector ahead of the detector. The 1603A I have now works fine for antennas as long as I use the receiver as a detector (preceded if necessary by filters and/or attenuators -- the R-1 front end crunches very easily).

Roy Lewallen, W7EL

Nick Kennedy wrote:
>
> A ham in our club gave me a GR 1603A impedance bridge today. No manual.
>
> Anybody got any pointers on how to use the thing? I assume I need to hook
> an AF source to the "generator" terminals. The "unknown" terminals are
> pretty self-explanatory. And I'm not sure about the "detector" terminals.
> A diode detector and meter movement? Or oscilloscope?
>
> I wonder how useful this thing can be to the typical homebrewer that already
> has L & C measuring gizmos. Ought to fun to play with anyhow. Tips and
> resources appreciated.
>
> 73--Nick, WA5BDU

1036. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 09:20:51 UTC
From: Antun Lautar <antunl@rijeka.riteh.hr>
Message-ID: <Pine.GSO.4.20.0102131019120.4131-100000@rijeka.riteh.hr>
Source record: 54735

ok, send me schematic and I'll see what can be done..
73 de Toni / 9a6kgt

On Tue, 13 Feb 2001, TC Dufresne wrote:

> Hey all, just finished a homebrew receiver, all BC band only, but lots of
> fun. Some minor problems, can anyone help me? When I turn 'er on, it sounds
> like its way "overdriven". The 8 ohm speaker will click and pop like its
> being overdriven, then if I turn it WAY down, she'll be ok, but of course,
> the volume is practically nil! Some specifics... Homebrew (as mentioned)
> uses two UA 741 for amps, connected in series, two small transistors,
> a 2N3904 and a 2N3906, and some diodes and resistors. Really, that and a
> variable cap and coil of course, but that's about it! Where can I start? I
> thought maybe too much voltage or something so I tried decreasing V from 12V
> to 9V, same thing...Checked and re-checked all values of resistors...
> BTW, dunno where I found the schematic, but I designed a PCB for it. Was
> loads of fun..... Would be happy to send specifics or even schematic if you
> felt it would help..
> Tom
> KC0GXX
>
>
>
>
>

1037. Re: Smith Chart Programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 09:34:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A88FFB9.B199BBC4@eznec.com>
Source record: 54733

Tom Bruhns dropped me a note pointing out that the magnitude of the reflection coefficient can indeed be greater than one in passive circuits. Apparently Reg also mentioned this in a posting, which I didn't see or I overlooked. My apology for missing this.

I'm going to use rho to mean the magnitude of the reflection coefficient, not the complex reflection coefficient itself, here.

It turns out that the condition for rho to be greater than one at the load is simply R * R0 + X * X0 < 0 where R0 + jX0 is the transmission line characteristic impedance Z0, and R + jX is the load impedance Z. When doing analysis at HF and above, Z0 is almost always assumed to be purely real, because it is very nearly purely real for ordinary transmission lines. (An exception would be ones which are much lossier than would normally be considered for common uses.) When Z0 is purely real, X0 is by definition zero, so the only way that the condition for rho to be greater than one can be satisfied is for R to be negative. (Negative R0 could also do it, but this could surely never happen with a physical transmission line.) Consequently, it's common to assume, as I did, that the only way rho can be greater than one is for R to be negative, which can't happen in a purely passive circuit.

But when Z0 is complex, even slightly so, rho can indeed be greater than one, and it's easy to find combinations of Z0 and Z that'll make rho greater than one while maintaining positive R and R0.

Again, my apology to Reg for missing his reference to this, and my thanks to Tom for getting my attention and pointing it out to me.

Roy Lewallen, W7EL

Roy Lewallen wrote:
>
> You're correct that a circuit has to generate power to have a reflection
> coefficient greater than one. You'll encounter this negative resistance
> condition in some active circuits such as oscillators or amplifier
> inputs, where the Smith chart is also used. Also, in some phased arrays,
> one or more elements send power toward the source, so there's a negative
> resistance looking into the transmission lines to those elements from
> the source. The power is, of course, coupled from the other elements.
> For sure, though, you'll never see a reflection coefficient greater than
> one in a totally passive circuit.
>
> Roy Lewallen, W7EL
>
> "Craig A. Ferris" wrote:

> >
> > A reflection coefficient greater than 1??? When RC is equal to 1, ALL power
> > is reflected.
> > With a RC of 2.414, 5.8 times the power is reflected. Your transmission line
> > generates power.
> > You should patent it.
> >
> > 73,
> > Craig NR4E

1038. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 11:45:47 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <96ca6j$jc5$1@newsg4.svr.pol.co.uk>
Source record: 54744

> When I turn 'er on, it sounds
> like its way "overdriven". The 8 ohm speaker will click and pop like its
> being overdriven, then if I turn it WAY down, she'll be ok, but of course,
> the volume is practically nil! Some specifics... Homebrew (as mentioned)
> uses two UA 741 for amps, connected in series, two small transistors,
> a 2N3904 and a 2N3906, and some diodes and resistors. >
==========
2 Opamps in series ? What's their individual gain?
One opamp would be more than adequate even with reduced gain.
Suggest you try this first.

73 Frank gm0csz.kn6wh@ukrs.org

1039. Re: High performance 2m receiver - cavity filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 14:16:03 UTC
From: "Gerhard W. Hoffmann" <ghf@hochfrequenz.com>
Message-ID: <3A8941A3.73A88C62@hochfrequenz.com>
Source record: 54738

J M Noeding wrote:

> Is any information available for possible 2m cavity filters on the
> web? My operation is mainly around 144.050 +/- 25kHz and 144.275
> +/-50kHz, so a compromise filter could have 100-150kHz bandwidth
> but I would prefer a variable filter with minimum selectivity -
> provided temperature stability isn't too much problem
>
> Is it impossible or can it be achieved?

I think you read DUBUS, so you could use the crystal resonator
from my oscillator article in the nov 2000 issue.
Just rise the impedance level to get less attenuation and
wider bandwidth, although 150 KHz BW is probably a little bit too much.
7th overtone crystals should get you easily to 144 MHz.
I´m going to try that soon.

73, Gerhard dk4xp

1040. mrf406

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 14:27:14 UTC
From: koystravas dimitrios <sv2dsu@pigeon.ee.auth.gr>
Message-ID: <96bg74$14v$1@foo.grnet.gr>
Source record: 54734

hello out there..i want to make an AM linear for 500-1800 Khz and i have a
mrf406 but i can't find any schematic for this transistor.
maybe someone have any data or schematic about mrf406 ?
thank's a lot.

1041. Re: AZ 11 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 14:42:52 UTC
From: "George B. Shields, Jr." <george-shields@msn.com>
Message-ID: <esFTItclAHA.235@cpmsnbbsa07>
Source record: 54737
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Collectors of European equipment typically would prefer the original tube
and reserve the diodes for instances where the tube cannot be found.
Remember, with diodes you must always add power resistors in series to
compensate for the loss of forward dynamic resistance.

-George-

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
news:969grselg1@news8.svr.pol.co.uk...
> > I have now a good stock of the old rectifier valve AZ 11. They are all
> > NOS and in mint condition. They are rebranded Haltron, but I guess
> > they are made originally by Philips. The price is NOK 128.80 each or
> > about US$ 14.60
> ==========
> Unless you are desperate to keep equipment with this rectifying valve in
its
> original state, 2pcs 1N4007 or similar diode would be be an excellent
> replacement ,costing peanuts ie < US$ 0.146
>
> 73 Frank gm0csz.kn6wh@ukrs.org
>
>
>

1042. Re: Wire size in toroids

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 14:45:49 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <96bh8f$nc8$1@plutonium.btinternet.com>
Source record: 54736

Wire diameter has an insignificant effect on toroidal inductance.

It has a monor effect on self-capacitance and hence on the self-resonant frequency.

Thin wire has a higher loss resistance. When wire loss exceeds core loss a further reduction in wire diameter causes a decrease in Q. In most cases of close wound windings the ferrite core loss predominates.

Download program TOROID from website below. Amongst other things it calculates maximum wire diameter for given number of turns on a core of given dimensions.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Alex Wiecek VE3GOP <alexwiecek@my-deja.com> wrote in message news:966kj6avt1@nnrp1.deja.com...
> Hi all, I've been trying to find some information on the effects of wire
> size in toroid inductors. Looking at the formula used to calculate the
> inductance of a toroid, it seems that the size is not even specified.
> Does that mean that I would get pretty much the same results whether
> I was to use #22 or #28 wire?
>
> I'd appreciate any info..
>
> 73's Alex VE3GOP
>
>
> Sent via Deja.com
> http://www.deja.com/

1043. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 17:14:25 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <NTdi6.3$xe.104@news.inreach.com>
Source record: 54739

Tom:

When you have put so many hours into the construction of a device, and are having problems, you need to get someone else to look at it for you. I don't see any way to do that on the internet.

Do you have a ham friend who can check your circuit board layout and wiring? If so, he/she may see something that you are not.

On the assumption that the original design was technically sound, there are only a few possibilities:

1. You have an error in circuit board design
2. You have a bad component
3. You installed a component (or components) in the wrong place

The fact that it is at least partially working means you probably only have one of the above problems.

I am sure you have checked and rechecked everything several times, but a fresh look by someone else can do wonders. (Don't ask me how I know this.)

Good luck,

Roger K6XQ

1044. Re: Portable "wind-up" multi-band Dipole's.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 17:51:49 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC8072AEAF0@www.premiersi.com>
Source record: 54740
Cross-posted to:
rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Careful - "Yo-Yo" is a trademark.

"Bill" <ARS--KC8BCR@webtv.net> wrote in message
news:16815-3A884CF8-29@storefull-136.iap.bryant.webtv.net...
> After marketing our wind-up reel antenna for SWL's, several hams have
> approached us about manufacturing a DIPOLE model. So we've done just
> that and call it the "YoYo-Tenna Deluxe". We've taken two of our
> YoYo-Tenna wind-up antennas and combined them into a PL-259 coax
> fitting. You can add coax...or...just plug it straight into your rig or
> tuner! 40 ft. per reel, so operation is from 10 thru 40 meters. (One ham
> suggested "stacking" them...or running them in series to cover 75/80 and
> 160. I'll leave that up to you guys...) If you want to see what a single
> reel looks like, please visit our website. - http://qth.com/dwm -
> Remember, no shipping and handling will be charged on the Deluxe model
> since you are ordering two...and we give free shipping on two or more
> YoYo-Tennas. (Total cost - $29.90)
>
> Thanks for your time and 73!
>
> Bill - WA8MEA @ Jackson Co., Michigan QRP Club Station - KC8BCR
> http://qth.com/dwm

1045. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 21:15:00 UTC
From: la8ak@online.no
Message-ID: <3a887fc2.357217079@news.online.no>
Source record: 54741

On Mon, 12 Feb 2001 19:17:58 -0500, axolotl <kevin@shorecomp.com>
wrote:

>The 1603 is a Z-Y admittance bridge generally used at UHF frequencies. It can
>provide vector measurements of impedance, slowly and painfully. The generator is
>a UHF signal generator. The detector can be a diode detector. You will then
>convert the admittance values (shown on the the lever position) to L and C
>impedance. They still work as well as they ever did. I've been looking for one
>to show my son how to do basic measurements (not pushing a button and having a
>number pop up).
>
>Hope it helps
>
>Kevin Gallimore
>
>Nick Kennedy wrote:
>
>> A ham in our club gave me a GR 1603A impedance bridge today.
>
seems the diode detector in my instrument is defective. The manual
doesn't show how it is arranged, does somebody have any info on this?

73
Jan-Martin
LA8AK

1046. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 21:20:13 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3A89A50D.F8F09B68@neicoltech.org>
Source record: 54742

TC Dufresne wrote:

> Hey all, just finished a homebrew receiver, all BC band only, but lots of
> fun. Some minor problems, can anyone help me? When I turn 'er on, it sounds
> like its way "overdriven". The 8 ohm speaker will click and pop like its
> being overdriven, then if I turn it WAY down, she'll be ok, but of course,
> the volume is practically nil!

Hmmmmm. Symptoms sound like the audio section is 'motorboating'. If so,
find the circuit that feeds the speaker (I assume its one of the 741s) locate
the pin(s) that supply power, break connection, insert a 10 to 100 Ohm resistor
in series, and a 1 to 50 uF cap on the supply pin to ground. Ideally this
should be a tantalum cap, but an electrolytic may do. Post if there is any
change in performance. Also, if you post me a skez, I could better assist.

73 es gud luk

Bob L. WB0POQ

1047. Re: ARRL 2m 25W Brick Amp for handhelds Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 21:27:54 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn98j9mp.sjo.QSB@animas.frontier.net>
Source record: 54743

On Tue, 13 Feb 2001 07:20:09 GMT, David Johnson scribbled:
>
>Also, does anyone know where I can find the S-AV7?

http://www.rfparts.com/module.html about 2/3rd's of the way down.

HTH es 73,
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

1048. Re: mrf406

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 22:38:50 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A89B77A.906EEFDB@dialpoint.net>
Source record: 54745

The 406 is good for 20 watts PEP from 2 to 30 mhz with 12.5 volts on the collector. Has 12 db of gain. Max voltage 20. Collector current 4.0 amps dc.

koystravas dimitrios wrote:
>
> hello out there..i want to make an AM linear for 500-1800 Khz and i have a
> mrf406 but i can't find any schematic for this transistor.
> maybe someone have any data or schematic about mrf406 ?
> thank's a lot.

1049. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-13 23:12:53 UTC
From: axolotl <kevin@shorecomp.com>
Message-ID: <3A89BF74.C4D5701B@shorecomp.com>
Source record: 54746

I'm interested. Please send price, condition, and location. Thanks.

Kevin Gallimore

Richard Karlquist wrote:

> Anyone want to buy a GR 1602-B UHF admittance bridge?
>
> Rick Karlquist N6RK
> >

1050. DSP IF or Analog?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 00:24:55 UTC
From: baby HUey <na@na.na>
Message-ID: <l7ki6.91$fm6.65151@nnrp3.sbc.net>
Source record: 54597

I'd like to understand the pro's and con's as well as ideas on this. I am working on the design of an HF receiver for AM, SSB, CW. I am thinking about heading down the IF DSP for flexibility etc. I'd like to hear opinions as well as design considerations for such over standard analog implementations.

Thanks in advance...

1051. help, need info on plate curve computations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 00:40:49 UTC
From: hexter@blazenet.net
Message-ID: <t8jl0hlu1aef6c@corp.supernews.com>
Source record: 54598

I must be missing something,

Years ago, and even a few months ago, I have built some differant styles of amplifiers. Some rf, some af, a few watts, to a few hundred watts, and my question is this,

What good are constant current curves? I use and understand the transconductance curves with plate voltage at the bottom, and plate current up the side, but geez, when I get spec sheets from svetlana, or eimac, they are the 'constant plate current curves'. I see no easy way to plot a load line, or make any useful calculations to determine voltage swings in the load, etc.

Should i ask for a differant curve sheet? Do they still use transconductance curves for design? Why the big interest in 'constant current curves' anyway?

I thank you for any help that is given. Post to the group as
1 my addy is totally bogus to foul spammers,
2 probably, others want to know this answer also.

TNX and 73

1052. Re: DSP IF or Analog?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 00:52:57 UTC
From: Piotr Balcerzak <bpiotrek@yahoo.com>
Message-ID: <JFki6.243234$JT5.8682722@news20.bellglobal.com>
Source record: 54599

Pros:
1. easy to modify (most of the receiver circuits are implemented in
software)
2. repeatability of performance (doesn't make any difference for one-time
construction)
3. very sharp IF filters with decent phase and attenuation characteristics
3. decent detectors (AM, SSB, sync AM)
4. programmable AGC action
5. auto notch
6. "denoiser"
7. additional features (RTTY, SSTV, etc... decoders)

Cons:
1. DSP requires mathematics, mathematics and mathematics
2. AGC range limited only to 40-50 dB assuming 16bit ADC (remaining
50dB must be implemented in analog way)
3. hard to remove hum (a huge work on proper wireing and shielding)
4. more mathematics skils required to write good software

As for DSP absolute basic skils required are: binary arithmetics,
precission, etc...,
FIR/IIR filters synthesis, Fourier transform, "Z" transform, scaling
techniques in
frequency and time domains, PID loops, trigonometric functions and how they
describe signal mixing. And deep understanding of how radio blocks work
(mixer,
noise limiter, detector, etc.). And how to connect digital and analog
circuits altogether
avoiding noises. (Look at NRD545 and its screwed up IF filter and very
"peculiar"
work of tone control. Then look at WJ HF1000 specs...)

Anyway, DSP is well worth to try. If I wanted to build HF receiver I would
very likely choose DSP.

Good luck with your project!
Piotr

baby HUey <na@na.na> wrote in message
news:l7ki6.91$fm6.65151@nnrp3.sbc.net...
> I'd like to understand the pro's and con's as well as ideas on this. I am
> working on the design of an HF receiver for AM, SSB, CW. I am thinking
about
> heading down the IF DSP for flexibility etc. I'd like to hear opinions as
> well as design considerations for such over standard analog
implementations.

>
> Thanks in advance...
>
>

1053. Re: help, need info on plate curve computations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 00:56:39 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3A89D7C7.AC254A7E@mc.net>
Source record: 54600

If you do any GG Triode Amps then my freeware program
TAP 2.0 may be of help.

See: http://sites.netscape.net/kd9jq/hamradio/TAP.html

73 Chuck KD9JQ

gudmundur wrote:

> I must be missing something,
>
> Years ago, and even a few months ago, I have built some differant
> styles of amplifiers. Some rf, some af, a few watts, to a few hundred
> watts, and my question is this,
>
> What good are constant current curves? I use and understand the
> transconductance curves with plate voltage at the bottom, and
> plate current up the side, but geez, when I get spec sheets from
> svetlana, or eimac, they are the 'constant plate current curves'.
> I see no easy way to plot a load line, or make any useful calculations
> to determine voltage swings in the load, etc.
>
> Should i ask for a differant curve sheet? Do they still use
> transconductance curves for design? Why the big interest in 'constant
> current curves' anyway?
>
> I thank you for any help that is given. Post to the group as
> 1 my addy is totally bogus to foul spammers,
> 2 probably, others want to know this answer also.
>
> TNX and 73

1054. Re: PCB Software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 01:10:21 UTC
From: gapershi@aol.common
Message-ID: <20010213201021.13018.00000070@ng-fr1.aol.com>
Source record: 54601

Try Express PCB. it's free and easy to learn.
http://www.expresspcb.com/

Gary
+++ You can lead a fool to reason, but you can't make him think! +++
<Gapershi>

1055. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 01:14:12 UTC
From: Nick Kennedy <nkennedy@tcainternet.com>
Message-ID: <t8jmtvneffuu03@corp.supernews.com>
Source record: 54602

Hmmm ... thanks for feedback Keven (and other posters). But now I'm confused at a higher level. I would have thought for sure that it was for use at audio frequencies. The input is labeled "Operating frequency 0.020 to 20 kcs" and some switches labeled "for direct reading" select 0.1 kc, 1.0 kc and 10 kc.

I looked inside. Some mica caps and ceramic trimmers, but also several big (2 in diameter by 3 in long or so) electrolytics. I think these oil filled caps may have done a bit of seeping. Which makes me wonder--if I should have to replace them, would the replacements have to be precision types. (Never heard of a precision electrolytic or oil filled cap.) I guess if that's the case I'd better stop while I'm ahead.

73--Nick, WA5BDU

"axolotl" <kevin@shorecomp.com> wrote in message news:3A887D35.140E14F@shorecomp.com...
> The 1603 is a Z-Y admittance bridge generally used at UHF frequencies. It can
> provide vector measurements of impedance, slowly and painfully. The generator is
> a UHF signal generator. The detector can be a diode detector. You will then
> convert the admittance values (shown on the the lever position) to L and C
> impedance. They still work as well as they ever did. I've been looking for one
> to show my son how to do basic measurements (not pushing a button and having a
> number pop up).
>
> Hope it helps
>
> Kevin Gallimore
>
> Nick Kennedy wrote:
>
> > A ham in our club gave me a GR 1603A impedance bridge today.
>

1056. Class A,AB1,AB2,C RF Power Amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 01:18:37 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <96cmav$qq1$1@neptunium.btinternet.com>
Source record: 54603

NOW AVAILABLE :

New Program "TETRODE1.exe"

CLASS A, AB1, AB2, C OPERATION OF TETRODE RF PA's

Obtain a minumum of info from a tube (beam tetrode or pentode) manufacturer's data sheets or curves. Enter in program with DC anode supply volts, DC screen volts, minimum anode volts, maximum control grid volts, required operating angle, intrinsic Q of tank coil, required working Q of tank circuit, frequency.

A useful feature of this program is direct entry by the user of the anode current operating angle. This angle controls the various combinations of linearity and efficiency.

An important data entry item is the control-grid to screen-grid amplification factor, Mu. If the manufacturer's value is not available it can be guesstimated by varying it until other characteristcs become compatible with what info there is available.

The program computes RF power output, anode loss, screen grid loss, tank coil loss, DC-RF power conversion efficiency, peak and DC anode current, DC screen current.

Also tank inductance, tuning capacitance, turns ratio for link winding to 50-ohm load, source impedance looking back into 50-ohm output terminals. Note that a congugate match does not exist at this point.

Grid circuit conditions are computed:- peak RF drive voltage, negative DC grid bias, input impedance, drive power, DC grid current, grid bias resistor, grid current operating angle, grid dissipation.

Covers power outputs from QRP to 100KW.

Push your own precious and delicate linear up to and beyond its safe working limits without any fear of accidentally blowing it up.

Highly educational even if you never use this program in anger.

Download in a few seconds from website below. 52 kilobytes, 1 file only, not zipped up, run immediately.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

1057. looking for INFORMATION on Toroid cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 01:18:53 UTC
From: antacid@ksanmail.com
Message-ID: <96cmdt0alb@drn.newsguy.com>
Source record: 54605

Greetings all

I notice that in the surplus Toroids that are available the cors are painted colors probably to identify characteristics. Is there any INFORMATION available to identify the colors as to what characteristics each color may have?
Also I have one core with numbers "A 050056-2 BH4+5" any help at decoding this?
Can anyone point me in the right direction to find INFORMATION? or?

color me curious.....

& Thanks

<ant>

1058. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 02:18:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A89EB0F.FC0F4090@eznec.com>
Source record: 54604

Aargh! Cancel my last transmission!

My meter is a 1606A, not a 1603A. I apologize!

Roy Lewallen, W7EL

Nick Kennedy wrote:
>
> Hmmm ... thanks for feedback Keven (and other posters). But now I'm
> confused at a higher level. I would have thought for sure that it was for
> use at audio frequencies. The input is labeled "Operating frequency 0.020
> to 20 kcs" and some switches labeled "for direct reading" select 0.1 kc, 1.0
> kc and 10 kc.
>
> I looked inside. Some mica caps and ceramic trimmers, but also several big
> (2 in diameter by 3 in long or so) electrolytics. I think these oil filled
> caps may have done a bit of seeping. Which makes me wonder--if I should
> have to replace them, would the replacements have to be precision types.
> (Never heard of a precision electrolytic or oil filled cap.) I guess if
> that's the case I'd better stop while I'm ahead.
>
> 73--Nick, WA5BDU

1059. Re: General Radio 1603A impedance bridge info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 03:23:25 UTC
From: axolotl <kevin@shorecomp.com>
Message-ID: <3A89FA2D.440AD349@shorecomp.com>
Source record: 54606

I confused you. My only excuse is that I'm brain dead and home enjoying a virus. The 160_2_ is the admittance bridge. The 1603 is an audio bridge.(you knew that) GR sold a null detector to indicate the bridge balance (1232A- I cheated and looked it up). The catalog says the detector has a gain of 120 dB and 0.1V sensitivity. My apologies. I'll try to get a better drug mix.

Kevin Gallimore

Nick Kennedy wrote:

> Hmmm ... thanks for feedback Keven (and other posters). But now I'm
> confused at a higher level. I would have thought for sure that it was for
> use at audio frequencies. The input is labeled "Operating frequency 0.020
> to 20 kcs" and some switches labeled "for direct reading" select 0.1 kc, 1.0
> kc and 10 kc.
>
> I looked inside. Some mica caps and ceramic trimmers, but also several big
> (2 in diameter by 3 in long or so) electrolytics. I think these oil filled
> caps may have done a bit of seeping. Which makes me wonder--if I should
> have to replace them, would the replacements have to be precision types.
> (Never heard of a precision electrolytic or oil filled cap.) I guess if
> that's the case I'd better stop while I'm ahead.
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> 73--Nick, WA5BDU
>
> "axolotl" <kevin@shorecomp.com> wrote in message
> news:3A887D35.140E14F@shorecomp.com...
> > The 1603 is a Z-Y admittance bridge generally used at UHF frequencies. It
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> > provide vector measurements of impedance, slowly and painfully. The
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> then
> > convert the admittance values (shown on the the lever position) to L and C
> > impedance. They still work as well as they ever did. I've been looking for
> one
> > to show my son how to do basic measurements (not pushing a button and
> having a
> > number pop up).
> >
> > Hope it helps
> >
> > Kevin Gallimore
> >
> > Nick Kennedy wrote:

> >
> > > A ham in our club gave me a GR 1603A impedance bridge today.
> >

1060. Re: AZ 11 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 06:59:29 UTC
From: Stein-Olav Lund <Stein.O.Lund@iet.hist.no>
Message-ID: <3A8A2CD1.38CF45CC@iet.hist.no>
Source record: 54607
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

"George B. Shields, Jr." wrote:

> Collectors of European equipment typically would prefer the original tube
> and reserve the diodes for instances where the tube cannot be found.

Depends totally on the equipment :-)
If it's a late-sixties home-brew receiver made up of parts from a large period

of time I probably would do this to free special parts for another project.

Stein

> > Unless you are desperate to keep equipment with this rectifying valve in
> its
> > original state, 2pcs 1N4007 or similar diode would be be an excellent
> > replacement ,costing peanuts ie < US$ 0.146

1061. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 08:01:18 UTC
From: davem@cs.ubc.ca
Message-ID: <96de0entu1@lily.cs.ubc.ca>
Source record: 54608

"Barry L. Ornitz" <ornitz@usa.net> writes:

>Commercial water-cooled transmitting tubes use distilled and deionized
>water. It is normal to include continuous conductivity measurement devices
>to monitor the water for a buildup of conductive contaminants.

Interestingly, this is also what's used to cool the 15 kW arc lamps found in the larger IMAX film projectors. The lamps produce the arc between two tungsten electrodes in a xenon atmosphere (probably along with other gases). The electrodes extend many inches into the bulb, and there are water cooling passages inside the electrodes. Changing a lamp involves plumbing as well as electrical connections.

Since the water is in direct contact with the metal of both electrodes of the lamp, and there's only one cooling water circuit, if the water had any significant conductivity it would provide a current flow path that would bypass the lamp. Not that anyone is worried about diverting much current from the lamp (it runs at something like 200 A), but much current flowing through the water could cause a lot of corrosion.

In addition to the lamp, there are other water-cooled parts. There are two beam-folding mirrors which are "cold mirrors" - they reflect visible light but infrared goes through the mirror into an aluminum backing plate, which is water-cooled. And the shutter that blocks the light from the film while the projector is not up to speed is also water-cooled.

Dave

1062. Re: DSP IF or Analog?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 14:04:21 UTC
From: baby HUey <na@na.na>
Message-ID: <A7wi6.296$ji.11810@nnrp1.sbc.net>
Source record: 54609

Thanks for the heads up Piotr.

"Piotr Balcerzak" <bpiotrek@yahoo.com> wrote in message
news:JFki6.243234$JT5.8682722@news20.bellglobal.com...
> Pros:
> 1. easy to modify (most of the receiver circuits are implemented in
> software)
> 2. repeatability of performance (doesn't make any difference for one-time
> construction)
> 3. very sharp IF filters with decent phase and attenuation characteristics
> 3. decent detectors (AM, SSB, sync AM)
> 4. programmable AGC action
> 5. auto notch
> 6. "denoiser"
> 7. additional features (RTTY, SSTV, etc... decoders)
>
> Cons:
> 1. DSP requires mathematics, mathematics and mathematics
> 2. AGC range limited only to 40-50 dB assuming 16bit ADC (remaining
> 50dB must be implemented in analog way)
> 3. hard to remove hum (a huge work on proper wireing and shielding)
> 4. more mathematics skils required to write good software
>
> As for DSP absolute basic skils required are: binary arithmetics,
> precission, etc...,
> FIR/IIR filters synthesis, Fourier transform, "Z" transform, scaling
> techniques in
> frequency and time domains, PID loops, trigonometric functions and how
they
> describe signal mixing. And deep understanding of how radio blocks work
> (mixer,
> noise limiter, detector, etc.). And how to connect digital and analog
> circuits altogether
> avoiding noises. (Look at NRD545 and its screwed up IF filter and very
> "peculiar"
> work of tone control. Then look at WJ HF1000 specs...)
>
> Anyway, DSP is well worth to try. If I wanted to build HF receiver I would
> very likely choose DSP.
>
> Good luck with your project!
> Piotr
>
> baby HUey <na@na.na> wrote in message

> news:l7ki6.91$fm6.65151@nnrp3.sbc.net...
> > I'd like to understand the pro's and con's as well as ideas on this. I
am
> > working on the design of an HF receiver for AM, SSB, CW. I am thinking
> about
> > heading down the IF DSP for flexibility etc. I'd like to hear opinions
as
> > well as design considerations for such over standard analog
> implementations.
> >
> > Thanks in advance...
> >
> >
>
>
>

1063. KD9JQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 14:29:03 UTC
From: brian@robinsonb5.fsnet.co.uk
Message-ID: <96e4hq$sb0$1@newsg4.svr.pol.co.uk>
Source record: 54610

Are you out there?

If so please contact me, interested in your TX/RX design.

Brian G4OZA

1064. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 15:32:52 UTC
From: w4pqwhs@aol.com
Message-ID: <20010214103252.17657.00001036@ng-da1.aol.com>
Source record: 54611

Tom, you failed to mention if it is TRF,regen,hetrodyne or what...it is probably TRF, in that case you could have a mistake or fault in the rf amp section which would give you weak rf and you would need excessive audio to hear the signals at all .if the audio works you need to look at front end only ,OK good luck.. Harold W4PQW

1065. Re: KD9JQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 16:33:03 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3A8AB33F.45E25932@mc.net>
Source record: 54612

Brian,

mailto:kd9jq@mc.net

Chuck KD9JQ

http://sites.netscape.net/kd9jq/hamradio/kd9jq.html

brian@robinsonb5.fsnet.co.uk wrote:

> Are you out there?
>
> If so please contact me, interested in your TX/RX design.
>
> Brian G4OZA

1066. Re: mrf406

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 17:09:12 UTC
From: koystravas dimitrios <sv2dsu@pigeon.ee.auth.gr>
Message-ID: <96ee2p$30c$1@foo.grnet.gr>
Source record: 54613

1067. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 21:33:46 UTC
From: wollnik@purdue.mw.cray.com
Message-ID: <slrn98ludq.ht8.wollnik@ector.cs.purdue.edu>
Source record: 54614

>As for Cray, I think the co. went under or got bought out a while ago.
>
>If you search for "Cray supercomputer display" you may find something -
>I remember reading of a co. that kept one for show. Yet I'd be
>surprised if none at all were in use.
>
>I think they do have display value. They had a radial layout aimed at
>keeping wiring short that gave them a sci-fi look. Some had windows and
>lights on their sides, and you supposedly could see the coolant bubble
>away.

I just feel a need to support my own company here, i.e. I work for Cray Inc.
They're still around and still selling quite a few machines.
They do look interesting although the older models had more visual appeal IMHO.
Fluorinert (sp?) is still the standard liquid used in our liquid cooled
machines as far as I know.
Newer machines have lost the semi-circle layout and look alot more like
a collection of boxes. Cool boxes though :)

Enough babbling from me now. If you want to know more, go to www.cray.com.

Matt

--
Matthias Wollnik
email: wollnik@purdue.edu
pgp: finger wollnik@cs.purdue.edu

1068. Re: looking for INFORMATION on Toroid cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 22:52:18 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <96f29h024jf@news1.newsguy.com>
Source record: 54617

ant

The bad news - iron powder toroids are painted to indicate the mix, and hence the permeability and frequency range, but there is no standard. Most of the toroids in amateur radio use come from Amidon, and they have 2 color schemes, one for amateurs and one for industrial use. Ferrite toroids aren't painted at all.

If the ferrites were scrounged from some equipment manufacturer's inventory, there is a good chance the numbers you have are from that manufacturer, and maybe even the colors.

If the toroids you have are mostly red and yellow, there is a good chance that they are from ham radio stock and are probably -2's and -6's. White (-7) is also fairly common. Other colors are rarely used in amateur radio service.

The good news is that it's not too hard to measure the permeability. Simply put say 10 turns around the thing, put it in series with a resistor or cap, apply a few volts of RF across it, and measure the RF drop across the toroid and the other component. You now know the reactance, and hence the inductance. Unfortunately, this doesn't tell you the loss. Toroids have useful frequency ranges, too. Outside that range they tend to get lossy. The -2's are good from 2-30MHz, although they are generally used only below 10. They have a higher permeability than the others, and at the lower frequencies you are generally looking for more inductance. The -6's are good from 10-50. The -7's from 3-35. The -7's have a better temperature coefficient than the others so they tend to be used in VFOs.

The ferrites are all a shiny black and can't be told apart by eye. They have a much higher permeability than the powdered iron ones. In general, they are only used in resonant circuits at very low frequencies, most are only good below 1MHz. However, in transformer service, they aren't so frequency sensitive, so you find them in chokes and transformers.

Oh, the handbook is the reference for hams, but the Palomar Engineers web page has the colors for those intended for ham service. But for 99% of the powdered iron toroids used in amateur radio service, there's not much to know:

freq u ppm/degC
Red -2 2-30 10 95
Yellow -6 10-50 8 35
White -7 3-35 9 30

hope this helps

didleydadidah

<antacid@ksanmail.com> wrote in message news:96cmdt0alb@drn.newsguy.com...
> Greetings all
>
> I notice that in the surplus Toroids that are available the cors are
painted
> colors probably to identify characteristics. Is there any INFORMATION
available
> to identify the colors as to what characteristics each color may have?
> Also I have one core with numbers "A 050056-2 BH4+5" any help at decoding
this?
> Can anyone point me in the right direction to find INFORMATION? or?
>
> color me curious.....
>
> & Thanks
>
> <ant>
>

1069. TS830S rit/xit enhanced range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 22:58:38 UTC
From: hf6v <Morse.Key@btinternet.com>
Message-ID: <96f2j7$f0i$1@neptunium.btinternet.com>
Source record: 54616

Is it possible to extend the range of the rit/xit on the TS830, I assume the range is dictated by the characteristic of the varactor/varicap diode and the pot. It would be great to be able to increase the swing to +/- 5kHz.... any thoughts pls?

1070. Re: tube liquid cooling: the luquid!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-14 23:03:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A8B0ED4.8A1A6B39@eznec.com>
Source record: 54615

"60 Minutes II" had a feature last night about the NSA. Inside one of
their facilities was a bunch of computers, and a closeup of one clearly
showed the Cray logo.

Roy Lewallen, W7EL

Matthias Wollnik wrote:
>
> >As for Cray, I think the co. went under or got bought out a while ago.
> >
> >If you search for "Cray supercomputer display" you may find something -
> >I remember reading of a co. that kept one for show. Yet I'd be
> >surprised if none at all were in use.
> >
> >I think they do have display value. They had a radial layout aimed at
> >keeping wiring short that gave them a sci-fi look. Some had windows and
> >lights on their sides, and you supposedly could see the coolant bubble
> >away.
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> I just feel a need to support my own company here, i.e. I work for Cray Inc.
> They're still around and still selling quite a few machines.
> They do look interesting although the older models had more visual appeal IMHO.
> Fluorinert (sp?) is still the standard liquid used in our liquid cooled
> machines as far as I know.
> Newer machines have lost the semi-circle layout and look alot more like
> a collection of boxes. Cool boxes though :)
>
> Enough babbling from me now. If you want to know more, go to www.cray.com.
>
> Matt
>
> --
> Matthias Wollnik
> email: wollnik@purdue.edu
> pgp: finger wollnik@cs.purdue.edu

1071. PSK-31 On A TS-450 Under Computer Control?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 02:59:42 UTC
From: n5kzw@iname.com
Message-ID: <3a8b43be.13512315@news.infohwy.com>
Source record: 54618
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

I would like to operate some of the digital modes on a TS-450S while at the same time having the computer in control of the rig. YPLog appears to support this, but I'm having trouble with the I/F.

I built up the soundcard I/F using isolation transformers and an opto-isolator to connect the rig and the computer through the 13-pin DIN connector and the serial port. The I/F works as advertised.

I also bought the W1GEE I/F to control the rig from the computer, and it also works as advertised.

The problem is that I want to use both of them at the same time.

The PSK-31 I/F wants to use RTS or DTR to key the transmitter, but the W1GEE uses both of these signals when talking to the rig. Also, the PSK-31 I/F takes great care to isolate the rig ground from the computer ground. The W1GEE I/F ties the two grounds together.

Has anyone done this on a TS-450S successfully?

Thanks,
Ed - N5KZW

1072. Re: TS830S rit/xit enhanced range?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 07:46:57 UTC
From: la8ak@online.no
Message-ID: <3a8b1b3a.96546855@news.online.no>
Source record: 54619

On Wed, 14 Feb 2001 22:58:38 -0000, "hf6v" <Morse.Key@btinternet.com>
wrote:

>Is it possible to extend the range of the rit/xit on the TS830, I assume
>the range is dictated by the characteristic of the varactor/varicap diode
>and the pot. It would be great to be able to increase the swing to +/-
>5kHz.... any thoughts pls?
>
>
When it is less, one might make desires what is better, but it may be
worth considering what is really needed.

Since the FT-902 already has +/-5kHz on all modes, I experienced this
was too much for large part of my activity, so I modified the RIT
range dependent on the mode, +/-1kHz for CW and +/-5kHz for ssb
(unmodified)

If it had been possible I would have chosen ranges as shown below:
HF SSB +/-5kHz
HF CW +/-1kHz
2m CW MS 5kHz
2m CW +/-2kHz
2m /70cm SSB +/-5kHz

very seldom you need +/-5kHz. On CW as on SSB the RIT is only needed
to compensate for drift, and in ring-QSO's - for different tuning, so
normally 0.5kHz range is quite satisfactory

73
Jan-Martin

1073. Re: looking for INFORMATION on Toroid cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 12:04:24 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3A8BC5C8.ED63995E@bloomer.net>
Source record: 54620

Amidon has information at http://www.amidoncorp.com/f_ham.htm

Scott
N0EDV

WB8RCR wrote:
>
> ant
>
> The bad news - iron powder toroids are painted to indicate the mix, and
> hence the permeability and frequency range, but there is no standard. Most
> of the toroids in amateur radio use come from Amidon, and they have 2 color
> schemes, one for amateurs and one for industrial use. Ferrite toroids
> aren't painted at all.
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> If the ferrites were scrounged from some equipment manufacturer's inventory,
> there is a good chance the numbers you have are from that manufacturer, and
> maybe even the colors.
>
> If the toroids you have are mostly red and yellow, there is a good chance
> that they are from ham radio stock and are probably -2's and -6's. White
> (-7) is also fairly common. Other colors are rarely used in amateur radio
> service.
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> put say 10 turns around the thing, put it in series with a resistor or cap,
> apply a few volts of RF across it, and measure the RF drop across the toroid
> and the other component. You now know the reactance, and hence the
> inductance. Unfortunately, this doesn't tell you the loss. Toroids have
> useful frequency ranges, too. Outside that range they tend to get lossy.
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> 10. They have a higher permeability than the others, and at the lower
> frequencies you are generally looking for more inductance. The -6's are
> good from 10-50. The -7's from 3-35. The -7's have a better temperature
> coefficient than the others so they tend to be used in VFOs.
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> Oh, the handbook is the reference for hams, but the Palomar Engineers web
> page has the colors for those intended for ham service. But for 99% of the
> powdered iron toroids used in amateur radio service, there's not much to

> know:
>
> freq u ppm/degC
> Red -2 2-30 10 95
> Yellow -6 10-50 8 35
> White -7 3-35 9 30
>
> hope this helps
>
> didleydadidah
>
> <antacid@ksanmail.com> wrote in message news:96cmdt0alb@drn.newsguy.com...
> > Greetings all
> >
> > I notice that in the surplus Toroids that are available the cors are
> painted
> > colors probably to identify characteristics. Is there any INFORMATION
> available
> > to identify the colors as to what characteristics each color may have?
> > Also I have one core with numbers "A 050056-2 BH4+5" any help at decoding
> this?
> > Can anyone point me in the right direction to find INFORMATION? or?
> >
> > color me curious.....
> >
> > & Thanks
> >
> > <ant>
> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1074. Re: Murata Ceramic filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 14:20:42 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A8BE5BA.F3C1637C@erols.com>
Source record: 54621

I've used them in receivers. The MXM Designs used a special CFU filter with a 2.5 kHz bandwidth very successfully.

73

1075. Re: Rank begginer help needed - tools and equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 14:25:34 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A8BE6DE.D3764892@erols.com>
Source record: 54622

Dennis,

Depending on the kit, you might consider the following.

Multimeter - digital will be OK for most applications. Get one with a FET input circuit so you have a hi-impedance meter.

Buy a good soldering station. It will certainly represent the centerpiece of your workbench! Good soldering station are available at decent prices all the time. Join the QRP List.

Forget about the PC board vise. For your first kits you can make do with your workbench! PC board vises are a luxury and don't contribute much to the construction of a simple kit!

73

1076. Re: looking for INFORMATION on Toroid cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 14:45:32 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A8BEB8C.5FD87C5F@erols.com>
Source record: 54623

Dear Curious,

There is NO standard for toroid color coding. Let me repeat that - THERE IS NO STANDARD FOR TOROID COLOR CODING. You can only depend on color coding from a single manufacturer and even then you may be up against special runs.

Torords are CHEAP. I'll repeat that too - TOROIDS ARE CHEAP. Go to Dan's Small Parts and you will find assortments of toroid cores by Amidon. Go look at the Amidon web site (www.bytemark.com) and they will have lots of core data and also sell their cores.

Don't waste your money on surplus toroids unless you are a dyed in the wool experimenter who does not care what he has!

73

1077. Re: Murata 455 KHz SSB filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 14:49:42 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3A8BEC86.141BD2E8@erols.com>
Source record: 54624

Juan,

Try Dan's Small Parts. He has them. Look on the web for where.

73

1078. 13-Pin DIN Connections

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 15:29:52 UTC
From: n5kzw@iname.com
Message-ID: <3a8bf4bb.5903509@news.infohwy.com>
Source record: 54625

I just got done making up an I/F for a TS-450S that used a 13-pin DIN connector from Digi-Key. It was a real pain trying to solder wires to the bare pins on the back of the connector. I have to believe I was doing something wrong.

Are there some sort of slip on contacts that you solder your wires to before they are pushed on the pins? Is there some sort of wire-wrap arrangement to wrap the wires arount the bare pins?

TNX
Ed - N5KZW

1079. Help: IC-765 TX Freq Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 18:05:07 UTC
From: Robert Fanfant <robertfa@microsoft.com>
Message-ID: <3a8c1a53$1@news.microsoft.com>
Source record: 54626

Can someone out there tell me how to adjust my TX freq. offset on my IC-765.
It seems to be too low by about 120 Hz (i.e. my display shows 7.016 but my
TX freq is around 7.015.88) .I've got the calibrate knob on the top of the
rig to the minimum position and it's still too low.

Email is robertfa@microsoft.com

Thanks,
-rob N7QT

1080. Advice on Drake L7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 18:17:43 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3A8C1D47.4BF431BD@grove.iup.edu>
Source record: 54627
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi all,

I need some input on the Drake L7 HF amp. I can't find much in the way of reviews, complaints, etc. on the amp (online). The nice look of the amp and a few other things caught my eye and I was thinking about purchasing one. What are the pros / cons of this amp? Would I be better off with a Kenwood TL-922A ?

I have looked at the online Drake muesum already.

Thanks,

Scott.

1081. FS: 6U5 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 19:55:02 UTC
From: arnoldg@sf.telia.no
Message-ID: <3a8c330b.902992@news.telia.no>
Source record: 54628
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I have now a good stock of the old magic eye valve 6U5. They are all
NOS and in mint condition. They are rebranded Haltron, but I guess
they are made originally made in US. The price is NOK 186.70 each or
about US$ 21.20

Regards,

Arnold Goks&#65533;yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

1082. Can you help me...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 21:23:43 UTC
From: Paul <paul.meffin@ntlworld.com>
Message-ID: <PVXi6.24470$zz4.693729@news2-win.server.ntlworld.com>
Source record: 54629

hi,
im trying to find a schematic for a basic (as possible) transceiver that me and my friends can build at school (we are 15), can u please send me suggestions

thanx in advance

Paul

ps we live in UK, will that affect what we can build

1083. Re: 13-Pin DIN Connections

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 22:16:31 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A8C553F.B3A15C68@dialpoint.net>
Source record: 54630

It helps if you cut about 1/2 inch of insulation off the wires and tin them. Then cut the wires very short. Then move to the connector. Put a little solder in each pin. Then you heat the pin tuil the solder melts. YOu then place the wire next to the pin and let the solder that is already there plus the solder on the wire do the job without adding any more solder. Hard to explain, but simple to show how it is done. YOu do need some kind of vise to hold te plug so the pins are vertical. That is the plug is up and down and not horizontal like it would be if plugged in the rig.

"Edwin J. Bailen" wrote:
>
> I just got done making up an I/F for a TS-450S that used a 13-pin DIN
> connector from Digi-Key. It was a real pain trying to solder wires to
> the bare pins on the back of the connector. I have to believe I was
> doing something wrong.
>
> Are there some sort of slip on contacts that you solder your wires to
> before they are pushed on the pins? Is there some sort of wire-wrap
> arrangement to wrap the wires arount the bare pins?
>
> TNX
> Ed - N5KZW

1084. Re: KD9JQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 22:49:12 UTC
From: la8ak@online.no
Message-ID: <3a8c5c23.178712160@news.online.no>
Source record: 54631

On Wed, 14 Feb 2001 10:33:03 -0600, Charles Reichert <kd9jq@mc.net>
wrote:

>Brian,
>
>mailto:kd9jq@mc.net
>
> Chuck KD9JQ
>
>http://sites.netscape.net/kd9jq/hamradio/kd9jq.html
>
>
>brian@robinsonb5.fsnet.co.uk wrote:
>
>> Are you out there?
>>
>> If so please contact me, interested in your TX/RX design.
>>
>> Brian G4OZA
>
checked http://sites.netscape.net/kd9jq/hamradio/2m_xvtr.html -
interesting approach, but seems odd to choose transverter from 6m to
2m.
Usually, if one like homebrewing one doesn't already have 6m, only
those plastic radio enthusiasts seem to to have 6m, as a part of
theplastic toy, but won't build a transverter to go to 2m

My 6m transverter uses 20m IF instead of 28MHz, because I would avoid
2x 28=56MHz problem

73
jan-martin
LA8AK

1085. Radio Compass - wiring

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 23:43:12 UTC
From: "Rex Klopfenstein, Jr." <rklopfen@wcnet.org>
Message-ID: <3A8C698F.32426EE9@wcnet.org>
Source record: 54632

I just purchase an old radio compass indicator (Bendix I-82-A) and what
appears to be a transmitter (Pioneer Instruments (Bendix) AY-38D).
There are five wires. Does anybody have a wiring diagram??

Thanks in advance

--
Rex Klopfenstein, Jr.
Bowling Green, OH
KC8PFP
rklopfen@wcnet.org
http://www.wcnet.org/~rklopfen

1086. Re: KD9JQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-15 23:59:33 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3A8C6D65.163D803D@mc.net>
Source record: 54634

Actually the 2mtr xvtr was setup to work with the hombrew
6 mtr xcvr . I had a switch to go back and forth.

The 10 Mtr Xcvr came later.

Chuck KD9JQ

J M Noeding wrote:

> On Wed, 14 Feb 2001 10:33:03 -0600, Charles Reichert <kd9jq@mc.net>
> wrote:
>
> >Brian,
> >
> >mailto:kd9jq@mc.net
> >
> > Chuck KD9JQ
> >
> >http://sites.netscape.net/kd9jq/hamradio/kd9jq.html
> >
> >
> >brian@robinsonb5.fsnet.co.uk wrote:
> >
> >> Are you out there?
> >>
> >> If so please contact me, interested in your TX/RX design.
> >>
> >> Brian G4OZA
> >
> checked http://sites.netscape.net/kd9jq/hamradio/2m_xvtr.html -
> interesting approach, but seems odd to choose transverter from 6m to
> 2m.
> Usually, if one like homebrewing one doesn't already have 6m, only
> those plastic radio enthusiasts seem to to have 6m, as a part of
> theplastic toy, but won't build a transverter to go to 2m
>
> My 6m transverter uses 20m IF instead of 28MHz, because I would avoid
> 2x 28=56MHz problem
>
> 73
> jan-martin
> LA8AK

1087. Re: 13-Pin DIN Connections

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 00:20:51 UTC
From: Jeff Campbell <jcampbell@ins-msi.com>
Message-ID: <3A8C6D10.9FD8693A@ins-msi.com>
Source record: 54633

Something that works for me...

Get 2 DB9 female connector kits from Radio Shack. These connector kits contain a DB9 shell and a strip of 9 crimp sockets on a strip.

Using a vice to hold the connector, lightly tin the posts to which you intend to attach wires.

Attach the DB crimp sockets to the wires.

Plan ahead and start with the inner posts. Push the socketed wire end down over its post. With a pencil iron or other fine tip soldering device reflow the solder on the post you just pushed the socket onto.

I typically use a piece of heat shrink tubing to insulate the connection (after the pin has cooled).

Jeff Campbell
n8wxs@arrl.net

Ralph Mowery wrote:
>
> It helps if you cut about 1/2 inch of insulation off the wires and tin
> them. Then cut the wires very short. Then move to the connector. Put
> a little solder in each pin. Then you heat the pin tuil the solder
> melts. YOu then place the wire next to the pin and let the solder that
> is already there plus the solder on the wire do the job without adding
> any more solder. Hard to explain, but simple to show how it is done.
> YOu do need some kind of vise to hold te plug so the pins are vertical.
> That is the plug is up and down and not horizontal like it would be if
> plugged in the rig.
>
> "Edwin J. Bailen" wrote:
> >
> > I just got done making up an I/F for a TS-450S that used a 13-pin DIN
> > connector from Digi-Key. It was a real pain trying to solder wires to
> > the bare pins on the back of the connector. I have to believe I was
> > doing something wrong.
> >
> > Are there some sort of slip on contacts that you solder your wires to
> > before they are pushed on the pins? Is there some sort of wire-wrap
> > arrangement to wrap the wires arount the bare pins?
> >
> > TNX
> > Ed - N5KZW

1088. Re: looking for INFORMATION on Toroid cores

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 00:43:20 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <96ht4s0vkf@news1.newsguy.com>
Source record: 54635

"Scott" <acepilot@bloomer.net> wrote in message
news:3A8BC5C8.ED63995E@bloomer.net...
> Amidon has information at http://www.amidoncorp.com/f_ham.htm

If you rummage around on this web site, you will see exactly what Bruce said (and I didn't say so loudly) -- 'THERE IS NO STANDARD FOR TOROID COLOR CODING.' On this one web site there are at least 2 different color schemes.

I agree with Bruce that toroids are cheap, and I try to keep a good supply of those I commonly use. They are cheaper at Dan's, as Bruce points out, than pretty much anywhere else. But if you need just a few, it generally works out better to order them at radioshack.com because of the shipping (although it's hard to look through Dan's website without finding $100 worth of stuff you can't live without, and for that kind of order his shipping deal is better than radio shack's.)

But I disagree that it's important to throw away the junk ones. It's not so tough to measure the permeability, and as long as you are suspicious of the loss, why not? Obviously, it depends on how critical your current project is, and how much you value your time. Just don't get suckered into believing that because it's white it must be a -7.

didleydadidah

1089. Re: 13-Pin DIN Connections

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 01:55:12 UTC
From: w3nj@aol.com
Message-ID: <20010215205512.28514.00000967@ng-cn1.aol.com>
Source record: 54636

Hi Ed...just saw your name/post. Long time no see!!

I saw a similar post on the Kenwood list and one response was to clip out all the unused pins. Kind of "bad" for the long term, but if you know it's not going to change, seems to work. We had a devil of a time on the cable for our TS850 as well!

Good Luck and maybe we'll see you at Belton!!

de Bruce- W3NJ>I just got done making up an I/F for a TS-450S that used a 13-pin DIN
>connector from Digi-Key. It was a real pain trying to solder wires to
>the bare pins on the back of the connector. I have to believe I was
>doing something wrong.
>
>Are there some sort of slip on contacts that you solder your wires to
>before they are pushed on the pins? Is there some sort of wire-wrap
>arrangement to wrap the wires arount the bare pins?
>
>TNX
>Ed - N5KZW
>
>
>
>
>
>

1090. Re: PSK-31 On A TS-450 Under Computer Control?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 01:57:54 UTC
From: w3nj@aol.com
Message-ID: <20010215205754.28514.00000968@ng-cn1.aol.com>
Source record: 54637

>I would like to operate some of the digital modes on a TS-450S while
>at the same time having the computer in control of the rig. YPLog
>appears to support this, but I'm having trouble with the I/F.
>
>I built up the soundcard I/F using isolation transformers and an
>opto-isolator to connect the rig and the computer through the 13-pin
>DIN connector and the serial port. The I/F works as advertised.
>
>I also bought the W1GEE I/F to control the rig from the computer, and
>it also works as advertised.
>
>The problem is that I want to use both of them at the same time.
>
>The PSK-31 I/F wants to use RTS or DTR to key the transmitter, but the
>W1GEE uses both of these signals when talking to the rig. Also, the
>PSK-31 I/F takes great care to isolate the rig ground from the
>computer ground. The W1GEE I/F ties the two grounds together.
>
>Has anyone done this on a TS-450S successfully?
>
>Thanks,
>Ed - N5KZW
>
>
>
>
>
>

Hi Again Ed!!

Any chance you can get a 2nd serial port? Otherwise the mux'ing is going to be "horrific"

GL de Bruce - W3NJ

1091. Re: Advice on Drake L7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 02:11:00 UTC
From: kf4toh@aol.com
Message-ID: <20010215211100.12196.00001000@ng-ca1.aol.com>
Source record: 54638

TAKE THE L 7 anyday
i wouldnt take a grand for mine

quiet fan ...light wt desk top rf deck
1200 watts easy ..to be 15 years old
it looks great beside my MP

NO 10 METERS ..so what!

922 ....weak band switchs ????
maybe maybe not?

73 JOE KF4TOH

1092. Re: Advice on Drake L7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 03:24:08 UTC
From: k9sqg@aol.com
Message-ID: <20010215222408.09302.00001111@ng-mm1.aol.com>
Source record: 54639

10 meter mod is easy...

73s,

Evan

1093. Help with Heath SG-8

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 05:35:27 UTC
From: TC Dufresne <tdufres@radiks.net>
Message-ID: <913j6.77$bo6.121772@nntp3.onemain.com>
Source record: 54640

Howdy. Just got an old Heathkit SG-8 to help me with my homebrew stuff. Recapped the electrolytics, and fired her up. Fairly accurate, compared to my receiver (Rat shack DX-398) for BC band. Looses it pretty bad from there on. There doesn't seem to be a way to calibrate this thing.... I would like to use it for 40-10 meter projects....
Ideas?
tdufres@radiks.net

Tom
KC0GXX

1094. W & G SPM-6 info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 09:50:31 UTC
From: John Owen <johnowen@btinternet.com>
Message-ID: <96itav$998$1@neptunium.btinternet.com>
Source record: 54641

Help
I need some info or a circuit for the demodulator output of a Wandel & Goltermann SPM-6 selective level meter, 6KHz -18MHz. The demod output didn't work when I got it and on tracing the coax cable from the demod board to the rear panel I found it crossed over as it went through a multi way connector thus shorting the demod output to ground, I've fixed this but need the output stage circuit to fix the final stage - any help appreciated.
Also does anyone know what the BNC output on the back to connect to an FFZ-6 is
for? and is it easy to get an IF output pre-filter from the unit as I want to use it as a receiver and the 1.4KHz BW is narrow for AM.
The SPM-6 may be known as something different in some regions, I can't find many references to it but see ATxxx which may be similar - mine has a mechanical frequency readout.
I would appreciate email replies as my ISP seems to loose a lot of newsgroup messages making following a thread totally impossible.

Many Thanks

John

1095. Re: 13-Pin DIN Connections

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 10:04:45 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <96llbi$ua7$1@news5.svr.pol.co.uk>
Source record: 54663

> Are there some sort of slip on contacts that you solder your wires to
> before they are pushed on the pins? Is there some sort of wire-wrap
> arrangement to wrap the wires arount the bare pins?
==========
When confronted with soldering connections on multi-pin plugs and socket I always use rubber sleeves completely covering the soldered point/pin. This is a very reliable way to ensure separation in 'wire crowded areas'. So far I have been using the sleeves from scrap wiring/equipment .

In the UK Maplin sell Helsyn binding sleeves in 20-25 mm length ,diameters 1.5 - 2.0 - 3.0 - 5.0 mm costing approx. equivalent US$ 2.50 for a pack of 100 pcs.

The larger diameters are also effective to bundle wire runs inside equipment.

73 Frank gm0csz.kn6wh@ukrs.org

1096. Re: Can you help me...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 10:45:35 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <gc0j69.cft.ln@localhost.localdomain>
Source record: 54646

Paul wrote:

> hi,
> im trying to find a schematic for a basic (as possible) transceiver that
> me and my friends can build at school (we are 15),

You will find some simple circuits and links to other homebrew radio
sites at: http://www.qsl.net/ei9gq

> ps we live in UK, will that affect what we can build

Yes, you must have a licence to operate a radio transmitter
in the UK.

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.1

1097. Re: Can you help me...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 13:36:01 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <96ja9gnbl1@plutonium.btinternet.com>
Source record: 54642

To keep to basics it would be better and more likely to succeed by constructing a separate receiver and transmitter. First complete a simple receiver for one band only. Then start on a one-band very low power transmitter.

In the UK you do not need a receiving licence. To transmit you will need a transmitting licence. Consult your science teacher or a local radio amateur club.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Paul <paul.meffin@ntlworld.com> wrote in message
news:PVXi6.24470$zz4.693729@news2-win.server.ntlworld.com...
hi,
im trying to find a schematic for a basic (as possible) transceiver that me and my friends can build at school (we are 15), can u please send me suggestions

thanx in advance

Paul

ps we live in UK, will that affect what we can build

1098. Re: Antenna Rotator Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 13:59:59 UTC
From: Andy Cowley <krooandy.cowley@uwe.ac.uk>
Message-ID: <3A8D314E.543D938F@uwe.ac.uk>
Source record: 54643
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,uk.radio.amateur

VK4LAJ wrote:

> Hi all and thanks for reading my post
>
> I have been out of AR for 14 months (due to an accident not loss of
> interest) and am now looking to get back into it.
>
> I am looking at building a lot of my own gear this time around and one
> project is an antenna rotator. Although I have searched high and low on the
> internet, I can not find anyone that has built a rotator system from
> scratch. I have found a direction indicator but that's all.
>
> Has anyone built or know of an article that describes building an antenna
> rotator? If so could you please point me in the right direction or send me a
> scanned article, but please email me direct after you have removed the

My friend, Dave, G3YNH, is constructing a polarisation rotator for a
12 element ZL-special 2M antenna. He is using a gearbox from a
pre-war wind-up gramophone and the motor from a 35mm camera.
The motor runs on ~3 volts and is about 2cm x 3cm. with a 3000:1
reduction gear it can turn 180 degrees in about 30 seconds. It is
powerfull enough that you can't stop it bare-handed even on a
4" diameter wheel. It would certainly work as a conventional
rotator for 2m yagis of 12 elements or less.

The project is near completion and will be on the web when
finished, at

http://www.camuw.demon.co.uk/web_site/g3ynh/g3ynh.html

Not there yet but coming soon!

best

Andy, M1EBV

1099. Re: Help with Heath SG-8

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 14:08:10 UTC
From: troglodite@aol.com
Message-ID: <20010216090810.17156.00002577@ng-fi1.aol.com>
Source record: 54644

>Howdy. Just got an old Heathkit SG-8 to help me with my homebrew stuff.
>Recapped the electrolytics, and fired her up. Fairly accurate, compared to
>my receiver (Rat shack DX-398) for BC band. Looses it pretty bad from there
>on. There doesn't seem to be a way to calibrate this thing.... I would like
>to use it for 40-10 meter projects....
>Ideas?

Tom,

Traditionally, service quality signal generators did not have very accurate calibration. I have the Precision Instruments RF and Sweep generators that I use for alignment, and they are not that accurate either. Your best bet is monitor the output of your generator with a frequency counter.

For general service, one usually doesn't depend on the generator accuracy unless it is very sophisticated synthesized type. You use the generator for rough alignment, but set the receiver oscillator by tuning to a signal on a known frequency, such as a known AM station, or in the case of shortwave, WWV.

Doug Moore

1100. I need help building projects.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 14:34:34 UTC
From: ve6xtc@ecn.ab.ca
Message-ID: <3a8d3a7a@ecn.ab.ca>
Source record: 54647

```
Dear folks;
I'm a white caner and I would like help with building
simple projects. If you would like to help, please e-mail me. 73!
Yours,
```

Bruce Atchison, electronic musician, writer, Jesus freak, and rabbit fan.
Dominion Day Enterprises
P.O. Box 188, Radway, Alberta, T0A 2V0, Canada
http://gideon.www2.50megs.com
ve6xtc@freenet.edmonton.ab.c����

1101. dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 14:47:53 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3a8d3c22.89387@news.sprint.ca>
Source record: 54645

In the RSGB Technical Topics series from 1985-1989 there were a number of snippets published concerning the use of "dirty DC" (not purely rectified and filtered DC), that seemed to be able to charge (numerous cycles) standard alkaline batteries, which of course, the manufacturers claim can not be recharged. There was one rough schematic published but no details of voltage and amps recommended for such charging. Does anyone out there have any more details, or has anyone tried it?

Larry VE6MK
****
to send direct email remove "fake" from address

1102. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 15:39:58 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <ekhj69.phu.ln@localhost.localdomain>
Source record: 54651

Larry Gagnon wrote:

> In the RSGB Technical Topics series from 1985-1989 there were a number
> of snippets published concerning the use of "dirty DC" (not purely
> rectified and filtered DC), that seemed to be able to charge (numerous
> cycles) standard alkaline batteries <snip>

I often recharge alkaline cells with pure DC from my 13.8V power supply.
You must limit the current to a safe value. I use a 100 Ohm resistor in
series with four AA cells. This limits the current to about 78mA.

The first time you recharge them, you will probably get just as much
capacity as you would get from a new battery. When they have been
recharged four or five times, the capacity tends to reduce.

I have never had any problems with exploding or leaking cells but
be careful! you don't want the innards of an alkaline cell splattered
all over your face or inside your digital camera!

73, Ed. EI9GQ.
--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.1

1103. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 15:53:20 UTC
From: w8ron <w8ron@stratos.net>
Message-ID: <3a8d4f25$0$1521$6d93012@news.stratos.net>
Source record: 54648

Hi Lary.
Set the zener to a higher value.
Most 12 to 13 volt equipment is able to handle 18 volts.
The crowbar is just to protect the equipment connected to the supply
should the pass transistors in an analog supply , or the control circuits
in a switching supply , fail.
Then the output goes to the rail of the buss maybe as high as twice the
normal output voltage. You want the SCR to catch that massive failure and
not just transients.
Also check the filter cap on the SCR gate. Should that fail , impulses
would trigger the SCR.

Ron

Larry Gagnon wrote:

> I have a homebrew 13V, 20A power supply I am just finisishing testing.
> Most of the time it works just fine. However, on three occasions it
> has blown its 25amp fuse which sits between the overvoltage thyristor
> (SCR) and the filter capacitors. I believe the thyristor is
> triggering. The overvoltage circuit is the same as that found in "The
> Art of Electronics": a 15.1v zener diode going to ground through a
> 0.1uF cap and a 100 ohm resistor, the zener triggering a 30 amp
> thryristor. The occasions when the fuse has blown have been 1) rapid
> increase in drawing 5 then 20 amps 2) when I had a bad connection to a
> circuit drawing 2 amps and it sparked at the terminals. This suggests
> to me that a voltage transient of some sort might be triggering the
> zener to over 15.7 volts thereby in turn triggering the gate of the
> SCR.
>
> The regulator and other circuits appear to be working very well and
> there are no intermittent shorts elesewhere in the supply. I hesitate
> to test that it definetely is the overvoltage circuit by disconnecting
> it temporarily to see if the problem disappears. Any suggestions out
> there on how do deal with this problem??
>
> Larry VE6MK
>
> **********
> to send direct email remove "fake" from address

1104. Re: 8950 Vacuum tube ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 16:58:24 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <96jm7g$9nr$3@woodrow.ucdavis.edu>
Source record: 54649

: mystique224@home.com wrote:
: Good Morning Everyone,
: I am posting this unusual request because I had a customer bring in
: this piece of equipment the other day. It is a Ham series amplifier that
: uses three 8950 final tubes and 1 8950 tube as the driver. Anyway, all

Hi there,
Sounds like a classic Palomar Skipper 300 amplifier or one of the later productions units sold under the numbers label like the "321." Yep, they use the hard to find 8950's, a beam power "sweep" tube actually designed for RF Applications. Swan and Siltronix radios/amplifiers also use them and this is a great place to throw out a cheap plug for my Swan Siltronix web page.
-
http://sonic.ucdavis.edu/siltronix
-
: of the tubes are less than 30% on my tube tester. After some research, I
: have found that these tubes are extremely hard to find and when you do
: find some, they are usually used and very expensive. My question to you
: fine intelligent people is "Is there a replacement tube of similar
: characteristics that I can substitute for the 8950's or maybe a
: modification that can be done to allow the amplifier to use another type
: of tube?" After doing my research, and correct me if I am wrong, it
: seems the 8950 tubes use a 12VAC heater voltage instead of the normal
: 6VAC. Any and all help is greatly appreciated in advance.
: Sincerely,
: James, Owner/Operator
: Eagle_Tronics

The only "real" close cousin of the 8950 is the 6.3 volt 6HF5 tube. The conversion article is mentioned on my web page. No, the 6KD6 is not a direct swap in like the other guy posted. If one were planning to rework the amplifier to different tubes, I'd consider the Svetlana EL-509 which may not fit in the original case without some metal working or standoffs.

Your other hope is hours on Ebay looking for tubes...

cheers
skipp@pilot.ucdavis.edu

http://sonic.ucdavis.edu radio goodies, software and more
http://pilot.ucdavis.edu that darn trs-80 and band stuff

1105. Re: Can you help me...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 17:39:50 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <96jon204se@news1.newsguy.com>
Source record: 54652

Being in the UK, I would urge you to contact the G-QRP club
(http://www.btinternet.com/~g4wif/gqrp.htm), and/or George Dobbs, G3RJV.

The G-QRP club has hundreds of designs for simple rigs, many of the simpler ones designed by George. They also have some kits, and sometimes have some of the harder parts for sale. One problem you have is that many of the designs you will find on the web are designed in the U.S., and often use parts you can's get easily in the UK. Also, George is a heck of a nice guy and worth meeting just because.

The G-QRP club has a book called the 'G-QRP Club Circuit Handbook' which has a lot of ideas in it. Well worth picking up.

Also, EI9GQ's designs are nice and tend to feature parts that you can easily get, although a lot of his stuff may be a bit elaborate for a first go.

didleydadidah

"Paul" <paul.meffin@ntlworld.com> wrote in message
news:PVXi6.24470$zz4.693729@news2-win.server.ntlworld.com...
hi,
im trying to find a schematic for a basic (as possible) transceiver that me and my friends can build at school (we are 15), can u please send me suggestions

thanx in advance

Paul

ps we live in UK, will that affect what we can build

1106. WTB: Lafayette Audio Generator Schematic/Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 17:45:12 UTC
From: David Simpson <dsimpson@dsimpson.net>
Message-ID: <3A8D66D9.55B8A805@dsimpson.net>
Source record: 54650
Cross-posted to: sci.electronics.equipment,sci.electronics.repair,alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.swap,rec.radio.amateur.homebrew

WTB: Lafayette Audio Generator Schematic/Manual

Hi. I have an old Lafayette TE-22 audio signal generator. I believe it was a kit.
If you have a schematic or manual, let me know how much.
If you know of a source for such things, please e-mail.

Thanks.

1107. Re: Advice on Drake L7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 18:31:23 UTC
From: k3ky@erols.spamnocom
Message-ID: <3a8d7059.1035388168@news.erols.com>
Source record: 54653
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

I have a Drake L7 and would not part with it. Drake runs the 3-500Z's conservatively. You are unlikely to ever see 1500 watts output on any band- 800 to 1200w is more likely. It is a nice-looking, compact amp. Mine has been extremely reliable. I believe you would see a little more power output with the Kenwood TL-922. I would still choose the L7 anyway. 73, David K3KY

On Thu, 15 Feb 2001 13:17:43 -0500, Scott McClements <yetbbwa@grove.iup.edu> wrote:

>Hi all,
>
>I need some input on the Drake L7 HF amp. I can't find much in the way
>of reviews, complaints, etc. on the amp (online). The nice look of the
>amp and a few other things caught my eye and I was thinking about
>purchasing one. What are the pros / cons of this amp? Would I be better
>off with a Kenwood TL-922A ?
>
>I have looked at the online Drake muesum already.
>
>Thanks,
>
>Scott.
>

1108. Power supply question.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 18:50:11 UTC
From: kg4ggx@aol.com
Message-ID: <20010216135011.12352.00001062@ng-fs1.aol.com>
Source record: 54654

Hi
I have 2 power supplies that are from RV campers.These are used to supply 12v dc for the lights and water pumps in the camper trailers, as well as charging a 12v battery.Both of the ones I have are rated at 40 amps 12v dc output. Is there a way to filter the output, and possibly add an over voltage protection so these can be used as power supplies for radio gear? I sure could use a 40 amp supply, and would like to be able to put these to use since I have them. I don't have any camper trailers, so I have no other use for these. I'm not a tech, so I can't get to technically involved to understand making these work for my situation. They have nice big transformers, so it seems possible to use them. I do not know if they use full wave rectifiers on not.So I may need to add full wave rectifiers. As you can see there is a lot I don't know. But if I can possibly make this work, I'd really enjoy the project, and get good use out of something I have laying around.
Thanks for reading. 73 Rob.

1109. Re: Power supply question.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 19:46:32 UTC
From: k7itm@aol.com
Message-ID: <20010216144632.18247.00000129@ng-fm1.aol.com>
Source record: 54655

>Subject: Power supply question.
>From: kg4ggx@aol.com (KG4GGX)
>Date: 2/16/01 10:50 AM Pacific Standard Time
>Message-id: <20010216135011.12352.00001062@ng-fs1.aol.com>
>
> Hi
> I have 2 power supplies that are from RV campers.These are used to supply
>12v dc for the lights and water pumps in the camper trailers, as well as
>charging a 12v battery.Both of the ones I have are rated at 40 amps 12v dc
>output. Is there a way to filter the output, and possibly add an over voltage
>protection so these can be used as power supplies for radio gear? I sure
>
...

Perhaps the simplest way to do it would be to use an RV battery for a filter. But if the supplies don't have some sort of regulation or control to prevent them from overcharging the battery, that's not such a good idea. The concept of turning them into pure DC power supplies is fairly simple, but the right answer depends on quite a few variables: just what voltage does the transformer put out? Do you need a regulated supply, or just a well-filtered one, for what you will be doing? Will your load be reasonably constant, or go from zero to full load? Certainly it should be possible to use the transformers, and perhaps the included rectifiers (which likely are full wave...more efficient use of the transformer, and diodes are cheaper than transformers). But a single "right" answer doesn't pop right out at me.

Cheers,
Tom

1110. Free carbon comp resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 19:56:09 UTC
From: k7itm@aol.com
Message-ID: <20010216145609.18247.00000132@ng-fm1.aol.com>
Source record: 54656

Free resistors? Yes. What's the catch? Well, I've been hanging onto all the old carbon comp resistors I scrapped out of stuff, got in grab bags, and so forth for many years. A couple days ago, I went through them and measured them. I found that many of them are now higher in value than their color code. I tossed all the out-of-tolerance ones into a box, and have about a pound of those. That's quite a few resistors--in the hundreds! Any that were grossly out of tolerance or obviously "noisy", I tossed in the trash. The culls are all 1 watt and above (so far...haven't started on the 1/2W ones yet), and cover from below 10 ohms to a megohm or so. They are marked 5%, 10% and 20%. Typically, the 5% ones are within 10%, for example. Many of them have never been used, but most are "removed from equipment."

Anyone interested? $5 to defray postage & my trip to the post office (or pick up in the Everett, WA, area).

Cheers,
Tom
k7itm@aol.com

1111. Re: Power supply question.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 21:29:18 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A8DC61B.7FB887E2@home.com>
Source record: 54657

You could, however, use one of the switcher IC's which take an input from, say 8 to 15 volts, to a regulated output of 12 volts -- something like the LM2577-12 with an external transistor (probably a bunch of PASS transistors). This would accomodate the fluctuation in input and would not suffer from the dropout of a linear regulator.

K7ITM wrote:

> >Subject: Power supply question.
> >From: kg4ggx@aol.com (KG4GGX)
> >Date: 2/16/01 10:50 AM Pacific Standard Time
> >Message-id: <20010216135011.12352.00001062@ng-fs1.aol.com>
> >
> > Hi
> > I have 2 power supplies that are from RV campers.These are used to supply
> >12v dc for the lights and water pumps in the camper trailers, as well as
> >charging a 12v battery.Both of the ones I have are rated at 40 amps 12v dc
> >output. Is there a way to filter the output, and possibly add an over voltage
> >protection so these can be used as power supplies for radio gear? I sure
> >
> ...
>
> Perhaps the simplest way to do it would be to use an RV battery for a filter.
> But if the supplies don't have some sort of regulation or control to prevent
> them from overcharging the battery, that's not such a good idea. The concept
> of turning them into pure DC power supplies is fairly simple, but the right
> answer depends on quite a few variables: just what voltage does the
> transformer put out? Do you need a regulated supply, or just a well-filtered
> one, for what you will be doing? Will your load be reasonably constant, or go
> from zero to full load? Certainly it should be possible to use the
> transformers, and perhaps the included rectifiers (which likely are full
> wave...more efficient use of the transformer, and diodes are cheaper than
> transformers). But a single "right" answer doesn't pop right out at me.
>
> Cheers,
> Tom

1112. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-16 22:18:24 UTC
From: wieland@copland.udel.edu
Message-ID: <96k8vg$5mp$1@copland.udel.edu>
Source record: 54658

It goes much further back than that. Sometime in the first half of the 1960s, POPULAR ELECTRONICS published a construction project for such a device, which was claimed to do a partial job of recharging zinc-carbon cells. Nothing tricky about the circuit, it had a 6.3-volt filament transformer followed by a silicon half-wave rectifier that was bridged by a resistor, giving what you call "dirty DC". The total charging current was 150-200mA, controlled by a series rheostat of a couple hundred ohms. I still have in storage the one I built.
I ended up putting a stack of six "button" ni-cads, inside a paper insulating tube, in that machine's D-cell holder, and using it as an UPS for a portable radio that normally took five C-cells.

1113. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 00:17:25 UTC
From: hexter@blazenet.net
Message-ID: <t8rgolosj10gb5@corp.supernews.com>
Source record: 54659

In article <3a8d3c22.89387@news.sprint.ca>, lagagnon@fakesprint.ca
says...
>
>In the RSGB Technical Topics series from 1985-1989 there were a number
>of snippets published concerning the use of "dirty DC" (not purely
>rectified and filtered DC), that seemed to be able to charge (numerous
>cycles) standard alkaline batteries, which of course, the
>manufacturers claim can not be recharged. There was one rough
>schematic published but no details of voltage and amps recommended for
>such charging. Does anyone out there have any more details, or has
>anyone tried it?
>
>Larry VE6MK
>**********
>to send direct email remove "fake" from address

I have been experimenting with recharging alkaline batteries
these last few months, and have been a little less than impressed.

I have a walkman type portable CD player that is a bit battery
hungry, and I have two sets of four batteries that I have been
re-cycling. I charge them at a slow rate of about 20 ma, as anything
higher seems to cause them to leak out a coffee colored corrosive
substance. After what I consider to be a full recharge (inputting
about 150% of the rated output watthours, the batteries only seem
to be able to supply about 1/2 of their original output capacity,
and they seem to have a higher internal resistance which makes them
unsuited for high current drain devices.

I am all for reuse of batteries, and hate to see millions upon
millions of batteries in the land fills every year, but my personal
luck with re-charging alkalines is not impressive. I suppose if we
could get one or two extra uses out of the cells we could really
cut down resource usage though. Bet the battery companies don't
want to hear that!!!!!

73 Gummi

1114. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 00:30:22 UTC
From: mcalhoun@ksu.edu
Message-ID: <96kgmu$68i@unix2.cc.ksu.edu>
Source record: 54660

In rec.radio.amateur.homebrew someone wrote:
< It goes much further back than that. Sometime in the first half of the
<1960s, POPULAR ELECTRONICS published a construction project for such a
>....[snip]....

The magazine must have been called just ELECTRONICS then, for you've described exactly the little circuit in the article "Dry cells can be reactivated" by Ralph W. Hallows on page 49 in the December, 1956, issue.

Unfortunately, I can't cite the issue or even the magazine, but another article published about the same time used ordinary LAMPS as resistors, with a small lamp (10-20 watts) for the reverse current and a larger lamp for the forward current (I use 40, 60, 75, or 100 watt bulbs, depending on the cellsize I'm charging). The light from the lamps also gives a visual indication that my charger has cells in it so I don't leave them in too long!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1115. Re: Help w/ Homebrew RVCR?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 03:45:12 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <ctmj6.13078$Nj5.864283@bgtnsc07-news.ops.worldnet.att.net>
Source record: 54661

It sounds as the 741s might be oscillating. If you don't have decoupling networks on them, try putting a 22 Ohm resistor in series with the V+ lead to each of the 741s. Next, connect a 100uF capacitor, in paralles with a .1uF capacitor from the V+ pin, as close to the pin as possible, to ground. If you are using a bipolar supply, decouple the V- pin in the same manner. If you don't have a ground plane on your circuit board, that could also be a contributing factor, but the decoupling networks might be a remedy.

Pete Gianakopoulos
Chicago, Il.

TC Dufresne <tdufres@radiks.net> wrote in message
news:zb2i6.832$2U3.300462@nntp1.onemain.com...
> Hey all, just finished a homebrew receiver, all BC band only, but lots of
> fun. Some minor problems, can anyone help me? When I turn 'er on, it
sounds
> like its way "overdriven". The 8 ohm speaker will click and pop like its
> being overdriven, then if I turn it WAY down, she'll be ok, but of course,
> the volume is practically nil! Some specifics... Homebrew (as mentioned)
> uses two UA 741 for amps, connected in series, two small transistors,
> a 2N3904 and a 2N3906, and some diodes and resistors. Really, that and a
> variable cap and coil of course, but that's about it! Where can I start? I
> thought maybe too much voltage or something so I tried decreasing V from
12V
> to 9V, same thing...Checked and re-checked all values of resistors...
> BTW, dunno where I found the schematic, but I designed a PCB for it. Was
> loads of fun..... Would be happy to send specifics or even schematic if
you
> felt it would help..
> Tom
> KC0GXX
>
>
>
>

1116. Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 08:28:15 UTC
From: carl domanico <carl.domanico@verizon.net>
Message-ID: <3A8E3611.84A02C17@verizon.net>
Source record: 54662

Wanted:

Collins KWM-2A and Matching AC Supply
Drake TR-4C and AC-4 Power Supply
Heathkit SB-102 and Matching AC Supply
Drake L4-B Linear Amplifer and Matching AC Supply
Johnson Viking Valiant 2 Transmitter

All Equipment Must be in Good To Mint Conditionï¿½Manuals are a plus..

Carl
N2MFW

1117. FA: Collins 30L1 linear nice condition.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 10:57:08 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <pNsj6.567$8qy1.15401141@news.xtra.co.nz>
Source record: 54664
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215447550

Thanks for looking,
Ted

--
==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

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1118. FA: COllins 75S-1 Receiver with CW filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 10:58:53 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <2Psj6.569$8qy1.19267766@news.xtra.co.nz>
Source record: 54665
Cross-posted to:
alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215448345
Thanks for looking
Ted.

--
==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

1119. FA: Watkins Johnson WJ340A LF Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 11:00:38 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <GQsj6.571$8qy1.22479025@news.xtra.co.nz>
Source record: 54666
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215449277
Thanks for looking,
Ted

--
==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

1120. Utility Amplifier Boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 12:25:08 UTC
From: "David J. Windisch" <davidw@copper.net>
Message-ID: <K3uj6.103$mv4.957@newsfeed.slurp.net>
Source record: 54667

Hi, all concerned:

I have a few unused, tested surplus predriver #1 boards, C 3988W, from the Drake TR7, which have 50-ohms in/out (solder posts), 20+ dB of stable adjustable gain from 100 KHz to above 50 MHz, and take 12V power.

I have used them as QRP osc-amp xmtrs, sig gen amps, i-f amps, several on my small loops as low-noise preamps on 160-10M, etc., etc., etc. They worked fine on a very short-lived (one evening) quickie Beverage, as well.

They have gain-adjust pots in the second of 3 stages: 2N3563-SRF2281-SRF2281.

Board is 2-3/4 X 3-3/4 in.G10, and less than 3/4-in. 'thick'. You supply 2 clip-on heat sinks for the '2281s.

Any one interested at $17@ ppd?

Copy of schematic included.

73, Dave, K3BHJ

513-641-0095

1121. SARANORD on the WEB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 14:07:38 UTC
From: F1LXJ SERGE <f1lxj@club-internet.fr>
Message-ID: <96m0sc$dg6$3@front1m.grolier.fr>
Source record: 54668

73 dear OMs,
The appointment to not to miss, book your weekend:
The SATURDAY 24 of 14h to 19h and SUNDAY 25 February of 9h to 18h
Village hall Gustave DEDECKER to Cross 59 (meadows of Roubaix) will have
place the 3 lounge of the Radio - Amateurism of the North of France
organized by the RCNF (F8KKH)
Entered 10Francs free Parking lot.
Radio guidance on the Relay of Lille
145,212.5 Mhz(not shift) and 433,375 shifts + 1,6 Mhz
There barroom and small restoration.
Numerous demonstrations of traffic by the OMs,
New materials and of opportunities, data processing, bookstore,
fair to the second hand deal.
APRS frequency on the NORTH 144.800 Mhz

In exclusive rights for the first time in France internauts will be able to
live from all over the world in line the ambiance of the biggest lounge
radio ham of the North, in direct thanks to the,
5 present Web - Cams on the site.

3 stationary cameras, 1 panoramic, 1 portable ATV.
1 video conference (compatible netmeeting)
1 cat, 3 forums, the book of gold,
1 VIDEO SARANORD 1999
1 VIDEO SARANORD 2001 (available from the 25/02/2001)

That you are radio ham, amateur of radio or CB, you can miss that return
yourselves that are the gathering of radio frequency enthusiasts most
important of the department of the North.

Site in French language solely.

http://perso.club-internet.fr/f1lxj
http://saranord.free.fr

73's of F1LXJ

1122. ???HF Remote Base Controller Recomendations???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 17:30:03 UTC
From: "Thomas M. Alldread" <tma@mail.island.net>
Message-ID: <o8dt8tkr3nr19c2hjunirih2l6k76rlgst@4ax.com>
Source record: 54672

Greetings to All on this List:

A group of us have just started to look at setting up a 440MHz repeater as the nucleus for an HF remote base system. Ultimately we want to link this system to a 2M repeater to provide VHF access to the HF remote base as well. We currently have a couple of modern ICOM HF rigs within the group to choose from that we would like to use for the remote base rig. It has been already decided to use Motorola equipment for the UHF repeater and full duplex link equipment with commercial antennas and duplexers.

We have not decided on the controller equipment to use. I would like to hear recommendations from those that have experience with setting up a similar HF remote base system. We basically would like to be able to remotely DTMF control all the serial port controllable features of the HF rig, to remotely select antennas, to remotely control at least one antenna rotator and to be able to keep tabs on the status of the site. Digitally generated voice confirmation for all the remote commands would be needed for feedback to the operator.

Although I have done some Internet searches I have not yet recognized an off-the-shelf controller package that will do the whole job. A friend of mine set up a similar remote base about a decade ago that used a Commodore 64 with a custom interface that does pretty well everything we need but I am wondering if there is a more modern alternative. Are there modern embedded controller systems available for this application or alternatively a PC software package possibly using a pair of sound cards for audio interfaces available off-the-shelf? I guess basically I would like to identify all currently available modern controller equipment packages that are designed to do the job and hear recommendations plus pros and cons from those that are experienced with HF remote bases.

Thanks in advance for all your help!

73 & Enjoy!
Tom, VA7TA
Very Best Regards,
Thomas M. Alldread, tma@mail.island.net

Note: The information provided by me is accurate to the best of my knowledge but use it at your own risk as there are ~NO GUARANTEES IMPLIED~.

1123. Best freq. counter for under $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 18:06:37 UTC
From: Robert Fanfant <fanfant1@home.com>
Message-ID: <N4zj6.436993$U46.12809294@news1.sttls1.wa.home.com>
Source record: 54669
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Any recomendations for a freq counter? To be used to tune/adjust my older rigs. Am looking that the M1 or Cub from OptoElectronics but don't know about it's stability or accuracy.

-rob N7QT

1124. Best frequency counter for $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 18:13:41 UTC
From: Robert Fanfant <fanfant1@home.com>
Message-ID: <pbzj6.437011$U46.12810681@news1.sttls1.wa.home.com>
Source record: 54670
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Any recomendations for a freq counter? To be used to tune/adjust my older rigs. Am looking that the M1 or Cub from OptoElectronics but don't know about it's stability or accuracy.

-rob N7QT

1125. Re: Best frequency counter for $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 18:15:41 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A8EEA36.3AD0B595@home.com>
Source record: 54671
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

You can buy a used HP5328A or B for around $50.

Robert Fanfant wrote:

> Any recomendations for a freq counter? To be used to tune/adjust my older
> rigs. Am looking that the M1 or Cub from OptoElectronics but don't know
> about it's stability or accuracy.
>
> -rob N7QT

1126. Current limiter Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 18:35:11 UTC
From: Alex Turner <aturner13@triad.rr.com>
Message-ID: <zvzj6.88317$p8.23260856@typhoon.southeast.rr.com>
Source record: 54673

Can anyone point me to a current limiter that I could use between several power sources (12 - 14v range) that would be adjustable from .5 to 3 amps.

thanks
Alex - N4BYJ

1127. WTB:AN OLDPORTABLE ON THE 2 METER BAND FOR A SOLAR PROJECT

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 19:29:25 UTC
From: gervais <gfillio1@globetrotter.qc.ca>
Message-ID: <daBj6.590$Me7.17287@news.globetrotter.net>
Source record: 54675

Hi all,thanks for reading.I am looking for an old portable on the 2 meter band .it doesnot need to be new because it will be use as a transmetter for a packet network power by solar,little,panel.

i dont have many $$$$$ to spend on that project so even if your's has the batteries out of business let me know .

many thanks for your helping hand

gervais
ve2ckn
ve2ckn@rac.ca

1128. Re: Best freq. counter for under $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 20:24:59 UTC
From: Clif Holland <radio.service@verizon.net>
Message-ID: <u6Bj6.1261$NB4.264597@dfiatx1-snr1.gtei.net>
Source record: 54674
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Pick up one of the HP 5328A's that are going for abt $125 on Ebay. Make sure it has the high stability timebase and you have an excellent counter good to 500 mhz. Much more accurate than anything you mentioned.

--
Clif Holland, KA5IPF
Owner, AVVid, an Authorized Kenwood and Icom Amateur Radio Service Center
For more information visit our website at:
http://www.avvid.com
or call
1-800-214-5779
"Robert Fanfant" <fanfant1@home.com> wrote in message
news:N4zj6.436993$U46.12809294@news1.sttls1.wa.home.com...
> Any recomendations for a freq counter? To be used to tune/adjust my older
> rigs. Am looking that the M1 or Cub from OptoElectronics but don't know
> about it's stability or accuracy.
>
> -rob N7QT
>
>
>

1129. Re: Best frequency counter for $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 20:42:19 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A8EE22B.50C39798@dialpoint.net>
Source record: 54676
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

For under $ 400 you should be looking at a used service monitor. They sometimes show up on ebay and hamfests.. I bought a used Singer for about $ 200 a few years back. While It won't count the frequency you can set the dials to the frequency desired and there is a zero center meter you can watch to see how far off you are from where the dials are set. The sensitivity is also much beter than a counter. It will be accurate at around 2 microvolts where the counteres need about 20 milivolts or more. There are some counters made by Optoelectronics for around $ 100 and as long as you keep them at a reasonable temperature they seem to be stabel and accurate enough for most work. Lots of used comercial counters are out that should be in the under $ 100 price range also.

Robert Fanfant wrote:
>
> Any recomendations for a freq counter? To be used to tune/adjust my older
> rigs. Am looking that the M1 or Cub from OptoElectronics but don't know
> about it's stability or accuracy.
>
> -rob N7QT

1130. WTB 14 or 21 or 28 Mhz xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 21:59:16 UTC
From: "Rein A. Smit" <rein0zn@ix.netcom.com>
Message-ID: <3A8EF434.E473DC38@ix.netcom.com>
Source record: 54679

Hi

I am looking for a crystal xx.ooo Mhz fpr an LF converter LO.

xx = 14 or 21 or 28

73 Rein W6/PA0ZN

1131. Telephone Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 22:46:52 UTC
From: FlyCaster <NOSPAM-kenwells@kiva.net>
Message-ID: <96muvg$c9g$1@topsy.kiva.net>
Source record: 54677

Hi All,
I know this may be a little off subject, if so, I apologize.
I am looking for a simple circuit to connect two or more telephones together
for use as a local intercom.

I plan to expand this with a phone patch connection later. I would also
like to use it with my cordless phone as a simple duplex wireless intercom
for antenna adjustment, etc.

Any takers?

Thanks
--
Ken Wells - NM9P
kenwells***NOSPAM***@kiva.net

1132. WTB: MRF227 RF Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 22:55:55 UTC
From: Frank Sweeney <fsweeney@mail.com>
Message-ID: <LjDj6.4893$nI3.14609@nntp0.chicago.il.ameritech.net>
Source record: 54678
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Does anyone have any of these in their junk box.. I need minimum of one for my UHF repeater exciter.. Thanks and have a great day!

73,
Frank Sweeney - K9IC
fsweeney@mail.com

--

1133. Re: Murata 455 KHz SSB filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-17 23:37:27 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <xYDj6.2$b52.684@wa.nnrp.telstra.net>
Source record: 54680

Try this guy: http://www.xs4all.nl/~barendh/Indexeng.htm
I've used him and he was very prompt (I received my stuff in about 1 week!)
Note that prices are in Dutch Gilder and include %17 sales tax which wont
apply to you.

Regards
Murray - VK6HL

Juan <novalid@novalid.com> wrote in message
news:9640u8$jq8$1@diana.bcn.ttd.net...
> I need a CFJ455K murata 455 KHz IF filter for SSB, but I think is
> discontinued. I read the Murata page, but, I didn't found an equivalent
> part.
> Someone could help me? Where can I buy this kind of filters?
>
> Thanks for reading this.
>
> Juan, EA6NP
>
> blurpea6np@blurparrl.net
>
> Sorry, remove the blurps. ;-)
>
>
>

1134. Re: WTB: MRF227 RF Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 00:02:12 UTC
From: Harry <HGK@centurytel.net>
Message-ID: <3A8F1104.4FBFCB01@centurytel.net>
Source record: 54681
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Frank
Try here and good luck
http://www.rfparts.com/home.html

Frank Sweeney wrote:
>
> Does anyone have any of these in their junk box.. I need minimum of one for
> my UHF repeater exciter.. Thanks and have a great day!
>
> 73,
> Frank Sweeney - K9IC
> fsweeney@mail.com
>
> --

1135. crystal needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 01:27:25 UTC
From: rdalton1 <rdalton1@postoffice.swbell.net>
Message-ID: <3yFj6.204$rH6.6370@nnrp1.sbc.net>
Source record: 54682

I am seeking an 8.4mhz(aprox) crystal as the fundemental crystal for a
heathkit sixer.
contact me at dalton.richard@mailcity.com
thanks..........

1136. Re: ???HF Remote Base Controller Recomendations???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 02:29:09 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <VrGj6.2811$5M5.232165@news1.frmt1.sfba.home.com>
Source record: 54683

I have been researching this topic for several years and I think I can
fairly definitely say there is
no totally satisfactory solution to this problem. The only solution
approaching a turnkey operation
is the Kachina. The disadvantages of it are that you have to lay out $4000
for a transceiver and accessories
that has second rate performance, made by a company with luke warm
committment to the amateur market.
The Kachina also suffers from inferior digitized and compressed audio. Of
the conventional
HF rigs, only the Kenwood TS-870 is really easily remotely controlled. I
have an FT-1000 that can be
controlled locally via computer, but is difficult to control via remote
link, and you would need two UHF
links or 2 phone lines. There are some controller boxes for HF that were
made years ago, but are no
longer on the market, and used ones, if you can get them, have no
replacement parts available for the obsolete
IC's they use, so you don't know how much longer they will continue to
operate.

I am leaning in the direction of building a homebrew DTMF controller.
There are some little DTMF boards
that can be used as building blocks that save some of the design work.
There is no technical reason why a
really nice interface such as you describe couldn't be built, but for
marketing reasons or whatever, there is
nothing like that on the market to my knowledge. Now that Kachina has
fulfilled this need after a fashion, it
keeps other possible controllers off the market due to competition.

The handful of remote HF stations I am familiar with, except for the Kachina
ones, all have one of a kind
solutions that get those stations on the air but are not of much help for
anyone else.

I would be happy to compare notes with anyone else interested in this topic.
I am building a station
out in the country that I currently operate only on weekends and would like
to be able to operate
remotely during the week

Rick Karlquist
N6RK

Thomas M. Alldread <tma@mail.island.net> wrote in message
news:o8dt8tkr3nr19c2hjunirih2l6k76rlgst@4ax.com...
> Greetings to All on this List:
>
> A group of us have just started to look at setting up a 440MHz
> repeater as the nucleus for an HF remote base system. Ultimately we
> want to link this system to a 2M repeater to provide VHF access to the
> HF remote base as well. We currently have a couple of modern ICOM HF
> rigs within the group to choose from that we would like to use for the
> remote base rig. It has been already decided to use Motorola equipment
> for the UHF repeater and full duplex link equipment with commercial
> antennas and duplexers.
>
> We have not decided on the controller equipment to use. I
> would like to hear recommendations from those that have experience
> with setting up a similar HF remote base system. We basically would
> like to be able to remotely DTMF control all the serial port
> controllable features of the HF rig, to remotely select antennas, to
> remotely control at least one antenna rotator and to be able to keep
> tabs on the status of the site. Digitally generated voice confirmation
> for all the remote commands would be needed for feedback to the
> operator.
>
> Although I have done some Internet searches I have not yet
> recognized an off-the-shelf controller package that will do the whole
> job. A friend of mine set up a similar remote base about a decade ago
> that used a Commodore 64 with a custom interface that does pretty well
> everything we need but I am wondering if there is a more modern
> alternative. Are there modern embedded controller systems available
> for this application or alternatively a PC software package possibly
> using a pair of sound cards for audio interfaces available
> off-the-shelf? I guess basically I would like to identify all
> currently available modern controller equipment packages that are
> designed to do the job and hear recommendations plus pros and cons
> from those that are experienced with HF remote bases.
>
> Thanks in advance for all your help!
>
> 73 & Enjoy!
> Tom, VA7TA
> Very Best Regards,
> Thomas M. Alldread, tma@mail.island.net
>
> Note: The information provided by me is accurate to the best of my
knowledge but use it at your own risk as there are ~NO GUARANTEES IMPLIED~.

1137. 4.332MHz crystals needed...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 06:01:33 UTC
From: Sorry I Hate Spam <nospam@noway.net>
Message-ID: <QvJj6.1170$xe.11125@news.inreach.com>
Source record: 54685

I need to find a source for 4.332MHz crystals....

I'd appreciate any leads y'all might have!

Thanks,
Clay

1138. FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 06:05:50 UTC
From: Sorry I Hate Spam <nospam@noway.net>
Message-ID: <RzJj6.1171$xe.11038@news.inreach.com>
Source record: 54684

In a related project, I am beginning work on a ground up no-holds barred FM only tuner design. All analog... Priority to sensitivity and selectivity, though sound fidelity is a major design criteria as well....

Any suggestions, hints, sources, info, ideas, etc are greatly appreciated....

It's time for a new design that delivers top performance without making you sell a kidney to buy it!!! :)

Thanks,
Clay

1139. Re: ???HF Remote Base Controller Recomendations???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 07:26:32 UTC
From: Keith McQueen <kb7m@arrl.net>
Message-ID: <%NKj6.6216$GE.862357@news.uswest.net>
Source record: 54686

I am using an ICOM IC-706 (original) with a Link Comm controller
(http://www.link-comm.com) on a UHF GE Mastr II repeater. The setup seems
to work well. I don't what functions of the radio are actually controllable
via the serial link, but the Link Comm controller implements enough to
actually be able to work HF remotely with control over two VFO's, scanning,
frequency and mode selection, split operation, memory recall etc.
BTW, I use an SGC automatic tuner with a G5RV to give all-band operation via
the remote.

"Thomas M. Alldread" <tma@mail.island.net> wrote in message
news:o8dt8tkr3nr19c2hjunirih2l6k76rlgst@4ax.com...
> Greetings to All on this List:
>
> A group of us have just started to look at setting up a 440MHz
> repeater as the nucleus for an HF remote base system. Ultimately we
> want to link this system to a 2M repeater to provide VHF access to the
> HF remote base as well. We currently have a couple of modern ICOM HF
> rigs within the group to choose from that we would like to use for the
> remote base rig. It has been already decided to use Motorola equipment
> for the UHF repeater and full duplex link equipment with commercial
> antennas and duplexers.
>
> We have not decided on the controller equipment to use. I
> would like to hear recommendations from those that have experience
> with setting up a similar HF remote base system. We basically would
> like to be able to remotely DTMF control all the serial port
> controllable features of the HF rig, to remotely select antennas, to
> remotely control at least one antenna rotator and to be able to keep
> tabs on the status of the site. Digitally generated voice confirmation
> for all the remote commands would be needed for feedback to the
> operator.
>
> Although I have done some Internet searches I have not yet
> recognized an off-the-shelf controller package that will do the whole
> job. A friend of mine set up a similar remote base about a decade ago
> that used a Commodore 64 with a custom interface that does pretty well
> everything we need but I am wondering if there is a more modern
> alternative. Are there modern embedded controller systems available
> for this application or alternatively a PC software package possibly
> using a pair of sound cards for audio interfaces available
> off-the-shelf? I guess basically I would like to identify all
> currently available modern controller equipment packages that are
> designed to do the job and hear recommendations plus pros and cons
> from those that are experienced with HF remote bases.

>
> Thanks in advance for all your help!
>
> 73 & Enjoy!
> Tom, VA7TA
> Very Best Regards,
> Thomas M. Alldread, tma@mail.island.net
>
> Note: The information provided by me is accurate to the best of my
knowledge but use it at your own risk as there are ~NO GUARANTEES IMPLIED~.

1140. Re: crystal needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 13:29:46 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <96oiri016q9@news2.newsguy.com>
Source record: 54687

If you don't mind using up a few green stamps, International Crystal can get you just about anything. Even more impressive, they seem to know anything in milliseconds. Just give them Heath's old model number (was it a HW-36? I don't remember) and they will know exactly the load capacitance, holder, etc. for the crystal. The big ouch? It'll probably cost $25 by the time you include shipping.

You mean a crystal isn't a crystal? Well, yes. International Crystal is real hung up on the crystal working on the frequency you specify. If you get the wrong characteristics, it's possible the crystal won't oscillate at all, but more likely it will be slightly off frequency. Probably not enough to matter for your Sixer, however. Remember, you will probably adjust it with the trimmer, so unless the crystal is way off, it's not going to matter.

I have no connection to ICM other than as a customer. I always moan when I find out what it will cost, but I like getting exactly what I want with no fooling around.

didleydadidah

"rdalton1" <rdalton1@postoffice.swbell.net> wrote in message news:3yFj6.204$rH6.6370@nnrp1.sbc.net...
> I am seeking an 8.4mhz(aprox) crystal as the fundemental crystal for a
> heathkit sixer.
> contact me at dalton.richard@mailcity.com
> thanks.....
>
>

1141. Re: Advice on Drake L7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 14:35:18 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <t8vndc7lumdd2a@corp.supernews.com>
Source record: 54688
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

the biggest diff is one piece vs two piece..
second is the drake is easier to work on..
third the kenwood has better metal workmanship..
both are good amps..
you can't go wrong with eiher..
let your heart lead you..
<k3ky@erols.spamnocom> wrote in message
news:3a8d7059.1035388168@news.erols.com...
> I have a Drake L7 and would not part with it. Drake runs the 3-500Z's
> conservatively. You are unlikely to ever see 1500 watts output on any
> band- 800 to 1200w is more likely. It is a nice-looking, compact amp.
> Mine has been extremely reliable. I believe you would see a little
> more power output with the Kenwood TL-922. I would still choose the
> L7 anyway. 73, David K3KY
>
> On Thu, 15 Feb 2001 13:17:43 -0500, Scott McClements
> <yetbbwa@grove.iup.edu> wrote:
>
> >Hi all,
> >
> >I need some input on the Drake L7 HF amp. I can't find much in the way
> >of reviews, complaints, etc. on the amp (online). The nice look of the
> >amp and a few other things caught my eye and I was thinking about
> >purchasing one. What are the pros / cons of this amp? Would I be better
> >off with a Kenwood TL-922A ?
> >
> >I have looked at the online Drake muesum already.
> >
> >Thanks,
> >
> >Scott.
> >
>

1142. Re: W & G SPM-6 info?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 16:03:29 UTC
From: la8ak@online.no
Message-ID: <3a8fbf5d.400755603@news.online.no>
Source record: 54689

On Fri, 16 Feb 2001 09:50:31 -0000, "John Owen"
<johnowen@btinternet.com> wrote:

>Help
>I need some info or a circuit for the demodulator output of a Wandel &
>Goltermann SPM-6 selective level meter, 6KHz -18MHz. The demod output didn't
>work when I got it and on tracing the coax cable from the demod board to the
>rear panel I found it crossed over as it went through a multi way connector
>thus shorting the demod output to ground, I've fixed this but need the
>output stage circuit to fix the final stage - any help appreciated.

sometimes monitor o/p is disabled when you use the level display, but
didn't think it is way for the relative modern instrument

>Also does anyone know what the BNC output on the back to connect to an FFZ-6
>is for?

suppose it is for a click-clack type frequency counter (Frequenz
Z&#65533;hler), but should be little reason to look for this ancient unit.

>and is it easy to get an IF output pre-filter from the unit as I want
>to use it as a receiver and the 1.4KHz BW is narrow for AM.
>The SPM-6 may be known as something different in some regions, I can't find
>many references to it but see ATxxx which may be similar - mine has a
>mechanical frequency readout.
>I would appreciate email replies as my ISP seems to loose a lot of newsgroup
>messages making following a thread totally impossible.
>
>Many Thanks
>
>John
>
>
>

1143. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 17:33:14 UTC
From: bpasaric@mac.com
Message-ID: <1ep1esl.s0aopnbmwtkwN%bpasaric@mac.com>
Source record: 54690

Richard Karlquist <rick@area.com> wrote:

> The Clapp oscillator has been superceeded by the Vackar oscillator, which is
> generally
> considered to be the ultimate VFO technology. Unfortunately, it is not well
> documented
> in the literature. I think it was in Ham Radio once. I have never been
> able to get a copy
> of Vackar's original paper.

Dear OM!

The Vackar oscillator has been described in the QST of September 1978, page 15 ("Meet the Remarkable but Little-Known Vackar VFO!" by K6BSU).

In the QST of January 1980, page 19 you can also find an article by W1FB about how to build a Clapp ("A Beginner's 3-Band VFO").

Strange but true, instead of the coil in the Clapp you can put a standard 3.58 MHz ceramic resonator in series with a 150 pF variable capacitor. Those CRs are very stretchable, so you will be able to change the frequency between 3.5 to 3.6 MHz with an even greater stability.

Ask the ARRL to send you a copy of each article. If you cannot get it, send me your address and I will send you the two copies by mail.

73 de Bozidar, 9A2HL; email: bpasaric@mac.com

1144. Re: Current limiter Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 17:55:28 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A9036E4.EBE4084F@home.com>
Source record: 54691

The simplest would be an LM317 or LM337 -- see the NatSemi website - - the adjust leg is connected to the output leg via a resistor whose value is

R=1.25/I

Alex Turner wrote:

> Can anyone point me to a current limiter that I could use between several
> power sources (12 - 14v range) that would be adjustable from .5 to 3 amps.
>
> thanks
> Alex - N4BYJ

1145. Re: crystal needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 19:26:19 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <p4809t44ldvkaultuke5fvg2lo99phflgi@4ax.com>
Source record: 54692

"rdalton1" <rdalton1@postoffice.swbell.net>
shared these priceless pearls of wisdom:

->I am seeking an 8.4mhz(aprox) crystal as the fundemental crystal for a
->heathkit sixer.

JAN Crystal in Ft. Myers FL can do it for about $10 delivered to your door.
They have an 800 number but I'm not in a place to look it up right now.

As I remember, that old boat anchor needed the FT-243 case and I've got ONE 8450
kHz. rock in that case left. I have absolutely no idea if it is still good, if
it is still on that frequency, or anything else about it other than it was the
one that I used in my Sixer about thirty years ago. If you want it it is yours
for a sase padded envelope. Email me for the mailing address.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1146. QRPp (2000) / SLPV info WTD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 19:44:18 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <96p8milbk1@agate.berkeley.edu>
Source record: 54693
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi,

I would like to obtain a copy of the Spring 2000 issue of QRPp. I
am specifically interested in seeing the construction article on
the St. Louis Pocket Vertical antenna. (This is different from the
St. Louis Vertical.)

Can anyone help me obtain this article in one form or another?
I'll do whatever it takes to get a copy of this article.

Backissues of QRPp are available from NorCal only from 1998 back,
nothing yet for '99 or '00. Thanks for your help,

73,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

1147. IRF-630 mosfet -- good for HF amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 20:57:28 UTC
From: Quequeg@quahog.com
Message-ID: <slrn990e30.5b.Quequeg@daystar.capecod.net>
Source record: 54694

I bust open every dead piece of electronics. I opened a small UPS and found lotsa stuff, including a heatsink with 4 IRF-630 devices on it. Are these anything like the 510s, etc, usable as HF amplifiers? They prolly only cost a coupla bucks from Dan's, but I can't resist free stuff.

-Q
--
"Dead Whale or a Stove Boat"
<---------[[[[[[[[[[[[[[[[[[

1148. Crystal Controlled FM TX kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-18 22:07:00 UTC
From: Schneider <js@sprintmail.com>
Message-ID: <3A904757.B8430357@sprintmail.com>
Source record: 54695

Years ago Ramsey made a surface mount crystal controlled FM TX for the 2 meter band. It was surface mount on a 1''x2.5'' board.

Does anyone still make kit something like this kit that is crystal controlled it does not necessarily have to be surface mount but the smaller the better.

Or if some one has one of theses kits and they don't use it any more, Please contact me!

Thanks & 73's,

Jeff

--
http://www.homestead.com/KK5UFO/

In God we trust, all others we monitor.

1149. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 01:27:22 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <96psn5$6j8$1@uranium.btinternet.com>
Source record: 54696

There are no fundamental differences between any of the various 'names' of oscillators. They all have the same order of frequency stability when working with the same transistor and DC supply. One cannot expect much to happen just by grounding a different node of the simple circuit or having two capacitors in series instead of one,

The various oscillator names do, of course, provide the radio magazines' old wives and authors and technical editors with whole lifetimes of plagiarism, repetitions and regurgitated waffle.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Gerhard W. Hoffmann <ghf@hochfrequenz.com> wrote in message news:3A873C2C.A35583D2@hochfrequenz.com...
John Moriarity wrote:
>
> > My 1998 version of the ARRL Handbook has a schematic of G3PDM's
> > Vackar VFO. For temperature compensation it uses an Oxley
> > "Tempatrimmer." Does anyone know what this is, or how to get one?

> The "Tempatrimmer" is a differential capacitor with the rotor
> attached to a bi-metallic strip which moves as the temperature
> changes, like a thermostat. At a constant temperature, you can
> rotate the capacitor shaft without changing the total capacitance.
> Temperature change *will* change the effective capacitance.

The Sommerkamp/Yeasu FT505/FT500 had something similar 25 years ago:
a differential capacitor + 2 ceramic capacitors of same value but different TK.

73, Gerhard

--
gerhard@hochfrequenz.com _____
on the air: DK4XP \ _____o______ | CECI N'EST PAS
in the air: D-1441 _____ --===== .]]]]|> UN PIPER

1150. Re: PSK-31 On A TS-450 Under Computer Control?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 01:34:28 UTC
From: n5kzw@iname.com
Message-ID: <3a907779.20909870@news.infohwy.com>
Source record: 54547

On 16 Feb 2001 01:57:54 GMT, w3nj@aol.com (W3NJ) wrote:

>>I would like to operate some of the digital modes on a TS-450S while
>>at the same time having the computer in control of the rig. YPLog
>>appears to support this, but I'm having trouble with the I/F.
>>
>>I built up the soundcard I/F using isolation transformers and an
>>opto-isolator to connect the rig and the computer through the 13-pin
>>DIN connector and the serial port. The I/F works as advertised.
>>
>>I also bought the W1GEE I/F to control the rig from the computer, and
>>it also works as advertised.
>>
>>The problem is that I want to use both of them at the same time.
>>
>>The PSK-31 I/F wants to use RTS or DTR to key the transmitter, but the
>>W1GEE uses both of these signals when talking to the rig. Also, the
>>PSK-31 I/F takes great care to isolate the rig ground from the
>>computer ground. The W1GEE I/F ties the two grounds together.
>>
>>Has anyone done this on a TS-450S successfully?
>>
>>Thanks,
>>Ed - N5KZW
>>
>>
>>
>>
>>
>>
>>
>
>Hi Again Ed!!
>
>Any chance you can get a 2nd serial port? Otherwise the mux'ing is going to be
>"horrific"
>
>GL de Bruce - W3NJ

Yeah, that's what I'm looking at. I've ordered a dual-port serial
card. I'm a little worried about a ground loop through the W1GEE I/F,
but until I get that #$%&#$#%% 13-pin DIN connector working it's a
moot point.

TNX
Ed - N5KZW

1151. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 01:44:16 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <QT_j6.7098$5M5.497398@news1.frmt1.sfba.home.com>
Source record: 54548

You should copy the design described by Wayne Ryder (W6URH) in RF design
magazine recently.
It is vastly superior to anything else I am aware of.

Let us know how your receiver turns out.

Rick Karlquist N6RK

Sorry I Hate Spam <nospam@noway.net> wrote in message
news:RzJj6.1171$xe.11038@news.inreach.com...
> In a related project, I am beginning work on a ground up no-holds barred
FM
> only tuner design. All analog... Priority to sensitivity and selectivity,
> though sound fidelity is a major design criteria as well....
>
> Any suggestions, hints, sources, info, ideas, etc are greatly
> appreciated....
>
> It's time for a new design that delivers top performance without making
you
> sell a kidney to buy it!!! :)
>
> Thanks,
> Clay
>
>

1152. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 02:35:24 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <d9fu8t0f65brru3mmpnirfpggsvfa0d5ta@4ax.com>
Source record: 54549

hexter@blazenet.net (gudmundur) wrote:

> I have been experimenting with recharging alkaline batteries
>these last few months, and have been a little less than impressed.
>
> I have a walkman type portable CD player that is a bit battery
>hungry, and I have two sets of four batteries that I have been
>re-cycling. I charge them at a slow rate of about 20 ma, as anything
>higher seems to cause them to leak out a coffee colored corrosive
>substance. After what I consider to be a full recharge (inputting
>about 150% of the rated output watthours, the batteries only seem
>to be able to supply about 1/2 of their original output capacity,
>and they seem to have a higher internal resistance which makes them
>unsuited for high current drain devices.

Your experience almost exactly mirrors the results that Consumer
Reports got a few year ago. There turns out to be very little you and
do with normal alkaline batteries.

The rechargable alkalines, however, use a different chemistry and
recharging them works pretty well.

It looks to me like NiMH batteries are the next wave in
rechargability, however. Their price is just starting to come down.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

1153. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 03:05:14 UTC
From: JD <dyson@jdyson.com>
Message-ID: <bZ%j6.31$Uh4.10980@news1.iquest.net>
Source record: 54550

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:96psn5$6j8$1@uranium.btinternet.com...
> There are no fundamental differences between any of the various
> 'names' of oscillators. They all have the same order of frequency
> stability when working with the same transistor and DC supply. One
> cannot expect much to happen just by grounding a different node of
> the simple circuit or having two capacitors in series instead of
> one,
>
> The various oscillator names do, of course, provide the radio
> magazines' old wives and authors and technical editors with whole
> lifetimes of plagiarism, repetitions and regurgitated waffle.
>
Isn't it true that one of the biggest difference in oscillators is how well isolated the frequency that the oscillator is from undesired effects? For example, one would normally want to make the frequency of oscillation relatively independent from the undesired potentially relatively uncontrolled parasitics in the constituent active and inactive devices.

Purely from a 'theoretical' standpoint, it would be best to choose a design that is relatively independent of the varying parametric effects of the active devices, minimal effect of active device LF noise, and obviously other necessary requirements (e.g. proper gain/phase levels, etc.) Ideally, the frequency determining components are those that are 'planned', and the effects of device parasitics (that are likely dependent
on numerous aspects of the environment (temperature, etc.)) are minimized. Of course, in circuits with stringent requirements, one does need to consider the various parasitic effects, but minimizing the effects is a first order design optimization.

Some oscillator circuit designs might simply let device parasitics strongly affect the frequency of oscillation, or be more susceptable to the LF noise characteristics of the active gain device.

It really doesn't seem like there is any 'magic', other than understanding the design goal, and understanding the various, sometimes subtile, effects of the circuit design.

I am going to provide two design tradeoffs that might make an oscillator work better or worse:

1) It *might* be a good idea to decouple the resonant circuit from the active device. One goal
of the decoupling might be to lessen the effect of device capacitance, and make the side effect of the varying device capacitance less significant than a circuit that provides more intimate coupling between the active device and the PLANNED frequency determining part of the oscillator circuit.

This decouplling is probably one of the biggest differences in oscillator circuit designs.

2) It *might* be a good idea to make sure that the DC bias circuitry doesn't have any unplanned
LF noise effects. Such noise could increase either AM or PM noise in the oscillator output.

There are MANY other design issues, but this comment is meant to show that it is best to create a design with desired effects, and snake oil isn't needed!!!

John

1154. Re: Power supply question.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 03:41:05 UTC
From: w4pqwhs@aol.com
Message-ID: <20010218224105.28695.00000016@ng-fm1.aol.com>
Source record: 54551

Sounds like a nice Power supply. probably would not be suitable for radio use ..most RV supplies have no regulation and usually no filtering. I would try to sell them for RV use and buy a well regulated power supply for radio use.. good luck Harold W4PQW

1155. Help With Stepper Motor Control Pan/Tilt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 04:40:15 UTC
From: rnelson@farmtel.net
Message-ID: <3a90a366.18215572@news.mwci.net>
Source record: 54552

I have a pan/tilt assembly in which a CCTV camera was mounted on. It was originally controlled by a special keyboard that I do not have.

There are 2 motors on the assembly. One for pan and the other for tilt.
The information on the motors is: 1=41 2/3
UFB1NO5F41ASN4M
SAIA
Muten Switzerland

A PC board is also mounted on the assembly. Each motor has it's own PBL3774 and PBM3960 ICs. There also appears to be a uP IC that probably received serial commands from the control box.

All I want to do is control the movement of the motors with toggle switches (UP DOWN LEFT RIGHT) for camera control.

Can anyone help me reverse engineer this design?

Randy, WB0VHB

1156. Mitrek antenna cable type?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 04:56:02 UTC
From: Shawn Reeves <kleptein@hotmail.com>
Message-ID: <pn919tk8b8t4h6rnu2ggk2psod06euu446@4ax.com>
Source record: 54553
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I am trying to order connectors for a Mitrek that I am modifying, but I don't know what kind of cable it is... I've searched the manuals however I see no reference to a part number or even a description.

What is the official model/name of the white teflon cable inside a Mitrek? Does it have an RG number or equivalent?

Thanks!

1157. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 06:20:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A90BB24.5343E1A3@eznec.com>
Source record: 54554

It's really too bad that good oscillators are more difficult to design than Reg says, but then many things are. For people really interested in this topic, I highly recommend the treatment in Hayward's _Radio Frequency Design_, now available from the ARRL. It does an excellent job of showing the similarities among the various oscillator types, as well as their differences. It also tells what factors are important in achieving the results you need and how to implement them. Wes has spent a long and successful career designing professional test equipment and commercial RF and microwave ICs. I'm proud to join him as a fellow member of Reg's Old Wives Club.

Roy Lewallen, W7EL
Charter Member, OWC. Also OFC.

Reg Edwards wrote:
>
> There are no fundamental differences between any of the various
> 'names' of oscillators. They all have the same order of frequency
> stability when working with the same transistor and DC supply. One
> cannot expect much to happen just by grounding a different node of
> the simple circuit or having two capacitors in series instead of
> one,
>
> The various oscillator names do, of course, provide the radio
> magazines' old wives and authors and technical editors with whole
> lifetimes of plagiarism, repetitions and regurgitated waffle.
> --
> **********
> Regards, Reg, G4FGQ
> Free radio design & modelling software
> http://www.btinternet.com/~g4fgq.regp
>
> **********

1158. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 06:48:47 UTC
From: "Barry L. Ornitz" <ornitz@usa.net>
Message-ID: <uk3k6.24039$EW3.1278319@e3500-chi1.usenetserver.com>
Source record: 54555

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:96psn5$6j8$1@uranium.btinternet.com...
> There are no fundamental differences between any of the
> various 'names' of oscillators. They all have the same
> order of frequency stability when working with the same
> transistor and DC supply. One cannot expect much to
> happen just by grounding a different node of the simple
> circuit or having two capacitors in series instead of
> one,

There are quite a few differences in the various oscillators other than "what point is grounded." For example the classic Hartley oscillator uses a high-pass network in the feedback path, while the Colpitts uses a low-pass filter. The Clapp is similar to the Colpitts, but uses a bandpass filter for feedback. It can achieve better stability since the large capacitors on either side of the series network swamp any capacitance changes of the active element. But technically a Clapp oscillator can use an inductive divider too.

The simplest way to look at any oscillator is two four-port networks coupled together. One of those four-ports is the amplifier and the other is the feedback network. Meet the Barkhausen and Nyquist criteria and you have an oscillator. Which connections are grounded is unimportant to the analysis (except when "real" components are used - see below).

For example in the Hartley, the high-pass network has a 180 degree phase lead at the resonant frequency while the amplifier has a 180 degree phase lag. The amplifier must have sufficient gain to overcome the losses in the feedback (and actually a little more for the oscillator to start).

Compare this to a Colpitts oscillator where the feedback is a low-pass network which provides a 180 degree phase lag at its resonant frequency with the amplifier providing an additional 180 degree lag. In both cases, the total phase shift is an integral multiple of 360 degrees (0 - Hartley, 1- Colpitts). Now look at resistor-capacitor phase shift oscillators and understand why it takes 3 of each.

As John (JD) wrote, there are many criteria to be met when selecting an oscillator design. The effects of "real" versus "ideal" components must be understood, as well as the

basic differences in circuit topology. Stray capacitance, inductance and transmission line effects can be extremely important at higher frequencies.

But saying that a low-pass network is identical to a high-pass network to a band-pass network sounds mighty strange coming from you.

> The various oscillator names do, of course, provide the
> radio magazines' old wives and authors and technical
> editors with whole lifetimes of plagiarism, repetitions
> and regurgitated waffle.

The names are important only in that they honor the inventor. If you understand the oscillation criteria, and the feedback networks, it is pretty easy to understand almost any oscillator topology.

73, Barry L. Ornitz WA4VZQ ornitz@usa.net

1159. Re: Solid State Clapp-Osc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 11:37:37 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <96r0fc$p4n$1@uranium.btinternet.com>
Source record: 54556

VFO oscillator circuits came into and went out of fashion like the length of women's skirts. Now we have digital synthesisers.

VFO circuit choice is influenced by the load and output point.

Everybody has his own favourite. My own favourite is an inductor between FET drain and gate with the source tapped into the coil near the drain end. The tuning capacitor is in shunt with the coil. The drain end of the coil is grounded. Oscillator output is taken from the coil tap. I don't know the name of this particular circuit. But it's a good one. Rock stable. I invented it myself but I'm certain a 100 or more people will claim precedence.

Regards, Reg, G4FGQ
==========
Roy Lewallen <w7el@eznec.com> wrote in message news:3A90BB24.5343E1A3@eznec.com...
> It's really too bad that good oscillators are more difficult to design
> than Reg says, but then many things are. For people really interested in
> this topic, I highly recommend the treatment in Hayward's _Radio
> Frequency Design_, now available from the ARRL. It does an excellent job
> of showing the similarities among the various oscillator types, as well
> as their differences. It also tells what factors are important in
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> commercial RF and microwave ICs. I'm proud to join him as a fellow
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>
> Roy Lewallen, W7EL
> Charter Member, OWC. Also OFC.
>
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> > the simple circuit or having two capacitors in series instead
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> > one,
> >
> > The various oscillator names do, of course, provide the radio
> > magazines' old wives and authors and technical editors with
whole
> > lifetimes of plagiarism, repetitions and regurgitated waffle.
> > --
> > **********
> > Regards, Reg, G4FGQ
> > Free radio design & modelling software
> > http://www.btinternet.com/~g4fgq.regp
> >
> > **********

1160. Re: IRF-630 mosfet -- good for HF amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 16:48:09 UTC
From: k7itm@aol.com
Message-ID: <20010219114809.04700.00000908@ng-ff1.aol.com>
Source record: 54557

IRF630N is a current International Rectifier part. Have a look at the data sheet, available from www.irf.com. Power mosfets used for switching supplies and the like have quite a bit of gate capacitance, and AFAIK get pretty inefficient as RF power amplifiers much above 40 meters. Should make a decent amp on 80 meters. My most current experience is with switching supplies at ~3 - 6 MHz, where choice of FET did indeed affect the efficiency.

Cheers,
Tom
K7ITM

>Subject: IRF-630 mosfet -- good for HF amp?
>From: Quequeg@quahog.com (Queequeg)
>Date: 2/18/01 12:57 PM Pacific Standard Time
>Message-id: <slrn990e30.5b.Quequeg@daystar.capecod.net>
>
>
>I bust open every dead piece of electronics. I opened a small UPS and found
>lotsa stuff, including a heatsink with 4 IRF-630 devices on it. Are these
>anything like the 510s, etc, usable as HF amplifiers? They prolly only cost
>a coupla bucks from Dan's, but I can't resist free stuff.
>
>-Q
>--
>"Dead Whale or a Stove Boat"
><---------[[[[[[[[[[[[[[[[[[
>
>
>
>
>
>

1161. Re: Telephone Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 17:49:45 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <96rmbp$547$1@agate.berkeley.edu>
Source record: 54558

FlyCaster <NOSPAM-kenwells@kiva.net> wrote:
> I am looking for a simple circuit to connect two or more telephones together
> for use as a local intercom.

Hi,

Yes, I put something like this together which even rings the
other phone when one is taken off hook. I'll have to scan
the schematic and email it to you (later today).

I built this to connect an Aplio phone to a local workstation
running as an ISP, so I can say that it works up to 33kbps.

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

1162. stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 18:28:42 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A916574.E24334EF@GTE.net>
Source record: 54559

I have a panel meter whose needle began sticking. Works OK horizontally-
any hints before I mess this up?
Looks as though it has tension bearings on the front and rear of the
movement. They are locked in place so have not moved.
Dale W4OP

1163. Re: stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 19:45:01 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <7Kek6.9842$M75.173946@news6.giganews.com>
Source record: 54560

If the meter has suffered mechanical shock, the jewels may be cracked or the pivots bent. The pointer may be rubbing against the dial scale or the glass. It may just need a drop of clock oil on the pivots. Finally, some dirt or iron filings may have gotten to where they interfere with movement.

73, Bob K6DDX

1164. Re: stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 20:06:25 UTC
From: brokebob@aol.com
Message-ID: <20010219150625.16089.00001829@ng-cu1.aol.com>
Source record: 54561

Bearings either too loose or too tight can cause the needle to stick. Particles of dust or whatever is more likely the trouble. Be sure to use non magnetic tools around that thing or be super careful. The magnets are small but very strong.

Low pressure air might be a good starting point to find the trouble.

brokebob@aol.com (broke=not working, retired=not working, retired=broke)

1165. Probleem met voeding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 20:28:29 UTC
From: Mike <Ga@jeniksaan.com>
Message-ID: <96rvo1$1m3n$1@news.kabelfoon.nl>
Source record: 54562

Hallo..

Ik heb een klein probleempie..

als ik mijn voeding inschakel dan neemt deze een zeer hoge piek af uit het net.
Dit heeft als gevolg dat mijn Automaat van 16 Amp eruit vliegt.

Ik kan dit veranderen door een stop maar dat wil ik niet.

Is er een andere oplossing zodat ik de piek kan verminderen met inschakelen van de voeding.

hij 13,8V en geeft 2x20 amp af sec.

primaire is hij af gezekerd op 10Amp

gr Marco

info via de mail welkom of hier in de nieuwsgroep..

Marco336@yahoo.com

1166. Re: looking for a Linuax / Unix tutorial

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 20:49:20 UTC
From: Art Norman <artn@xetron.com>
Message-ID: <3a9186cd$1@news.xetron.com>
Source record: 54563

Well Jeff - I'll tell you the same thing I told you last Nov. 20 when you
asked the same question -
I've been spending my lunch hour at THE source -
http://www.linux.org/lessons/index.cgi
But I assume you won't learn any more this try.
N2ERI
(List of newsgroups trimmed to the only one I read)
"jeff" <n> wrote in message news:3a1843ba_3@news3.prserv.net...
> Hi
>
> Looking for recommendations on a "beginner's to advance" tutorial for
Linux
> / Unix preferably a pdf file that was intended to be read from beginning
to
> end (not a help or reference manual).
>
> I have seen a lot of them out there and the problem is to choose one and
> start learning, I can't read them all.
>
> So far I got:
> RUTE USERS TUTORIAL by Paul Sheer
> and
> UNIX IS A FOUR LETTER WORD AND Vi IS A TWO LETTER ABBREVIATION by
> Christopher C. Taylor.
> Both look good and I'm awaiting your recommendations.
>
> THNX, Jeff
>
>
>
>
>
>
>
>

1167. Re: IRF-630 mosfet -- good for HF amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 22:28:18 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <66hk6.11785$5M5.745646@news1.frmt1.sfba.home.com>
Source record: 54564

MOSFETs are quite non-linear, so they may not be usable for SSB.

N6RK

>
> >Subject: IRF-630 mosfet -- good for HF amp?
> >From: Quequeg@quahog.com (Queequeg)
> >Date: 2/18/01 12:57 PM Pacific Standard Time
> >Message-id: <slrn990e30.5b.Quequeg@daystar.capecod.net>
> >
> >
> >I bust open every dead piece of electronics. I opened a small UPS and
found
> >lotsa stuff, including a heatsink with 4 IRF-630 devices on it. Are
these
> >anything like the 510s, etc, usable as HF amplifiers? They prolly only
cost
> >a coupla bucks from Dan's, but I can't resist free stuff.
> >
>

1168. Re: ???HF Remote Base Controller Recomendations???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 22:30:27 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <78hk6.11786$5M5.745999@news1.frmt1.sfba.home.com>
Source record: 54565

I looked at the LinkComm web site and downloaded the manual for the
entry level ($250) controller and it looks very promising as far as
controlling
an HF rig. This may indeed be the solution I have been unsucessfully
looking
for.

Rick N6Rk

PS: anyone have one of these controllers for sale?

Keith McQueen <kb7m@arrl.net> wrote in message
news:%NKj6.6216$GE.862357@news.uswest.net...
> I am using an ICOM IC-706 (original) with a Link Comm controller
> (http://www.link-comm.com) on a UHF GE Mastr II repeater. The setup seems
> to work well. I don't what functions of the radio are actually
controllable
> via the serial link, but the Link Comm controller implements enough to
> actually be able to work HF remotely with control over two VFO's,
scanning,
> frequency and mode selection, split operation, memory recall etc.
> BTW, I use an SGC automatic tuner with a G5RV to give all-band operation
via
> the remote.
>
> "Thomas M. Alldread" <tma@mail.island.net> wrote in message
> news:o8dt8tkr3nr19c2hjunirih2l6k76rlgst@4ax.com...
> > Greetings to All on this List:
> >
> > A group of us have just started to look at setting up a 440MHz
> > repeater as the nucleus for an HF remote base system. Ultimately we
> > want to link this system to a 2M repeater to provide VHF access to the
> > HF remote base as well. We currently have a couple of modern ICOM HF
> > rigs within the group to choose from that we would like to use for the
> > remote base rig. It has been already decided to use Motorola equipment
> > for the UHF repeater and full duplex link equipment with commercial
> > antennas and duplexers.
> >
> > We have not decided on the controller equipment to use. I
> > would like to hear recommendations from those that have experience
> > with setting up a similar HF remote base system. We basically would
> > like to be able to remotely DTMF control all the serial port
> > controllable features of the HF rig, to remotely select antennas, to
> > remotely control at least one antenna rotator and to be able to keep
> > tabs on the status of the site. Digitally generated voice confirmation

> > for all the remote commands would be needed for feedback to the
> > operator.
> >
> > Although I have done some Internet searches I have not yet
> > recognized an off-the-shelf controller package that will do the whole
> > job. A friend of mine set up a similar remote base about a decade ago
> > that used a Commodore 64 with a custom interface that does pretty well
> > everything we need but I am wondering if there is a more modern
> > alternative. Are there modern embedded controller systems available
> > for this application or alternatively a PC software package possibly
> > using a pair of sound cards for audio interfaces available
> > off-the-shelf? I guess basically I would like to identify all
> > currently available modern controller equipment packages that are
> > designed to do the job and hear recommendations plus pros and cons
> > from those that are experienced with HF remote bases.
> >
> > Thanks in advance for all your help!
> >
> > 73 & Enjoy!
> > Tom, VA7TA
> > Very Best Regards,
> > Thomas M. Alldread, tma@mail.island.net
> >
> > Note: The information provided by me is accurate to the best of my
> knowledge but use it at your own risk as there are ~NO GUARANTEES
IMPLIED~.
>
>

1169. Re: stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-19 23:48:55 UTC
From: jflanders2@home.com
Message-ID: <3a91aff5.204536338@news>
Source record: 54566

I have repaired meters with this problem before. Just open it up and be VERY careful with it. Use bright light and magnifying glass. You will probably find some magnetic trash between the poles that interfere with the coil movement. If not this, see if the spring is clear to move OK. I saw a spring once that had somehow wound around itself. The bearings are probably OK.

Jerry W4UK

On Mon, 19 Feb 2001 18:28:42 GMT, Dale Parfitt <GTE/parinc@GTE.net> wrote:

>I have a panel meter whose needle began sticking. Works OK horizontally-
>any hints before I mess this up?
>Looks as though it has tension bearings on the front and rear of the
>movement. They are locked in place so have not moved.
>Dale W4OP
>

1170. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 01:20:58 UTC
From: Piotr Balcerzak <bpiotrek@yahoo.com>
Message-ID: <_Djk6.259344$f36.10169654@news20.bellglobal.com>
Source record: 54567

Try MOSFET (BF981, BF961, etc.) at RF input, TDA1574 as mixer
and first IF amp, TDA1576 as IF amp, detector, signal level indicator
and 1578 as stereodecoder (all of them should be very inexpensive).
ICs' descriptions, technical data and application circuits you can find
on http://www.philipssemiconductor.com
If you make good PCB board, you will have decent FM tuner!
(If you add TDA1572, you will have decent AM BCB radio, too.
And SAA1057 or TSA6057 will make your tuner PLL synthesised :))

Hope this helps.

Piotr

Sorry I Hate Spam <nospam@noway.net> wrote in message
news:RzJj6.1171$xe.11038@news.inreach.com...
> In a related project, I am beginning work on a ground up no-holds barred
FM
> only tuner design. All analog... Priority to sensitivity and selectivity,
> though sound fidelity is a major design criteria as well....
>
> Any suggestions, hints, sources, info, ideas, etc are greatly
> appreciated....
>
> It's time for a new design that delivers top performance without making
you
> sell a kidney to buy it!!! :)
>
> Thanks,
> Clay
>
>

1171. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 02:52:35 UTC
From: Sorry I Hate Spam <nospam@noway.net>
Message-ID: <FWkk6.26$Gv.1121@news.inreach.com>
Source record: 54568

Any info on where/how to find this magazine? I'd love to take a look at it.

And I will post periodic updates as to the tuner's progress... :)

Thanks,
Clay

"Richard Karlquist" <rick@area.com> wrote in message
news:QT_j6.7098$5M5.497398@news1.frmt1.sfba.home.com...
> You should copy the design described by Wayne Ryder (W6URH) in RF design
> magazine recently.
> It is vastly superior to anything else I am aware of.
>
> Let us know how your receiver turns out.
>
> Rick Karlquist N6RK

1172. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 02:54:55 UTC
From: Sorry I Hate Spam <nospam@noway.net>
Message-ID: <RYkk6.27$Gv.1143@news.inreach.com>
Source record: 54569

Thanks Piotr! I will add this to my files when/if I decide to make a digital tuner. For the current design, I am trying to make it 100% analog/discrete.

Take care,
Clay

"Piotr Balcerzak" <bpiotrek@yahoo.com> wrote in message news:_Djk6.259344$f36.10169654@news20.bellglobal.com...
> Try MOSFET (BF981, BF961, etc.) at RF input, TDA1574 as mixer
> and first IF amp, TDA1576 as IF amp, detector, signal level indicator
> and 1578 as stereodecoder (all of them should be very inexpensive).
> ICs' descriptions, technical data and application circuits you can find
> on http://www.philipssemiconductor.com
> If you make good PCB board, you will have decent FM tuner!
> (If you add TDA1572, you will have decent AM BCB radio, too.
> And SAA1057 or TSA6057 will make your tuner PLL synthesised :))
>
> Hope this helps.
>
> Piotr

1173. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 03:42:23 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <zIlk6.12071$5M5.821622@news1.frmt1.sfba.home.com>
Source record: 54570

The FM receiver article is on line at:

http://www.telecomclick.com/magazinearticle.asp?releaseid=2304&magazineartic
leid=3427

Rick Karlquist N6RK

Sorry I Hate Spam <nospam@noway.net> wrote in message
news:FWkk6.26$Gv.1121@news.inreach.com...
> Any info on where/how to find this magazine? I'd love to take a look at
it.
>
> And I will post periodic updates as to the tuner's progress... :)
>
> Thanks,
> Clay
>
> "Richard Karlquist" <rick@area.com> wrote in message
> news:QT_j6.7098$5M5.497398@news1.frmt1.sfba.home.com...
> > You should copy the design described by Wayne Ryder (W6URH) in RF design
> > magazine recently.
> > It is vastly superior to anything else I am aware of.
> >
> > Let us know how your receiver turns out.
> >
> > Rick Karlquist N6RK
>
>
>

1174. Re: FM tuner design help....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 04:03:26 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A91EC8E.7FC12406@coqui.net>
Source record: 54571

> > In a related project, I am beginning work on a ground up no-holds barred
> FM
> > only tuner design. All analog... Priority to sensitivity and selectivity,
> > though sound fidelity is a major design criteria as well....
> >
> > Any suggestions, hints, sources, info, ideas, etc are greatly
> > appreciated....
> >
> > It's time for a new design that delivers top performance without making
> you
> > sell a kidney to buy it!!! :)
> >
> > Thanks,
> > Clay
> >
> >

Just from a thinking out loud point of view, you could take any
old junk $15 tube tuner off of ebay and add some modern
refinements. Among those would be a good RF amp stage,
stabilising the osc freq (or adding AFC if its not incorporated),
then spawning off a stereo adaptor type of circuit. No need to
re-invent the wheel, there are many old circuits out there that
have been time proven to be "correct" and the modern refinements
like stereo adaptation were well versed 40 years ago.
Unfortunately, selectivity wasn't a critical topic back then.
Parts would be readily available, etc. for such a project.
I'm not sure what the mission is here apart from simply having a
high-end DIY radio. Its not like re-designing a simple triode
"tube amp" that has some perceived enhanced performance over
modern solid state equipment. In terms of FM reception, anything
made in the era of transistors will pretty well whoop-ass over
anything made with tubes, but from a hobbyist standpoint, a fine
tuner made by hand has its own appeal.
Sounds like an interesting project. I'd recommend checking out
some of the old early 60's gear that had stereo to see if such
circuits could be replicated. Chassis pulls from old consoles are
pretty cheap. A junker off ebay could provide the necessary
components, or itself be a basis for refinements.
Good luck with such a project.

Bill Meacham
Vieques, PR

1175. Re: Current limiter Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 04:29:00 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A91F420.B8846161@att.net>
Source record: 54572

Alex,

For up to 3 amps, use the LM350K. Also, the reply from JW is essentially correct, but - It could be misunderstood. The resistor is in series with the output from the regulator. ... One end of the resistor connects to the regulator output. The other resistor lead goes to the load. The adjust port on the regulator connects to the load end of the resistor. The resistor must also be rated for the current draw and power (1.2 volts X current = watts). Total voltage drop across the circuit will be about 3.5 volts - or more, depending on the load and current.

```
--in--- Regulator --out-- Resistor ----- load
| |
Adj| |
|------------------------|
```

73, Woody

Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1176. Power supply Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 04:45:17 UTC
From: TC Dufresne <tdufres@radiks.net>
Message-ID: <jAmk6.200$5k2.231700@nntp3.onemain.com>
Source record: 54573

Sorry about the stupid question, I am looking into a CW transmitter that uses tubes. I have done a few other more modern rigs, and would like to try one that uses "valves". I had a question on the power supply. It requires +250V DC for B+ and 6.3 AC for the filaments (I assume) What power supplies available will do that? I have a feeling I can't find this one (power supply) at Radio Shack..
Tom
KC0GXX

1177. Search Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 09:35:49 UTC
From: Emmanuelle Fage <efage@club-internet.fr>
Message-ID: <96tdo7fvj1@front5m.grolier.fr>
Source record: 54574

Hello from France!
I search an edition of "The ARRL Handbook for Radio Amateurs published
by the American Relay League" between 1939 to 1950
73

1178. 2.4GHz feed to 2ft (60cms) offset Gregorian dish

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 13:03:14 UTC
From: steve@btinternet.com
Message-ID: <3a9265f4.362623@news.btinternet.com>
Source record: 54575
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

I'm wanting to use a 2ft (60cms) offset Gregorian ex satellite dish for 2.4Ghz. I wonder if anyone has a design for a simple circularly polarised feed?

The true focal length is about 37cms but as its an offset dish it varies from 37cms nearest to 60cms at the furthest point from the focus. My guess is that I should be using a mean value of about 48cms to calculate the f/D - giving a f/D of about 0.8? - hence I should be looking for a feed with a 10db beamwidth of about 70 degrees (3db beamwidth of 40 degrees).

Could the dish be feed with a small helix antenna (8 turns gives about this beamwidth) - I can't find any reference to feeding dishes with yagi (other than a simple dipole and single reflector) so I guess it must be a bad idea for some reason (probably defuse focal point?).

Steve G8KHW

1179. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 13:41:01 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <96uofkopu1@newsg4.svr.pol.co.uk>
Source record: 54586

> It looks to me like NiMH batteries are the next wave in
> rechargability, however. Their price is just starting to come down.
==========
Yes ,indeed .....however like Nicads ,when on the shelf ,they gradually loose their charge ,so it is best to keep them on a low ,safe trickle charge ALL the time.

Having quite a number of AA type and slightly larger (type ?) NiCad and NiMH cells I regularly give them a day or so trickle charge and once every half year a full discharge eg to 1 Volt per cell followed by a pulsed charge-and a day of trickle charging . This keeps them in good condition

Not having any experience with re-chargeable alkaline batteries , I would like to know how these behave while on the shelf.
I do know that normal alkaline batteries eg Duracell , have a shelf life of several years.

73 Frank gm0csz.kn6wh@ukrs.org

1180. Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 15:20:27 UTC
From: 2w8ji@akorn.net
Message-ID: <3a9289fe.277628186@news.accessunited.com>
Source record: 54576

I'm lost. I don't have a tube manual, and I've searched online and
can't find any help.

What I want to do is fix a design flaw in an old receiver without
hacking the thing up more than necessary.

I can cure the problem without cuttiung things up too bad by using a
nine pin tube (like the 6U8A) but I need a semi-remote or remote
cutoff tetrode sectioon so I can AGC the tetrode.

Anyone know off-hand what might work???

Thanks.
Tom W8JI

1181. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 15:41:23 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3A929023.2AD6130B@toast.net>
Source record: 54577

Tom Becker wrote:

> U.S. NAVAL OBSERVATORY
> WASHINGTON, D.C. 20392-5420
>
> January 16, 2001
> No. 67
>
> TIME SERVICE ANNOUNCEMENT SERIES 14
>
> NO UTC TIME STEP
>
> 1. The International Earth Rotation Service (IERS) has announced that there
> will not be a time step occurring at the end of June, 2001.
>
> 2. The difference between UTC and International Atomic Time (TAI) will
> remain:
>
> TAI-UTC= +32s until further notice.

So it's safe to go dancing that night. Whew!

john

1182. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 16:51:43 UTC
From: Art Norman <artn@xetron.com>
Message-ID: <3a92a093$1@news.xetron.com>
Source record: 54578

It's comforting to know there is a federal agency in charge of the earth's
rotation.
N2ERI
"John O'Flaherty" <oflahert@toast.net> wrote in message
news:3A929023.2AD6130B@toast.net...
> Tom Becker wrote:
>
> > U.S. NAVAL OBSERVATORY
> > WASHINGTON, D.C. 20392-5420
> >
> > January 16, 2001
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> > will not be a time step occurring at the end of June, 2001.
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> > remain:
> >
> > TAI-UTC= +32s until further notice.
>
> So it's safe to go dancing that night. Whew!
>
> john
>

1183. Re: Power supply Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 17:47:14 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <O0yk6.230$Gv.2527@news.inreach.com>
Source record: 54579

Tom:

Power supplies are among the easiest electronic devices to build and parts are plentiful. The supply you need could be built in many different ways and the Radio Amateurs Hanbook has had such designs for over 50 years.

Back when radios, TV's and other consumer electroic devices used vacuum tubes, it was easy to salvage the transformer, rectifiers, filter caps, etc for ham radio power supplies. It is a little harder now, but it is still not dificult to find such parts.

The 6 volt filament transformer can probably be found at Radio Shack. The 250 VDC will be a little harder, but there was an article in the Jan 2001 issue of Electric Radio Magazine where a supply similar to the one you need was built with 4 filament transformers. It puts out 6, 12, 18 & 24 VAC for filaments and 275 VDC for B+.

A little research will probably give you even more ideas.

Roger K6XQ

1184. Re: Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 18:10:36 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3a92b277.85638487@news.aepnet.org>
Source record: 54580

Tom,

http://www.nj7p.org/cgi-bin/tube?tube=6AZ8

Wes

>On Tue, 20 Feb 2001 15:20:27 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>I'm lost. I don't have a tube manual, and I've searched online and
>can't find any help.
>
>What I want to do is fix a design flaw in an old receiver without
>hacking the thing up more than necessary.
>
>I can cure the problem without cuttiung things up too bad by using a
>nine pin tube (like the 6U8A) but I need a semi-remote or remote
>cutoff tetrode sectioon so I can AGC the tetrode.
>
>Anyone know off-hand what might work???
>
>Thanks.
>Tom W8JI

1185. Re: 2.4GHz feed to 2ft (60cms) offset Gregorian dish

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 18:48:16 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A92BB88.496A04F2@GTE.net>
Source record: 54581
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

steve wrote:

> I'm wanting to use a 2ft (60cms) offset Gregorian ex satellite dish
> for 2.4Ghz. I wonder if anyone has a design for a simple circularly
> polarised feed?
>
> The true focal length is about 37cms but as its an offset dish it
> varies from 37cms nearest to 60cms at the furthest point from the
> focus. My guess is that I should be using a mean value of about 48cms
> to calculate the f/D - giving a f/D of about 0.8? - hence I should be
> looking for a feed with a 10db beamwidth of about 70 degrees (3db
> beamwidth of 40 degrees).
>
> Could the dish be feed with a small helix antenna (8 turns gives about
> this beamwidth) - I can't find any reference to feeding dishes with
> yagi (other than a simple dipole and single reflector) so I guess it
> must be a bad idea for some reason (probably defuse focal point?).
>
> Steve G8KHW

Hi Steve,

Go to the W1GHZ site- a quick search will bring up the URL. Paul has an online tutorial for dishes/feeds. The VE4MA/IMU polarizer feed is very efficient but the feed blockage would be quite prohibitive for a 60cM dish as the scalar is large. However, the diagonal feed by N7ART w/ polarizing stubs may be a good solution- the VE1ALQ site details this feed. F/D of 0.7-0.8 is very typical of offset dishes.
You might also want to search a W2IMU feed w/o a scalar- probably also on Paul's site.
Hope this helps.

Dale W4OP

1186. Anyone Repairing Panel Meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 18:48:59 UTC
From: Dale Parfitt <GTE/parinc@GTE.net>
Message-ID: <3A92BBC0.32B1F96C@GTE.net>
Source record: 54582

Header says it all. Any info?

Dale W4OP

1187. Cavity Resonator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 19:36:33 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <96uh2l$74u$02$1@news.t-online.com>
Source record: 54583

Hi

I need a cavity resonator for frequencies around 2 GHz. I've got some mode charts, so calculating the dimensions should not be a problem. Can someone provide additional hints and tips? E.g. type of coupling, what mode, literature etc.

Peter

1188. Re probleem met voeding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 19:54:44 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <973jca$c5q$1@newsg3.svr.pol.co.uk>
Source record: 54514

Mike or Marco , Please send me a proper e-mail address such I can send you a reply re your power supply problem.
I am not prepared to send a message in Dutch to this group.
The language used by members of this NG is English only.

73 Frank gm0csz.kn6wh@ukrs.org

1189. Re: Power supply Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 20:02:17 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <96uif9$8pk$1@wanadoo.fr>
Source record: 54584

I agree with Roger for 6.3 V AC transformer. It's not a problem to get one.

For the HV, if the power is not too big, you can try two transformers back
to back:
115 VAC -> any voltage and then any voltage (but the same than
previously) -> 115 VAC (or 230 VAC)

good luck

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

Roger Leone <arleone@inreach.com> a &#65533;crit dans le message :
O0yk6.230$Gv.2527@news.inreach.com...
Tom:

Power supplies are among the easiest electronic devices to build and parts
are plentiful. The supply you need could be built in many different ways
and the Radio Amateurs Hanbook has had such designs for over 50 years.

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issue of Electric Radio Magazine where a supply similar to the one you need
was built with 4 filament transformers. It puts out 6, 12, 18 & 24 VAC for
filaments and 275 VDC for B+.

A little research will probably give you even more ideas.

Roger K6XQ

1190. 70 cm AM receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 21:08:48 UTC
From: Oliver <rockets-nospam@attglobal.net>
Message-ID: <t95n75j37601cb@corp.supernews.com>
Source record: 54585

I am looking for an AM receiver (433MHz) with a receiver sensitive around
0.2uV.

--
Thanks

Oliver
TRA: 08312
HAM: KD7JVF

1191. Re: Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 23:18:24 UTC
From: la8ak@online.no
Message-ID: <3a92f827.107272091@news.online.no>
Source record: 54588

On Tue, 20 Feb 2001 18:10:36 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

>Tom,
>
>http://www.nj7p.org/cgi-bin/tube?tube=6AZ8
>
>Wes
>
>>On Tue, 20 Feb 2001 15:20:27 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:
>
>>I'm lost. I don't have a tube manual, and I've searched online and
>>can't find any help.
>>
>>What I want to do is fix a design flaw in an old receiver without
>>hacking the thing up more than necessary.
>>
>>I can cure the problem without cuttiung things up too bad by using a
>>nine pin tube (like the 6U8A) but I need a semi-remote or remote
>>cutoff tetrode sectioon so I can AGC the tetrode.
>>
sometimes just wonder if sharp-cutoff pentode works just as good,
HW-101 has 6AU6 as RF amplifier, and has outstanding intercept point,
while SB-300 with 6BZ6 hasn't, it is badly overloaded on 40m, but this
is probably caused by too low cathode voltage and voltage drop over
grid resistor

73
Jan-Martin
LA8AK

1192. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-20 23:21:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3A92FBFA.F439012D@eznec.com>
Source record: 54587

The makers of rechargeable alkaline batteries claim a shelf life similar to standard alkalines, and I have no reason to doubt it. I looked into using these cells not long after they came out, with the intended application being to run a GPS unit which drew about 250 mA. It turns out that at that current level, the initial capacity wasn't all that great, and the capacity deteriorated within a few charge cycles to less than a NiCd cell (and much less than a modern NiMH cell). In addition, the internal resistance increases pretty rapidly with the number of recharges. I suppose they've got their uses. But considering the very limited lifetime, very poor performance at even moderate currents, initial expense (including special charger), and the availability of primary alkaline cells at Costco for about 25 cents each, they've never been a solution for me. I keep some primary alkalines for emergency use, and use NiMH cells whenever I know in advance I'll be using them.

Roy Lewallen, W7EL

Frank Dinger wrote:
>
> > It looks to me like NiMH batteries are the next wave in
> > rechargability, however. Their price is just starting to come down.
> ==========
> Yes ,indeed ....however like Nicads ,when on the shelf ,they gradually
> loose their charge ,so it is best to keep them on a low ,safe trickle charge
> ALL the time.
>
> Having quite a number of AA type and slightly larger (type ?) NiCad and
> NiMH cells I regularly give them a day or so trickle charge and once every
> half year a full discharge eg to 1 Volt per cell followed by a pulsed
> charge-and a day of trickle charging . This keeps them in good condition
>
> Not having any experience with re-chargeable alkaline batteries , I would
> like to know how these behave while on the shelf.
> I do know that normal alkaline batteries eg Duracell , have a shelf life of
> several years.
>
> 73 Frank gm0csz.kn6wh@ukrs.org

1193. Re: Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 02:15:51 UTC
From: 2w8ji@akorn.net
Message-ID: <3a93242b.317103865@news.accessunited.com>
Source record: 54589

On Tue, 20 Feb 2001 23:18:24 GMT, la8ak@online.no (J M Noeding) wrote:

>sometimes just wonder if sharp-cutoff pentode works just as good,
>HW-101 has 6AU6 as RF amplifier, and has outstanding intercept point,
>while SB-300 with 6BZ6 hasn't, it is badly overloaded on 40m, but this
>is probably caused by too low cathode voltage and voltage drop over
>grid resistor
>
>73
>Jan-Martin
>LA8AK

Thanks all.

A 6AZ8 is about the only tube I don't have laying around!

I want a remote cutoff tube because I need to AGC it. It is after the selectivity, so overload is not an issue.

Thanks all.

Tom

1194. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 03:02:23 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <_bGk6.3811$el1.41894@e420r-sjo3.usenetserver.com>
Source record: 54590

"Art Norman" wrote ...
> It's comforting to know there is a federal
> agency in charge of the earth's rotation.

Fortunately, they only MONITOR it.
We'd be in deep yogurt if they actually CONTROLLED it!

RC :-)

1195. Re: stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 03:05:02 UTC
From: Lynn Coffelt <coffeltl@home.com>
Message-ID: <yfGk6.451905$U46.13372556@news1.sttls1.wa.home.com>
Source record: 54591

I've fixed a few and ruined a few, so take that in consideration
if you read this ramble.

Except in the case of a dropped multimeter, when anything can
happen, the problem is nearly always one of the two following
cases:

1. small (almost microscopic) piece of magnetic material lodged
between a pole piece and the armature. A strong light, good
magnification and a steady hand can ofter locate and remove (or
more likely, reposition the material so it now longer interferes). This
may not be ethical, but, hey!, it works. Any attempts to blow it out
with compressed air or washing out with a fluid, will nearly always
finish the meter for good. I have examples.

2. glue is sometimes used to anchor the armature shaft pieces to the moving
coil, even on some very expensive instruments. Some older instruments were
found with the glue cracked and the shaft/moving coil misaligned. The coil
will then "drag" on a pole piece somewhere in the needle's arc of travel.
Novices have repaired these occasionally with a part of a drop of super glue
on the end of a sharp, round toothpick. The trick, however, is to have
propped
the coil and shaft into proper alignment with wedges of paper or ??? before
the glue is applied. It is useful to know that getting the super glue on
anything
other than the intended spot also results in an expensive failure (or
inability
to let go of the meter).

Some watchmakers have a little experience with D'arsonval meter movement
repair, but my experience is that unless you do it yourself, the cost of
instrument
repair by a professional (if you can find one) is more expensive than the
meter
itself. (worth it if the meter must be the "original", and new is out of the
question)

A good, steady man, with no experience has maybe a 50-50 chance of success.
Don't call me if it doesn't work.

Lynn, W7LTQ

1196. Re: dirty DC charging of standard batteries??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 03:50:55 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <mud69t80nhof36kk7nd8r3poeg6gct03t5@4ax.com>
Source record: 54592

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>Not having any experience with re-chargeable alkaline batteries , I would
>like to know how these behave while on the shelf.
>I do know that normal alkaline batteries eg Duracell , have a shelf life of
>several years.

The rechargable alkalines don't discharge on the shelf at all, so they
are great for emergency stuff you put away and expect to be able to
use when you need it. OTOH, Ray-O-Vac claims that after about 25
charge/discharge cycles they will be down in capacity to approx the
same as a NiCad of the same size.

I found they would not work in my digital camera if I wanted to use
the flash; the voltage pulled down and I lost the image. So I guess
they are not good for high load applications.

I have switched over to them almost exculsively and have been
generally happy so far, although I did have one AA which was
completely dead (and not chargable) out of the box.

I probably have 30 of them around here in one device or another, from
AAs in a VOM to Ds in flashlights.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

1197. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 08:31:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <fps69t4fco7iulj7mtns7h2v5s1fsc21s8@4ax.com>
Source record: 54593

On Tue, 20 Feb 2001 11:51:43 -0500, "Art Norman" <artn@xetron.com>
wrote:

>It's comforting to know there is a federal agency in charge of the earth's
>rotation.

I assume that by "federal" you are referring to something belonging to
the US government.

Fortunately for (at least the rest of the world), the Central Bureau
of the IERS is in Paris, thus, the leap second issue is independent of
which party happens to be in charge in Washington DC :-).

Paul OH3LWR

1198. Re: Power supply Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 16:39:57 UTC
From: Mike Silva <mjsilva@jps.net>
Message-ID: <%7Sk6.317$B13.812797@nntp3.onemain.com>
Source record: 54594

Tom,

Assuming you'll need to build your own, it's not as hard to get these voltages as you might think. The "obvious" solution is to find a single suitable transformer, say 500 VCT and 6.3 V, but this may not be easy. Two other solutions also come to mind: (1) get a 240:120 isolation transformer (NOT autotransformer) and wire it backwards, feeding the 240V winding into a bridge rectifier. The Triad N-68X is one that I've used and you can find them pretty easily. (2) get a normal 1:1 isolation transformer and have the secondary drive a voltage doubler. In either case, using solid state rectifiers you'll end up with closer to 300V than 250V, but your tubes won't mind. For the tube heaters use a separate filament transformer (Radio Shack has 'em). I like to use 12.6 VCT transformers so I can run either 6V or 12V tubes.

In addition I'd suggest that you come and join the glowbugs mailing list for ham tube homebrewing. Here's the info from the rec.radio FAQ:

For homebuilding transmitters and receivers using tube technology,
there is the Glowbugs e-list; send an email to:
majordomo@piobaire.mines.uidaho.edu and only write:
subscribe glowbugs <your@address.here>

BTW, what lineup are you planning to use?

73,
Mike, KK6GM

"TC Dufresne" <tdufres@radiks.net> wrote in message
news:jAmk6.200$5k2.231700@nntp3.onemain.com...
> Sorry about the stupid question, I am looking into a CW transmitter that
> uses tubes. I have done a few other more modern rigs, and would like to
try
> one that uses "valves". I had a question on the power supply. It requires
> +250V DC for B+ and 6.3 AC for the filaments (I assume) What power
> supplies available will do that? I have a feeling I can't find this one
> (power supply) at Radio Shack..
> Tom
> KC0GXX
>
>

1199. distance between radio and LAN cables

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 17:11:11 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <970sqgjjd1@wanadoo.fr>
Source record: 54595

I plan to put a 144 MHz transceiver, feeding a standard coax cable (RG 213),
near my LAN (Ethernet 100 base T).

Does anybody has an idea of the minimum distance between the radio cable and
the LAN cable to avoid interferences.
The power of the 2m transmitter is about 20 W.

Thank you for your answer.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

1200. Re: Power supply Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 17:58:10 UTC
From: k5dh@raytheon.com
Message-ID: <SkTk6.8$nK.197@dfw-service2.ext.raytheon.com>
Source record: 54596

Hi Tom,

I build a lot of that kind of stuff myself. I probably have
a transformer that will work. Let me check my transformer bin
and see what I can come up with. What's the current requirement
on the B+ and the filament?

73,
Dean, K5DH

1201. Re: distance between radio and LAN cables

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 18:05:40 UTC
From: alec_wood <alec_wood@ntlworld.com>
Message-ID: <%rTk6.9979$5n4.153007@news6-win.server.ntlworld.com>
Source record: 54497

I run same network and coax in same cable ducts. My TX 100W. No problems here except sometimes slightly increased noise level (half an s point up)

Alec M1BNK

J.F. FOURCADIER <jf.fourcadier@wanadoo.fr_NOSPAM> wrote in message news:970sqgjjd1@wanadoo.fr...
> I plan to put a 144 MHz transceiver, feeding a standard coax cable (RG 213),
> near my LAN (Ethernet 100 base T).
>
> Does anybody has an idea of the minimum distance between the radio cable and
> the LAN cable to avoid interferences.
> The power of the 2m transmitter is about 20 W.
>
> Thank you for your answer.
>
> --
>
> 73 de F4DAY
>
> Jean-Fran�ois FOURCADIER
>
>
>

1202. Re: stuck panel meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 18:21:04 UTC
From: paul <apollo_six@nospambtinternet.com>
Message-ID: <AREXAQcAl6Ew$1@btinternet.com>
Source record: 54500

In article <yfGk6.451905$U46.13372556@news1.sttls1.wa.home.com>, Lynn
Coffelt <coffeltl@home.com> writes
>I've fixed a few and ruined a few, so take that in consideration
>if you read this ramble.
>
>Except in the case of a dropped multimeter, when anything can
>happen, the problem is nearly always one of the two following
>cases:
>
>1. small (almost microscopic) piece of magnetic material lodged
>between a pole piece and the armature. A strong light, good
>magnification and a steady hand can ofter locate and remove (or
>more likely, reposition the material so it now longer interferes). This
>may not be ethical, but, hey!, it works. Any attempts to blow it out
>with compressed air or washing out with a fluid, will nearly always
>finish the meter for good. I have examples.
Correct! And on no account place any metal tools near the movement, the
magnetic field will be permanently affected and consequently the
linearity.

On NO account use oil of any sort to "oil" the movement.

The rest of what's written I'd agree with.

>2. glue is sometimes used to anchor the armature shaft pieces to the moving
>coil, even on some very expensive instruments. Some older instruments were
>found with the glue cracked and the shaft/moving coil misaligned. The coil
>will then "drag" on a pole piece somewhere in the needle's arc of travel.
>Novices have repaired these occasionally with a part of a drop of super glue
>on the end of a sharp, round toothpick. The trick, however, is to have
>propped
>the coil and shaft into proper alignment with wedges of paper or ??? before
>the glue is applied. It is useful to know that getting the super glue on
>anything
>other than the intended spot also results in an expensive failure (or
>inability
>to let go of the meter).
>
>Some watchmakers have a little experience with D'arsonval meter movement
>repair, but my experience is that unless you do it yourself, the cost of
>instrument
>repair by a professional (if you can find one) is more expensive than the
>meter
>itself. (worth it if the meter must be the "original", and new is out of the
>question)

>
>A good, steady man, with no experience has maybe a 50-50 chance of success.
>Don't call me if it doesn't work.
>
>Lynn, W7LTQ
>
>

--

To try and not succeed is better than not to try at all (Anon)

1203. 4.332MHz or 8.664MHz crystal source needed...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 18:29:37 UTC
From: Clay Autery <nospam@noway.net>
Message-ID: <7LTk6.956$Gv.4735@news.inreach.com>
Source record: 54498
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.design

I apologize for cross-posting, but I'm getting a little desparate.

I need a source for 4.332MHz and/or 8.664MHz (or 17.328MHz) crystals for an important project I'm working on. So far, I've found only one source (Thanks Francine!), but the prudent man never only has one source for a part. This is especially true when that source might have trouble delivering the quantity desired.

So, if you know a place or places that might have these specific crystal values, respond here or send me an email at cautery@montacnospam.com. Note: be sure to remove the "nospam" from the domain name.

I really need y'alls help here!

Thank in advance,
Clay

1204. Re: Web sites for 1 KW HF amp plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 18:38:59 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <971203$l6s$1@woodrow.ucdavis.edu>
Source record: 54499

http://sonic.ucdavis.edu on the amateur radio pages...

cheers
skipp

: John Harper <ae5x@optonline.net> wrote:
: Hello,

: Antone know of any web sites or mailing lists where I might be able to find
: plans/schematics on how to build a 1 KW amp for the HF bands (really just
: interested in 80 & 160 meters)? I know the ARRL Handbook usually includes
: one in each issue but I'd like to take a look at what else may be out there
: before parting with the $.

: Thanks and 73,

: --

: John Harper AE5X
: Outdoor QRP & Lowband DXing: http://www.qsl.net/ae5x

1205. Re: Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 18:55:24 UTC
From: msix@plato.nmia.com
Message-ID: <waUk6.14705$el1.91766@e420r-sjo3.usenetserver.com>
Source record: 54501

Tom W8JI wrote:
>I can cure the problem without cuttiung things up too bad by using a
>nine pin tube (like the 6U8A) but I need a semi-remote or remote
>cutoff tetrode sectioon so I can AGC the tetrode.

>Anyone know off-hand what might work???
>Thanks.
>Tom W8JI

Try 6AZ8
73 John W7ZFB

1206. Re: Anyone Repairing Panel Meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 19:26:46 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9714pm$m8b$1@woodrow.ucdavis.edu>
Source record: 54502

Hi Dale,

If you need a special expensive meter repaired or rebuilt, there's a place in Livermore, CA. that does it... but it's not cheap by any means. If there's a way to replace the meter cheaper than say $150 you'd be better off going that way.

I had some real power meter movement from a Hydro Plant I serviced that were 1950's vintage GE's. They were able to repair and calibrate the movements for about $300 each. When your stuck for an exact fit, you've got to play the game. If you need to play that game, drop me an Email and I'll forward the name of that Company back to you. I have it at home in my address book.

cheers
skipp@pilot.ucdavis.edu

: Dale Parfitt <GTE/parinc@gte.net> wrote:
: Header says it all. Any info?
: Dale W4OP

1207. Re: Mitrek antenna cable type?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 19:32:56 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <971558$m8b$2@woodrow.ucdavis.edu>
Source record: 54503
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Hi Shawn,

You don't want to have to order that cable new... it's really costly. The best way to find it is to call a two-way radio shop and ask if they have any used or new-old-stock Motorola 800/900MHz antenna kits with that coax. I see the stuff at the ham flea markets being sold by surplus two-way dealers. It's just teflon coax similar to RG-400, RG-393 or RG-404.

You can also call some duplexer mfgrs and ask about it.... Belden has an on line wire web site (that's a pain to use).

Otherwise you should get on the phone or go to the ham flea markets...

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: In rec.radio.amateur.homebrew Shawn Reeves <kleptein@hotmail.com> wrote:
: I am trying to order connectors for a Mitrek that I am modifying, but
: I don't know what kind of cable it is... I've searched the manuals
: however I see no reference to a part number or even a description.

: What is the official model/name of the white teflon cable inside a
: Mitrek? Does it have an RG number or equivalent?

: Thanks!

1208. Re: ???HF Remote Base Controller Recomendations???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 19:55:27 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9716ff$m8b$3@woodrow.ucdavis.edu>
Source record: 54504

Hi Tom,

For an HF remote, there are a few controllers that work. One thought are the original ACC brand controllers which support the kenwood stream (not the Icom). The RC-850, RC-85 and original Shackmaster did a pretty good job as remote base controllers. You will find out that ACC sold out to Link and a technical type in your group will be required to brush up on any use ACC controller you buy. Link has been more than generous about supplying ACC information and limited upgrades/parts.

The ACC Shack Master was a very popular stand alone HF radio controller.

Pacific Reseach is making a nice controller, I'm not sure if they yet support the HF radio setups, but they do remotes on higher bands via commercial radio retrofits that work pretty well. They do have a web site that's pretty informative. Hold on to your pocket book...

If you want to pull out your hair, Link Com has a series of controllers that probably interface with some HF brand radios, but I must say their software is every quirky and not user friendly. I also have some issues with their hardware layouts, but other people don't seem to mind their onboard telco patch approach. They do seem to offer up a few different controllers via their web page. I will say that Alan and Steve at Link are pretty nice people to deal with over the phone. Link seems to be the current bells and whistle leader in the controller department. They promise many features, but the software often has to catch up to the promises through "upgrades and revisions."... many of them.

Scom makes the 7K controller which interfaces to the Hall Electronics (Kenwood Remote). You might check the Hall Electronics site (same people who make the "poor mans voter card") to see what the current capacity of their remote interface is. S-Com also has a web site that has just moved to another server. You might have to search a bit for it.

Cat controllers make "the poor mans bells and whistle controller." If you like things that go bump in the night, have a look at their web site. I wans't impressed with their quirky software, but many seem happy with the controllers and they do work. Remote base software might not be something they include in their controllers.

****

Your thoughts about using surplus Motorola two-way equipment are good, other brands with good receiver front ends are also a go. Dont' overlook trusted types of GE and smilar rigs.

You should turn the HF Radios power level down as low as practical, else you'll have rf floating all over the place. I run my remote at 25 watts and it talks up a storm. Try to avoid running astron power supplies on hill tops... they seem to fail much more often than surplus commercial units.

good luck on your project...
cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

1209. Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 20:25:48 UTC
From: bill hennessy <hennessy@281.com>
Message-ID: <gvVk6.673$3d5.181960@paloalto-snr1.gtei.net>
Source record: 54505

Just read an interesting book for all us homebrewers called "Voice Of The Crystal" The book is about building crystal sets but with a twist. This book tells you how to make all your own components entirely from scratch. It tells you how to make your own coils, detectors, capacitors, and even your own headphones. It's a good read for people interested in homebrewing.

Bill, N5NOB

1210. Re: 2.4GHz feed to 2ft (60cms) offset Gregorian dish

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 23:33:29 UTC
From: AMDX <AMDX@worldnet.att.net>
Message-ID: <dfYk6.540$rL4.28895@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54506
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Hi Steve,
This is not exactly what you ask for, but a good site on how to build a
helix
antenna for 2.4Ghz.

http://home.iprimus.com.au/jhecker/

Mike Knowlton
Panama City Fl.

1211. Re: Anyone Repairing Panel Meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-21 23:43:12 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <nbh69ts7n2sostscjbruv01efgi0u7b436@4ax.com>
Source record: 54507

Dale Parfitt <GTE/parinc@GTE.net> wrote:

>Header says it all. Any info?

I've done a few. What is it and what's its problem?

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

1212. Re: Remote cut-off tetrode/hi-mu triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 00:17:57 UTC
From: la8ak@online.no
Message-ID: <3a943c8f.190332328@news.online.no>
Source record: 54508

On Wed, 21 Feb 2001 02:15:51 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>>sometimes just wonder if sharp-cutoff pentode works just as good,
>>HW-101 has 6AU6 as RF amplifier, and has outstanding intercept point,
>>while SB-300 with 6BZ6 hasn't, it is badly overloaded on 40m, but this
>>is probably caused by too low cathode voltage and voltage drop over
>>grid resistor

>A 6AZ8 is about the only tube I don't have laying around!
>
>I want a remote cutoff tube because I need to AGC it. It is after the
>selectivity, so overload is not an issue.

I had several receivers where agc were applied to sharp cutoff valve,
so I find it difficult to see much problem in doing so. One such was
Kenwood TS-500 where 6U8 (or 6BL8) was used in the IF. When AGC time
constant was optimized it performed very well.

One suggestion is to feed AGC over a divider, but I have no experience
that it might be needed other than for mixer type 6BE6 as used for
Drake 2-A and 2-B

73
LA8AK

1213. Re: Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 01:42:23 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3A946E7F.11B74AEE@visi.com>
Source record: 54509

bill hennessy wrote:
>
> Just read an interesting book for all us homebrewers called "Voice Of The
> Crystal" The book is about building crystal sets but with a twist. This
> book tells you how to make all your own components entirely from scratch.
> It tells you how to make your own coils, detectors, capacitors, and even
> your own headphones. It's a good read for people interested in homebrewing.
>
> Bill, N5NOB

Hmmmm....where might one find it?

Bob WB0POQ

1214. Re: Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 02:47:58 UTC
From: "H. P. Friedrichs" <pfriedr@NOSPAMmindspring.com>
Message-ID: <3A947DDE.49C084EF@NOSPAMmindspring.com>
Source record: 54510

Bob, try these URL's:

http://www.lindsaybks.com/bks2/vxtal/index.html
http://www.midnightscience.com/
http://www.tubesandmore.com/

H. Peter Friedrichs (the author!)

Bob Liesenfeld wrote:

> bill hennessy wrote:
> >
> > Just read an interesting book for all us homebrewers called "Voice Of The
> > Crystal" The book is about building crystal sets but with a twist. This
> > book tells you how to make all your own components entirely from scratch.
> > It tells you how to make your own coils, detectors, capacitors, and even
> > your own headphones. It's a good read for people interested in homebrewing.
> >
> > Bill, N5NOB
>
> Hmmmm....where might one find it?
>
> Bob WB0POQ

1215. fs: 4 xistor AUDIO AMP BOARDS-BUILT $10ppd

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 03:28:51 UTC
From: rlucch2098@aol.com
Message-ID: <20010221222851.25831.00002015@ng-xc1.aol.com>
Source record: 54511

Hi All;
I got a bunch of Audio Amplifier boards with 4 transistors on them.
Has 3-2n3904 and 1-2n3906 with 8 ohm output, run off about 5-12vdc.
The size is about 3" x 4".
The sizes and placement of components may vary a bit from this picture.

http://members.nbci.com/wa2rqy/audioamp.jpg

Use it in your portable qrp rig, built it into something or use with your xtal radio.
Price is $10ppd.
Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

1216. Re: Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 11:43:11 UTC
From: bpasaric@mac.com
Message-ID: <1ep8djh.17c13ra1jis1hcN%bpasaric@mac.com>
Source record: 54512

H. P. Friedrichs <pfriedr@NOSPAMmindspring.com> wrote:

> Bob, try these URL's:
>
> http://www.lindsaybks.com/bks2/vxtal/index.html
> http://www.midnightscience.com/
> http://www.tubesandmore.com/
>
>
> H. Peter Friedrichs (the author!)
>
> Bob Liesenfeld wrote:
>
> > bill hennessy wrote:
> > >
> > > Just read an interesting book for all us homebrewers called "Voice Of The
> > > Crystal" The book is about building crystal sets but with a twist. This
> > > book tells you how to make all your own components entirely from
> >
> > Hmmmm....where might one find it?
> >
> > Bob WB0POQ

Hi there!

There is a complete Society dealing with crystal sets in St. Louis. They
publish such books and their regular "The Xtal Society Newsletter".
Their second name is "Midnight Science". Nice people. You can find them
at www.midnightscience.com

Best wishes from Bozidar 9A2HL

1217. Antique Radio Page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 14:38:30 UTC
From: Daniel Hicks <dahicksNOSPAM@email.com>
Message-ID: <3a952457$0$35014$2c3edae7@news.voyager.net>
Source record: 54513

Check out the W8MMQ Antique Radio Page:
http://www.qsl.net/w8mmq/

Also, I recently updated the W8MMQ Radio Mods Page:
http://www.qsl.net/w8mmq/mods/
I added some mods for the ADI line of mobile radios, included the 220 radio.

73 de,
Dan, W8MMQ

1218. Re: Don`t say you haven`t been warned . 1590

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 18:42:51 UTC
From: kb9tmp@my-deja.com
Message-ID: <973mjb$73g$1@news.netmar.com>
Source record: 54515
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.misc,rec.radio.amateur.homebrew

In article <3a8f8f7f$33_1@plato.netscapeonline.co.uk>,
<diywbt@safesurfers.org> writes:
>Watch out you, are YOU being checked.............
>
>Have you viewed illegal pictures
>
>You're in Serious Trouble - It's a Proven Fact!
>
>Deleting "Internet Cache and History" will NOT protect you
>because any of the Web Pages, Pictures, Movies, Videos, Sounds,
>E-mail, Chat Logs and Everything Else you see or do could easily be
recovered
>
>This is the answer...................
http://www.evidence-eliminator.com/go.shtml?A653704
>
>Surf safely folks!
>sfphhefrzpkrotspiusnwlgvnxpjlehntbpbbczmbkgk
>

Or you could go to http://www.completelyfreesoftware.com/ and download
Eraser version 4.1 for FREE and save the $74.95(US) to spend on something
else like maybe radio equipment ;)

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http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

1219. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 19:08:25 UTC
From: Art Norman <artn@xetron.com>
Message-ID: <3a956394$1@news.xetron.com>
Source record: 54516

I assumed it was the Paris agency though I didn't know the acronym for it.
Thats where the "official" meter stick, etc. are stored is it not?
"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:fps69t4fco7iulj7mtns7h2v5s1fsc21s8@4ax.com...
> On Tue, 20 Feb 2001 11:51:43 -0500, "Art Norman" <artn@xetron.com>
> wrote:
>
> >It's comforting to know there is a federal agency in charge of the
earth's
> >rotation.
>
> I assume that by "federal" you are referring to something belonging to
> the US government.
>
> Fortunately for (at least the rest of the world), the Central Bureau
> of the IERS is in Paris, thus, the leap second issue is independent of
> which party happens to be in charge in Washington DC :-).
>
> Paul OH3LWR
>

1220. Re: No leap second in 06/2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 21:45:19 UTC
From: Tom Becker <gtbecker@rightime.com>
Message-ID: <t9b23gq7avrea8@corp.supernews.com>
Source record: 54517

> ... the leap second issue is independent of
> which party happens to be in charge...

By Presidential Executive Order, November, 2000:

"In heavily non-Republican precincts, leap seconds shall be repeatedly
locally
inserted at 18:59:60 to assure fairness to horologically-challenged voters
who
are otherwise unable to be transported to the polls before they unjustly
close.
In reparation to dead voters and those who have suffered vote oppression in
centuries past, such voters shall receive triple vote score if they indicate
the appropriate voting intention to the transport driver, whether or not
they
choose to ride. A new Cabinet-level advisory position, chairing the
Department
of Synchronization, shall be chartered to help citizens and others in those
precincts interact with the temporal world; in no case shall an event
legally
occur without Department of Synchronization approval to prevent conflict
with
other lawfully permitted moments."

Be glad the French do it.

Tom Becker
--... ...--
The RighTime Clock Company, Inc.
Cape Coral, Florida USA
www.RighTime.com

1221. FS: 1200 PIV @ 1.5A DIODES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 22:22:36 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <Migl6.1249$rL4.97264@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54518

Have 1200 v @ 1.5 A diodes for only $0.10 each + psotage.
Contact WS0E, Joe in MO :

1222. Field operation, batteries, antennas etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 22:48:32 UTC
From: Alex Malyava <alex@malyava.com>
Message-ID: <4Hgl6.7$FS3.2833@sjc-read.news.verio.net>
Source record: 54519
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,alt.ham-radio.hf

Hi guys !
I am really interested to operate my HF radio in a field, but I have no idea what stuff I need to have for this. As I know, I have to use some "deep charge" battery like YUASA or EXCIDE instead of regular car battery.
That's it - I don't know anything else ...

Environment: Field or small hill, FT1000MP, 50-100W SSB-CW, medium activity, about one day operation ...

What kind-type-model of battery I do need?
How many Amp-Hours?
Do I need to install fuses in DC cord? How many of them?
How I can recharge the batteries?
Any suggestions about antenna type - multiband dipole, delta, vertical ?

I will really appreciate everything - links, books, magazines, personal stories, dealership names&locations ....

Alex, KD7LUR (ex US4LNE)
Portland, OR

1223. Re: Re probleem met voeding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 23:06:26 UTC
From: la8ak@online.no
Message-ID: <3a957b15.271886636@news.online.no>
Source record: 54520

On Tue, 20 Feb 2001 21:54:44 +0200, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>Mike or Marco , Please send me a proper e-mail address such I can send you a
>reply re your power supply problem.
>I am not prepared to send a message in Dutch to this group.
>The language used by members of this NG is English only.
>
>73 Frank gm0csz.kn6wh@ukrs.org
>
>
>
German is also OK

1224. Re: Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-22 23:53:13 UTC
From: "Geoffrey G. Rochat" <geoff.nospam@nospam.pkworks.com>
Message-ID: <9745qd$7or@news-central.tiac.net>
Source record: 54521

What Mr. H. Peter Friedrichs modestly fails to mention are his postings to other groups, wherein he has posted pictures of his *home made* point contact transistors and his *home made* tubes. It would appear that Mr. Friedrichs is a superb experimenter. And that he has altogether too much free time on his hands. <grin> For my part, I am extremely jealous! References to those postings (which, unfortunately, I have lost) would be greatly appreciated.

1225. Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 01:19:39 UTC
From: N2PKT <wireless@geocities.com>
Message-ID: <974e2jgsm1@bob.news.rcn.net>
Source record: 54522

I recently built a "Fox Hole" radio. Suprisingly, with a little trial and error, I started to receive a local AM broadcast
on it. Understanding that these type of basic radio sets do not bring in room filling sounds, is it possible to make the
signal strength (volume) louder? I attempted to place a .001uF cap between the crystal earphone, but the results were
the same, just a very low signal. Was my placement incorrect? This was a great homebrew to make, It's simplicity and
history made the project all the more interesting. I am in the process of looking for the right razor blade with a good
amount of "rust" for a diode. That may help, but in the meantime, any hints on "beefing up" the volume would be helpful.
Thanks you for reading this post.

L. J. Iocona

N2PKT

1226. WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 01:43:38 UTC
From: Bill N0MNB <N0MNB@MINN.NET>
Message-ID: <974f7s$ev0$1@newsfeed.minn.net>
Source record: 54523
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

NEEDED A VARIABLE 50 OHM ATTENUATOR. 0-100DB OR SO.
DIAL TYPE ASAP....

73'S N0MNB

1227. Re: Field operation, batteries, antennas etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 02:06:31 UTC
From: Woody <woody.white@att.net>
Message-ID: <3A95C746.769DBE66@att.net>
Source record: 54524
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,alt.ham-radio.hf

Alex Malyava wrote:
>
> Hi guys !
> I am really interested to operate my HF radio in a field, but I have no idea
> what stuff I need to have for this. As I know, I have to use some "deep
> charge" battery like YUASA or EXCIDE instead of regular car battery.
> That's it - I don't know anything else ...
>
> Environment: Field or small hill, FT1000MP, 50-100W SSB-CW, medium activity,
> about one day operation ...
>
> What kind-type-model of battery I do need?

Really big to meet your wishes (see below). As you say, deep
discharge rated. Brands are less important. I would not buy a battery
that is only rated for "cranking" and "reserve" amps. I ran across
this for some so called deep discharge batteries. I feel that if they
won't specify the A/H at a given discharge rate, there is a (not so
good) reason.

> How many Amp-Hours?

Check you radio manual for radio current draw on receive and
transmit.
Number of receive hours times (x) amps = xx
Number of transmit hours times (x) amps = xx
---
add, then multiply by 1.25

This is the amp-hour rating which will about suit you needs. Note
that most battery A/H specs are for a 20 hour rate. Shorter times
(higher discharge rates) reduce the effective capacity. The 1.25
factor is an attempt to compensate for this and to avoid completely
discharging the battery during use period (hard on bat life + radio
may not work well on 11 volts or so).

> Do I need to install fuses in DC cord? How many of them?

Fuse both the + and - leads from the battery as close as possible to
the battery. Use heavy duty fuses and large wire to minimize voltage
drop. For a SHORT run using your rig, I would use #10 or larger.

> How I can recharge the batteries?

A battery charger :) Seriously, for a battery of the size you are
requiring, a genset and charger would be best. ...Of course, if you

have the generator, you don't need a battery. A very large solar cell array / charger if you have lots of sunny days between sessions. It could be done with a car/truck, but would take a while and could be dangerous to the vehicle systems if not done just right!!!! Beware of this.

> Any suggestions about antenna type - multiband dipole, delta, vertical ?

This depends entirely on what bands you wish to use and what will be available to mount the antenna. Generally speaking, and given there would be something to hang it from, I would go with dipoles for the desired bands. A vertical would be practical only if it is the type using a "counterpoise" rather than radials. Sufficient radials for a "conventional" vertical, for this mode of operation is not practical.

A (fishing) spinning rig, slingshot with reel/line, or small bow/arrow w/reel line, and some nylon cord can be very useful to hang dipoles. I prefer the bow/arrow for best range and control. Have weighted, blunt tip arrow with hole drilled in nock? (rear) to tie ~17# fishing line. Use that to pull up 1/16" or 1/8" nylon.

>
> I will really appreciate everything - links, books, magazines, personal
> stories, dealership names&locations ....
>
> Alex, KD7LUR (ex US4LNE)
> Portland, OR

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1228. Re: Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 02:23:40 UTC
From: "H. P. Friedrichs" <pfriedr@NOSPAMazstarnet.com>
Message-ID: <3A95C9AC.BB643EEE@NOSPAMazstarnet.com>
Source record: 54525

Thank you for the kind words, Mr. Rochat. As it turns out, I *don't* have a great deal of free time, but I do have a patient and understanding wife. ;)

Some of the images you referenced are here:

http://www.azstarnet.com/~pfriedr/transistor/gaudion.gif
http://www.azstarnet.com/~pfriedr/transistor/jtball1.jpg
http://www.azstarnet.com/~pfriedr/transistor/whisk-w.gif
http://www.azstarnet.com/~pfriedr/transistor/xsist2-w.gif
http://www.azstarnet.com/~pfriedr/transistor/xsist4-w.gif

As I may or may not have mentioned earlier, I've begun the slow and tiresome process of putting together a new book, that will feature these and similar projects.

BTW, if anyone has has any old radio or experimenters magazines that contain references to the actual construction of point contact devices, I'd be very interested in photocopies, and more than happy to pay for them. Specific information about construction is rather hard to find.

I'm also looking for any period articles on the work of C.G. Smith or J. Lilienfeld (1920's) They were both playing with "transistors". Metal oxides were being experimented with as well.

Pete

"Geoffrey G. Rochat" wrote:

> What Mr. H. Peter Friedrichs modestly fails to mention are his postings
> to other groups, wherein he has posted pictures of his *home made* point
> contact transistors and his *home made* tubes. It would appear that Mr.
> Friedrichs is a superb experimenter. And that he has altogether too
> much free time on his hands. <grin> For my part, I am extremely
> jealous! References to those postings (which, unfortunately, I have
> lost) would be greatly appreciated.

1229. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 02:26:30 UTC
From: "H. P. Friedrichs" <pfriedr@NOSPAMazstarnet.com>
Message-ID: <3A95CA56.185794EA@NOSPAMazstarnet.com>
Source record: 54526

If you're actually using a "crystal" headphone, try shunting it with a 10k resistor. This helps provide a dc return path, and may improve the sound.

N2PKT wrote:

> I recently built a "Fox Hole" radio. Suprisingly, with a little trial and
> error, I started to receive a local AM broadcast
> on it. Understanding that these type of basic radio sets do not bring in
> room filling sounds, is it possible to make the
> signal strength (volume) louder? I attempted to place a .001uF cap between
> the crystal earphone, but the results were
> the same, just a very low signal. Was my placement incorrect? This was a
> great homebrew to make, It's simplicity and
> history made the project all the more interesting. I am in the process of
> looking for the right razor blade with a good
> amount of "rust" for a diode. That may help, but in the meantime, any hints
> on "beefing up" the volume would be helpful.
> Thanks you for reading this post.
>
> L. J. Iocona
>
> N2PKT

1230. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 02:33:33 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3A95CBFD.F818A217@valley.net>
Source record: 54527

N2PKT wrote:

> I recently built a "Fox Hole" radio. Suprisingly, with a little trial and
> error, I started to receive a local AM broadcast
> on it. Understanding that these type of basic radio sets do not bring in
> room filling sounds, is it possible to make the
> signal strength (volume) louder? I attempted to place a .001uF cap between
> the crystal earphone, but the results were
> the same, just a very low signal. Was my placement incorrect? This was a
> great homebrew to make, It's simplicity and
> history made the project all the more interesting. I am in the process of
> looking for the right razor blade with a good
> amount of "rust" for a diode. That may help, but in the meantime, any hints
> on "beefing up" the volume would be helpful.
> Thanks you for reading this post.

Hello--
Adding a capacitor in series with the earphone probably won't help increase the volume. You'll need to add a stage or two of amplification.

IIRC, the original foxhole radio design relied on a blue-coated razor blade. The bluing process used a selenium compound, and hence a lead pencil point pressing on the blue coating formed a crude point-contact diode.

Try substituting a more-modern germanium diode (probably still available from Radio Shack) and see whether the volume increases-- a diode is generally a more-efficient rectifier than a razor blade, but it's fun to experiment with different detector materials. Try various kinds of oxidized metals (e.g., copper).

73--
Brad AA1IP

1231. Re: Field operation, batteries, antennas etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 07:59:00 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <pr0c9tcsj819kdmvebebc79qomch8fqttj@4ax.com>
Source record: 54528
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,alt.ham-radio.hf

On Fri, 23 Feb 2001 02:06:31 GMT, Woody <woody.white@att.net> wrote:

>Fuse both the + and - leads from the battery as close as possible to
>the battery.

While it makes sense to fuse both the + and - leads when operating rigs directly from the build in car battery, in case the heavy wire between the car frame and the - pole of battery is broken or disconnected. In this case the starter current would flow from the permanently installed radio frame (or antenna ground plane) through the negative radio power supply wire to the battery, causing a lot of damage.

If the radio is operated from a dedicated deep discharge battery, which is separate from the electric system in the car, I do not see any reason for putting a fuse on the negative pole, since it only increases the loop resistance. The fuse installed close to the positive pole of the battery should be enough to protect the wires in case of failures in the cabling between the battery and the radio. The internal fuse in the radio should protect against failures _inside_ the radio.

Paul OH3LWR

1232. Re: A good use for a five dollar bill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 09:46:45 UTC
From: Joseph Meehan <sligojoe@hotmail.com>
Message-ID: <9kql6.8015$Aj2.273390@typhoon.columbus.rr.com>
Source record: 54529
Cross-posted to: alt.consumers.free-stuff,alt.home.repair,alt.homebrewing,rec.radio.amateur.homebrew,uiuc.org.homebrewers

It is a good use for $5.00 you have no other use for. I might add
that it would be good to have a stretch of time you have no use for as
this little game is illegal in most developed countries., it also has a
mathematical impossibility of working for everyone.

I don't know if the person posting this message is joking or
serious, but if he is serious, then he is either a fool or cheat.

--
Dia 's Muire duit

Joe M

1233. Re: A good use for a five dollar bill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 15:19:03 UTC
From: jrobmills@aol.comrx320
Message-ID: <20010223101903.04632.00001429@ng-ce1.aol.com>
Source record: 54530

A fool and his $$ is soon parted.

1234. FORTOP 23cm tx.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 19:53:05 UTC
From: "clive.cc" <clive.cc@ntlworld.com>
Message-ID: <RGyl6.17614$5n4.351447@news6-win.server.ntlworld.com>
Source record: 54531

I wish to make a PLL system to replace the Xtal used in this gear. Is anyone familiar with this unit, and if so , knows the crystal multiplication used.....I have purchased the unit unseen and am waiting for it`s arrival..I would like to make a start in the meantime. Thanks.

1235. FORTOP 23cm tx.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 20:03:27 UTC
From: "clive.cc" <clive.cc@ntlworld.com>
Message-ID: <SGyl6.17615$5n4.351447@news6-win.server.ntlworld.com>
Source record: 54532

I wish to build a PLL to replace the Xtal oscillator..Does anyone know this gear? In particular the Xtal frequency used in the oscillator chain. I have purchased the gear unseen with no info, and waiting for it to arrive.
Thanks.

1236. Re: ME-11 DMM serial cable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-23 21:29:37 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3A96D641.67674AAE@clifto.com>
Source record: 54533

Denver Braughler wrote:
> "Clifton T. Sharp Jr." wrote:
> > LLConner wrote:
> > > For those who want to make a cable for the Radio Shack ME-11 DMM. I found
> > > that a straight through cable does not work if ALL the pins are used. If you
> > > only use 2,3,4,5,8 in a 9 pin to 9 pin cable it works fine.
> >
> > Any idea what the meter does with 1, 6, 7, and/or 9?
>
> Here is an example on another device:
> http://support.baynetworks.com/library/tpubs/html/switches/bstack/350F/9300992C/A_71.HTM

Thanks, but considering the original poster said the hookup doesn't work
if you use standard connections for 1, 6, 7, and 9, a listing of standard
connections doesn't help.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

1237. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 00:34:51 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <LkDl6.318086$iy3.67139670@news1.rdc1.tn.home.com>
Source record: 54534

"Bill N0MNB" <N0MNB@MINN.NET> wrote in message
news:974f7s$ev0$1@newsfeed.minn.net...
> NEEDED A VARIABLE 50 OHM ATTENUATOR. 0-100DB OR SO.
> DIAL TYPE ASAP....
>
> 73'S N0MNB
>
>

1238. FA: WJ340A 900KHz Receiver... last hours to go

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 01:16:18 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <54El6.1337$02M1.67502269@news.xtra.co.nz>
Source record: 54535
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215449277

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==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

1239. FA: Nice Collins 75S-1 with CW filter....Final hours

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 01:17:06 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <64El6.1338$02M1.55640164@news.xtra.co.nz>
Source record: 54536
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215448345

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Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

1240. FA: Nice collins 30L-1 Linear Amp with extra's.... final hours.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 01:17:28 UTC
From: Radioted <tedm@xtra.co.nz>
Message-ID: <64El6.1339$02M1.45547735@news.xtra.co.nz>
Source record: 54537
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1215447550
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==========

Ted Minchin, ZL1MT
RD 1,
Putaruru 2370,
New Zealand.

email: tedm@xtra.co.nz
Phone: (+64) 07 8835716
Telephone, Cellular: 021 550 263

===Talk around the World==Amateur Radio===

==========

1241. L/C ratio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 03:45:21 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A972E51.69B51A8@coqui.net>
Source record: 54538

I'm looking for suggestions to try on resolving a problem with an
old radio.
Radio is a Setchell-Carlson 407 and tunes 4 bands:
150-400kc
550-1900kc
4.0-11 Mc
11-36 Mc
The tuning cap is a standard 365pf looking one, same on all bands,
although given the tuning range on BCB, it must be slightly
different (less?). The problem is on the top band...the
oscillator cuts out below about 15 Mcs. The coil for that band is
only 3 turns of hookup wire on a cardboard form of about 1" and I
suspect that it probably never was very stable since that looks
awful small to be tuning all the way down to 11.455 kc. It works
well right on up to 36 Mcs.
I can fiddle with the components and move the band up the dial and
receive those freqs, but still the bottom end of the range is
dead. The tuning cap is not shorting because it works fine on the
other bands. Also the osc has been proven to be the culprit by
listening to the LO on a separate radio. There is no trimmer on
the coil. Tube is a 6A8.
Is there something I can do to this osc circuit, like maybe
improving the Q by using a more suitable wire on the coil? I'd
like to keep it where it matches the dial calibration.
Any suggestions?
--

Bill Meacham WX4A
Vieques, PR

1242. Re: L/C ratio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 06:34:41 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3A975601.C3F0DD0A@toast.net>
Source record: 54539

Bill Meacham wrote:

> I'm looking for suggestions to try on resolving a problem with an
> old radio.

{snipped}

>
> Is there something I can do to this osc circuit, like maybe
> improving the Q by using a more suitable wire on the coil? I'd
> like to keep it where it matches the dial calibration.
> Any suggestions?

But it worked when new, didn't it? What has changed? Could the tube be weak, or some other component like an emitter whoops, I mean cathode bypass capacitor be aged, so as to decrease the gain?

john

1243. Re: TOKO ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 07:03:50 UTC
From: Tom Woodrow <tomwoodrow@internetconnect.net>
Message-ID: <3A975CD6.5E2AAE93@internetconnect.net>
Source record: 54540

www.digikey.com or www.mouser.com comes to mind.

Good luck
Tom Woodrow

1244. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 07:54:53 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <60pe9to55lpu8l0i5klkobios5qcaj2lqd@4ax.com>
Source record: 54541
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 22 Feb 2001 19:43:38 -0600, "Bill N0MNB" <N0MNB@MINN.NET>
wrote:

>NEEDED A VARIABLE 50 OHM ATTENUATOR.

What frequency range ?

>0-100DB OR SO.

How do you expect to get such attenuations when cable leakage is much
more than that above audio frequencies.

1245. 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 09:51:54 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <97808b$97f$1@newsg4.svr.pol.co.uk>
Source record: 54542
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

I have a 10XJ crystal which runs at 7.012MHz as its fundamental. I've tried a number of circuits, but it refuses to run on the third overtone - is it being unreasonable?

Chas

1246. Re: WTB 14 or 21 or 28 Mhz xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 09:53:22 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <9780b3$f9g$1@newsg3.svr.pol.co.uk>
Source record: 54543

I have a 28Mhz miniature if thats any use - ex-satellite receiver.

Chas

"Rein A. Smit" <rein0zn@ix.netcom.com> wrote in message
news:3A8EF434.E473DC38@ix.netcom.com...
> Hi
>
> I am looking for a crystal xx.ooo Mhz fpr an LF converter LO.
>
> xx = 14 or 21 or 28
>
> 73 Rein W6/PA0ZN

1247. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 10:47:37 UTC
From: la8ak@online.no
Message-ID: <3a9710ab.375732108@news.online.no>
Source record: 54544

On Sat, 24 Feb 2001 00:34:51 GMT, "jim bennett" <jimbennett@home.com>
wrote:

>
>"Bill N0MNB" <N0MNB@MINN.NET> wrote in message
>news:974f7s$ev0$1@newsfeed.minn.net...
>> NEEDED A VARIABLE 50 OHM ATTENUATOR. 0-100DB OR SO.
>> DIAL TYPE ASAP....
>>
>> 73'S N0MNB
>>
>>
>
>

HP?

1248. Re: 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 11:07:18 UTC
From: Radio Ham <nospam@nospam.demon.co.uk>
Message-ID: <983013161.10562.1.nnrp-02.9e98250c@news.demon.co.uk>
Source record: 54545
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Probably. There are a number of crystalline modes, and a
crystal has to be cut in a special way to encourage
oscillation on any harmonic.

10XJ are so large as to lack any technology in crystal
cutting, being just a lump of quartz.

How's about running your oscillator on its fundamental, and
then using a multiplier stage as in the osc-mult-PA style of TX?

Chas <chas@multiscan.junglelink.co.uk> wrote in message
news:97808b$97f$1@newsg4.svr.pol.co.uk...
> I have a 10XJ crystal which runs at 7.012MHz as its fundamental. I've
tried
> a number of circuits, but it refuses to run on the third overtone - is it
> being unreasonable?

1249. Need Intermod software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 11:41:12 UTC
From: k5bdz@aol.com
Message-ID: <20010224064112.05742.00005652@ng-md1.aol.com>
Source record: 54546

Looking for some "reasonably simple" software that will allow me to run intermod studies of multiple signals (up to 150 different frequencies), from HF to GHz.

Prefer one whose data format is similar to or as simple as MS Excel but open to anything.

Please reply direct to K5BDZ@aol.com

1250. Looking for antenna projects that utilize Heliax

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 13:00:43 UTC
From: Paul <pvanasse@mail.direcpc.com>
Message-ID: <piOl6.819$m8.115674@news.direcpc.com>
Source record: 54447
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew

Does anyone know of an antenna project book/site/source that utilizes Heliax as a construction material? I seem to remember Ken Sessions (73 Magazine) having a publication years ago with vertical collinear projects that replicated commercial antenna construction.

Any help would be appreciated.

Thanks and 73

1251. Re: Need Intermod software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 13:38:52 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <0POl6.4059$hi2.11833@nntpserver.swip.net>
Source record: 54448

This one maybe?

http://www.hydesign.co.uk/SpurSearch.htm

/sm6pxj

1252. Re: 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 14:20:25 UTC
From: la8ak@online.no
Message-ID: <3a97c2f0.421376621@news.online.no>
Source record: 54449
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

On Sat, 24 Feb 2001 11:07:18 -0000, "Radio Ham"
<nospam@nospam.demon.co.uk> wrote:

>Probably. There are a number of crystalline modes, and a
>crystal has to be cut in a special way to encourage
>oscillation on any harmonic.
>
>10XJ are so large as to lack any technology in crystal
>cutting, being just a lump of quartz.
>
>How's about running your oscillator on its fundamental, and
>then using a multiplier stage as in the osc-mult-PA style of TX?
>
10XJ is about the same size as FT-243, but English
If FT243 or 241 works it is no reason for 10XJ not working

1253. Re: L/C ratio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 15:20:22 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A97D136.AF61B777@coqui.net>
Source record: 54450

John O'Flaherty wrote:
>
> Bill Meacham wrote:
>
> > I'm looking for suggestions to try on resolving a problem with an
> > old radio.
>
> {snipped}
>
> >
> > Is there something I can do to this osc circuit, like maybe
> > improving the Q by using a more suitable wire on the coil? I'd
> > like to keep it where it matches the dial calibration.
> > Any suggestions?
>
> But it worked when new, didn't it? What has changed? Could the tube be
> weak, or some other component like an emitter whoops, I mean cathode
> bypass capacitor be aged, so as to decrease the gain?
>
> john

I'm guessing that it worked when new. The osc circuit was a bit
re-vamped (factory change) from what is shown on the schematic.
I've juggled all the combinations of component values around the
tube to see if I could do any better, no cigar. The tube socket
has been replaced and of course every possible substitute tube in
the shack has been tried. The only option left seems to be the
actual coil form and windings as I don't feel too good about
cotton-covered hookup wire for coil windings in this 'iffy'
application.
--

Bill Meacham
Vieques, PR

1254. Re: Overvoltage SCR triggering problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 17:29:41 UTC
From: msix@plato.nmia.com
Message-ID: <9cSl6.19306$3%5.145702@e420r-sjo3.usenetserver.com>
Source record: 54451

>Larry Gagnon wrote:
>> I have a homebrew 13V, 20A power supply I am just finisishing testing.
>> Most of the time it works just fine. However, on three occasions it
>> has blown its 25amp fuse which sits between the overvoltage thyristor
>> (SCR) and the filter capacitors. I believe the thyristor is
>> triggering. The overvoltage circuit is the same as that found in "The
>> Larry VE6MK
Larry
Just an afterthot. If your PS uses pass transistors, you can
add short circuit protection with another transistor across
one of the pass transistor equalizing resistors.
If and when the SCR fires or output shorted, drive is removed
from the pass transistors and the voltage momentarily goes to
near zero, cycling til the overvoltage or short is removed.
No fuse needed. No damage to components.
See any of PS or 3-terminal regulator application notes
for circuit.
I usually use a 3-terminal regulator and pass transistors
in my PSs. PNPs and a positive LM 317/350 or NPNs and
a negative LM337/LM???.
The short circuit protection transistor is same polarity
as the pass transistors...
John W7ZFB

1255. Re: 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 19:42:26 UTC
From: John Mortlock <jmort@global.freeserve.co.uk>
Message-ID: <9793q7ptd1@news7.svr.pol.co.uk>
Source record: 54453
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Chas wrote in message <97808b$97f$1@newsg4.svr.pol.co.uk>...
>I have a 10XJ crystal which runs at 7.012MHz as its fundamental. I've
>tried a number of circuits, but it refuses to run on the third overtone -
>is it being unreasonable?
>
>Chas

The crystal may be low in activity (due to high ESR - Equivalent Series Resistance) but have sufficient activity to allow it to oscillate ok on fundamental with the loop gain of your oscillator.

Crystals can have low activity due to poor surface quality (lapping process), surface contaminates, non parallel major surfaces etc. Crystals for use on an overtone are usually lapped or polished to a finer surface finish than fundamental crystals. Also the two major surfaces need to be parallel to a greater degree. Fundamental crystals may be slightly convex so as to decouple the edges of the crystal. Depends on thickness / diameter ratio.

10XJ holders dont offer a hermetic seal. Over time particles can get in and contaminate the surface of the quartz plate as can the chemicals used in the manufacture of the plastic 10XJ holder. Many years old now.

So, you could do two things to try to get it working. 1. remove the quartz crystal from the 10XJ holder and soak it in Isopropyl (orderable from Boots). Then hold the quartz plate by the edges. Dont touch the major surfaces of the crystal with your fingers directly. Use a piece of silk (a hanky maybe) soaked in Isopropyl between your fingers and gently scrub the plate. Then soak it again. Dry the crystal with a hair dryer. Hold the crystal with tweezers. Also wash the two metal plates which sandwich the crystal.

If that doesn't work for you the only other approach is to increase the loop gain of your oscillator at the desired overtone frequency so as to overcome the resistance of the crystal.

Fundamental crystals marked with a fundamental frequency and used on an overtone never oscillate at the exact multiple of the fundamental. Can be many kHz off. Better to use your fundamental crystal on its fundamental and multiply up.

If you need to use a crystal on an overtone, best to use one calibrated and marked with its overtone frequency.

1256. Free DDS board (for postage).

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 19:44:36 UTC
From: novatech@eskimo.com
Message-ID: <9792v4$9k6$1@eskinews.eskimo.com>
Source record: 54452
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.components

I have been selling off the remaining partial kits of Novatech Instruments'
DDS3m module kit,

http://www.novatech-instr.com/dds3offer/dds3pdf.pdf

and

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1216221284

but even after the kits are gone, we will still have almost 100 boards.
That's what happens when you buy 1000s at a time.

I hate to throw these in the trash, so for the cost of self-addressed
return legal size envelope with $0.55 postage on it, I will mail out
boards to anyone wishing one. No need to email-- just send your
envelope to:

Novatech Instruments, Inc.
attn: Steve Swift
P.O. Box 55997
Seattle, WA 98155-0997

If you want more than one, send me email and I will figure the postage
for you. This also applies if you are overseas or in Canada.

I will repost a message when the pile runs low. I doubt that I will get
100 letters.

Please look at the documentation, which has the schematic and parts list
in it. Perhaps you can use the board for something useful.

We will be cleaning out all our "factory seconds" in the next few weeks, so
if you need something in "older" DDS, send me email. I might have it.

Thanks,

Steve.
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

1257. Re: 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 20:12:41 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <9794kcqgc1@news7.svr.pol.co.uk>
Source record: 54454
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

Many thanks for the feedback - I just happen to have half a pint of Isopropyl alcohol in the garage (dedicated amateur in many fields of study!) I'll try cleaning the crystal - when you spoke of age, I realized to my horror that it had been in my junk box at least 21 years and was manufactured some 18 years before that!

I wanted to run the crystal on the 3rd overtone in the belief that the output would be significantly cleaner than using a tripler (I built a push pull version yesterday, but it doesn't work particularly well, but thats another thread). I hadn't realized however that the 3rd overtone might not be 3x the fundamental, if it will run at 3rd overtone, I'd better check where.

G0AIN

"John Mortlock" <jmort@global.freeserve.co.uk> wrote in message news:9793q7ptd1@news7.svr.pol.co.uk...
> Chas wrote in message <97808b$97f$1@newsg4.svr.pol.co.uk>...
> >I have a 10XJ crystal which runs at 7.012MHz as its fundamental. I've
> >tried a number of circuits, but it refuses to run on the third overtone -
> >is it being unreasonable?
> >
> >Chas
>
>
> The crystal may be low in activity (due to high ESR - Equivalent Series
> Resistance) but have sufficient activity to allow it to oscillate ok on
> fundamental with the loop gain of your oscillator.
>
> Crystals can have low activity due to poor surface quality (lapping
> process), surface contaminates, non parallel major surfaces etc. Crystals
> for use on an overtone are usually lapped or polished to a finer surface
> finish than fundamental crystals. Also the two major surfaces need to be
> parallel to a greater degree. Fundamental crystals may be slightly convex
> so as to decouple the edges of the crystal. Depends on thickness / diameter
> ratio.
>
> 10XJ holders dont offer a hermetic seal. Over time particles can get in and
> contaminate the surface of the quartz plate as can the chemicals used in the
> manufacture of the plastic 10XJ holder. Many years old now.

>
> So, you could do two things to try to get it working. 1. remove the
> quartz crystal from the 10XJ holder and soak it in Isopropyl (orderable
from
> Boots). Then hold the quartz plate by the edges. Dont touch the major
> surfaces of the crystal with your fingers directly. Use a piece of silk
> (a hanky maybe) soaked in Isopropyl between your fingers and gently scrub
> the plate. Then soak it again. Dry the crystal with a hair dryer. Hold
> the crystal with tweezers. Also wash the two metal plates which sandwich
the
> crystal.
>
> If that doesn't work for you the only other approach is to increase the
loop
> gain of your oscillator at the desired overtone frequency so as to
overcome
> the resistance of the crystal.
>
> Fundamental crystals marked with a fundamental frequency and used on an
> overtone never oscillate at the exact multiple of the fundamental. Can be
> many kHz off. Better to use your fundamental crystal on its fundamental
> and multiply up.
>
> If you need to use a crystal on an overtone, best to use one calibrated
and
> marked with its overtone frequency.
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1258. Re: 10XJ Crystals - why won't it run on third harmonic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 20:46:23 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <z4Vl6.122866$B6.28555713@news1.rdc1.md.home.com>
Source record: 54455
Cross-posted to: rec.radio.amateur.homebrew,uk.radio.amateur

One additional piece. If indeed these are very similar to FT-243s, the
ensure the spring(s) have adequate tension to place proper pressure on the
plates that contact the crystal itself.

Bob - N0DGN

"John Mortlock"
> Chas wrote in message <97808b$97f$1@newsg4.svr.pol.co.uk>...
> >I have a 10XJ crystal which runs at 7.012MHz as its fundamental. I've
> >tried a number of circuits, but it refuses to run on the third
overtone -
> >is it being unreasonable?
> >
> >Chas
>
>
> The crystal may be low in activity (due to high ESR - Equivalent Series
> Resistance) but have sufficient activity to allow it to oscillate ok on
> fundamental with the loop gain of your oscillator.
>
> Crystals can have low activity due to poor surface quality (lapping
> process), surface contaminates, non parallel major surfaces etc. Crystals
> for use on an overtone are usually lapped or polished to a finer surface
> finish than fundamental crystals. Also the two major surfaces need to be
> parallel to a greater degree. Fundamental crystals may be slightly convex
> so as to decouple the edges of the crystal. Depends on thickness /
diameter
> ratio.
>
> 10XJ holders dont offer a hermetic seal. Over time particles can get in
and
> contaminate the surface of the quartz plate as can the chemicals used in
the
> manufacture of the plastic 10XJ holder. Many years old now.
>
> So, you could do two things to try to get it working. 1. remove the
> quartz crystal from the 10XJ holder and soak it in Isopropyl (orderable
from
> Boots). Then hold the quartz plate by the edges. Dont touch the major
> surfaces of the crystal with your fingers directly. Use a piece of silk
> (a hanky maybe) soaked in Isopropyl between your fingers and gently scrub
> the plate. Then soak it again. Dry the crystal with a hair dryer. Hold
> the crystal with tweezers. Also wash the two metal plates which sandwich
the

> crystal.
>
> If that doesn't work for you the only other approach is to increase the
loop
> gain of your oscillator at the desired overtone frequency so as to
overcome
> the resistance of the crystal.
>
> Fundamental crystals marked with a fundamental frequency and used on an
> overtone never oscillate at the exact multiple of the fundamental. Can be
> many kHz off. Better to use your fundamental crystal on its fundamental
> and multiply up.
>
> If you need to use a crystal on an overtone, best to use one calibrated
and
> marked with its overtone frequency.
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1259. WTB: 19" Rack Panel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 21:32:40 UTC
From: rs2bk@aol.com
Message-ID: <20010224163240.04210.00001020@ng-cf1.aol.com>
Source record: 54456

Looking for an aluminum panel 15" high.
Black crakle would be great, but other
finishes are ok.

Jim w9ud
Moline, IL

1260. WTB: Dayton Blower for amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-24 21:33:50 UTC
From: rs2bk@aol.com
Message-ID: <20010224163350.04210.00001021@ng-cf1.aol.com>
Source record: 54457

Looing for a Dayton 2C781.

Jim w9ud
Moline, IL

1261. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 00:04:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <979i50jqm1@uranium.btinternet.com>
Source record: 54458
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Such attenuators do exist. I have in the shack a 0-100 dB attenuator in 1 dB steps. It was manufactured by Pascall, UK, about 5 years back. I forget the price but it was quite expensive. Don't know whether the firm still exists. Built into a solid die-cast aluminium-alloy box.

Cable leakage does not increase with frequency - it decreases. Worst of all at DC and audio frequencies. Leakage occurs mostly at connectors. Use threaded types, not simple plug and socket. Impedance mismatch at connectors is no problem with attenuation measurements.

I have made measurements up to 160 dB at up to 5 MHz by comparison with variable attenuators. A 10 watt signal generator is needed. Without any extraordinary precautions it is possible to make measurements with an uncertainty of a few tenths of a decibel at 100 dB.

I have also made measurements with a precision of 0.001 decibels at frequencies up to 10 MHz. Such measurements are necessary to determining the loss vs temperature coefficients of components and systems when it is possible to vary the temperature only a few degrees C. A high precision is also needed when calibrating field attenuators against laboratory standards.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Paul Keinanen <keinanen@sci.fi> wrote in message
news:60pe9to55lpu8l0i5klkobios5qcaj2lqd@4ax.com...
> On Thu, 22 Feb 2001 19:43:38 -0600, "Bill N0MNB" <N0MNB@MINN.NET>
> wrote:
>
> >NEEDED A VARIABLE 50 OHM ATTENUATOR.
>
> What frequency range ?
>
> >0-100DB OR SO.
>
> How do you expect to get such attenuations when cable leakage is

much
> more than that above audio frequencies.
>

1262. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 07:33:39 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <vn7h9ts7lvt8647kcnbelj3tiik2mf108c@4ax.com>
Source record: 54459
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sun, 25 Feb 2001 00:04:50 -0000, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Such attenuators do exist. I have in the shack a 0-100 dB
>attenuator in 1 dB steps. It was manufactured by Pascall, UK, about
>5 years back. I forget the price but it was quite expensive.

I guess that it must be quite expensive if you really get such
accuracy as you later claim, even in a controlled constant
temperature.

I also suspect that the VHF/UHF performance is not that spectacular
and since the original poster did not specify the required frequency
range, I originally asked about it.

>Cable leakage does not increase with frequency - it decreases.
>Worst of all at DC and audio frequencies. Leakage occurs mostly at
>connectors. Use threaded types, not simple plug and socket.

DC and audio circuits generally have a much higher impedance levels
than 50 or 75 ohms used in RF circuits, so the capacitive coupling is
a much worse problem. At very low frequencies the coaxial cable does
not work properly as a transmission line, thus the isolation is not
very good. However, due to losses at very high frequencies, the shield
no longer act as a perfect conductor and you can get different
currents flowing on the inside and outside of the shield.

>I have also made measurements with a precision of 0.001 decibels at
>frequencies up to 10 MHz.

I guess that must be the readout resolution in some comparative
measurements but not an actual precision. A 0.001 dB voltage ratio is
115 ppm (0.015 %), so I wonder how this accuracy could be maintained,
especially if some real power levels are involved heating the
attenuator.

Paul OH3LWR

1263. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 12:55:58 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <97avaa$dt0$1@neptunium.btinternet.com>
Source record: 54460
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Absolute accuracy should not be confused with precision.

To measure attenuation within "a few tenths of a dB" (at any attenuation level) entails detecting a difference between two voltages which are a few percent different from each other. This is an easy job for any voltmeter. Errors are not due to the comparing voltmeter but to the measuring components, cables, connectors and layout.

Accuracy entails comparison with a local standard. There will be uncertainty in the local standard in addition to errors introduced during the comparison process. There will also be uncertainties introduced at each calibration level up to the International standard.

Precision is related only to local effects such as signal to noise ratios. It is relatively easy to detect a difference of 10 microvolts between two voltages of about 1 volt each. This corresponds to a precision better than +/- 0.0001 dB
--
Regards, Reg, G4FGQ
http://www.btinternet.com/~g4fgq.regp

****

Paul Keinanen <keinanen@sci.fi> wrote in message
news:vn7h9ts7lvt8647kcnbelj3tiik2mf108c@4ax.com...
> On Sun, 25 Feb 2001 00:04:50 -0000, "Reg Edwards"
> <g4fgq.regp@btinternet.com> wrote:
>
> >Such attenuators do exist. I have in the shack a 0-100 dB
> >attenuator in 1 dB steps. It was manufactured by Pascall, UK,
about
> >5 years back. I forget the price but it was quite expensive.
>
> I guess that it must be quite expensive if you really get such
> accuracy as you later claim, even in a controlled constant
> temperature.
>
> I also suspect that the VHF/UHF performance is not that
spectacular
> and since the original poster did not specify the required
frequency
> range, I originally asked about it.

>
>
> >Cable leakage does not increase with frequency - it decreases.
> >Worst of all at DC and audio frequencies. Leakage occurs mostly
at
> >connectors. Use threaded types, not simple plug and socket.
>
> DC and audio circuits generally have a much higher impedance
levels
> than 50 or 75 ohms used in RF circuits, so the capacitive
coupling is
> a much worse problem. At very low frequencies the coaxial cable
does
> not work properly as a transmission line, thus the isolation is
not
> very good. However, due to losses at very high frequencies, the
shield
> no longer act as a perfect conductor and you can get different
> currents flowing on the inside and outside of the shield.
>
>
> >I have also made measurements with a precision of 0.001 decibels
at
> >frequencies up to 10 MHz.
>
> I guess that must be the readout resolution in some comparative
> measurements but not an actual precision. A 0.001 dB voltage
ratio is
> 115 ppm (0.015 %), so I wonder how this accuracy could be
maintained,
> especially if some real power levels are involved heating the
> attenuator.
>
> Paul OH3LWR
>
>

1264. Re: Cavity Resonator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 13:27:35 UTC
From: Tom Twist <Tom@twist.no>
Message-ID: <at1i9tk4hrg6iucfi7ks0koob7v5obmdbi@4ax.com>
Source record: 54461

On Tue, 20 Feb 2001 20:36:33 +0100, "Peter Bolch"
<320058850955-0001@t-online.de> wrote:

>Hi
>
>I need a cavity resonator for frequencies around 2 GHz. I've got some mode
>charts, so calculating the dimensions should not be a problem. Can someone
>provide additional hints and tips? E.g. type of coupling, what mode,
>literature etc.

Peter

Have a look at SM0VPO Harry Lythalls pages:

http://hem.passagen.se/sm0vpo/use/cavity.htm

He has a lot of other stuff as well:

http://hem.passagen.se/sm0vpo/

73, Tom

1265. help with 4-1000a amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 14:57:24 UTC
From: Bill Russell <willy@global2000.net>
Message-ID: <gp6i9tcvmvbj1ppa9uvj63sm7mnj2mjk2a@4ax.com>
Source record: 54462

Im thinking about building an hf amp using the 4-1000. A couple of questions. I believe B&W used to make a complete band switching tank ckt complete with switch and coils. I dont think they do any more, at least its not listed on there site but they do list a tank coil without a switch. Any ideas where i can find a complete tank ckt for this tube. Before I get flamed...I know I could wind one but dont want to unless I have to!!! Had some bad experiances winding them when I was in the Air Force years ago. Also is there any web site that has a schematic for this amp. Any help would be great.
Thanks in advance,
Bill Russell

1266. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 16:12:47 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <3aam6.322672$iy3.68440110@news1.rdc1.tn.home.com>
Source record: 54463

My other post was somewhat lacking...H.P. makes several good 50 Ohm step attenuators. I have both a 0-10 dB (1 dB steps) and a 0-100dB (10 dB steps), both rated to 500 MHz....0.5 watts....accuracy acceptable for home use. We calibrate/check our at work H.P attenuators every six months. They ain't cheap...approx. $350.00 ea. new, but can often be found on the surplus market for $25 to $50.

jim K4KAE

"jim bennett" <jimbennett@home.com> wrote in message
news:LkDl6.318086$iy3.67139670@news1.rdc1.tn.home.com...
>
> "Bill N0MNB" <N0MNB@MINN.NET> wrote in message
> news:974f7s$ev0$1@newsfeed.minn.net...
> > NEEDED A VARIABLE 50 OHM ATTENUATOR. 0-100DB OR SO.
> > DIAL TYPE ASAP....
> >
> > 73'S N0MNB
> >
> >
>
>

1267. Re: help with 4-1000a amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 16:45:04 UTC
From: k3ky@erols.spamnocom
Message-ID: <3a9934ea.205699191@news.erols.com>
Source record: 54464

B&W used to make the 850 and 852 tank inductors, which included
a heavy-duty bandswitch. I forget which plate impedances these two
were designed for, but I'm sure others in the group will remember.
These come up for auction fairly regularly on ebay. I have also seen
them occasionally on rec.radio.swap. Plan to shell out at least 50
bucks, if memory serves. These are not made any more and they
fetch a pretty good price on ebay.
73, David K3KY
P.S. I think you want the B&W 850. I prefer to wind my own. Why
pay 50. for one when you can spend hundreds of dollars in NRE
designing and fabricating your own? :o)

On Sun, 25 Feb 2001 09:57:24 -0500, Bill Russell
<willy@global2000.net> wrote:

>Im thinking about building an hf amp using the 4-1000. A couple of
>questions. I believe B&W used to make a complete band switching tank
>ckt complete with switch and coils. I dont think they do any more, at
>least its not listed on there site but they do list a tank coil
>without a switch. Any ideas where i can find a complete tank ckt for
>this tube. Before I get flamed...I know I could wind one but dont want
>to unless I have to!!! Had some bad experiances winding them when I
>was in the Air Force years ago. Also is there any web site that has a
>schematic for this amp. Any help would be great.
>Thanks in advance,
>Bill Russell

1268. Re: help with 4-1000a amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 17:32:59 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3A9941CB.4BF5AFD6@bloomer.net>
Source record: 54465

Here is one project...

http://www.qsl.net/nt8n/project.htm#Reason for using this tube:

Scott
N0EDV

Bill Russell wrote:
>
> Im thinking about building an hf amp using the 4-1000. A couple of
> questions. I believe B&W used to make a complete band switching tank
> ckt complete with switch and coils. I dont think they do any more, at
> least its not listed on there site but they do list a tank coil
> without a switch. Any ideas where i can find a complete tank ckt for
> this tube. Before I get flamed...I know I could wind one but dont want
> to unless I have to!!! Had some bad experiances winding them when I
> was in the Air Force years ago. Also is there any web site that has a
> schematic for this amp. Any help would be great.
> Thanks in advance,
> Bill Russell

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1269. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 20:02:23 UTC
From: Richard Clark <kb7qhc@home.com>
Message-ID: <kdni9t87fudq7v6tvtipks5gfq83i8i24v@4ax.com>
Source record: 54466
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sun, 25 Feb 2001 09:33:39 +0200, Paul Keinanen <keinanen@sci.fi>
wrote:

>>I have also made measurements with a precision of 0.001 decibels at
>>frequencies up to 10 MHz.
>
>I guess that must be the readout resolution in some comparative
>measurements but not an actual precision. A 0.001 dB voltage ratio is
>115 ppm (0.015 %), so I wonder how this accuracy could be maintained,
>especially if some real power levels are involved heating the
>attenuator.
>
>Paul OH3LWR
>

Hi Paul,

Precision, Resolution. These can be the same thing or different;
however neither are a statement of accuracy.

When my old Drake TR-7 VFO gets buggy, I might note some one at
47.1652 MHz and smile at the precision of that reading, and yet it is
off by 40 MHz (an errant 4 is showing). Lots of precision, lots of
error.

However, as your question lies dormant:
> I wonder how this accuracy could be maintained,
>especially if some real power levels are involved heating the
>attenuator.
which is a concern shared by any metrologist. The load is the
defining point of a power measurement. The load must be known and
with power applied - it changes.

The first, and simplest, solution is to over engineer the load's
ability to "DISSIPATE" energy. (sorry to scream in your ear, but
others here needed to hear that) That would suggest using a 100W
continuous service Dummy Load to measure 10W period limited power
measurements. Or simply measure the load under the power applied.

Attenuators, on the other hand, are not 100W and few are 10W devices.
Most are on the order of 0.1-5W. So, I presume you wonder how to get
one of these into the signal path of a 100W rig? You use a
directional coupler to tap a portion of the power (and you need to
know the portion, but accurate determinations are fairly simple) and

feed that tap through the attenuator and add the coupling loss (or that portion) to make a total.

In short, you have a 100W Source, a 100W Load, a 20 dB Directional coupler, a variable attenuator, an attenuator Load (how many miss this one?) and a detector. You can now read applied power at a 1W level instead of the 100W level. And you can measure the variation from that level with reference to your 100W reading to the resolution of the detector. Resolution or precision could run quite high. A measurements of change would also find high "relative" accuracy.

Relative accuracy means you do not need to know where you are, or where you started in absolute terms, merely how far apart they are. There is an interesting implication here in this subject. As we are interested in attenuation, any measurement of an attenuator is both "relatively" and "absolutely" accurate. This is one of Gary Peach's link pins to the absolute measure of received power.

73's
Richard Clark, KB7QHC

1270. Re: help with 4-1000a amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 21:36:03 UTC
From: Paul Coverdale <coverdale@sympatico.ca>
Message-ID: <3A997ACE.2D3CC9FC@sympatico.ca>
Source record: 54467

A typical circuit for using the 4-1000 in grounded grid is given in July 1963 QST. This article recommends the B&W 850-A tank circuit, although I have used the 852 myself (admittedly with a lower plate voltage).

Paul
VE3ICV

Bill Russell wrote:

> Im thinking about building an hf amp using the 4-1000. A couple of
> questions. I believe B&W used to make a complete band switching tank
> ckt complete with switch and coils. I dont think they do any more, at
> least its not listed on there site but they do list a tank coil
> without a switch. Any ideas where i can find a complete tank ckt for
> this tube. Before I get flamed...I know I could wind one but dont want
> to unless I have to!!! Had some bad experiances winding them when I
> was in the Air Force years ago. Also is there any web site that has a
> schematic for this amp. Any help would be great.
> Thanks in advance,
> Bill Russell

1271. PC sound card specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 21:53:34 UTC
From: "Dave Cook", com
Message-ID: <y9fm6.473453$U46.14111789@news1.sttls1.wa.home.com>
Source record: 54468

I was thinking about hooking my rig to my PC soundcard, but can't find any spec's on the soundcard's I/O characteristics. It, of course, a "SoundBlaster" compatible, but even the Creative Labs tech info doesn't get down to the nuts and bolts. Naturally, my rig is thoroughly spec'ed out - I can choose from the 8 ohm speaker output or a line-out output. I'm assuming the output from the soundcard is 8 ohms. Does anyone have any info on the aux and mic inputs?

BTW, I haven't been subscribing to QST for a while. I'm sure there have been plenty of articles on xcvr<->PC hookups.

-- Dave WA0TTN/7

1272. Source for 13-pin DIN connectors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 21:56:20 UTC
From: "Dave Cook", com
Message-ID: <8cfm6.473462$U46.14110936@news1.sttls1.wa.home.com>
Source record: 54469

In regard to the previous message I just posted, I also need a 13-pin DIN plug for ACC 2 jack on my Kenwood TS-440S. I remember calling them and asking where to get one a few years ago, and they told me to drive over to their factory in Long Beach to pick one up :-) Does anyone have a suggestion on where I might start looking for one of these?

-- Dave WA0TTN/7

1273. Re: WTB: Dayton Blower for amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 22:04:02 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A99AA2C.D450632C@home.com>
Source record: 54470

If all else fails -- try WWGrainer - I believe that Dayton is one of
their house brands.

RS2BK wrote:

> Looing for a Dayton 2C781.
>
> Jim w9ud
> Moline, IL

1274. WTB: Transformer: 16V/5A sec 240V Primary

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 22:44:00 UTC
From: Michael Wachur <KA1YY@EROLS.COM>
Message-ID: <97c1pk$7tq$1@bob.news.rcn.net>
Source record: 54471

Looking to buy a transformer with a secondary of 16V @ 5A. Primary preferred
to be 240V. Let me know what you have and price.
Thanks & 73,
Michael
K3OR
Clarksville, Maryland

1275. Re: PC sound card specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 22:50:57 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <6_fm6.541$oQ4.1550@newsfeed.slurp.net>
Source record: 54472

There isn't much in the way of specs for the sound cards. Everybody does it a little different. That's really not much of a problem though because there is no need to match impedances - just get the levels correct. Generally, the speaker output of your receiver will drive the line input of the sound card directly. If you have "hum" or RFI problems you may want to add a 1:1 isolation transformer. The line output of a sound card can be reduced by a 100:1 resistor attenuator to get down to a suitable level for the transmitter's mike input. Check out http://www.sedan.org/sedanmap.htm for details on interfacing to a variety of different rigs.

1276. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-25 23:18:21 UTC
From: la8ak@online.no
Message-ID: <3a99698f.529584019@news.online.no>
Source record: 54473

On Sun, 25 Feb 2001 16:12:47 GMT, "jim bennett" <jimbennett@home.com>
wrote:

>My other post was somewhat lacking...H.P. makes several good 50 Ohm step
>attenuators. I have both a 0-10 dB (1 dB steps) and a 0-100dB (10 dB steps),
>both rated to 500 MHz....0.5 watts....accuracy acceptable for home use. We
>calibrate/check our at work H.P attenuators every six months. They ain't
>cheap...approx. $350.00 ea. new, but can often be found on the surplus
>market for $25 to $50.
>
>jim K4KAE
>
suppose they use something better than the rather unstable BNC
connectors found on most atternuators? It is general opinion that BNC
connectors shouldn't be used above 1000MHz, but do they cause any
unstable connection below that?

-jm
LA8AK

1277. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 01:31:40 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <0mim6.324404$iy3.68779908@news1.rdc1.tn.home.com>
Source record: 54474

The ones that I have and the ones at work all have BNC type connectors. I have not noticed any problems associated with their use, but our high end is 400 MHz. The only problems we have experienced is a tendency for the locking nut to loosen if Gorilla Grip repeatedly uses the attenuators.

jim K4KAE

"J M Noeding" <la8ak@online.no> wrote in message news:3a99698f.529584019@news.online.no...
> On Sun, 25 Feb 2001 16:12:47 GMT, "jim bennett" <jimbennett@home.com>
> wrote:
>
> >My other post was somewhat lacking...H.P. makes several good 50 Ohm step
> >attenuators. I have both a 0-10 dB (1 dB steps) and a 0-100dB (10 dB steps),
> >both rated to 500 MHz....0.5 watts....accuracy acceptable for home use. We
> >calibrate/check our at work H.P attenuators every six months. They ain't
> >cheap...approx. $350.00 ea. new, but can often be found on the surplus
> >market for $25 to $50.
> >
> >jim K4KAE
> >
> suppose they use something better than the rather unstable BNC
> connectors found on most atternuators? It is general opinion that BNC
> connectors shouldn't be used above 1000MHz, but do they cause any
> unstable connection below that?
>
> -jm
> LA8AK

1278. FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 01:47:20 UTC
From: "A. Billings" <artbillings@att.net>
Message-ID: <3A99B53C.477984DF@att.net>
Source record: 54475

We have two linear amplifiers for sale, they are both base units. ten
meters
(1) 500 watt $375.00
(1) 1000 watt $650.00

Check out our "Sale" page.

Thanks
Art./ kc5doo

--
"http://www43.pair.com/billings/"

1279. In search of vertex vx500 programming software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 02:56:39 UTC
From: fred <fred@hotmail.com>
Message-ID: <HBjm6.168$FS3.21719@sjc-read.news.verio.net>
Source record: 54476

Looking for programming software for the vertex vx500 If its on the web could someone please send me a link are post it here are email it to me at joker@wanweb.net

THANKS

1280. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 04:04:51 UTC
From: Ham <no_sp@m_at_.all>
Message-ID: <3A99D5E3.1211A0EB@m_at_.all>
Source record: 54477

And why would you think that any self-respecting ham who is into homebrewing would be interested in amplifiers that are obviously ILLEGAL CB AMPLIFIERS?

Sweep tubes in one no less!!!!! 2-811s driving a 3-500z! You gotta be kidding GOOD BUDDY!!!

Put it out in the trash after whacking it several times with a sledge hammer!

"A. Billings" wrote:

> We have two linear amplifiers for sale, they are both base units. ten
> meters
> (1) 500 watt $375.00
> (1) 1000 watt $650.00
>
> Check out our "Sale" page.
>
> Thanks
> Art./ kc5doo
>
> --
> "http://www43.pair.com/billings/"

1281. Re: PC sound card specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 05:31:02 UTC
From: "Dave Cook", com
Message-ID: <qSlm6.475218$U46.14178244@news1.sttls1.wa.home.com>
Source record: 54478

Thank you so much Bob!!! Your pointer to BUX CommCo has it all! Including the 13-pin DIN plug I was needing, per my subsequent posting. Thanks again -- Dave.

"Bob Lewis" <rlewis@staffnet.com> wrote in message news:6_fm6.541$oQ4.1550@newsfeed.slurp.net...
> There isn't much in the way of specs for the sound cards. Everybody
> does it a little different. That's really not much of a problem though
> because there is no need to match impedances - just get the levels
> correct. Generally, the speaker output of your receiver will drive the
> line input of the sound card directly. If you have "hum" or RFI
> problems you may want to add a 1:1 isolation transformer. The line
> output of a sound card can be reduced by a 100:1 resistor attenuator
> to get down to a suitable level for the transmitter's mike input.
> Check out http://www.sedan.org/sedanmap.htm for details on interfacing
> to a variety of different rigs.

1282. Re: PC sound card specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 10:14:33 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <97efbedpe1@newsg1.svr.pol.co.uk>
Source record: 54488

> BTW, I haven't been subscribing to QST for a while. I'm sure there have
been
> plenty of articles on xcvr<->PC hookups.
=======
Yes indeed , for a soundcard <>PC interface ,see QST -Feb 2001 pages 88-89
.

73 Frank , gm0csz.kn6wh@ukrs.com

1283. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 10:24:39 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <97efbfdpe2@newsg1.svr.pol.co.uk>
Source record: 54489

> And why would you think that any self-respecting ham who is into
> homebrewing would be interested in amplifiers that are obviously ILLEGAL
> CB AMPLIFIERS?
>
> Sweep tubes in one no less!!!!! 2-811s driving a 3-500z! You gotta be
> kidding GOOD BUDDY!!!
>
> Put it out in the trash after whacking it several times with a sledge
> hammer!
==========
Wouldn't do just that . Seems to be good equipment to convert to a proper
ham bands RF power amplifier .
After doing that it no longer is illegal equipment.....think about it .

73 Frank gm0csz.kn6wh@ukrs.org

1284. Mods TS130S Warc??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 10:27:50 UTC
From: SRI <sri@simrad.no>
Message-ID: <97davglan1@oslo-nntp.eunet.no>
Source record: 54479

Hi
Anyone out there who know how I open the WARC bands on my Kenwood TS130S??
Regards
LA5BX

1285. ISO Exide 1300EX Inverter Service Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 11:42:32 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3A9A4128.80FFB5B8@innercite.com>
Source record: 54487
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.swap,rec.radio.shortwave

> I am in need of a service manual for my Exide Model 1300EX Inverter.
> It
> burned out a number of Transistors and parts. Trying to get the shack
> ready for California's outages. Will accept original or clear copy.
> Gladly pay any reasonable costs. Thanks Don Smith KB6GQA
>

Still trying to locate a service manual. Exide sold the Charger line
three years ago to Midtronics. Midtronics state they never got the
Inverter line. Referred to Prestolite Wireless without success also.
The company will not support their equipment so I must turn to
Newsgroups for help. Might anybody out there help me? Please reply to
my email address. Thanks Don smith

>
>

1286. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 12:34:45 UTC
From: 2w8ji@akorn.net
Message-ID: <3a9a4c53.337455763@news.accessunited.com>
Source record: 54480

On Mon, 26 Feb 2001 01:47:20 GMT, "A. Billings" <artbillings@att.net>
wrote:

>We have two linear amplifiers for sale, they are both base units. ten
>meters
>(1) 500 watt $375.00
>(1) 1000 watt $650.00
>
>Check out our "Sale" page.
>
>Thanks
>Art./ kc5doo

Totally clueless.

1287. WANTED LAPTOP BATTERY ZEOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 13:30:35 UTC
From: Bill N0MNB <N0MNB@MINN.NET>
Message-ID: <97dlp3$mm9$1@newsfeed.minn.net>
Source record: 54482
Cross-posted to: alt.radio.amateur.club.clarc,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.ama

NEED A LAPTOP BATTERY FOR ZEOS
MERIDIAN 800C.. ALLOT OF PLACE SAY THEY HAVE THEM BUT END UP CALLING BACK
AND TELLING ME THE OPPOSITE..

THANKS
BILL

1288. Want to Buy : TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 13:32:46 UTC
From: REDBONE <redbone1@swbell.net>
Message-ID: <3A9A5AFE.3B86@swbell.net>
Source record: 54481

I want to buy some tubes NEW or PULLS (must not be "SOFT"!!!!). I need
to buy some of the following:

QUANITY Type

4 4CX250B tubes

2 3-500Z Graphite Tubes
(Must be Varian Industries
or Amprex)
No Russian or Chinese
made.

Please reply to with price including shipping to: Roy Thomas Sr..
Email Address:
kid1121@netzero.net

1289. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 13:52:18 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <mctm6.125796$B6.29566513@news1.rdc1.md.home.com>
Source record: 54484

I have to disagree. 1) He is a ham. 2) A ham can legally use these. 3) Yes, they were built for 11mtrs, but no one screams when an 11 mtr rig is converted to ham and extra power output is obtained.

Bob N0DGN

"Tom W8JI"
> On Mon, 26 Feb 2001 01:47:20 GMT, "A. Billings" <artbillings@att.net>
> wrote:
>
> >We have two linear amplifiers for sale, they are both base units. ten
> >meters
> >(1) 500 watt $375.00
> >(1) 1000 watt $650.00
> >
> >Check out our "Sale" page.
> >
> >Thanks
> >Art./ kc5doo
>
> Totally clueless.

1290. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 13:52:42 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <Kctm6.125797$B6.29566741@news1.rdc1.md.home.com>
Source record: 54483

I have to disagree. 1) He is a ham. 2) A ham can legally use these. 3) Yes, they were built for 11mtrs, but no one screams when an 11 mtr rig is converted to ham and extra power output is obtained.

Bob N0DGN

"Ham"
> And why would you think that any self-respecting ham who is into
> homebrewing would be interested in amplifiers that are obviously ILLEGAL
> CB AMPLIFIERS?
>
> Sweep tubes in one no less!!!!! 2-811s driving a 3-500z! You gotta be
> kidding GOOD BUDDY!!!
>
> Put it out in the trash after whacking it several times with a sledge
> hammer!
>
>
> "A. Billings" wrote:
>
> > We have two linear amplifiers for sale, they are both base units. ten
> > meters
> > (1) 500 watt $375.00
> > (1) 1000 watt $650.00
> >
> > Check out our "Sale" page.
> >
> > Thanks
> > Art./ kc5doo
> >
> > --
> > "http://www43.pair.com/billings/"
>

1291. Re: Source for 13-pin DIN connectors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 16:29:26 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3A9A8466.C5D66060@iquest.net>
Source record: 54485

Call 317-257-6811 and tell them you need to order a 13 Pin Kenwood DIN plug....the cost is under $5 last time I looked. Of course you'll have shipping, unless you want to drive to Indiana and pick it up ;') - but then, Long Beach may be closer.

Bests

Patrick
W9GTA

Dave Cook wrote:
>
> In regard to the previous message I just posted, I also need a 13-pin DIN
> plug for ACC 2 jack on my Kenwood TS-440S. I remember calling them and
> asking where to get one a few years ago, and they told me to drive over to
> their factory in Long Beach to pick one up :-) Does anyone have a
> suggestion on where I might start looking for one of these?
>
> -- Dave WA0TTN/7

1292. Re: Source for 13-pin DIN connectors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 17:29:37 UTC
From: "Dave Cook", com
Message-ID: <5owm6.477023$U46.14249790@news1.sttls1.wa.home.com>
Source record: 54486

Thank you Patick. Bob Lewis pointed me to another source in response to my previous message, but it's good to have another place to shop :-) Thanks!

"Patrick Croft" <mai@iquest.net> wrote in message news:3A9A8466.C5D66060@iquest.net...
> Call 317-257-6811 and tell them you need to order a 13 Pin Kenwood DIN
> plug....the cost is under $5 last time I looked. Of course you'll have
> shipping, unless you want to drive to Indiana and pick it up ;') - but
> then, Long Beach may be closer.
>
> Bests
>
> Patrick
> W9GTA
>
> Dave Cook wrote:
> >
> > In regard to the previous message I just posted, I also need a 13-pin DIN
> > plug for ACC 2 jack on my Kenwood TS-440S. I remember calling them and
> > asking where to get one a few years ago, and they told me to drive over to
> > their factory in Long Beach to pick one up :-) Does anyone have a
> > suggestion on where I might start looking for one of these?
> >
> > -- Dave WA0TTN/7

1293. 23 cm omnidirectional antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 21:05:56 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <97egefkhv1@wanadoo.fr>
Source record: 54403

Hello !

With some friends I build presently an ATV repeater. The transmitter is designed for the 23 cm band and the output power is about 15 W.
To cover the right area I need an horizontal polarized antenna with an omnidirectional diagram. A gain of about 8 to 10 dB will be highly welcome.

Any idea or tried design ? stacked halo or big wheel or something equivalent ?

Thank you for your help

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

1294. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 21:35:04 UTC
From: david@adobe.com
Message-ID: <c_zm6.174$aW5.2081@dfw-read.news.verio.net>
Source record: 54490

In article <3a99698f.529584019@news.online.no>,
J M Noeding <LA8AK@Online.NO> wrote:
>On Sun, 25 Feb 2001 16:12:47 GMT, "jim bennett" <jimbennett@home.com>
>wrote:
>
>>My other post was somewhat lacking...H.P. makes several good 50 Ohm step
>>attenuators. I have both a 0-10 dB (1 dB steps) and a 0-100dB (10 dB steps),
>>both rated to 500 MHz....0.5 watts....accuracy acceptable for home use. We
>>calibrate/check our at work H.P attenuators every six months. They ain't
>>cheap...approx. $350.00 ea. new, but can often be found on the surplus
>>market for $25 to $50.
>>
>>jim K4KAE
>>
>suppose they use something better than the rather unstable BNC
>connectors found on most atternuators? It is general opinion that BNC
>connectors shouldn't be used above 1000MHz, but do they cause any
>unstable connection below that?

The most common step attenuators on the hobby market are the HP355C
(0-12dB in 1dB steps) and HP355D (0-120dB in 10dB steps). They are rated
to 1GHz and normally have BNC connectors.

Higher frequency attenuators such as the HP8494/HP8495 come with N, SMA,
or even APC7 connectors.

1295. Re: Source for 13-pin DIN connectors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 21:42:33 UTC
From: albert giandomenico <giandome@seas.upenn.edu>
Message-ID: <3A9ACDC9.32BC66D3@seas.upenn.edu>
Source record: 54491

Digikey has that part:

CP-1013-ND $1.65

Page 130 in catalog # Q011A

http://www.digikey.com

N3OJV, AL

Dave Cook wrote:
>
> In regard to the previous message I just posted, I also need a 13-pin DIN
> plug for ACC 2 jack on my Kenwood TS-440S. I remember calling them and
> asking where to get one a few years ago, and they told me to drive over to
> their factory in Long Beach to pick one up :-) Does anyone have a
> suggestion on where I might start looking for one of these?
>
> -- Dave WA0TTN/7

1296. Re: WANTED LAPTOP BATTERY ZEOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 22:01:55 UTC
From: "Dr. Robert Suding" <robert@qadas.com>
Message-ID: <3A9AD253.6AC57C7A@qadas.com>
Source record: 54492
Cross-posted to: alt.radio.amateur.club.clarc,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.ama

I have an old ZEOS Notebook 386 that developed dead batteries when I did not keep them on trickle charge. I carefully cut one of the 2 open and found that the batteries were standard 1700 mah cells that can be be obtained from various nicad sources and soldered together. I can sometimes restore the batteries if not hard shorted by zapping them, but zapped batteries never perform well after zapping, and must be kept on constant trickle charge as you can see from my webpage at http://www.ultimatecharger.com

Robert W0LMD

Bill N0MNB wrote:
>
> NEED A LAPTOP BATTERY FOR ZEOS
> MERIDIAN 800C.. ALLOT OF PLACE SAY THEY HAVE THEM BUT END UP CALLING BACK
> AND TELLING ME THE OPPOSITE..
>
> THANKS
> BILL

1297. looking for ft243 xtals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 22:20:43 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3a9ad6be$0$30008$2c3edae7@news.voyager.net>
Source record: 54493

i have a vintage rig and also have rebuilt my old novice transmitter
and am looking for some ft243 xtals in the 80 and 40 meter bands if
anyone has some of these for sale i would be interested tks
ken w8ob

1298. Learn and practice CW on the Web.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 22:43:51 UTC
From: Brad <bdstrau@attglobal.net>
Message-ID: <3a9ae0d6_2@news1.prserv.net>
Source record: 54495

Learn and practice CW on the Web.

http://www.morse101.com

1299. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-26 23:01:43 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <97euct$vb9$1@news5.svr.pol.co.uk>
Source record: 54402

> CB amps are almost never "designed" with any consideration
> given to having a clean signal. As a matter of fact, it is almost
> always the opposite.
> Tom
=======
Agree with you Tom ,but this is a Homebrew NG and homebrewers enjoy making
something good /clean from equipment not necessarily designed for ham
service .
I would find it a challenge to modify this type of amps for ham use.

73 Frank gm0csz.kn6wh@ukrs.org based in Scotland

1300. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 00:24:35 UTC
From: 2w8ji@akorn.net
Message-ID: <3a9af2ca.380077585@news.accessunited.com>
Source record: 54496

On Mon, 26 Feb 2001 13:52:18 GMT, "B-Squared" <rbethman@home.com>
wrote:

>I have to disagree. 1) He is a ham. 2) A ham can legally use these. 3)
>Yes, they were built for 11mtrs, but no one screams when an 11 mtr rig is
>converted to ham and extra power output is obtained.
>
>Bob N0DGN

Odds are you'd never want that crap on a ham band.

CB amps are almost never "designed" with any consideration
given to having a clean signal. As a matter of fact, it is almost
always the opposite.

Tom

1301. xtal in 80 M novice band 3.725

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 01:51:00 UTC
From: earlve3ab@igs.net
Message-ID: <3a9b06c6.80892878@news.igs.net>
Source record: 54494

I have an old crystal 3.725 in a case 27mm across by 20 mm deep by 10 mm h(sorry my ruler on my bench is metric)..the pins are round approx 1.3 mm dia and spacing between themabt 13 mm.
I got it from an old homebrew tube rig that someone gave me. I guess its vintage..anyways..I might be interested in trading and I could probably test the xtal someway in my old DX60..Let me know what you think..73 Earl Andrews VE3AB

1302. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 02:20:24 UTC
From: mcalhoun@ksu.edu
Message-ID: <97f2t8$7ik@unix2.cc.ksu.edu>
Source record: 54397
Body handling: HTML body converted to readable text

<

1303. WTB: Amphenol connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 04:30:54 UTC
From: Allan Henry Kaplan <w1ael@mindspringnot.com>
Message-ID: <3A9B2D7E.6752A8C4@mindspringnot.com>
Source record: 54398

I need two pieces each of Amphenol Series 26 24-pin mating connectors to
repair plug-ins for an old HP Spectrum Analyzer. the part numbers are
26-4101-24P and 26-4501-24S. Chances are that I could use parts with
some
variation in the middle number (4x01?) provided that they are mating
pairs of
Amphenol Series 26 connectors. I will appreciate any leads you might
furnish.
Please copy to my e-mail address which is <mycall at arrl dot net>
Thanks!
Allan (W1AEL)
Sevierville, Tennessee

1304. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 05:22:16 UTC
From: Bob Headrick <bobh@proaxis.com>
Message-ID: <3a9b3946_2@news.pacifier.com>
Source record: 54399

"B-Squared" <rbethman@home.com> wrote in message
news:Kctm6.125797$B6.29566741@news1.rdc1.md.home.com...
> I have to disagree. 1) He is a ham. 2) A ham can legally use these. 3)
> Yes, they were built for 11mtrs, but no one screams when an 11 mtr rig is
> converted to ham and extra power output is obtained.

But even hams cannot offer amplifiers that cover 26-34Mhz for sale in the US,
under FCC regulations part 47 section 2.815. There are exceptions for home
brew equipment offered by one ham to another, but these units do not qualify.

- 73 Bob W7OV

1305. Re: Want to Buy : TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 06:08:21 UTC
From: theosus@aol.com
Message-ID: <20010227010821.00266.00000072@ng-mo1.aol.com>
Source record: 54400

>
>I want to buy some tubes NEW or PULLS (must not be "SOFT"!!!!). I need
>to buy some of the following:
>

www.electron-tubes.com

1306. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 10:51:14 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3a9b86b0$0$35013$2c3edae7@news.voyager.net>
Source record: 54401

yes by all means read the fcc rules on sales of amps for this freq
range. you will find max amp gain etc. its clear that a large number of
people dont own or have not read part 97. as they said in the movie
"beetlejuice" its in the manual READ IT!
73 ken w8ob

Ham wrote:
>
> Bottom line is that:
> ***these are CB amplifiers, likely dirty as they come
> ***with very low drive requirement obviously aimed at the Good Buddy's riceboxes.
>
> Take a look at the FCC regulations about the legality of selling amplifiers for 11
> meters with low drive requirements.
>
> This "dealer" is obviously breaking the law and should be ashamed that he does it
> under the guise of a ham license.
>
> Maybe if we suggest that he drive the two 811s with the lower power amplifier for
> more power output he'll try it and blow up both of them and perhaps we'll be lucky
> if the rest of the stock of his illegal CB gear goes up in flames with them!
>
> Anybody who thinks he's "honest" about the use of the amplifiers being for amateur
> service, even though it's illegal to sell them, take a look at the rest of his web
> site. SB-220 converted for mobile use with 4 tubes? A truck with 6 alternators
> to power the gear? Solid state high power mobile crap? Click on the D-104 to
> hear "CB Talk!"
>
> Just do a bit of browsing and you'll see right away that "Hound Dog" is definitely
> SELLING CB GEAR that is illegal!
>
> Bob Headrick wrote:
>
> > "B-Squared" <rbethman@home.com> wrote in message
> > news:Kctm6.125797$B6.29566741@news1.rdc1.md.home.com...
> > > I have to disagree. 1) He is a ham. 2) A ham can legally use these. 3)
> > > Yes, they were built for 11mtrs, but no one screams when an 11 mtr rig is
> > > converted to ham and extra power output is obtained.
> >
> > But even hams cannot offer amplifiers that cover 26-34Mhz for sale in the US,
> > under FCC regulations part 47 section 2.815. There are exceptions for home
> > brew equipment offered by one ham to another, but these units do not qualify.
> >
> > - 73 Bob W7OV

1307. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 13:01:57 UTC
From: yardleyite@aol.com
Message-ID: <20010227080157.08639.00000157@ng-fy1.aol.com>
Source record: 54404

Ok, Two 811-A's driving a 3-500Z. Not bad for an exciter. What amp does he use?
Joe N3IBX

1308. New radio and television pictures

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-27 20:56:29 UTC
From: TV and Radio Towers <owner@tvtowers.bizland.com>
Message-ID: <3A9C147D.8E1D0E1A@tvtowers.bizland.com>
Source record: 54423

TV and Radio Tower Pictures!

Ever wondered where the television and radio signals you receive are generated? Our site shows you original pictures from the transmitter towers on locations in The Netherlands, Germany, Belgium and the United Kingdom. For many sites a photograph of the antenna tower and its surroundings and a detailed close-up of the aerial system is provided.

---
http://www.tvtowers.bizland.com

1309. Re: Want to Buy : TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 01:40:34 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <mGYm6.277$7Y1.42005@newsread2.prod.itd.earthlink.net>
Source record: 54405

I have the tubes and he didn't respond at all. Must not be interested.

Theosus <theosus@aol.com> wrote in message
news:20010227010821.00266.00000072@ng-mo1.aol.com...
> >
> >I want to buy some tubes NEW or PULLS (must not be "SOFT"!!!!). I need
> >to buy some of the following:
> >
>
> www.electron-tubes.com

1310. looking for rf ampl

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 11:14:07 UTC
From: Gomes <ct1hix@netc.pt>
Message-ID: <3a9cea91@212.18.160.197>
Source record: 54406

I build a project for an RF amplifier with power tubes in 300w level .

73 CT1HIX Gomes

1311. Re: ISO Exide 1300EX Inverter Service Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 13:04:35 UTC
From: "Spotillius Maximus aka \"Spot\"" <*****@ix.netcom.com>
Message-ID: <97isrv$6jj$1@slb3.atl.mindspring.net>
Source record: 54407
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.antenna,rec.radio.swap,rec.radio.shortwave

In all honesty, you will probably never find a service manual for that piece
of equipment. The manufacturer doesn't want the public to have them. I'm
going through the crap with APC. Good luck.

Spot

"Donald E. Smith" <desmith@innercite.com> wrote in message
news:3A9A4128.80FFB5B8@innercite.com...
> > I am in need of a service manual for my Exide Model 1300EX Inverter.
> > It
> > burned out a number of Transistors and parts. Trying to get the shack
> > ready for California's outages. Will accept original or clear copy.
> > Gladly pay any reasonable costs. Thanks Don Smith KB6GQA
> >
>
> Still trying to locate a service manual. Exide sold the Charger line
> three years ago to Midtronics. Midtronics state they never got the
> Inverter line. Referred to Prestolite Wireless without success also.
> The company will not support their equipment so I must turn to
> Newsgroups for help. Might anybody out there help me? Please reply to
> my email address. Thanks Don smith
>
> >
> >
>
>
>
>

1312. Frequency synthesis receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 15:31:45 UTC
From: j.l.gomez-dans@sheffield.ac.uk
Message-ID: <8766hu3jtq.fsf@sheffield.ac.uk>
Source record: 54408

Hi!
I have been playing with the idea above for quite some time, basically, a SW receiver made out of ICs. In principle, I have sussed out the demodulation and and amplification bits (it's been quite a while, and can't remember any part numbers), but there are still a couple of things missing. I have had some joy with some frequency synthesis ICs (the specs look OK), but at this point in time, all I have is just some schematics that aren't pinned down or anything. Besides, I could do with some extra information on the whole thing.

As you can see, I am trying to be very general here, but I guess that my question is whether anyone knows of some design implementations of a microcontroller-based receiver that uses frequency synthesis. I have made som progress on a BCD FS chip run by a PIC.

At any rate, any hints, directions and the such shall be much welcomed1 Thanks in advance,
Josï¿½

1313. Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 16:05:21 UTC
From: Ron H <blahblah@mn.mediaone.net>
Message-ID: <5l9n6.21667$_d5.1696411@typhoon.mn.mediaone.net>
Source record: 54409
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

What is the equation to relate the spacing of the plates of an air variable capacitor to the breakdown voltage? OR Is there a look-up table somewhere that might list this info for the common spacings? You know, 1/8" = 3000 Volts etc.

Thanks
Ron H.

--
DO NOT REPLY TO THIS MESSAGE:
Sorry but it's the only way to beat spam: To reply please use RNHARSH at mediaone.net of course you'll have to put it together correctly. Cheers

1314. Re: Source for 13-pin DIN connectors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 16:28:44 UTC
From: n5kzw@iname.com
Message-ID: <3a9d2739.173707623@news.infohwy.com>
Source record: 54410

On Sun, 25 Feb 2001 21:56:20 GMT, "Dave Cook"
<nospam.davepc2@netdave.,com> wrote:

>In regard to the previous message I just posted, I also need a 13-pin DIN
>plug for ACC 2 jack on my Kenwood TS-440S. I remember calling them and
>asking where to get one a few years ago, and they told me to drive over to
>their factory in Long Beach to pick one up :-) Does anyone have a
>suggestion on where I might start looking for one of these?
>
>-- Dave WA0TTN/7
>
>
>

Dave, I just went through the frustration of trying to wire up the
13-pin DIN for PSK-31 on my TS-450S. After I got it working, I posted
a request for hints. The two best responses I received were:

1. On the back side of the connector, cut off all of the pins you are
not going to use.

2. Go to Radio Shack and buy a female RS-232 connector kit with loose
contacts. Terminate your wires in the female contacts and then just
slide them on to the pins on the back side of the connector and touch
them with an iron and a dab of solder.

If I had to do it again, I'd probably use both suggestions.

Good luck,
Ed - N5KZW

1315. Need for specs of CEPE oscillator STP1671A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 17:45:34 UTC
From: Matti Niemela <mattis.niemela@kolumbus.fi>
Message-ID: <97jddd$g2$1@news.kolumbus.fi>
Source record: 54411

I have an Oven Controlled Crystal Oscillator CEPE STP1671A freq. 16.384 MHz.
The frequency is just right for my syntheziser, but unfortunately no specs
available. The size is about with double cigarette box dimensions and it has
5 pins (1 connected to case). Internet search gave no results.
Does someone know the component or company's CEPE current name.

73 Matti/OH2ZT

1316. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 18:02:04 UTC
From: troglodite@aol.com
Message-ID: <20010228130204.02177.00000042@ng-md1.aol.com>
Source record: 54412

>What is the equation to relate the spacing of the plates of an air variable
>capacitor to the breakdown voltage? OR Is there a look-up table somewhere
>that might list this info for the common spacings? You know, 1/8" = 3000
>Volts etc.

I've seen that data somewhere ... I think it's in "Reference data for Radio Engineers" or something like that. There are separate charts for spacing between round balls, sharp points and flat surfaces.

Doug Moore

1317. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 18:04:43 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC8076D4D7C@www.premiersi.com>
Source record: 54413
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

30 KV to jump a 1 cm gap at 1 atmosphere.

"Ron H" <blahblah@mn.mediaone.net> wrote in message
news:5l9n6.21667$_d5.1696411@typhoon.mn.mediaone.net...
> What is the equation to relate the spacing of the plates of an air
variable
> capacitor to the breakdown voltage? OR Is there a look-up table somewhere
> that might list this info for the common spacings? You know, 1/8" = 3000
> Volts etc.
>
> Thanks
> Ron H.
>
>
> --
> DO NOT REPLY TO THIS MESSAGE:
> Sorry but it's the only way to beat spam: To reply please use RNHARSH at
> mediaone.net of course you'll have to put it together correctly. Cheers
>

1318. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 18:36:20 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <3A9D4524.6867B967@austininstruments.com>
Source record: 54414
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

Ron H wrote:
>
> What is the equation to relate the spacing of the plates of an air variable
> capacitor to the breakdown voltage? OR Is there a look-up table somewhere
> that might list this info for the common spacings? You know, 1/8" = 3000
> Volts etc.

From "Reference Data For Radio Engineers", Fifth Edition, ISBN
0-672-20678-1

"An approximate rule for uniform fields at all frequencies up to at
least 300 megahertz is that the breakdown gradient of air is 30 peak
kilovolts/centimeter or 75 peak kilovolts/inch at sea level (760
millimeters of mercury) and normal temperature (25 degrees Celsius). The
breakdown voltage is approximately proportional to pressure and
inversely proportional to absolute (degrees Kelvin) temperature.."

John Fields, Austin Instruments, Inc.
El Presidente Austin, Republic of Texas
"I speak for my company" http://www.austininstruments.com

1319. FS: Collins, Drake, Heath filters ..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 22:11:53 UTC
From: "David J. Windisch" <davidw@copper.net>
Message-ID: <aMen6.22$9g1.276@newsfeed.slurp.net>
Source record: 54415

.. from un-completed transceiver projects:

1. Collins F 455 FA 31 with 453.4 and 456.6 bfo/car xtls:
$85 ppd conus

2. Drake LSB/USB *pair* from T4X-B, Drake switch/mtg bracket, with
matching xfmrs, centered on 5.645 MHz, with 5.645 MHz car/bfo xtal, pullable
5.642 Mhz cw-tx xtl:
$100 ppd conus

3. 2 @ Heath 2.3 MHz 4-xtl filter-sets (8 xtls total, 4@ 404-191, 4@
404-192) from early HW days, 2306.7 KHz car/bfo xtl (404-197), and 2@
40-509 matching xfmrs:
$75 ppd conus

73, Dave, K3BHJ

1320. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-02-28 23:02:01 UTC
From: Ron H <blahblah@mn.mediaone.net>
Message-ID: <Jrfn6.21763$_d5.1775716@typhoon.mn.mediaone.net>
Source record: 54416
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

Ok OK But from what I know about Ion clouds and discharges, I thought that the 30Kv/cm only applies to point discharges! The air variable Caps are parallel planes with some edge effects and I thought there was a different formula! Also, I don't think it's strictly linear! Can I use the 30Kv/cm and divide by say 10 to conclude that a 1 mm gap is good to something less than 3Kv? ALSO! What about real world equipment where the pressure is NEVER 1 Atm or things like humidity vary al over the place? What I was looking for was the formula used to label air variable caps for general application and something tells me I can't just use the 30Kv/cm rule!

Ron H.

--
DO NOT REPLY TO THIS MESSAGE:
Sorry but it's the only way to beat spam: To reply please use RNHARSH at mediaone.net of course you'll have to put it together correctly. Cheers

1321. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 00:14:59 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A9D9483.DC8E0596@dialpoint.net>
Source record: 54417
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

How about a rule of thumb voltage/spacing from the ARRL Handbook ? This
is for a transmitter plate tank capacitor.

Spacing (in) Peak Voltage

.015 1000
.03 2000
.07 3000
.125 4500
.15 6000
.25 9000
.35 11000
.50 13000

Ron H wrote:
>
> Ok OK But from what I know about Ion clouds and discharges, I thought that
> the 30Kv/cm only applies to point discharges! The air variable Caps are
> parallel planes with some edge effects and I thought there was a different
> formula! Also, I don't think it's strictly linear! Can I use the 30Kv/cm and
> divide by say 10 to conclude that a 1 mm gap is good to something less than
> 3Kv? ALSO! What about real world equipment where the pressure is NEVER 1 Atm
> or things like humidity vary al over the place? What I was looking for was
> the formula used to label air variable caps for general application and
> something tells me I can't just use the 30Kv/cm rule!
>

1322. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 00:22:24 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <4Dgn6.131622$B6.31126917@news1.rdc1.md.home.com>
Source record: 54418

The rules also have a cutoff date - Did you read THAT?

"kenneth m cubilo" <kce@freeway.net> wrote in message
news:3a9b86b0$0$35013$2c3edae7@news.voyager.net...
> yes by all means read the fcc rules on sales of amps for this freq
> range. you will find max amp gain etc. its clear that a large number of
> people dont own or have not read part 97. as they said in the movie
> "beetlejuice" its in the manual READ IT!
> 73 ken w8ob
>
> Ham wrote:
> >
> > Bottom line is that:
> > ***these are CB amplifiers, likely dirty as they come
> > ***with very low drive requirement obviously aimed at the Good Buddy's
riceboxes.
> >
> > Take a look at the FCC regulations about the legality of selling
amplifiers for 11
> > meters with low drive requirements.
> >
> > This "dealer" is obviously breaking the law and should be ashamed that
he does it
> > under the guise of a ham license.
> >
> > Maybe if we suggest that he drive the two 811s with the lower power
amplifier for
> > more power output he'll try it and blow up both of them and perhaps
we'll be lucky
> > if the rest of the stock of his illegal CB gear goes up in flames with
them!
> >
> > Anybody who thinks he's "honest" about the use of the amplifiers being
for amateur
> > service, even though it's illegal to sell them, take a look at the rest
of his web
> > site. SB-220 converted for mobile use with 4 tubes? A truck with 6
alternators
> > to power the gear? Solid state high power mobile crap? Click on the
D-104 to
> > hear "CB Talk!"
> >
> > Just do a bit of browsing and you'll see right away that "Hound Dog" is
definitely

> > SELLING CB GEAR that is illegal!
> >
> > Bob Headrick wrote:
> >
> > > "B-Squared" <rbethman@home.com> wrote in message
> > > news:Kctm6.125797$B6.29566741@news1.rdc1.md.home.com...
> > > > I have to disagree. 1) He is a ham. 2) A ham can legally use
these. 3)
> > > > Yes, they were built for 11mtrs, but no one screams when an 11 mtr
rig is
> > > > converted to ham and extra power output is obtained.
> > >
> > > But even hams cannot offer amplifiers that cover 26-34Mhz for sale in
the US,
> > > under FCC regulations part 47 section 2.815. There are exceptions for
home
> > > brew equipment offered by one ham to another, but these units do not
qualify.
> > >
> > > - 73 Bob W7OV

1323. Re: L/C ratio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 01:58:18 UTC
From: kv1v@aol.com
Message-ID: <20010228205818.19150.00000245@nso-ck.aol.com>
Source record: 54419

Hi Bill.

I'm having a similar problem with my old National NC-88 receiver. On the highest band (~14 to 40 MHz) the LO cuts out below 15 MHz and also has problems on the high end.
I, too, replaced the LO tube (a 6C4 triode) with no effect and then suspected the L/C assembly. I am still experimenting.

One thing did improve the LO coverage. I replaced a 220pf silver-mica cap in the grid feedback circuit coupled to the coil. The LO now seems to work down to 14 MHz, but its output level as observed on a 'scope is still much less than on the other bands.

My radio has another mica cap -- 1000pf in the same rectangular style with colored dots --that connects the plate to the coil. I plan to replace that next, assuming that there is some ageing effect going on with these caps at high-frequencies.

If none of that works, I will open up the feed back connection and check out the circuit as a plain RF amplifier. Maybe that will reveal something. It is hard to believe that the coils change much with age. The inductance seems to be reasonably stable because I had no trouble aligning the LO to the dial. In my case, the coils seem very well made and sealed up with beeswax. Might be a low Q problem though.

Good luck with your radio; I'll let you know if I have a breakthrough.

Bob Moore

1324. Re: L/C ratio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 03:27:57 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3A9DC1BD.5CEAC250@coqui.net>
Source record: 54420

KV1V wrote:
>
> Hi Bill.
>
> I'm having a similar problem with my old National NC-88 receiver. On the
> highest band (~14 to 40 MHz) the LO cuts out below 15 MHz and also has problems
> on the high end.
> I, too, replaced the LO tube (a 6C4 triode) with no effect and then suspected
> the L/C assembly. I am still experimenting.
>
> One thing did improve the LO coverage. I replaced a 220pf silver-mica cap in
> the grid feedback circuit coupled to the coil. The LO now seems to work down to
> 14 MHz, but its output level as observed on a 'scope is still much less than on
> the other bands.
>
> My radio has another mica cap -- 1000pf in the same rectangular style with
> colored dots --that connects the plate to the coil. I plan to replace that
> next, assuming that there is some ageing effect going on with these caps at
> high-frequencies.
>
> If none of that works, I will open up the feed back connection and check out
> the circuit as a plain RF amplifier. Maybe that will reveal something. It is
> hard to believe that the coils change much with age. The inductance seems to be
> reasonably stable because I had no trouble aligning the LO to the dial. In my
> case, the coils seem very well made and sealed up with beeswax. Might be a low
> Q problem though.
>
> Good luck with your radio; I'll let you know if I have a breakthrough.
>
> Bob Moore

I monkeyed and monkeyed and nothing worked, but guess what...found
the rectifier tube was weak and the B+ was low. I had checked it
upon initially firing up the set after a refurb and had about 200
vdc...seemed about right for the set. I got some new tubes today
and was plugging them in. I was replacing the rectifier cuz it
tested slightly weak and was ugly with rust. Bingo, it started
working down on that end, now with 225 volts. I went back and
re-checked the original tube and it had dropped off to about 160.
Duh, that one got by me!

Bill Meacham
Vieques, PR

1325. Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 04:01:04 UTC
From: Philly G <spambait@spamme.ru>
Message-ID: <g0ir9to12i4gmj77etd2jqcont730nvo1r@4ax.com>
Source record: 54421

I've been thinking of building an L/C meter incorporating a
microcontroller and LCD display.. But I've noticed the already exist
-- namely AADE has a nice model. However, the range of the
measurements leaves some to be desired. I have yet to find a
non-professional unit that will measure much past 200 uF.

The question of my mind was -- why?

1326. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 05:41:37 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <t9ro70hm1p71e1@corp.supernews.com>
Source record: 54422

"Philly G" <spambait@spamme.ru> wrote in message
news:g0ir9to12i4gmj77etd2jqcont730nvo1r@4ax.com...
> I've been thinking of building an L/C meter incorporating a
> microcontroller and LCD display.. But I've noticed the already exist
> -- namely AADE has a nice model. However, the range of the
> measurements leaves some to be desired. I have yet to find a
> non-professional unit that will measure much past 200 uF.
>
> The question of my mind was -- why?

My flip answer is -- why would you want to??

Values that large are in power supply filter country, and aren't
usually very critical.

Now, for a real reason. Instruments like the AADE test
the capacitor in an oscillator circuit. High value capacitors
generally have low Q, and even if they were high Q would
result in a *very* low oscillating frequency, posing scaling
problems in the instrument.

Measure really large caps by using a series resistor and
measuring the time constant (T=RC) to the 0.67 x final
voltage point. Example: With a 10 volt supply and a
100K resistor, it will take 20 seconds to charge to 6.7 volts.
The measurement doesn't need to be too accurate, because
the capacitors aren't, either.

BTW, I am very happy with my AADE L/C meter.

73,

John, K6QQ

1327. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 07:29:43 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <4vcxAWBnpfn6EAN5@ifwtech.plus.net>
Source record: 54428

Philly G wrote:
>I've been thinking of building an L/C meter incorporating a
>microcontroller and LCD display.. But I've noticed the already exist
>-- namely AADE has a nice model. However, the range of the
>measurements leaves some to be desired. I have yet to find a
>non-professional unit that will measure much past 200 uF.
>
>The question of my mind was -- why?
>
The AADE unit uses an L-C RF oscillator, and the microcontroller calculates the unknown L or C from the frequency change and other known parameters.

That's fine for typical values of L and C that you'd need for RF applications, and even down to AF, but it's pushing the technique beyond its limits when C or L become very large.

If you're interested in developing a micro-controlled instrument capable of measuring large values of C, then AFAIK the field is still open for an amateur project. You might want to consider other techniques, though, such as self-balancing bridges or measuring the time constant.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1328. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 08:46:31 UTC
From: Bill Sloman <bill.sloman@ieee.org>
Message-ID: <983436479.314067@SLIPstream>
Source record: 54424
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

Ron H <blahblah@mn.mediaone.net> wrote in message
news:5l9n6.21667$_d5.1696411@typhoon.mn.mediaone.net...
> What is the equation to relate the spacing of the plates of an air
variable
> capacitor to the breakdown voltage? OR Is there a look-up table
somewhere
> that might list this info for the common spacings? You know, 1/8" =
3000
> Volts etc.

You've got the practical answers. For the theory, search on Paschen
curves.

The only interesting point is that the breakdown voltage starts rising
again for very
small air-gaps - that is, gaps small enough that the probablity of a
charge carrier
hitting a gas molecule and causing ionisation along its route between
the plates
becomes small.

And I don't think that you can get your plates flat enough to take
advantage of this
at atmospheric pressure.

--
Bill Sloman, Nijmegen

1329. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 11:48:22 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A9E5F2C.B6BBC33B@home.com>
Source record: 54425

If you look way back in the archives of Popular Electronics there was a "reactance meter" which worked by, essentially, measuring dI/dT or dV/dT. The differential was converted to a voltage read by an outboard DVM. Cheap and acurate.

Philly G wrote:

> I've been thinking of building an L/C meter incorporating a
> microcontroller and LCD display.. But I've noticed the already exist
> -- namely AADE has a nice model. However, the range of the
> measurements leaves some to be desired. I have yet to find a
> non-professional unit that will measure much past 200 uF.
>
> The question of my mind was -- why?

1330. WTB:Basketcase/Project Heath gear

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 13:58:42 UTC
From: Heath <radiovintage@hotmail.com>
Message-ID: <kwsn6.307$OS1.313908@nntp2.onemain.com>
Source record: 54426
Cross-posted to: rec.antiques.radio+phono,rec.ham-radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Disabled ham homebound looking for Heath basketcase or project equipment.Condition/looks not important tube or transistor.Radio or test equipment.Heath preferred but anything considered if the price is right.

1331. finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 15:10:31 UTC
From: theosus@aol.com
Message-ID: <20010301101031.00294.00000375@ng-mo1.aol.com>
Source record: 54427

Is there any way to test the inductance of a coil? I have the formula for winding coils, but do not know how to test coils I already have around. I have a digital meter for resistance and such, and it will let me test capacitance, but not inductance. Is there a simple circiut I could put together, or does testing inductance involve some fancy (read: expensive) tester? If that's the case I'll just buy new ones when I need them.

1332. Looking for basket case R4C's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 15:14:49 UTC
From: 2w8ji@akorn.net
Message-ID: <3a9e656b.606064887@news.accessunited.com>
Source record: 54429

By the time an R4C is suitable for my application, I mostly gut them and rebuild them. With that in mind, I hate to destroy good R4C's that someone might like like to collect.

So if anyone has any R4C's that are junkers but have parts like the the PTO and crystals, and maybe even filters, I'd be interested. I convert them to solid-state, so I give a hoot about tubes or if it is the poor 2nd mixer version (below S/N 18800 or so) of the R4C. I don't even care if any of the circuit boards are still there, cause I toss them out also.

w8ji@contesting.com

73 Tom

1333. Re: FS:Linear Amplifiers!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 15:36:50 UTC
From: 2w8ji@akorn.net
Message-ID: <3a9e672c.606513537@news.accessunited.com>
Source record: 54430

On 27 Feb 2001 16:09:23 GMT, goldreged@aol.comJUNKBLOK (Goldreged)
wrote:

>Some of them make Great 6 M AM amplifiers... Their just biased Class C... Easy
>fix & then retune.
>Ed G.
>KB1DQX
>(Please Remove "JUNKBLOK" to E-mail.
>Unless it's a Flame.)

If you have tetrode CB amp, it most likely has no screen
regulator...no control grid regulation...poor grid swamping....poor
power supply design....and crappy wiring. CB amps are almost never RF
tight, and most are about as safe as using a running meat grinder as a
microphone stand.

I haven't seen one yet that didn't need almost totally gutted and
rebuilt. A listen to 6 meters when the band is open will show that
many or most amps on six meters are not properly constructed or
operated, maybe that's because many are CB amps modified for 6.

If you have a triode CB amp, then there often is some hope of fixing
it for accepatble IMD performance short of rebuilding the amp.

The original poster, however, was advertising what obviously are
poorly constreucted CB amplifiers. One was two 811A's driving a 3-500,
the other had sweep tubes.

Neither would be good for six meters, and neither would be good for
amateur use. While I have no objection to people selling amps that are
intended for amateur use, that "Ham" was selling nothing other than
some junk CB amps in an attempt to make a buck.

The proper forums for attracting "customers" on top-dollar illegal CB
amplifiers are CB radio forums, not amateur forums and certainly not
homebrew forums where people most likely have a few ounces of working
brain matter. No one in his right mind would pay $650 dollars for a
single 3-500Z driven by a pair of 811's for ham use or ham
modification, or buy a sweep tube amp for $375.

There is a vast difference between offering a parts amp that can be
reworked to hombrewers at a reasonable price and posting what amounts
to an "sale notice" for what are clearly CB amplifiers in an attempt
to get a customer.

So there.

73 Tom

1334. Re: finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 16:42:11 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3A9E7BE3.DB6D3410@toast.net>
Source record: 54431

Theosus wrote:

> Is there any way to test the inductance of a coil? I have the formula for
> winding coils, but do not know how to test coils I already have around. I have
> a digital meter for resistance and such, and it will let me test capacitance,
> but not inductance. Is there a simple circiut I could put together, or does
> testing inductance involve some fancy (read: expensive) tester? If that's the
> case I'll just buy new ones when I need them.

The ARRL handbook for 2001 has a very simple inductance adapter- one chip and a
few r's and c's, and your existing dmm. It's on page 26.22.

john

1335. Re: 70 cm AM receiver - Scanner Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 19:59:41 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <97m9nd$p7i$1@woodrow.ucdavis.edu>
Source record: 54432

: Oliver <rockets-nospam@attglobal.net> wrote:
: I am looking for an AM receiver (433MHz) with a receiver sensitive around
: 0.2uV.
: Thanks
: Oliver
: TRA: 08312
: HAM: KD7JVF

Many of the more common scanners have common IF/Demod chips in them that lend themselves to the addition of an AM detector - amplifier circuit. Many scanners cover the AM VHF aircraft band. If you purchased one of the common popular 80's, early 90's vintage scanners sold by Radio Shaft, you can obtain/order a service manual for it easy enough.

You can go two ways...

Add a seperate circuit "tack'd on to the typical MC 3357 or MC3359 chip to do your AM work. Better yet, you could modify the micro processor control lines which switch the FM and AM detectors in and out. A simple logic toggle switch would allow you to fix the detector mode of choice in line on any band.

Then you can get creative and add a simple BFO circuit to the AM detector and you will demod SSB signals. Pretty cool stuff that I've done myself in the past. Other ideas are a nice transistor add to ground a lead when signal is present, often called a COS/COR circuit. Then an audio buffer "tap" to allow connection to a tape recorder or sub tone (PL) decoder.

It's a lot of fun if your careful and go at it with a plan.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu has a pretty neat amateur radio page...

1336. 2SK2597 basic data

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 20:19:03 UTC
From: SM0NCL <c.jogenborn@telia.com>
Message-ID: <X8yn6.21129$AH6.2904534@newsc.telia.net>
Source record: 54433

Looking for some input to 2SK2597 power fets,
900Mhz up to ......Mhz ????
will it handle 1.2G at all`?

/Chris

1337. Re: IRF-630 mosfet -- good for HF amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 20:56:01 UTC
From: "Stephen P. Johnson" <stephen_p_johnson@raytheon.com>
Message-ID: <CHyn6.17$Kg3.206@bos-service2.ext.raytheon.com>
Source record: 54434

The folks at Caltech are experts on using switching FETs for HF amps.
Check their web site (just search google for class-E).

They have a parts kit they sell for $50 using an IRFP450 that puts out
500W. Other FETs reportedly may blow up, catch fire, etc.. I suspect you
could use the
IRF630's in the power supply for the amp (pulse shaper part), but I haven't
checked the specs
on the 630.

Steve, N2FT

"Queequeg" <Quequeg@quahog.com> wrote in message
news:slrn990e30.5b.Quequeg@daystar.capecod.net...
>
> I bust open every dead piece of electronics. I opened a small UPS and
found
> lotsa stuff, including a heatsink with 4 IRF-630 devices on it. Are these
> anything like the 510s, etc, usable as HF amplifiers? They prolly only
cost
> a coupla bucks from Dan's, but I can't resist free stuff.
>
> -Q
> --
> "Dead Whale or a Stove Boat"
> <---------[[[[[[[[[[[[[[[[[

1338. Re: finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 21:59:40 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3A9EC64C.4A6DDBF1@dialpoint.net>
Source record: 54435

What value are the coils ? If large enough to resonate where you have a signal generator and meter , you can construct a parallel circuit with a measured capacitor and see where the voltage is at the max and work the formulars backwards for the resonate frequency. You can also make a generator using the coil and known capacitor and see what frequency it generates. Would not have to be much but a transistor and a few resistors as you are not building for stability, waveform , or power output.

Theosus wrote:
>
> Is there any way to test the inductance of a coil? I have the formula for
> winding coils, but do not know how to test coils I already have around. I have
> a digital meter for resistance and such, and it will let me test capacitance,
> but not inductance. Is there a simple circiut I could put together, or does
> testing inductance involve some fancy (read: expensive) tester? If that's the
> case I'll just buy new ones when I need them.

1339. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 22:31:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <97miil$c65$1@neptunium.btinternet.com>
Source record: 54436

When you have a large capacitance to measure it will take a long
time to charge up. On whatever principle the measuring instrument
is based, it will take a long time to measure.

If you wait long enough the capacitance can be measured as
accurately as you like.

--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

Philly G <spambait@spamme.ru> wrote in message
news:g0ir9to12i4gmj77etd2jqcont730nvo1r@4ax.com...
> I've been thinking of building an L/C meter incorporating a
> microcontroller and LCD display.. But I've noticed the already
exist
> -- namely AADE has a nice model. However, the range of the
> measurements leaves some to be desired. I have yet to find a
> non-professional unit that will measure much past 200 uF.
>
> The question of my mind was -- why?
>

1340. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-01 23:36:52 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3A9EE000.1BF4@pop.removethistomailme.net>
Source record: 54437

Philly G wrote:
>
> I've been thinking of building an L/C meter incorporating a
> microcontroller and LCD display.. But I've noticed the already exist
> -- namely AADE has a nice model. However, the range of the
> measurements leaves some to be desired. I have yet to find a
> non-professional unit that will measure much past 200 uF.
>
> The question of my mind was -- why?

No point. Normal electrolytic capacitor values vary so widely (with tolerances of -50% to +100% in some cases) that it's often useless to measure their values with any precision. An ESR meter like the one offered by Dick Smith Electronics is a much better instrument for evaluating the health of large capacitors.

That AADE meter kicks ass, by the way. It's the only unit I've seen for under $1000 that can measure inductance accurately down to the 1-nanohenry range. http://www.aade.com/lcmeter.htm for those who haven't seen it. At $100 for the kit, it's a real bargain.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1341. Re: finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 03:28:08 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <97n48b0ltb@news1.newsguy.com>
Source record: 54438

This is actually pretty simple business, if you think about it for a minute. In fact, almost any measurement you care to make comes down to working it out.

First, if you are doing any RF work at all, you must by now have made an RF probe. If not, then you need one.

Simply connect the inductor in series with a resistor. Apply an RF source of known frequency (any old frequency) across the pair, and measure the RF voltage across the resistor then across the inductor. Voila - you now know the reactance (from Ohm's law) and hence the inductance.

Of course, it helps if you have some sort of gut feel for the neighborhood so you can guess a resistor with somewhat similar reactance, but it doesn't even have to be close, just within a few orders of magnitude. All that you really care about is that the voltages across the resistor and inductor are similar enough that you can measure them reasonably well.

Obviously, you could use a cap instead of the resistor, or even a known inductor. But with the resistor, you only have one pi * F to worry about <g>

didleydadidah

"Theosus" <theosus@aol.com> wrote in message news:20010301101031.00294.00000375@ng-mo1.aol.com...
> Is there any way to test the inductance of a coil?

1342. help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 07:53:19 UTC
From: zed <zed@nowhere.net>
Message-ID: <PjIn6.19310$nL5.1111830@news3.aus1.giganews.com>
Source record: 54439

Can someone point an old ham to a good, circuit/project article for a NiMH battery charger. I'm only familiar with nicads and need some help.
tnx kv5i

1343. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 11:52:22 UTC
From: JW <jdwalton@home.com>
Message-ID: <3A9FB3EF.80F50853@home.com>
Source record: 54440

Try the Maxim website: http:\\www.maxim-ic.com, or Texas Instruments
http:\\www.ti.com

zed wrote:

> Can someone point an old ham to a good, circuit/project article for a NiMH
> battery charger. I'm only familiar with nicads and need some help.
> tnx kv5i

1344. HR2600 10 meter info need cos output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 12:28:37 UTC
From: Tom Krohn <tkrohn@intergrafix.net>
Message-ID: <t9v4gt7t9pib1f@corp.supernews.com>
Source record: 54441

Any one know how to get a cor logic output from a Uniden HR2600 to activate a repeater controller? If you can help contact tom K3IJ at k3ij@arrl.net

1345. Hamfest Mar 4 - Lindenhurst LI

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 16:15:19 UTC
From: GSBARC <info@gsbarc.org>
Message-ID: <rGPn6.53599$Vj5.8701064@news02.optonline.net>
Source record: 54443
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.cb,rec.radio.scanner,rec.radio.swap

HAMFEST March 4, 2001 - Lindenhurst, LI

GREAT SOUTH BAY AMATEUR RADIO CLUB and SUFFOLK COUNTY RADIO CLUB
ARRL APPROVED LONG ISLAND HAMFEST - March 4, 2001

LINDENHURST, LI - NY

On March 4, 2001 the Great South Bay Amateur Radio Club will again sponsor an indoor Hamfest-Computer Show. The location will be at the:

Knights of Columbus
400 South Broadway, Lindenhurst, NY.
This is an ARRL approved Hamfest.

There will be radio equipment, electronic components, computers and accessories, software, books, technical manuals, ARRL information, Amateur Radio License Exams, Door Prizes.

Advanced registration is $18.00 each table. Tables at the door are $25.00 each. Contact Walter Wenzel KA2RGI at 631 957-0218 for table reservations. NO TABLES WILL BE RESERVED WITHOUT PRIOR PAYMENT due to the space available.

General admission is $ 6.00. Wife's and children under 12 admitted with no charge.

VE - ARRL - 12:00 NOON at Babylon Town Hall, 200 E Sunrise Hwy, Lindenhurst. For exam candidates please remember to bring your original FCC Amateur Radio license (if licensed), any C.S.C.E. forms that are pending, plus a photocopy of each, pens, calculator, formal form of ID (preferably photo ID), and the examination fee, to the exam session. Current ARRL/VEC fee is $10.00, exact change is appreciated.

Talk-in will be via GSBARC Repeater on 146.685 -600 136.5 PL.

Food Service during the Hamfest will be provided by members of the Knights of Columbus Council.

Information is also available during the GSBARC 2 meter info net every Monday evening at 7:00 PM following the Newsline Report on the W2GSB repeater, 146.685 -600 136.5 PL required. You may also write to:

Great South Bay ARC
P.O. Box 1356
West Babylon, NY 11704-0356

E-mail GSBARC info@gsbarc.org or visit GSBARC online at
http://www.gsbarc.org/hamfest.htm

Next Hamfest
October 28, 2001 - Great South Bay ARC

73,
GSBARC & SCRC

1346. Re: Digital L/C Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 16:18:42 UTC
From: david@adobe.com
Message-ID: <CJPn6.1807$aW5.24074@dfw-read.news.verio.net>
Source record: 54442

In article <g0ir9to12i4gmj77etd2jqcont730nvo1r@4ax.com>,
Philly G <See.Message@for.hint.com> wrote:
>I've been thinking of building an L/C meter incorporating a
>microcontroller and LCD display.. But I've noticed the already exist
>-- namely AADE has a nice model. However, the range of the
>measurements leaves some to be desired. I have yet to find a
>non-professional unit that will measure much past 200 uF.

Alfa Electronics and Circuit Specialists (among others) sell C meters that read to 20mF (20000uF) for $50. If you can find a B+K 820, it has a 1F range.

1347. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 17:47:29 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3A9FDCB2.24185291@dioxine.com>
Source record: 54444

When I decided I really needed a good charger to cope with the different
NiMH/NiCd batteries around my house, I happily parted with $50 for
this excellent appliance:

http://www.mahaenergy.com/products/consumer/mhc777.htm

While I derive enjoyment from building projects, this clearly has been
more enjoyable as a purchase :-)

Dana K6JQ
dana@dioxine.com

JW wrote:

> Try the Maxim website: http:\\www.maxim-ic.com, or Texas Instruments
> http:\\www.ti.com
>
> zed wrote:
>
> > Can someone point an old ham to a good, circuit/project article for a NiMH
> > battery charger. I'm only familiar with nicads and need some help.
> > tnx kv5i

1348. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 17:56:57 UTC
From: n2ey@aol.com
Message-ID: <20010302125657.04356.00000116@ng-cd1.aol.com>
Source record: 54445

>Subject: Fox Hole Radio - Help
>From: "N2PKT" <wireless@geocities.com>
>Date: Thu, Feb 22, 2001 20:19 EST
>Message-id: <974e2jgsm1@bob.news.rcn.net>
>
>I recently built a "Fox Hole" radio.

First receiver I ever built was a "foxhole radio" from the book "All About Radio and Television" by Patricia Lauber. That was about 1964-1965.

>Suprisingly, with a little trial and
>error, I started to receive a local AM broadcast
>on it. Understanding that these type of basic radio sets do not bring in
>room filling sounds, is it possible to make the
>signal strength (volume) louder? I attempted to place a .001uF cap between
>the crystal earphone, but the results were
>the same, just a very low signal. Was my placement incorrect?

You don't need such a capacitor.

Here are some ways to increase the volume:

1) Bigger/higher antenna - as long and high as possible. I had 70 feet of wire out to the crabapple tree, and about 25 feet high. WPEN was only a few miles away, though.

2) Better ground. I used the radiator pipes. Cold water pipe is good IF it's meal all the way to the water main.

3) Better headphone - a "2000 ohm" dynamic headset is the best. Low impedance 'phones don't work at all, and crystal phones may or may not be optimum.

4) More coil - the "AAR&T" design used a single layer coil of 120 turns of #26 closewound on a toilet paper tube (minus the paper, of course). I still don't know how many uH that was, but I found that with my particular antenna I could get even more volume by using a paper towel tube and more turns. Making the turns nice and even was the toughest part of the whole project.

5) Different pencil leads gave different results.

6) Different razor blades gave different results. I found that the single-edge "white" blades worked best - the blue blades didn't work at all! Clean was better than rusty. Varying the pressure of the pencil lead on the razor blade had an effect, too. As I recall, lighter was better with some blades. YMMV.

The detector in these things goes all the way back to the very beginning of radio. The Massey (sp?) carbon-steel detector used a steel needle on a pair of pointed carbon blocks. Some claim that the steel-carbon junction really isn't a

diode at all, but rather a form of coherer.

>This was a
>great homebrew to make, It's simplicity and
>history made the project all the more interesting. I am in the process of
>looking for the right razor blade with a good
>amount of "rust" for a diode. That may help, but in the meantime, any hints
>on "beefing up" the volume would be helpful.

See above. They are great fun, and the only real "radio" part is the
headphone. I actually made one using the receiver from a junked telephone once
- not as good, but it meant the thing was 100% scrounged because the wire came
from an old motor.

73 de Jim, N2EY

1349. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 18:21:48 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <97oobsgha6@woodrow.ucdavis.edu>
Source record: 54446

Hi there,

I've been playing around with various charging circuits for batteries for some time now. You can go to my kewet electric car page and vew charging graphs on the second page for the various battery formats/types.
-
If your charging a smaller battery, I would (from my experience) charge it using a voltage adjustable current limited power supply. One can achieve similar results using a simple wall wart of the proper type. Here's what I do for a typical 13 volt computer battery pack.
-
I apply a charge over a fixed amount of time through a low value resistor. For a 13 volt pack, I apply say around 18 volts through a 20 ohm - 10 watt resistor while watching the charging current. Say the current sets up at 250 milli amps (mA). Then I leave it charge for the rated time period of the battery, overcharging at such a low current level has never been an issue/problem. Heat doesn't build up like a regular NiCad Cell does.
-
I'm carefull not to get the actual battery pack voltage much above the fully charged value. I wouldn't like to see the rated 13vdc pack voltage get much above 14.5 to 16 volts during a charge. I've found a long slow controlled charge works much better over all. Batteries will "go away" when abused with overcharging...
-
I have a nice 1 amp variable voltage supply I built up, using it and the series resistor I can set up (adjust to) a slightly higher voltage (about 18v) to charge at a safe 250 mA or similar value. After a time of 8 to 10 hours, my 2.5 amp/hour pack is ready to go.
-
I received a Digital VP Laptop with out a charger and a dead battery. I've been using this method to recharge the battery for the entire year I've had the laptop now and things are great. Still like to find the right power supply for it, but I'm not into paying over $150 for a charger/adapter.
-
I use much larger charger for my electric cars. Check it out if you have time...
-
cheers
skipp@pilot.ucdavis.edu
http://pilot.ucdavis.edu/kewet my electric car and bat charging graphs.
http://sonic.ucdavis.edu Amateur Radio Pages and software.

: zed <zed@nowhere.net> wrote:
: Can someone point an old ham to a good, circuit/project article for a NiMH
: battery charger. I'm only familiar with nicads and need some help.
: tnx kv5i

1350. using low cost ARF mosfets in amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 20:09:39 UTC
From: mark <mfvernooij@wanadoo.nl>
Message-ID: <3a9ffe15$0$28803@reader5>
Source record: 54347

Does anyone has experience using a ARF444 or ARF446 (manufacturer advanced power technology) in a HF amplifier ?
These low cost mosfets can deliver rf power up to 300 watts in C class operation. When using 4 of these mosfets in parallel (operating at 300V DC) more then 1000 watts output bij 20 watts input should be possible.
Are these mosfets useful for ham radio applications?

More info can be found at:
http://www.advancedpower.com/TechSupp/App_Notes/apt9701/APT9701.pdf

Hope anyone can tell me more about this.
best 73 de Mark.

1351. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 22:37:16 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <97pf3t$s0d$1@newsg4.svr.pol.co.uk>
Source record: 54350

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:3AA024D5.6106556B@eznec.com...
> I've found the MHC777 to be a great NiCd charger. But whenever I use it
> to charge NiMH batteries, it decides after about 20 minutes that the
> battery is fully charged, even if it's fully discharged to begin with. I
> can get it to fully charge the battery by restarting it, usually several
> times. So it will charge the battery, but if you begin a charge, go away
> for a while and come back, there's no way of knowing whether the battery
> is fully charged or not.
>
> I asked Maha support about this and got back some boiler plate about
> this happening with new cells. I had specifically mentioned in my query
> that this also happens with cells which have been cycled a dozen or so
> times, and pointed this out in a second emailing to them. I didn't get a
> response to my second email, so I assume this is a problem they can't
> fix.
>
> Their MH-C204F charger doesn't have this problem, but the batteries end
> up pretty hot (I measured 48 C) after charging. Maha says this is normal
> and won't harm the batteries, even though it's above the charge
> temperature recommended by some battery manufacturers.
==========
So far I am very pleased with the MAHA model MH-C777 for battery packs,both
NiCad and NiMH.
When packs are NEW you have indeed to charge/discharge them a few times
before they are up to capacity.

For separate cells AAA , AA, and a slightly larger size found in for example
ISOTIP cordless soldering irons, I use a similar charger but without a
negative dV/dt sensor
Such a sensor terminates the pulse charging in the above MAHA device. When
the battery is fully charged the the terminal voltage tends to decrease
hence the negative dV/dt sensor
(BTW : the above MAHA charger I have also seen at Radio Shack ....same
price)
These separate cells I charge with a device which first discharges the cells
and then automatically pulse charges for a specific time which depends on
the cell's capacity . Time is set with a sliding 5 position switch
A 500mAh cell is pulse charged for 3 hours A cell with 1100 mAh capacity
is pulse charged for 6 hrs 30 minutes. Following pulse charging the up
to 4 cells are trickle charged ,if wanted continously.
After pulse charging the temperature of the cell(s) is approx 5 degrees
Celsius above ambient.
I bought the units meant for up to 4 AAA or AA , Nicad or NiMH cells ,in the

Netherlands in a department store for equiv. US$ 12.-
I could also charge separate cells in the MAHA device ,but then have to put a number of cells in series for the device to detect 4.8 - 6 - 7.2 - 9.6 or 12 V.

A wide range of automatic chargers for NiCads and NiMH batteries up to 16.8 V (for cordless electric tools) can be found in the Conrad Electronic catalogue , Germany.

73 Frank gm0csz.kn6wh@ukrs.org

1352. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 22:55:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AA024D5.6106556B@eznec.com>
Source record: 54348

I've found the MHC777 to be a great NiCd charger. But whenever I use it to charge NiMH batteries, it decides after about 20 minutes that the battery is fully charged, even if it's fully discharged to begin with. I can get it to fully charge the battery by restarting it, usually several times. So it will charge the battery, but if you begin a charge, go away for a while and come back, there's no way of knowing whether the battery is fully charged or not.

I asked Maha support about this and got back some boiler plate about this happening with new cells. I had specifically mentioned in my query that this also happens with cells which have been cycled a dozen or so times, and pointed this out in a second emailing to them. I didn't get a response to my second email, so I assume this is a problem they can't fix.

Their MH-C204F charger doesn't have this problem, but the batteries end up pretty hot (I measured 48 C) after charging. Maha says this is normal and won't harm the batteries, even though it's above the charge temperature recommended by some battery manufacturers.

Roy Lewallen, W7EL

"Dana H. Myers" wrote:
>
> When I decided I really needed a good charger to cope with the different
> NiMH/NiCd batteries around my house, I happily parted with $50 for
> this excellent appliance:
>
> http://www.mahaenergy.com/products/consumer/mhc777.htm
>
> While I derive enjoyment from building projects, this clearly has been
> more enjoyable as a purchase :-)
>
> Dana K6JQ
> dana@dioxine.com

1353. Re: HR2600 10 meter info need cos output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-02 23:41:08 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AA02F94.B7D736B2@bloomer.net>
Source record: 54349

I don't have a manual for the 2600, but if you do, look for the transistor used for squelch. If they have a voltage chart, look at collector voltages on the transistors around the squelch circuitry. Find one that goes to 0V or some positive voltage when a signal is received versus the no signal voltage. If you can scan the schematic, I can look it over for you.

Scott
N0EDV

Tom Krohn wrote:
>
> Any one know how to get a cor logic output from a Uniden HR2600 to
> activate a repeater controller? If you can help contact tom K3IJ at
> k3ij@arrl.net

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1354. Re: using low cost ARF mosfets in amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 00:51:49 UTC
From: goldreged@aol.comJUNKBLOK
Message-ID: <20010302195149.10383.00000186@ng-cr1.aol.com>
Source record: 54351

<<Does anyone has experience using a ARF444 or ARF446 (manufacturer advanced power technology) in a HF amplifier ?
These low cost mosfets can deliver rf power up to 300 watts in C class operation. When using 4 of these mosfets in parallel (operating at 300V DC) more then 1000 watts output bij 20 watts input should be possible.
Are these mosfets useful for ham radio applications?>>

I have checked those & Many others. Class C is only good for FM, RTTY, CW & MAYBE AM. No good for FM. THere is an Application Note about a 50 Mhz Class AB amp in there, right? Check it out.... Combine both & You're a Homebrewer...
Ed G.
KB1DQX
(Please Remove "JUNKBLOK" to E-mail.
Unless it's a Flame.)

1355. Yaesu FT-290RII coverage modification?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 01:45:40 UTC
From: Hans-Christian Becker <hcb@phc.chalmers.se>
Message-ID: <020320011745403197%hcb@phc.chalmers.se>
Source record: 54352
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Dear all,
I brought with me to the U.S. a Yaesu FT-290RII which I bought and used
in Europe, and consequently it covers 144--146 MHz (and has the 1750
repeater call tone). Yaesu U.S.A. tells me the only way to make the rig
cover U.S. frequencies is to change the CPU, which only costs $93 :-P.
Is there _really_ no way to reprogram the radio to work 144--148 MHz?
On a related note: Of what use is a VHF/UHF radio without subtone
encoder in the U.S.?
Best regards,
Hans-Christian W6/SM6TLH [hcb@caltech.edu]

--
Dr. Hans-Christian Becker
Department of Chemistry
California Institute of Technology
Pasadena, CA 91125, U.S.A

1356. Re: Yaesu FT-290RII coverage modification?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 03:07:27 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AA05FEE.762B8420@nettally.com>
Source record: 54354
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I used to have a second hand FT-290RII (Nice radio) and it was an "A" model which I assume was for the US. Inside I noted that a green wire was draped from behind the display board and was cut in two with clear heatshrink tubing insulating the cut (Looked like factory work). This radio covered 140 to 150 MHz which seemed unusual but perhaps ideal for transverter use. In addition, an optional FT-7A board is used as a sub tone encoder-decoder board. You can probably buy an aftermarket tone encoder-decoder board and wire it in. Sub tone as you call it (PL or CTCSS) is required on a lot of repeaters in the urban areas of the US. The tone board was always a limitation in this radio as it could be set to only one tone at a time and was accessible only by removing the battery/pa and a metal plate.

Hans-Christian Becker wrote:

> Dear all,
> I brought with me to the U.S. a Yaesu FT-290RII which I bought and used
> in Europe, and consequently it covers 144--146 MHz (and has the 1750
> repeater call tone). Yaesu U.S.A. tells me the only way to make the rig
> cover U.S. frequencies is to change the CPU, which only costs $93 :-P.
> Is there _really_ no way to reprogram the radio to work 144--148 MHz?
> On a related note: Of what use is a VHF/UHF radio without subtone
> encoder in the U.S.?
> Best regards,
> Hans-Christian W6/SM6TLH [hcb@caltech.edu]
>
> --
> Dr. Hans-Christian Becker
> Department of Chemistry
> California Institute of Technology
> Pasadena, CA 91125, U.S.A

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

WARNING TO UNSOLICITED SPAMMERS!!!

Pursuant to U.S. Code, title 47, Chapter 5, Subchapter II,
"Any and all non-solicited commercial E-mail (SPAM) sent to

this address is subject to a download and archival fee of
$500.00 U.S."! E-mailing denotes acceptance of these terms.

1357. M/A-COM (ITT Semiconductor) 2.4 GHz MA02301AF WANTED!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 03:21:22 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AA06332.A2DF9517@nettally.com>
Source record: 54353
Cross-posted to: sci.electronics.components,rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.design

HI thanks for looking I need a small quantity (2 or 3) of these devices.
If someone can help me find a source I would appreciate it.

M/A-COM (ITT Semiconductor) MA02301AF
2400 MHz 3.6V 0.5W RF Amplifier16 pin TSSOP package

Joe
--
Joe Leikhim K4SAT
Jleikhim@nettally.com

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

WARNING TO UNSOLICITED SPAMMERS!!!

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$500.00 U.S."! E-mailing denotes acceptance of these terms.

1358. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 05:11:16 UTC
From: blackm00@cam.org
Message-ID: <blackm00-0303010013450001@dialup-257.hip.cam.org>
Source record: 54355

In article <20010302125657.04356.00000116@ng-cd1.aol.com>, n2ey@aol.com (N2EY) wrote:

> >Subject: Fox Hole Radio - Help
> >From: "N2PKT" <wireless@geocities.com>
> >Date: Thu, Feb 22, 2001 20:19 EST
> >Message-id: <974e2jgsm1@bob.news.rcn.net>
> >
> >I recently built a "Fox Hole" radio.
>
> First receiver I ever built was a "foxhole radio" from the book "All About
> Radio and Television" by Patricia Lauber. That was about 1964-1965.
>
Have you got the author right? Because I have a book in front of me entitled "All About Radio And Television" with a copyright of 1953, but the author is Jack Gould. It has a description of a "foxhole radio", and the coil winding is the same as you mention.

The acknowledgement page thanks the ARRL and George Grammar in particular.

I didn't have it when I was a kid, though it is the sort of book that was at the children's library in 1970 when I was looking for books on the topic of electronics and radio. I actually bought it a couple of years ago at a used book sale, for fifty cents. I'm doing pretty good lately at finding that sort of book at those sales recently.

Maybe it's because we are older, but I can't quite picture an updated book like this showing up at the children's library today. It dates from a time when science seemed far more intriguing to children of ten years old or so, and is the sort of thing that would yank kids into the hobby, with a specific mention of amateur radio. I've been thinking about this lately. There was a time when amateur radio, and specifically as a technical hobby, would show up in passing in science fiction books, and it was because the SF writers were interested in radio and electronics, along with other science-oriented hobbies like astronomy and chemistry.

These weren't hobbies for everyone, but were out there where kids could discover them. Science seems to be far more a passive activity now, at least until you actually take up a career.

Michael VE2BVW

1359. Re: Fox Hole Radio - Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 05:34:13 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA08255.97F36483@coqui.net>
Source record: 54356

N2EY wrote:
>
> >Subject: Fox Hole Radio - Help
> >From: "N2PKT" <wireless@geocities.com>
> >Date: Thu, Feb 22, 2001 20:19 EST
> >Message-id: <974e2jgsm1@bob.news.rcn.net>
> >
> >I recently built a "Fox Hole" radio.
>
> First receiver I ever built was a "foxhole radio" from the book "All About
> Radio and Television" by Patricia Lauber. That was about 1964-1965.
>
> >Suprisingly, with a little trial and
> >error, I started to receive a local AM broadcast
> >on it. Understanding that these type of basic radio sets do not bring in
> >room filling sounds, is it possible to make the
> >signal strength (volume) louder? I attempted to place a .001uF cap between
> >the crystal earphone, but the results were
> >the same, just a very low signal. Was my placement incorrect?
>
> You don't need such a capacitor.
>
> Here are some ways to increase the volume:
>
> 1) Bigger/higher antenna - as long and high as possible. I had 70 feet of wire
> out to the crabapple tree, and about 25 feet high. WPEN was only a few miles
> away, though.
>
> 2) Better ground. I used the radiator pipes. Cold water pipe is good IF it's
> meal all the way to the water main.
>
> 3) Better headphone - a "2000 ohm" dynamic headset is the best. Low impedance
> 'phones don't work at all, and crystal phones may or may not be optimum.
>
> 4) More coil - the "AAR&T" design used a single layer coil of 120 turns of #26
> closewound on a toilet paper tube (minus the paper, of course). I still don't
> know how many uH that was, but I found that with my particular antenna I could
> get even more volume by using a paper towel tube and more turns. Making the
> turns nice and even was the toughest part of the whole project.
>
> 5) Different pencil leads gave different results.
>
> 6) Different razor blades gave different results. I found that the single-edge
> "white" blades worked best - the blue blades didn't work at all! Clean was

> better than rusty. Varying the pressure of the pencil lead on the razor blade
> had an effect, too. As I recall, lighter was better with some blades. YMMV.
>
> The detector in these things goes all the way back to the very beginning of
> radio. The Massey (sp?) carbon-steel detector used a steel needle on a pair of
> pointed carbon blocks. Some claim that the steel-carbon junction really isn't a
> diode at all, but rather a form of coherer.
>
> >This was a
> >great homebrew to make, It's simplicity and
> >history made the project all the more interesting. I am in the process of
> >looking for the right razor blade with a good
> >amount of "rust" for a diode. That may help, but in the meantime, any hints
> >on "beefing up" the volume would be helpful.
>
> See above. They are great fun, and the only real "radio" part is the
> headphone. I actually made one using the receiver from a junked telephone once
> - not as good, but it meant the thing was 100% scrounged because the wire came
> from an old motor.
>
> 73 de Jim, N2EY

I built a foxhole radio way back when...mid 60's. The article was
in a book in our Junior High School library.
One of the details I remember was that the edge of the printing on
the blade was the sensitive spot. I don't know how that logo
printing was done in those days or if they still do it, but I
suspect that it was lightly etched chemically somehow. Maybe that
gave a slightly corrosive effect for detection?.
Just thought I'd throw that in...Makes me wonder if today's razor
blades are equally suitable with their coatings, etc.. Maybe you
could find some old ones on ebay???

Bill Meacham
Vieques, PR

1360. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 06:22:44 UTC
From: zed <zed@nowhere.net>
Message-ID: <U40o6.33165$nL5.1717324@news3.aus1.giganews.com>
Source record: 54357

Tnx JW and Skipp. Skipp, I've been doing something similar with nicads for years, sounds like NiMH are not too different. Like you, I've never been an appliance operator and I'm sure as heck not going to give someone $150 to charge some AA batteries ;-)
73,ed.
"Skipp" <skipp@pilot.ucdavis.edu> wrote in message news:97oobsgha6@woodrow.ucdavis.edu...
> Hi there,
>
> I've been playing around with various charging circuits for batteries for
> some time now. You can go to my kewet electric car page and vew charging
> graphs on the second page for the various battery formats/types.
> -
> If your charging a smaller battery, I would (from my experience) charge it
> using a voltage adjustable current limited power supply. One can achieve
> similar results using a simple wall wart of the proper type. Here's what I
> do for a typical 13 volt computer battery pack.
> -
> I apply a charge over a fixed amount of time through a low value resistor.
> For a 13 volt pack, I apply say around 18 volts through a 20 ohm -
> 10 watt resistor while watching the charging current. Say the current
> sets up at 250 milli amps (mA). Then I leave it charge for the rated time
> period of the battery, overcharging at such a low current level has never
> been an issue/problem. Heat doesn't build up like a regular NiCad Cell
> does.
> -
> I'm carefull not to get the actual battery pack voltage much above the
> fully charged value. I wouldn't like to see the rated 13vdc pack voltage
> get much above 14.5 to 16 volts during a charge. I've found a long slow
> controlled charge works much better over all. Batteries will "go away"
> when abused with overcharging...
> -
> I have a nice 1 amp variable voltage supply I built up, using it and the
> series resistor I can set up (adjust to) a slightly higher voltage (about
> 18v) to charge at a safe 250 mA or similar value. After a time of 8 to 10
> hours, my 2.5 amp/hour pack is ready to go.
> -
> I received a Digital VP Laptop with out a charger and a dead battery. I've
> been using this method to recharge the battery for the entire year I've
> had the laptop now and things are great. Still like to find the right
> power supply for it, but I'm not into paying over $150 for a
> charger/adapter.
> -
> I use much larger charger for my electric cars. Check it out if you have

> time...
> -
> cheers
> skipp@pilot.ucdavis.edu
> http://pilot.ucdavis.edu/kewet my electric car and bat charging graphs.
> http://sonic.ucdavis.edu Amateur Radio Pages and software.
>
> : zed <zed@nowhere.net> wrote:
> : Can someone point an old ham to a good, circuit/project article for a
NiMH
> : battery charger. I'm only familiar with nicads and need some help.
> : tnx kv5i
>
>
>

1361. Pixie2 BCI prolem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 07:52:20 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <Yn1o6.5869$hi2.17245@nntpserver.swip.net>
Source record: 54358

I have just built a Pixie2 trx for 80 m. 2 transistors and a LM386 chip.
It's fine during daytime but suffers from terrible BCI in the evenings which
makes it nearly useless.
Is there any cure for this? Have tried 4mH chokes in the LM386 input with
only marginal effect.
There are also chokes in all external leads such as speaker, key and dc
supply.
thanks
/sm6pxj

1362. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 09:02:51 UTC
From: zed <zed@nowhere.net>
Message-ID: <%q2o6.12558$CO.876665@bin1.nnrp.aus1.giganews.com>
Source record: 54359

Tnx JW and Skipp. Skipp, I've been doing something similar with nicads for years, sounds like NiMH are not too different. Like you, I've never been an appliance operator and I'm sure as heck not going to give someone $150 to charge some AA batteries ;-)
73,ed.
"Skipp" <skipp@pilot.ucdavis.edu> wrote in message news:97oobsgha6@woodrow.ucdavis.edu...
> Hi there,
>
> I've been playing around with various charging circuits for batteries for
> some time now. You can go to my kewet electric car page and vew charging
> graphs on the second page for the various battery formats/types.
> -
> If your charging a smaller battery, I would (from my experience) charge it
> using a voltage adjustable current limited power supply. One can achieve
> similar results using a simple wall wart of the proper type. Here's what I
> do for a typical 13 volt computer battery pack.
> -
> I apply a charge over a fixed amount of time through a low value resistor.
> For a 13 volt pack, I apply say around 18 volts through a 20 ohm -
> 10 watt resistor while watching the charging current. Say the current
> sets up at 250 milli amps (mA). Then I leave it charge for the rated time
> period of the battery, overcharging at such a low current level has never
> been an issue/problem. Heat doesn't build up like a regular NiCad Cell
> does.
> -
> I'm carefull not to get the actual battery pack voltage much above the
> fully charged value. I wouldn't like to see the rated 13vdc pack voltage
> get much above 14.5 to 16 volts during a charge. I've found a long slow
> controlled charge works much better over all. Batteries will "go away"
> when abused with overcharging...
> -
> I have a nice 1 amp variable voltage supply I built up, using it and the
> series resistor I can set up (adjust to) a slightly higher voltage (about
> 18v) to charge at a safe 250 mA or similar value. After a time of 8 to 10
> hours, my 2.5 amp/hour pack is ready to go.
> -
> I received a Digital VP Laptop with out a charger and a dead battery. I've
> been using this method to recharge the battery for the entire year I've
> had the laptop now and things are great. Still like to find the right
> power supply for it, but I'm not into paying over $150 for a
> charger/adapter.
> -
> I use much larger charger for my electric cars. Check it out if you have

> time...
> -
> cheers
> skipp@pilot.ucdavis.edu
> http://pilot.ucdavis.edu/kewet my electric car and bat charging graphs.
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>
> : zed <zed@nowhere.net> wrote:
> : Can someone point an old ham to a good, circuit/project article for a
NiMH
> : battery charger. I'm only familiar with nicads and need some help.
> : tnx kv5i
>
>
>

1363. Re: I give up, what's a "goniometer"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 12:18:36 UTC
From: la8ak@online.no
Message-ID: <3aa0d17f.123692797@news.online.no>
Source record: 54360

On Mon, 25 Sep 2000, Morris Odell <morriso@vifp.monash.edu.au> wrote:

>Gary Coffman wrote:
>
>> This can also be used in reverse to convert a polar magnitude
>> and phase to X and Y signals. In this case, the rotating coil is
>> driven, and the X and Y outputs are taken from the fixed coils.
>> If the rotating coil is turned by a radar dish (directly, or indirectly
>> via synchros), the resulting X and Y values can be applied to a
>> CRT's deflection plates to get the familiar rotating sweep display
>> synchronized with the dish rotation.
>
>The "goniometers" that do this are known as synchro resolvers. They have the usual 3 phase
>type stators and a rotor that has 2 windings on electrical axes separated by 90 degrees.
>Position info from the synchro system is applied to the stator and the rotor produces
>rotating XY signals for a CRT. Rotation of the resolver provides a way of adding an
offset.
>
>Morris
>
tnx for all info
Many of my WW2 receivers have had options for DF og homing, but I
can't find any complete circuits for accessory units. Have tried to
call at coast stations, but they tell me that I am 20 years too late.

Do you know a site showing such details or how to construct the
goniometer? The receivers concerned covers 75-25MHz, but long- or
mediumwave is perhaps the most interesting range to try(?)

73
Jan-Martin
LA8AK

1364. schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 13:26:07 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3aa0f0f2$0$30011$2c3edae7@news.voyager.net>
Source record: 54361

anyone out there got a schematic for a hallicrafters s120?
tks ken w8ob

1365. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 17:58:44 UTC
From: CJ <cjr@visi.com>
Message-ID: <3AA130D4.6C34A2C7@visi.com>
Source record: 54366

Really? I've used RG-8x and similar cables at 100 watts on all bands
from 160m to 2m over the years with no problems. I can't imagine any
problem at HF at any reasonable SWR. I run a KW through it on 160m.

YMMV. 73, CJ K0CJ

John O'Flaherty wrote:
>
> I bought some coax for my new transceiver, which puts out about 100w.
> maximum. The fellow in the electronics store said this cable (RG-8X,
> about 1/4 inch in diameter, with foam dielectric) would be fine for 100
> watts. But now, I've looked at the ARRL handbook, and the section on
> transmission lines says 1/4 inch foam dielectric line shouldn't be used
> above about 25 watts. What do you all think?
>
> john

1366. Re: schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 18:40:35 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA13AA3.7788E7CE@coqui.net>
Source record: 54362

kenneth m cubilo wrote:
>
> anyone out there got a schematic for a hallicrafters s120?
> tks ken w8ob

http://www.bama.sbc.edu
--

Bill Meacham
Vieques, PR

1367. Re: Yaesu FT-290RII coverage modification?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 19:35:55 UTC
From: Dennis <pe1nqh@zeelandnet.nl>
Message-ID: <3aa146e8$0$56540@news2.zeelandnet.nl>
Source record: 54363
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hallo Hans-Christian

Yeasu would love you to come with your set to them for $ 93..
But I think it would be a little to much for just removing 1 or 2
resistors..
Its a little work but whats an hour for an ammateur....hihi
Here it comes..
First remove the frontpanel from your set, including the controll knobs and
the washer for the mice connector.
Then surch for the resistor witchs is labeld 000.(just above s06).
This is resistor 02.
When you remove this resistor your FT290 covers from 140 til 150 MHz.
But there is moreYou have to remove it anyway because you need that resistor
(0 OHM) for the modification to the US frequenties..
Solder the resistor between S09 and S02 (solderpads are there already) and
your modification is done.
You now have the US frequenties in your set.
But there is more if you like to use it as I do i.e. transvertor use.
A little tabel is added to play with..
R02 R03 FREQ
=============
/ / 140-150 MHZ
/ 0 144-148 MHZ
0 / 144-146 MHZ

Try it and save yourself a lot of monney witchs you can spend on more
usefull things in the hobby
73's Dennis pe1nqh
"Hans-Christian Becker" <hcb@phc.chalmers.se> schreef in bericht
news:020320011745403197%hcb@phc.chalmers.se...
> Dear all,
> I brought with me to the U.S. a Yaesu FT-290RII which I bought and used
> in Europe, and consequently it covers 144--146 MHz (and has the 1750
> repeater call tone). Yaesu U.S.A. tells me the only way to make the rig
> cover U.S. frequencies is to change the CPU, which only costs $93 :-P.
> Is there _really_ no way to reprogram the radio to work 144--148 MHz?
> On a related note: Of what use is a VHF/UHF radio without subtone
> encoder in the U.S.?
> Best regards,
> Hans-Christian W6/SM6TLH [hcb@caltech.edu]
>
> --
> Dr. Hans-Christian Becker
> Department of Chemistry

> California Institute of Technology
> Pasadena, CA 91125, U.S.A

1368. RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 19:50:50 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AA14B1A.59138B8F@toast.net>
Source record: 54364

I bought some coax for my new transceiver, which puts out about 100w. maximum. The fellow in the electronics store said this cable (RG-8X, about 1/4 inch in diameter, with foam dielectric) would be fine for 100 watts. But now, I've looked at the ARRL handbook, and the section on transmission lines says 1/4 inch foam dielectric line shouldn't be used above about 25 watts. What do you all think?

john

1369. Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 20:04:42 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AA14E5A.D006AAF3@toast.net>
Source record: 54365

When I got my new transceiver, I bought an antenna tuner with it, that said it would tune a wire of some minimum length to any frequency in the hf bands. I connected it up to a horizontal wire of about 50 feet long, and it tunes it (at least the indicator says it successfully tuned it). The antenna isn't very effective. I have some questions about ways to improve matters:

1. I talked to a ham about 300 miles away, and he said the antenna's performance could be improved by stretching out some ground wires along the ground. The books I've looked at mention that ground radials are good for a vertical antenna, but don't mention them in the context of a horizontal wire. Would they make an improvement?

2. If I stretched out another antenna wire in the opposite direction and trimmed both for length, I would have a dipole. The antenna tuner has an unbalanced output- if I connected a second wire to the ground of the antenna tuner and stretched it in the opposite direction to that of the first wire, would it still form a sort of dipole, or would the second wire have no effect?

3. If I made a dipole and wound a balun to convert it from balanced to unbalanced, would it still be meaningful to feed the unbalanced side of the balun with this remote, unbalanced output antenna tuner? That is, can the antenna be tuned _through_ the balun?

If anyone has any ideas about how to improve a simple antenna setup with more or less easy changes (at least until this miserable winter is over) I'd appreciate hearing them.

john

1370. Serial Port Rotor Control Command Sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 20:56:26 UTC
From: "Thomas M. Alldread" <tma@mail.island.net>
Message-ID: <25m2atgk9rrhsao2fjq5eiua20sf8o6ska@4ax.com>
Source record: 54369

Greetings All:

I am considering homebrewing a microcontroller box for automating my DAIWA CR-4 rotor via my logbook program. I noticed that my log program supports Yaesu, M2 and Hygain rotors. I would like to study the commands used for each rotor type in order to select a command set that is supported by my logbook program that is also the most suitable for my CR-4.

The command sets syntax used for the serial port communications between the computer and rotor types must be available to software developers but I haven't (after several attempts) been able to find any of the specifications on the Net. I wonder if anyone on this list happens to know of any Internet addresses where the command set specs can be found?

Many thanks in advance for any help!

73 and Enjoy!
Tom, VA7TA
Very Best Regards,
Thomas M. Alldread, tma@mail.island.net

Note: The information provided by me is accurate to the best of my knowledge but use it at your own risk as there are ~NO GUARANTEES IMPLIED~.

1371. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 21:04:48 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AA15C70.7394E4C4@dialpoint.net>
Source record: 54367

Look here for some power and frequency ratigs of coax.

http://www.cablexperts.com/cfdocs/tech_data.cfm?bskt=0

The ammount of power coax will handle depends on the frequency it is used at. If you are operating at less than 150 mhz, the rg-8x should be good for around 300 watts. If below 30mhz, then you are good to around 800 watts.

I am using the rg-8x on an Icom 706 to feed several low band antennas and it works just fine. I would not recommend it for long lengths at frequencies above 30 mhz at any power level due to the losses. For short lengths (under 50 feet) it should be ok for most people.

John O'Flaherty wrote:
>
> I bought some coax for my new transceiver, which puts out about 100w.
> maximum. The fellow in the electronics store said this cable (RG-8X,
> about 1/4 inch in diameter, with foam dielectric) would be fine for 100
> watts. But now, I've looked at the ARRL handbook, and the section on
> transmission lines says 1/4 inch foam dielectric line shouldn't be used
> above about 25 watts. What do you all think?
>
> john

1372. Re: Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-03 21:14:51 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AA15ECB.239D0E66@dialpoint.net>
Source record: 54368

A simple antenna is the 1/2 wave horizontal dipole. That would be about
130 feet for 80 meters or 65 feet for 40 meters total wire length and
you cut it in the middle and feed it with coax. Put up a wire as high as
you can get it that is 1/2 wave long. Cut it in the middle and feed it
with 50 to 70 ohm coax. Don't worry about a balum. While theory says
you should have one, it is not necessary in most cases. If you can coil
the coax in about a 10 inch diameter circle for about 5 turns near the
antenna that will go a long way in replacing the balum. It acts as a rf
choke. In other words you don't need to convert from a balanced to
unbalanced feed for the simple antennas to work very well.

John O'Flaherty wrote:
>
> When I got my new transceiver, I bought an antenna tuner with it, that
> said it would tune a wire of some minimum length to any frequency in the
> hf bands. I connected it up to a horizontal wire of about 50 feet long,
> and it tunes it (at least the indicator says it successfully tuned it).
> The antenna isn't very effective. I have some questions about ways to
> improve matters:
>
> 1. I talked to a ham about 300 miles away, and he said the antenna's
> performance could be improved by stretching out some ground wires along
> the ground. The books I've looked at mention that ground radials are
> good for a vertical antenna, but don't mention them in the context of a
> horizontal wire. Would they make an improvement?
>
> 2. If I stretched out another antenna wire in the opposite direction and
> trimmed both for length, I would have a dipole. The antenna tuner has an
> unbalanced output- if I connected a second wire to the ground of the
> antenna tuner and stretched it in the opposite direction to that of the
> first wire, would it still form a sort of dipole, or would the second
> wire have no effect?
>
> 3. If I made a dipole and wound a balun to convert it from balanced to
> unbalanced, would it still be meaningful to feed the unbalanced side of
> the balun with this remote, unbalanced output antenna tuner? That is,
> can the antenna be tuned _through_ the balun?
>
> If anyone has any ideas about how to improve a simple antenna setup with
> more or less easy changes (at least until this miserable winter is over)
> I'd appreciate hearing them.
>
> john

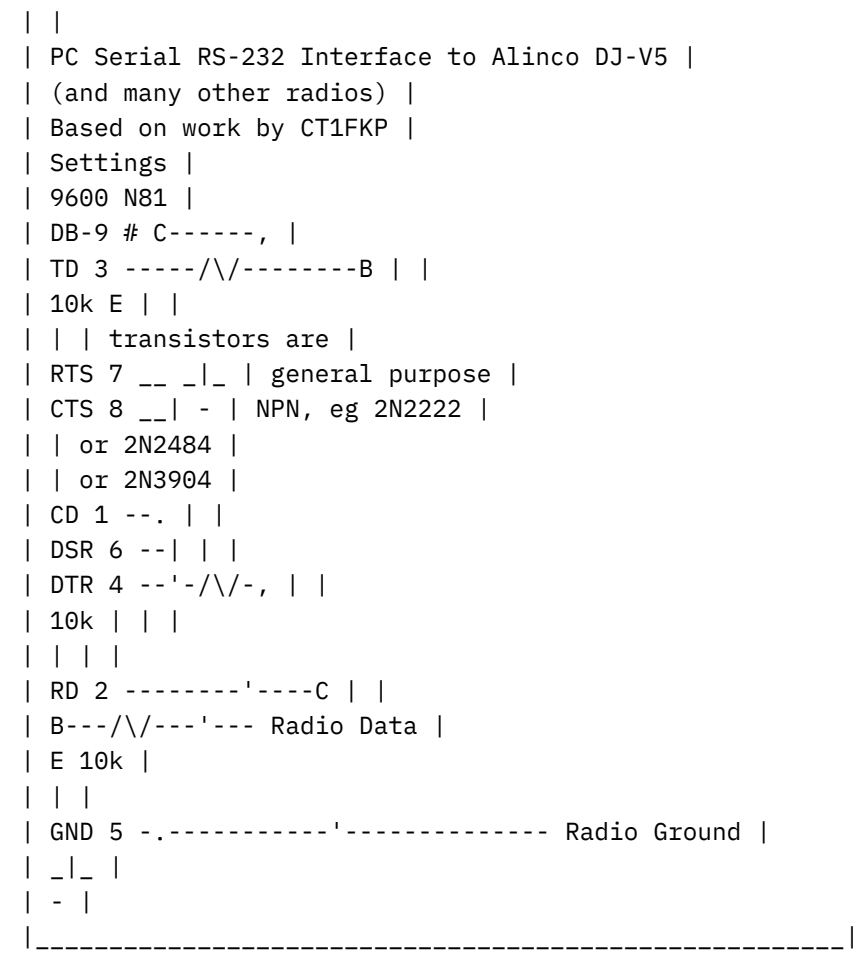
1373. FYI: Alinco djv5 PC programming

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 00:22:57 UTC
From: ZsylvanDB+noZs_0103@Zhotmail.Zcom.invalid
Message-ID: <slrn9a31q5.7m.ZsylvanDB+noZs_0103@p100.dbutler.org>
Source record: 54370
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Alinco DJ-V5 PC Programming

Sylvan Butler sylvandb@hotmail.com
02 March 2001
With major contributions by Nathan Burnside

Done:
schematic and working cable
perl script to read/write all or part of memory
(the script uses the ::Serial methods, so may well be portable...)
(it does work under win NT)
ToDo:
write data editing application with nice UI
decode more of the unidentified data
==========



Modifications

Nathan Burnside writes:
Instead of:
C
TD---/\/----B
10K E
I used:
C
TD---/\/--->|----B
470 D1 E
I'm not sure why that worked, but without it, I got nothing.
==========

Connect to radio (mic jack: tip is data, sleeve is ground, see manual p.44)

Now hold <LAMP> while powering on, the display should read CLONE

Now run the software...

==========
Protocol Information

All lines terminated with {LF} (ascii 10) unless otherwise noted

From sender prefaced with: >
From recver prefaced with: <
all lines end with carriage return <CR>

are you there?
>AL
<OK

read 16 bytes at address 0000 (0000-0FF0)
>AL~F0000R
<0000:xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
(xx... will be replaced by the actual hex data)
(display shows receive 0000)

write 16 bytes at address 0000 (0000-0FF0)
>AL~F0000Wxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
<OK
(replace xx... with hex codes of the actual data)
(display shows transmit 0000)

verify changes ???
>{CR}{LF}END{CR}{LF}
(DONE on display)

Address data description

0000-0011 ???
0012 channel number
0013-005F ???
0060-006F VFO tuning info

0070-01FF ???
0200-020F channel 000
...
0E70-0E7F channel 199
...
0F00-0F0F limit 5a
0F10-0F1F limit 5b
0F20-0F2F call 1
0F30-0F3F call 2
==========
re Protocol/data, Nathan Burnside writes:

I can now back up the entire radio on my calculator (HP48G), and reinstall the settings. I can change individual channels also, however I can't create new channels or erase old ones. There seems to be a place in memory that contains the list of channels that have been defined, and I haven't taken the time to figure out how it works. (this is all starting to get a little complex)

Basically, if I try to write to a previously undefined channel, the radio won't recognize it, and if I try to erase an existing channel, it just displays 0.000 frequency, but doesn't remove it from the channel menu. There must be some way to indicate what channels are defined. Also, programming the cell frequencies doesn't work. I've decoded the commands, and this is what they contain:

AL~F,0340,W,0,4678700,50,000,00,1F,1F,123456789012 Sample data
1 2 3 4 5 6 7 8 9 10 11

1- header Always the same for the DJ-V5
2- memory address:
0000h-01F0h configuration stuff (haven't looked at it much yet)
0200h-0F30h all of the channels (0 - C2)
0F40h-0FFFh unknown

3- W means write, R means read. (to request for the radio to send a memory address, end the command here) Eg.
AL~F0340R<CR><LF>
will tell the radio to send the contents of address 34h

4- Hex digit representing repeater split direction and mode

bit 1 set: minus
bit 2 set: plus
bits 2 and 3 clear: FM
bit 4 set: WFM
bit 3 set: AM

hex binary
4 0100 Plus frequency split, FM
8 1000 Minus frequency
5 0101 plus frequency, WFM

5- Frequency

6- Repeater frequency offset:
06 - 600 kHz
10 - 1.000 mHz
16 - 1.600 mHz
30 - 3.000 mHz
50 - 5.000 mHz
76 - 7.600 mHz

7- Don't know. Seems to always be 000

8- Frequency steps, and power setting:
together, these two hex digits are 8 binary digits. Bits 3-5 (counting
from the left as written) are the frequency steps:

00000000 bit positions
12345678

000 5kHz
001 10kHz
010 12.5kHz
011 15 kHz
100 20 kHz
101 25 kHz
110 50 kHz
111 100 kHz

bits 7-8 are power output:

00 high
01 low1
10 low2

9- CTCSS encode freq., skip scan, and DSQ encode

bit 1 - skip scan
bit 2 - DSQ encode
bits 3-8 CTCSS encode freq (I haven't done a complete table yet)

011111 67
100000 69.3
100001 71.9
100010 74.4
.....
001000 114.8
.....
011110 250.3

10- CTCSS decode freq., CTCSS on/off

bit 1 set - encode, decode
bit 2 set - encode
bits 3-8 CTCSS decode freq as described in 9.

11- channel name:
6 pairs of hex digits, one for each letter:

00h - 09h - numbers 1 - 10
0Ah - 24h - A - Z
25h - 2Fh - Special Characters in the same order as when you
scroll through them on the radio

So, that's about all I know. I haven't really looked at anything before
0200h, which is where the configuration stuff is. I'll try to post all of
this on a web page somewhere in the hopes that someone will create a
freeware application with it.
--Nathan
==========

sdb
--
More guns means less crime. ISBN:0-226-49363-6
***
Watch out for munged e-mail address.
User should be sylvandb1 and host is at bigfoot.com
Do NOT send me unsolicited commercial e-mail (UCE)!

1374. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 00:40:58 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <a9go6.1088$Kj3.5619@newsfeed.slurp.net>
Source record: 54371

RG8X will safely handle several times 100 watts *if* the SWR is under 2:1. That's 2:1 measured at the coax not measured between a rig and a matchbox (tuner).

1375. Re: using low cost ARF mosfets in amplifiers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 02:58:24 UTC
From: Allan Henry Kaplan <w1ael@mindspring.com>
Message-ID: <3AA1AF50.75E43192@mindspring.com>
Source record: 54372

Class C amplifiers are good for CW, FSK, AM (high-level modulation only)
but not SSB or any other low level AM mode.
73, Allan, W1AEL.

1376. Re: WANTED 50 OHM ATTENUATIOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 03:58:11 UTC
From: Karl Shoemaker <wa7ycp@yahoo.com>
Message-ID: <3AA1BD53.35BFE922@yahoo.com>
Source record: 54373

If you cant'find the dial type I have a toggle switch type FS
just email-header is good.
Karl

David DiGiacomo wrote:
>
> In article <3a99698f.529584019@news.online.no>,
> J M Noeding <LA8AK@Online.NO> wrote:
> >On Sun, 25 Feb 2001 16:12:47 GMT, "jim bennett" <jimbennett@home.com>
> >wrote:
> >
> >>My other post was somewhat lacking...H.P. makes several good 50 Ohm step
> >>attenuators. I have both a 0-10 dB (1 dB steps) and a 0-100dB (10 dB steps),
> >>both rated to 500 MHz....0.5 watts....accuracy acceptable for home use. We
> >>calibrate/check our at work H.P attenuators every six months. They ain't
> >>cheap...approx. $350.00 ea. new, but can often be found on the surplus
> >>market for $25 to $50.
> >>
> >>jim K4KAE
> >>
> >suppose they use something better than the rather unstable BNC
> >connectors found on most atternuators? It is general opinion that BNC
> >connectors shouldn't be used above 1000MHz, but do they cause any
> >unstable connection below that?
>
> The most common step attenuators on the hobby market are the HP355C
> (0-12dB in 1dB steps) and HP355D (0-120dB in 10dB steps). They are rated
> to 1GHz and normally have BNC connectors.
>
> Higher frequency attenuators such as the HP8494/HP8495 come with N, SMA,
> or even APC7 connectors.

--
http://www.dalek.org/srg (main site)
http://www.ieway.com/kshoe (backup mirror site)

1377. Serial Port Rotor Control Command Sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 06:04:35 UTC
From: "Thomas M. Alldread" <tma@mail.island.net>
Message-ID: <66m3at8s0ndpjjr9pkv9o2jed8b69el0qd@4ax.com>
Source record: 54374

Greetings All:

Something strange happened to my previous posting which accidently ended up with an unexpected signature tag line. I corrected the problem so it won't happen again and decided to do a re-post.

I am considering homebrewing a microcontroller box for automating my DAIWA CR-4 rotor via my logbook program. I noticed that my log program supports Yaesu, M2 and Hygain rotors. I would like to study the commands used for each rotor type in order to select a command set that is supported by my logbook program that is also the most suitable for my CR-4.

The command sets syntax used for the serial port communications between the computer and rotor types must be available to software developers but I haven't (after several attempts) been able to find any of the specifications on the Net. I wonder if anyone on this list happens to know of any Internet addresses where the command set specs can be found?

Many thanks in advance for any help!

73 & Enjoy!
Tom, VA7TA
tma@island.net

1378. Re: Serial Port Rotor Control Command Sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 07:14:03 UTC
From: "Greg D." <gregd@jps.net>
Message-ID: <3AA1EB3B.5E4BD396@jps.net>
Source record: 54375

Thomas,

I built a controller that is driven by the FODTrack program via
a serial port. I picked the Yaesu format, which appears to be
the letter W, followed by the Az and El position in degrees,
separated by a space, and terminated with a carriage return.

Waaa eee<cr>

The Yaesu controller probably has other commands, which another
program might make use of, so I'd recommend watching what it
spits out before making a final decision.

I used the terminal program on my Palmtop to watch FODTrack
while it was running, and picked this as the easiest to code to.
The controller uses a BASIC Stamp-II, relays, and a few knobs
and meters for a manual mode for when the computer is not doing
the driving.

I don't know what the DAIWA CR-4 uses for position sense, but
there are usually two different types. One has a variable
resistor tied to the movable part, the other has a switch
that closes momentarily every few degrees. The resistor type
can be "read" with an A-D converter. The switch type, which
is what I have, requires that you count pulses to figure out
where the rotor is.

Good luck with your project,

Greg.

"Thomas M. Alldread" wrote:
>
> Greetings All:
>
> I am considering homebrewing a microcontroller box for
> automating my DAIWA CR-4 rotor via my logbook program. I noticed that
> my log program supports Yaesu, M2 and Hygain rotors. I would like to
> study the commands used for each rotor type in order to select a
> command set that is supported by my logbook program that is also the
> most suitable for my CR-4.
>
> The command sets syntax used for the serial port
> communications between the computer and rotor types must be available
> to software developers but I haven't (after several attempts) been
> able to find any of the specifications on the Net. I wonder if anyone
> on this list happens to know of any Internet addresses where the

> command set specs can be found?
>
> Many thanks in advance for any help!
>
>
> 73 and Enjoy!
> Tom, VA7TA
> Very Best Regards,
> Thomas M. Alldread, tma@mail.island.net
>
> Note: The information provided by me is accurate to the best of my knowledge but use it at your own risk as there are ~NO GUARANTEES IMPLIED~.

1379. Re: seeking dc/ac converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 10:24:20 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <97tcn2$72g$1@news5.svr.pol.co.uk>
Source record: 54376

> seekign 12v dc to ac converter
> know a good source? have one 4 sale?
==========
Louis, Since you don't state your location ,I would suggest you to include info on AC Voltage , power and frequency ie 50 or 60 Hz and whether the inverter is to be synchronised with the AC power grid
This is an international forum ,so would you please be more specific.

If you are US based you highly likely need a inverter for 117 V - 60Hz .

If you wish to connect the inverter output ,to the AC power supply ,using DC power from a combustion engine driven 12 V-DC generator , solar panels and/or wind generator(s) ,the inverter must be synchronised with the AC supply.

73 Frank gm0csz.kn6wh@ukrs.org

1380. Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 14:00:12 UTC
From: w4pqwhs@aol.com
Message-ID: <20010304090012.09846.00000413@ng-mo1.aol.com>
Source record: 54377

My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone know how I might prepare a finish of this type to go from polished to dull finish? thanks,, Harold W4PQW

1381. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 14:48:58 UTC
From: JW <jdwalton@home.com>
Message-ID: <3AA28054.8C828FAB@home.com>
Source record: 54379

I had my son take the aluminum knobs from a Corning pH meter, mount them on a shaft on the drill press, and use a cloth with a little "rottenstone" and linseed oil to polish them up.

W4pqw HS wrote:

> My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone
> know how I might prepare a finish of this type to go from polished to dull
> finish? thanks,, Harold W4PQW

1382. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 14:52:05 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA25695.44C01ED0@coqui.net>
Source record: 54378

W4pqw HS wrote:
>
> My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone
> know how I might prepare a finish of this type to go from polished to dull
> finish? thanks,, Harold W4PQW

A totally wild guess would be to 'treat' them to some oven
cleaner, drain cleaner or other lye product. It works very nicely
for aluminum panels to get a satiny look. Of course, observe all
the precautions when playing with the stuff.

Bill Meacham
Vieques, PR

1383. 220V conversion

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 14:56:18 UTC
From: JW <jdwalton@home.com>
Message-ID: <3AA2820C.3307CEE5@home.com>
Source record: 54380

I came across a piece of lab equipment on the 'Bay -- really inexpensive. Unfortunately, upon cracking the shell there was no 120V tap on the transformer.

To make the conversion, I cracked open a "wall wart", removed the rectifiers (nice - 4 - 1n4001's anyway) and connected the 11 VAC to the secondary of the internal transformer. Works great! I figured that the wall wart xfmr was just about up to the task as the core sizes of the transformers matched, and the 0.1A fuse gave some idea of the max demand.

Oh, and by the way, remember to remove the line cord! You don't want 220VAC wiggling around on the lab/shack floor.

The strain reliefs that they use in Germany are much more elegant than those we employ in the US -- and they use a round hole!

Jack
ex WA8PZL

1384. WTB 8 Amp 26 V xfmr or

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 16:19:56 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3aa26aa5.7446486@news.usfamily.net>
Source record: 54381

HI,

I'm putting an old ART-13 transmitter on the air and I need either a transformer nominaly rated at 26 V 8 Amps or two xfmrs nominally rated at 4 Amps 26 Volts.

Please help me get this WW II Aircraft transmitter back on the air.

Thanks in advance,

Bob

1385. Re: seeking dc/ac converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 16:39:32 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3AA26FC4.BE9CEAB5@valley.net>
Source record: 54382

Louis wrote:

> seekign 12v dc to ac converter
>
> know a good source? have one 4 sale?
>
> Hello--

IIRC, Northern Tool and Equipment (FKA Northern Hydraulics) and MECI Electronics offer inexpensive DC:AC invertors-- the Northern item is rated for 175W continuous and 350W surge-- enough for a laptop PC (my intended application), a soldering station or a small TV rx. The prices is $34.99 plus postage.

This one plugs into a cigar lighter, but go much bigger and you'll need to make direct connections to the battery (don't forget to fuse BOTH leads).

730--
Brad AA1IP

P.S>: I have no financial connection to either company mentioned.

1386. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 17:21:36 UTC
From: Warren Weber <hiho@ris.net>
Message-ID: <ta4ucjnoukog13@corp.supernews.com>
Source record: 54383

Dip into muratic acid (swimming pool cleaner) quickly and rinse and check.
Repeat if necessary. Warren

"W4pqw HS" <w4pqwhs@aol.com> wrote in message
news:20010304090012.09846.00000413@ng-mo1.aol.com...
> My B&W 5100 has aluminum knobs ,they are dull finish ,not
polished...anyone
> know how I might prepare a finish of this type to go from polished to dull
> finish? thanks,, Harold W4PQW

1387. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 17:29:14 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AA27AFD.B8D382E7@GTE.net>
Source record: 54384

John O'Flaherty wrote:

> I bought some coax for my new transceiver, which puts out about 100w.
> maximum. The fellow in the electronics store said this cable (RG-8X,
> about 1/4 inch in diameter, with foam dielectric) would be fine for 100
> watts. But now, I've looked at the ARRL handbook, and the section on
> transmission lines says 1/4 inch foam dielectric line shouldn't be used
> above about 25 watts. What do you all think?
>
> john

You must be misinterprating what you are looking at. At 30 MHz RG8X is
rated at 875W- even higher at lower frequencies. Even the smaller RG58 is
good for 500W at 30MHz.

Dale W4OP

1388. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 17:34:00 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AA27C16.62451579@GTE.net>
Source record: 54385

W4pqw HS wrote:

> My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone
> know how I might prepare a finish of this type to go from polished to dull
> finish? thanks,, Harold W4PQW

Hi Harold,

I seem tor ecall using a dilute solution of Draino to give aluminum a satin finish.
PLEASE, try on scrap pieces first! Also do not let the piece touch any of the draino product. Think I got this from the ARRL Handbook.Of course, it is necessary to properly smooth the aluminum first- as any scratches or imperfections will still show through.
I made some aluminum end caps for my Ten Tec Omni VI+ (to replace the cheap looking plastic ones). In this case I sand blasted the aluminum w/ a very fine grit- the finished product was superb.

Dale W4OP

1389. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 17:57:17 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AA281FD.A6C1944A@toast.net>
Source record: 54386

Dale Parfitt wrote:

> John O'Flaherty wrote:
>
> > I bought some coax for my new transceiver, which puts out about 100w.
> > maximum. The fellow in the electronics store said this cable (RG-8X,
> > about 1/4 inch in diameter, with foam dielectric) would be fine for 100
> > watts. But now, I've looked at the ARRL handbook, and the section on
> > transmission lines says 1/4 inch foam dielectric line shouldn't be used
> > above about 25 watts. What do you all think?
> >
> > john
>
> You must be misinterprating what you are looking at. At 30 MHz RG8X is
> rated at 875W- even higher at lower frequencies. Even the smaller RG58 is
> good for 500W at 30MHz.

I don't think there was much room for misinterpretation-
Page 20.5, ARRL Handbook for 2001, first complete paragraph on the page-
(Feed methods)
"Take care when choosing coax. Use 1/4-inch foam-dielectric cables only for low power (25 w. or less) HF transmissions. Solid-dielectric 1/4-inch cables are okay for 300 W if the SWR is low. For high-power installations, use 1/2-inch or larger cables."

While I don't think I misinterpreted it, everyone who has answered (including several who answered in private emails) agrees that it's flat wrong (maybe a typo), and that RG8-X is good for one heck of a lot more than 25 W.

Thanks to all who answered.

john

1390. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 19:12:16 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA29390.70866E1B@coqui.net>
Source record: 54387

John O'Flaherty wrote:
>
> Dale Parfitt wrote:
>
> > John O'Flaherty wrote:
> >
> > > I bought some coax for my new transceiver, which puts out about 100w.
> > > maximum. The fellow in the electronics store said this cable (RG-8X,
> > > about 1/4 inch in diameter, with foam dielectric) would be fine for 100
> > > watts. But now, I've looked at the ARRL handbook, and the section on
> > > transmission lines says 1/4 inch foam dielectric line shouldn't be used
> > > above about 25 watts. What do you all think?
> > >
> > > john
> >
> > You must be misinterprating what you are looking at. At 30 MHz RG8X is
> > rated at 875W- even higher at lower frequencies. Even the smaller RG58 is
> > good for 500W at 30MHz.
>
> I don't think there was much room for misinterpretation-
> Page 20.5, ARRL Handbook for 2001, first complete paragraph on the page-
> (Feed methods)
> "Take care when choosing coax. Use 1/4-inch foam-dielectric cables only for
> low power (25 w. or less) HF transmissions. Solid-dielectric 1/4-inch cables
> are okay for 300 W if the SWR is low. For high-power installations, use
> 1/2-inch or larger cables."
>
> While I don't think I misinterpreted it, everyone who has answered (including
> several who answered in private emails) agrees that it's flat wrong (maybe a
> typo), and that RG8-X is good for one heck of a lot more than 25 W.
>
> Thanks to all who answered.
>
> john

Add me to the respondents...I've used RG8X with decent antennas up
to a kw. No problems. But when it comes to a coupla pennies/foot
difference, go fer the bigger cable. I'm in cable TV so call me
Mr. 75 Ohm cuz the samples are free. I'd yank down my cable tv
house drop (to use for an antenna) and make them replace it before
I'd pay money for RG8X. If I have to pay, then sure, I'd buy 9913
or something akin. In the meantime, this scrap 75 ohm hardline
works great (yeah. I have leads on adaptors, etc)
--

Bill Meacham WX4A/KP4
Vieques, PR

1391. cw id circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 19:57:48 UTC
From: kc8nap@aol.com
Message-ID: <20010304145748.02181.00001332@ng-mq1.aol.com>
Source record: 54389

I have heard of a cw id'er for a repeater made of diodes and a timer circuit
but cannot find any info. Can anyone help?

gary kc8nap

1392. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 20:07:55 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AA2A09B.DF1DE32@dialpoint.net>
Source record: 54388

Not sure if it is a typo and they ment 250 watts or what but it is
wrong. There have been many mistakes made in books and it is good that
one can ask a question about it on the internet. Unless you have
several refferances it is easy to get the wrong answer.
Not only for ham radio but for many other things.

> I don't think there was much room for misinterpretation-
> Page 20.5, ARRL Handbook for 2001, first complete paragraph on the page-
> (Feed methods)
> "Take care when choosing coax. Use 1/4-inch foam-dielectric cables only for
> low power (25 w. or less) HF transmissions. Solid-dielectric 1/4-inch cables
> are okay for 300 W if the SWR is low. For high-power installations, use
> 1/2-inch or larger cables."
>
> While I don't think I misinterpreted it, everyone who has answered (including
> several who answered in private emails) agrees that it's flat wrong (maybe a
> typo), and that RG8-X is good for one heck of a lot more than 25 W.

1393. Wanted HP8554L Info and HP140/141 Spectrum Analyzer Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 21:21:20 UTC
From: Allan Henry Kaplan <w1ael@mindspring.com>
Message-ID: <3AA2B1D0.98ED09E2@arrl.net>
Source record: 54390
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

I am looking for information on the HP8554L. This is the "economy-model" of the HP140/141 Spectrum Analyzer RF plug-in which covers up to 1250 MHz. I have the 8554B manual and it does not identify the burnt component on my Bandwidth switch because the L model wiring is different in that area. I am also looking for Amphenol Series 26 connectors, the blue 24-pin jobs on the rear of the plug-ins so I can reproduce the HP extender cables which allow access to the
plug-ins under power. I need two pieces each of 24-pin Amphenol Series 26 mating connectors, 26-4101-24P and 26-4501-24S. Chances are that I could use parts with some variation in the middle number (4x01?) provided that they are mating pairs of Series 26 24-pin units. I will appreciate any leads you might furnish. The IF and RF plug-ins stack vertically using a mated pair of DBM-50 (Cannon et al.) with two coaxial inserts. I'd sure like to find a pair of these also.

Please copy to my e-mail address which is <myhamcall at arrl dot net>. Use the correct punctuation on the email address which I messed up to fool the spam-bots!
Thanks!
Allan (W1AEL)
Sevierville, Tennessee

1394. HP 8551 Spectrum Analyser info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 22:01:18 UTC
From: kees.stravers@iae.nl
Message-ID: <97udvefpk1@news.IAEhv.nl>
Source record: 54391
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi,
My name is Kees, PB0AIA, from The Netherlands.
I am looking for information on the HP8551 Spectrum Analyser. I don't know much about it, I don't even know if what I have is a complete set, or one and a half set, or that I am still missing an important part. I have three cabinets: a 8551 Analyser, a 8551B Analyser, and a 851 display unit. Do I need any more equipment to get a complete working machine? Does anyone have an operators manual I could buy a copy of? Is it possible to use a general oscilloscope in place of the display unit? I would like to get this machine working again, or both of them if I have two.
73, Kees PB0AIA

--
Kees Stravers - Geldrop, The Netherlands - kees.stravers@iae.nl

Net-Tamer V 1.08.1 - Registered

1395. Re: finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 22:29:52 UTC
From: 2w8ji@akorn.net
Message-ID: <3aa2c042.42171508@news.accessunited.com>
Source record: 54392

On 01 Mar 2001 15:10:31 GMT, theosus@aol.com (Theosus) wrote:

>Is there any way to test the inductance of a coil? I have the formula for
>winding coils, but do not know how to test coils I already have around. I have
>a digital meter for resistance and such, and it will let me test capacitance,
>but not inductance. Is there a simple circiut I could put together, or does
>testing inductance involve some fancy (read: expensive) tester? If that's the
>case I'll just buy new ones when I need them.

The problem with measuring RF inductors is they really should be
tested close to the operating frequency. The most accurate way to do
that is to look for resonant frequency with a grid-dip meter or
signal generator with a detector.

The effective inductance chages somewhat with frequency.

At frequencies far below self-resonant frequency of an inductor, the
"IC chip" type measurement devices or meters are OK.

I use different measurement methods depending on the application.

What are you trying to measure, and what frequency will it operate on?

73 Tom

1396. Collins 526-9939-010 Mech. Filter Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 22:52:06 UTC
From: Randy & Cara Randall <crrandal@seidata.com>
Message-ID: <3AA2C716.639E4062@seidata.com>
Source record: 54394
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hello. I am in the process of converting an Intech 2500 marine radio to
ham band use.It uses a Collins mechanical filter to derive the USB
signal. LSB was available as an option and replaced the AM filter
with an LSB Collins unit. I have the service manual
but it does not list the Collins P/N for the LSB filter.
The USB unit's P/N is 526-9897-010.
From the filter list @ http://www.wa3key.com/filters.html#master
I have determined that the correct filter will be a 526-9939-010.
If this is incorrect, please let me know. If you have one for
sale or know of where I can get one for
less than a kings ransom, please let me know.

HF-281 & HF-282 526-9897-010 USB 1.95
HF-281 & HF-282 526-9939-010 LSB 1.95

Thank you,
Randy KB8ASO

1397. Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 22:58:46 UTC
From: Brian Noble <bknob@worldnet.att.net>
Message-ID: <GMzo6.3425$Ey1.265608@bgtnsc06-news.ops.worldnet.att.net>
Source record: 54393

I see many schematics mostly from Europe with the capacitor values written as 5p6 or7p5. I do not understand this nomenclature, can someone explain it to me.
Thanks

1398. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 23:10:19 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <RVzo6.16981$wA6.1032022@e420r-sjo3.usenetserver.com>
Source record: 54395

"Brian Noble" wrote ...
> I see many schematics mostly from Europe
> with the capacitor values written as 5p6 or7p5.
> I do not understand this nomenclature, can
> someone explain it to me.

5p6 = 5.6 p ("five picofarads and six tenths")

4K7 = 4,700 ohms ("four thousand, seven hundred ohms")

2n2 = 2200 nanofarads

etc.

Although I was born and live in Leftpondia, I prefer the Rightpondian nomenclature. Generally, the letter for the UNIT replaces the RADIX character ("decimal point" in Leftpondia) Especially for 3d generation photocopies and low-res JPEG schematics, you will never mistake a decimal point for a "flyspeck"

> Thanks

Anytime.
RC

1399. M/A-COM (ITT Semiconductor) 2.4 GHz MA02301AF WANTED!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 23:20:42 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AA2CDCA.354E8FFE@nettally.com>
Source record: 54297
Cross-posted to: sci.electronics.components,rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.design

> HI thanks for looking I still need a small quantity (2 or 3) of these
> devices.
> If someone can help me find a source I would appreciate it.
>
> M/A-COM (ITT Semiconductor) MA02301AF
> 2400 MHz 3.6V 0.5W RF Amplifier16 pin TSSOP package
>
> Joe
> --

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

1400. Antenna Support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-04 23:52:01 UTC
From: Willaim Ellis <wb9cac@home.com>
Message-ID: <ByAo6.9464$DY.3418357@news1.mntp1.il.home.com>
Source record: 54396

Looking for any input about constructing antenna supports for wire antennae.
You guessed it, I have no trees. I like to experiment with different types.

Bill Ellis

1401. Re: seeking dc/ac converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 00:38:53 UTC
From: sdeyoreo@hotmail.com
Message-ID: <3aa2dffe.7968157@news.direcpc.com>
Source record: 54298

Camping and RV stores sell them. from 100w to over 1Kw
On 4 Mar 2001 11:27:39 GMT, Louis <lou1@westnet.westnet.com> wrote:

>
>seekign 12v dc to ac converter
>
>know a good source? have one 4 sale?
>
>louis
>
>lou1@westnet.com email me
>
>
>
>

1402. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 00:51:50 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9a5osu.tsf.w9wi@linux1.localdomain>
Source record: 54299

On Sun, 4 Mar 2001 15:10:19 -0800, Richard Crowley <rcrowley7@xprt.net> wrote:
>2n2 = 2200 nanofarads

Personally, I have a hard time remembering exactly how much a nanofarad is!
(the term is relatively uncommon here in the States, usually using 1000pF or
0.001uF instead..)

(wouldn't 2n2 be 2.2 nanofarads? i.e. 2200pF or 0.0022uF)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1403. WTB: heat shrink tubing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 00:56:29 UTC
From: k9sqg@aol.com
Message-ID: <20010304195629.22818.00000550@ng-bd1.aol.com>
Source record: 54300

Anybody know of a source for reasonably priced heat shrink tubing that is in the size of 2 1/2 to 3 inches with a recovered diameter of 1 1/4 inch?

Thanks.

Evan

1404. Ramsey FX-146 Rev 1.3 Info Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 02:24:39 UTC
From: Kevin Hastings <hastings@nbnet.nb.ca>
Message-ID: <HNCo6.11242$br1.72985@sodalite.nbnet.nb.ca>
Source record: 54301

I picked up the guts of a Ramsey FX-146 10/91 Rev 1.3 at a local junk store, and need help with the frequency-setting diode matrix, and mic pin-outs. I'm betting this is all on the web someplace, but darned if I can locate one thus far.

Can anybody point me to some reference so I can test this thing?

hastings@nbnet.nb.ca

1405. Ramsey FX-146 diode & Mic information query, or web site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 02:29:51 UTC
From: Kevin Hastings <hastings@nbnet.nb.ca>
Message-ID: <zSCo6.11245$br1.72733@sodalite.nbnet.nb.ca>
Source record: 54302

I picked uip a Ramsey FX-146 10/91 Rev 1.3 at a local junk shop, and need help with setting up the frequency-setting diode matrix and the mic pin-outs. I thought I would find a web site on this thing, but darned if I could find one.

Can anybody point me to some reference information so I can check this thing out?

hastings@nbnet.nb.ca

1406. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 02:50:41 UTC
From: k5bdz@aol.com
Message-ID: <20010304215041.16159.00001233@ng-md1.aol.com>
Source record: 54303

>I see many schematics mostly from Europe with the capacitor values written
>as 5p6 or7p5.

Europeans like to simplify by putting the U.S. "ending" in the middle instead of a decimal point, i.e. 5K6 Ohm rather than a 5.6K Ohm (also they're smart because often the decimal is hard to see and in the above example, it could look like 56K rather than 5.6K in the US., but in Europe, it's plainly 5K6 or 5.6K with no questions.)

Same for capacitors = Capacitors 5.6 pF in US is 5p6 in Europe.
Hope that helps a little.
Bill K5BDZ

1407. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 03:03:23 UTC
From: Woody <woody.white@att.net>
Message-ID: <3AA303C4.2E8E512B@att.net>
Source record: 54304

Better than drano is red devil lye. The draino I have seen already
seemed have some Al chips in it. Lye is commercial grade sodium
hydroxide, a very basic/caustic compound.

To reduce corrosion filming, many polished Al knobs are coated with a
thin lacquer/acrilic which must first be removed. Also, if the Al is
heavily anodized (especially if it is also scratched), you might get
uneven etching.

When caustic etching some AL alloys, a dark film may develop. I would
guess this is from the alloy metals which are not so agressivly
attacked by the hydroxide. I have found that a quick dip in a nitric
acid solution will "clear" the film nicely. Hydrochloric (muratic)
acid may also work - haven't tried.

Do beware! these chemicals are dangerous if not handled properly.
Also, the Al/caustic reaction is pretty rapid and somewhat exothermic.

Woody

W4pqw HS wrote:
>
> My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone
> know how I might prepare a finish of this type to go from polished to dull
> finish? thanks,, Harold W4PQW

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1408. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 03:08:32 UTC
From: Woody <woody.white@att.net>
Message-ID: <3AA304F9.A36A142D@att.net>
Source record: 54305

Easy to remember using scientific notation...

milli= 1 x 10-3, micro = 1x10-6, nano = 1x10-9, pico = 1 x 10-12

Heck, I go back to the days when pico was expressed as micromicro eg
10 pf = 10mmfd ;)

Woody
---
w9wi@linux1.localdomain wrote:
>
> On Sun, 4 Mar 2001 15:10:19 -0800, Richard Crowley <rcrowley7@xprt.net> wrote:
> >2n2 = 2200 nanofarads
>
> Personally, I have a hard time remembering exactly how much a nanofarad is!
> (the term is relatively uncommon here in the States, usually using 1000pF or
> 0.001uF instead..)
>
> (wouldn't 2n2 be 2.2 nanofarads? i.e. 2200pF or 0.0022uF)
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
> Due to excessive spam, messages from uu.net are deleted unread.

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1409. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 03:46:22 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA30C0E.4F233126@coqui.net>
Source record: 54306

w9wi@linux1.localdomain wrote:
>
> On Sun, 4 Mar 2001 15:10:19 -0800, Richard Crowley <rcrowley7@xprt.net> wrote:
> >2n2 = 2200 nanofarads
>
> Personally, I have a hard time remembering exactly how much a nanofarad is!
> (the term is relatively uncommon here in the States, usually using 1000pF or
> 0.001uF instead..)
>
> (wouldn't 2n2 be 2.2 nanofarads? i.e. 2200pF or 0.0022uF)
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
> Due to excessive spam, messages from uu.net are deleted unread.

I'm glad I'm not alone in head-scratching over another
euro-conversion,

--

Bill Meacham
Vieques, PR

1410. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 03:53:54 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA30DD2.EBDA3A7C@coqui.net>
Source record: 54307

Woody wrote:
>
> Better than drano is red devil lye. The draino I have seen already
> seemed have some Al chips in it. Lye is commercial grade sodium
> hydroxide, a very basic/caustic compound.
>
> To reduce corrosion filming, many polished Al knobs are coated with a
> thin lacquer/acrilic which must first be removed. Also, if the Al is
> heavily anodized (especially if it is also scratched), you might get
> uneven etching.
>
> When caustic etching some AL alloys, a dark film may develop. I would
> guess this is from the alloy metals which are not so agressivly
> attacked by the hydroxide. I have found that a quick dip in a nitric
> acid solution will "clear" the film nicely. Hydrochloric (muratic)
> acid may also work - haven't tried.
>
> Do beware! these chemicals are dangerous if not handled properly.
> Also, the Al/caustic reaction is pretty rapid and somewhat exothermic.
>
> Woody
> ------------------
> W4pqw HS wrote:
> >
> > My B&W 5100 has aluminum knobs ,they are dull finish ,not polished...anyone
> > know how I might prepare a finish of this type to go from polished to dull
> > finish? thanks,, Harold W4PQW
>
> --
> Woody, WB4QXE
>
Well, Woody, you must be searching way back in the cabinet under
the sink. Drano 'brand' stuff nowadays is pretty lame and real
Red Devil lye is outlawed in most states since some project mother
may mistake it for ham-drink or lemonade. But EZ Off has yet to
be confused with cheezewhiz and is still on the market...up till
now.
God help us...he sure seems to help everybody else.

Bill Meacham
Vieques, PR

1411. Re: WTB: heat shrink tubing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 04:08:05 UTC
From: Tom Woodrow <tomwoodrow@internetconnect.net>
Message-ID: <3AA31125.4F6FA275@internetconnect.net>
Source record: 54308

try www.digikey.com or www.mouser.com

Tom Woodrow

K9SQG wrote:
>
> Anybody know of a source for reasonably priced heat shrink tubing that is in
> the size of 2 1/2 to 3 inches with a recovered diameter of 1 1/4 inch?
>
> Thanks.
>
> Evan

1412. Re: Antenna Support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 06:03:57 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <ta6b0sha3o6045@corp.supernews.com>
Source record: 54309

> Looking for any input about constructing antenna supports for wire
antennae.
> You guessed it, I have no trees. I like to experiment with different
types.

Bill,

I have the same problem. I live in a very windy location
and was not comfortable with the typical wooden pole.
I wound up buying a "hot stick". This is the telescoping
fiberglass pole that power company linemen use to reset
circuit breakers, operate switches, etc. Mine is 30 feet
long (high) and telescopes down to 5 feet long. It is very
strong, and supports my inverted-V fed with window line.
No guys, but it is bracketed to the house at the roof line.
Not the best antenna, but any antenna is better than none!
In the past few months of *very* casual operation, I've
worked some fifty countries with five watts CW. If I'd
been trying, I could have easily worked DXCC.

One downside, they are expensive. You might find a
friend at a power company who could get you one that
they are retiring.

73,

John, K6QQ
Alturas, CA, at the corner of 299 & 395.

1413. Signal Generator Basics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 06:39:54 UTC
From: Ron Hubbard <hubbard_ron@hotmail.com>
Message-ID: <97vc3m$qbohb$1@ID-43450.news.dfncis.de>
Source record: 54310

I want to buy a decent (but cheap) signal generator and the three I have my eye on-- the B&K 2005B, the SG-4160B, and the Protek model B-813-- all look exactly the same externally and apparently has the same specs although there's a wide price range between them.

Does anyone know 1) if these three signal generators are the same electrically and 2) what is the external crystal socket used for?

Thanks.

--
"We are the music makers, and WE are the dreamers of the dreams."

Willy Wonka

1414. Re: Serial Port Rotor Control Command Sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 07:51:55 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <d6h6at0pjcekkv878mqjc0uckq840619vn@4ax.com>
Source record: 54311

Try this link:
http://www.nlsa.com/autotracking.html

I found a bunch of info on various rotor command sets a while back and I think I got most of it by following the links on this page. Maybe I did some searches too with information I found here.

Can't remember the details now. Hope it helps.

-Rex, KK6MK

On Sat, 03 Mar 2001 22:04:35 -0800, Thomas M. Alldread <tma@mail.island.net> wrote:

> Greetings All:
>
> Something strange happened to my previous posting which
>accidently ended up with an unexpected signature tag line. I corrected
>the problem so it won't happen again and decided to do a re-post.
>
> I am considering homebrewing a microcontroller box for
>automating my DAIWA CR-4 rotor via my logbook program. I noticed that
>my log program supports Yaesu, M2 and Hygain rotors. I would like to
>study the commands used for each rotor type in order to select a
>command set that is supported by my logbook program that is also the
>most suitable for my CR-4.
>
> The command sets syntax used for the serial port
>communications between the computer and rotor types must be available
>to software developers but I haven't (after several attempts) been
>able to find any of the specifications on the Net. I wonder if anyone
>on this list happens to know of any Internet addresses where the
>command set specs can be found?
>
> Many thanks in advance for any help!
>
>
>73 & Enjoy!
>Tom, VA7TA
>tma@island.net

1415. Re: ultrasonic transducer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 08:04:27 UTC
From: Clark Southoff <cwsouth@telusplanet.net>
Message-ID: <3AA34955.40512FFE@telusplanet.net>
Source record: 54312

Henry;
Check out
http://www.msiusa.com/piezo/index.htm
They have Piezo film sensors.
reasonable price.
regards
Clark

Henry Kolesnik wrote:

> anyone have a source or a suggestion for a decent ultrasonic mike or
> transducer good for 33kHz??
> tnx
> hank
> wd5jfr

1416. ISO Manual for a Motorola Tube Linear TLD6622A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 08:26:41 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3AA34DC0.9E0237E9@innercite.com>
Source record: 54316
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

I am trying to locate a manual for the Motorola VHF Linear number TLD6622A. I believe it was part of a system and might be included in its manual. The tube is missing and its heat sink assembly and I am trying to identify the missing parts. Will pay for copying and shipping or reasonable cost of original. Please respond via email. Thanks Don KB6GQA

1417. Re: cw id circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 12:33:29 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9801960i62@news2.newsguy.com>
Source record: 54314

These days it's so simple and cheap to do something with a PIC it's hard to imagine wanting to fool with an array of diodes. That's probably why you can't find a circuit. The PIC can do the timer, IDer, and control logic for the repeater, probably less than $10 for the whole circuit. Cheap way to avoid fooling with hundreds of diodes.

didleydadidah

"KC8NAP" <kc8nap@aol.com> wrote in message
news:20010304145748.02181.00001332@ng-mq1.aol.com...
> I have heard of a cw id'er for a repeater made of diodes and a timer
circuit
> but cannot find any info. Can anyone help?
>
> gary kc8nap

1418. Re: Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 12:37:43 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9801av0i8k@news2.newsguy.com>
Source record: 54313

A random wire can be a decent antenna with a good counterpoise (i.e. a ground radial system). However, it probably will never match a decent resonant dipole. The real advantage is that it works approximately the same on several bands.

If you are going to work a bunch of bands, put together some sort of ground system, and get your wire up high, and probably longer. A thing that looks like a dipole but isn't resonant is called a doublet, and will work reasonably well, too.

But if you tend to operate on just a few bands, put up dipoles for those bands. You will find it a lot more satisfying.

didleydadidah

"John O'Flaherty" <oflahert@toast.net> wrote in message
news:3AA14E5A.D006AAF3@toast.net...
> When I got my new transceiver, I bought an antenna tuner with it, that
> said it would tune a wire of some minimum length to any frequency in the
> hf bands. I connected it up to a horizontal wire of about 50 feet long,
> and it tunes it (at least the indicator says it successfully tuned it).
> The antenna isn't very effective. I have some questions about ways to
> improve matters:
>
> 1. I talked to a ham about 300 miles away, and he said the antenna's
> performance could be improved by stretching out some ground wires along
> the ground. The books I've looked at mention that ground radials are
> good for a vertical antenna, but don't mention them in the context of a
> horizontal wire. Would they make an improvement?
>
> 2. If I stretched out another antenna wire in the opposite direction and
> trimmed both for length, I would have a dipole. The antenna tuner has an
> unbalanced output- if I connected a second wire to the ground of the
> antenna tuner and stretched it in the opposite direction to that of the
> first wire, would it still form a sort of dipole, or would the second
> wire have no effect?
>
> 3. If I made a dipole and wound a balun to convert it from balanced to
> unbalanced, would it still be meaningful to feed the unbalanced side of
> the balun with this remote, unbalanced output antenna tuner? That is,
> can the antenna be tuned _through_ the balun?
>
> If anyone has any ideas about how to improve a simple antenna setup with
> more or less easy changes (at least until this miserable winter is over)
> I'd appreciate hearing them.

>
> john
>

1419. Heathkit Twins

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 13:47:55 UTC
From: Gary <gary@heathkits.com>
Message-ID: <fOMo6.18500$7Y1.1790926@newsread2.prod.itd.earthlink.net>
Source record: 54315

I still have the SB-301 and SB-401 For Sale, and I would really like them out of here MAKE ME AN OFFER http://www.heathkits.com 73

--

--
Gary K IMJ 44 years of Heathkit fun http://www.heathkits.com

1420. L.O.S.A - List of Stamp Applications [010305]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 17:42:11 UTC
From: cjX@hth.com
Message-ID: <3aa3cfd7.3819170@news.sverige.net>
Source record: 54317
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

Hi,

Below is the latest index of L.O.S.A and it now contains 220+
BASIC Stamp projects. You can download the complete L.O.S.A
from the following places...

WWW:

http://www.hth.com/losa/

FTP:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

1.0 What is L.O.S.A all about?

This list was started back in -95 when I heard about (more or less)
uniqe problems that was solved by using a BASIC Stamp. Especially Guy
Gustavson's story (see #001) about how he saved his beloved cat Kesha
gave me the inspiration to start writing L.O.S.A. I hope Kesha still
is alive and having a great life. Now 5 years later there are 190+
applications described and I hope you will enjoy reading all (or
parts) of them.

The main purpose of this list is to get an idea of what other people
are using their BASIC Stamps for and maybe get some inspiration or
hints for your own projects. Some of the projects described in the
list also have links to source code and schematics for download.

1.1 How can I contribute to this list ?

If you have done something (big or small) with the BASIC Stamp that
you are willing to tell others please use the form given below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better but
it's not necessary.

Visit the following Web site and fill in the contribution form...

http://www.hth.com/losa/

1.2 Why are some links dud's ?

Since people changes their e-mail and web addresses some links may be
dud's. If you previously contributed with one (or more) of the

applications please take a quick look and check your e-mail address
and/or web-links. I'm only able to keep the list updated if I'm
informed about changes, thanks in advance.

1.3 List of contributions

> = Indicates a new or updated application since last time.

001 Robo-Cat
002 Logic Rudder
003 Interfacing MAX186 8 channel 12bit A/D
004 Scrolling LED Sign
005 Tone Decoder
006 Pager
007 HexWalker Mobile Robot
008 Robo Bug
009 EXPBOT Robot controlled by Stamp
010 Andrews Ever Evolving Lego Robot
011 Factory Monitoring System
012 Wave to the Cats/Desk Temperature
013 Gamer's Die Roller
014 Stamp II Serial I/O
015 Voice and CW Fox Hunt Transmitter IDer
016 Lift (elevator) Controller
017 Paging with the Stamp
018 Switching Sytem
019 Door Entry Card Reader
020 Telephone Card Reader
021 DTMF Decoder
022 Ion chamber radiation monitor
023 Barn Monitor
024 Dallas one-wire interface
025 Sculpture control
026 Commercial clothes dryer controler
027 Morse Code Keyer
028 Traffic Light Controller
029 Automotive Lamp Control
030 Single Switch Scanning Device for Disabled
031 Bell timer for school bell control
032 RIMS controller for beer making
033 Stamp 1 and ISD 25XX Sound Chip Application
034 Camera Wireless Controller
035 Simple Battery Check using the BS2-IC
036 Photocell MIDI Controller
037 DCF-Clock
038 Radio-controlled Digital Clock
039 Weather Station I
040 Private Aid To Navigation
041 Stamp II in Space
042 MAT32 long integer math routines

043 Distinctive Ring Detector
044 Extended Stamp Memory
045 Debate Stoplite
046 Digital nametag
047 ST506 Disk Seeking Demo Controller
048 Robot: Multi-Stamps Communicate via Shared Memory
049 NiMH Battery Charger/Conditioner
050 555 Timer as A/D Converter
051 Bits of Light
052 Process Control
053 Near Space Capsule
054 PIC Debugger
055 DS1820 Temp Sensor
056 Air muscle hexapod robot
057 Lights
058 Caller-ID Interface
059 Wind speed and wind direction measurement device
060 Calibrated Dust Feeder for Air Cleaner Tests
061 Use of a Serial EEPROM as a Lookup Table
062 Displaying Quantities on a 200 mV Panel Meter
063 Programmable Proportional Air Valve
064 Basic Stamp machine control application
065 Compass Interface for Navigation
066 Truck + ? identification
067 Meteoreological Station
068 Stamp Controls Electronic Tester for flex circuits
069 Game Timer
070 Photoghrapic light meter
071 Data System Remote Control on unmanned aircraft
072 Speaking Instructor
073 Small Mobile Robot
074 R/C helicopter altitude control unit
075 Automobile Rally Odometer Interface to Laptop
076 LCD drivers
077 Stamp I / PC Interface Demo
078 Stamp Photo Meter
079 Stiquito(TM) 97 HexaPod Robot
080 XRaCS DTMF Radio X10 Control with Voice Response
081 Interfacing the Basic Stamp 2 with I2C Devices
082 The WeatherStamp Meteorological Station
083 Maxxum 7000 Remote Release Widget
084 Xs And Os games for college project
085 Stamp II Mouse Emulator (Version 6)
086 Basic Alarm System
087 Interfacing with a Printer
088 Dinosaur Quiz Game
089 Chemical Injection System
090 RS-232 connections between Stamp and host
091 Video Character Overlay Generator Controller
092 Suction tube depth measurement display

093 Electronic Compass with Basic Stamp 2
>
># 094 Event Logger with 8K 24C65 I2C memory
095 Fixing the depth of a suction-pipe with the BS 2
096 Superchaser
097 Corky'z Robotz
098 Cloudrider: analog network with BS2 and BS1's
099 Yet Another Real Time Clock, Dallas DS1287
100 Amateur RadioSatellite Tracking (Az/El) Controller
101 DTMF Decoder
102 PC to STAMP via RS232 routines
103 PC Frequency Counter
104 Sub-Millisecond Reaction Timer
105 Computerized Dynamics Cart
106 Ham Radio Interface Using the Basic Stamp 2
107 Remote tempsensors communicates over the power lines
108 Interfacing a BASIC Stamp to SRAM
109 Stepper controller pulse generator
110 Automatic rang caller
111 Automatic emergency broadcast system
112 BASIC Stamp I as an welding machine
113 PLM-24 to X-10 Gateway
114 Semi-Automated Combusitible Gas Indicator Tester
115 Counter-rotating Servos
116 Joystick Controlled Robotic Arm
117 Anti Traction Control Device
118 Cat Chasing Lego Robot and Other Circuits
119 Camlift
120 Control 15 Servos in Parallel
121 8 Digit "Smart" Alphanumeric Display
122 Cycle Testing AC Motor Controller
123 Controlling an LCD by BS2 via I2C Bus
124 The Newcastle Robotic Bilby Project
125 The EM1 (Electric mule)
126 Distance Measurement with GP2D02 SHARP Sensor
127 TI82 Interface
128 Operator Interface for Multiple Stamps
129 Infrared Glucose (Blood Sugar) Monitor
130 Fox For ham radio or Automated Propogation Beacon
131 GPS Data Overlay on Video
132 10Base-T Cable Tester
133 Kodak DC40/50/120 camera control
134 Implement S.N.A.P network protocol in a BASIC Stamp
135 Stamp/PC RS-485 Network
136 Easy-to-build BS keyboard/display w/ 10 keys/LEDs
137 Joystick control: BS2, 2 motors & 2 HBridges
138 Basic Stamp 2 Mobile Robot
139 Home Automation and Security System
140 UM3750 Read Code
141 Magnetic Stripe Reader
142 Telephone Remote Control and Remote Alarm

143 Tube preamplifier control section
144 Interrupt for PBASIC
145 dLOG
146 Compass
147 BS-2 serial VISCA interface
148 Servo tester
149 Small-bot
150 Repeater Controller
151 ESD Tester for Foot and Wrist Straps
># 152 Beneficial Insect Dispenser
153 Bugsey
154 Vector2X Compass Module with the new BS2SX Stamp
155 Serial Mouse to BS2 Interface
156 Radio Repeater Controller
157 Keypad reader
158 Automatic Vehicle Location / Mobile Asset Tracking
159 Interfacing a 4X4 keypad to the stamp II
160 Interfacing a Max186 8 Channel ADC to a stamp II
161 Realistic Manual Shifter for PC Driving Games
162 Contact ID handshake board
163 Basic Stamp II I2C protocol for several ICs
164 Home Controller
165 Coinmachine
166 Navigation system for the blind
167 Robot Fighters
168 Octobot
169 SPI interface chip
170 Implementing TCP/IP functionallity
171 Home Security System
172 Garage Door Opener
173 New Method Of Home Automation
174 Water Volume Meter
175 Table-Top Practice ROBOT for USFirst Competition
176 Model-rocket acceleration measurement
177 Interface to SPECTRON MICRO-50 2 Axis Inclinometer
178 Interface for electromechanical coinpasser
179 RCS (Remote Controlled Stepper)
180 Making robots really small
181 Basic Stamp Freezer Alarm
182 X-10 Command Expander
183 Slide Projector Timer
184 Complete Traffic Light Controller - RS232 display
185 Call Rejection Box
186 A very simple DTMF decoder
187 Supercomputer Node Board Diagnostic Tool
188 Bipede
189 Digital D.J mouse driven mixer
190 Geiger Counter Interface/Display/Computer/Logger
191 Stamp-1 as 6-Bit Serial A/D Converter
192 Simple Robot for Table Area Coverage Competition

193 IR Garage Parking Helper
194 Archery Timer
195 Fift Injector Controller
196 PC diagnostic port decoder
197 LED bar graph
198 ZVEI 5 and 6 tone decoder
199 Audio matrix controller
200 Watch dog module
201 Air Data Sensor (Test Set)
202 Using the BS-2 to send MIDI note on/off
203 Plant Engineer
204 Specialty Frequency Generator
205 Wireless Model Rocket Launch Controller
206 8243 I/O Expander
207 Autonomous Miniature Robot
208 CW Keyboard
209 Using a Maxim 3110 UART
210 BASIC Stamp Wireless Serial Transmitt
211 X-10 Multi-Housecode Transceiver
212 Entrances and Exits
213 Event Logger with 8k 24C65 I2C memory
214 Step motor ctrl for Swibot-ST
># 215 Smart PC-Case Cooling System
># 216 Crosswire Alignment Sensors
># 217 Modular Lab Automation and Control System
># 218 Digital Speedometer/Tach
># 219 Dynamometer
># 220 Counter with memory
># 221 Thunder and Lightning FX
># 222 R/C Glider Flight Data Collection

Enjoy,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-

1421. sa612

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 19:19:53 UTC
From: Robert Grzesek <donotreply@interbulletin.bogus>
Message-ID: <3AA3E6D9.761956@interbulletin.com>
Source record: 54321

Does anyone know where I can buy sa612's in small quanity?

Thanks,
Robert Grzesek

Submitted via WebNewsReader of http://www.interbulletin.com

1422. A Plate Supply with Headroom?? American Transformer Model 26579

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 19:34:42 UTC
From: yardleyite@aol.com
Message-ID: <20010305143442.16845.00000581@ng-mj1.aol.com>
Source record: 54318

Could anyone on this thread possibly help me identify the following plate supply? If possible would anyone know the original application for it? I plan to build am amp using a single 4-1000A and am trying to find out if the current plate supply would be sufficent. Any information will be greatly appreciated. If possible please email all replies directly to me at: yardleyite@aol.com. I was able to get the following information from the supply:
Thank you and 73 de Joe Cro N3IBX

American Transformer Company Model 26579 Primary 105/ v. Secondary 6200/ vt 2kva. The primary has 4 insulators, all common to each other, it appears to be 105,110, 115 vt taps? 115 vt on primary gives steps of 6200 vt on the secondary There are 2 large insulators on secondary and center tap appears to be to the case.

73 de Joe Cro N3IBX

1423. IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 20:02:10 UTC
From: Jim Johnson <jimj@uslink.net>
Message-ID: <3AA3F006.CEEBFF7C@uslink.net>
Source record: 54319

Hi, I am looking for information on an Icom IC-211, Mine has a interesting problem. I can change frequency but the display and frequency skip around I can go from 144.130-144.199.9 ok but then it junps to 144.220.0 it seems to skip over everything in the 14X.X00.0 to 14X.X19.9 range I resoldered all the connections in the PLL and the board for the display, Display drivers. I suspect a component failure on the display driver board? Does anyone have any info? maybe a schematic?

Thanks
KBï¿½CIM
jimj@uslink.net

1424. Re: Wanted HP8554L Info and HP140/141 Spectrum Analyzer Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 20:05:29 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3aa3f111@news.svn.net>
Source record: 54320
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi, Allan -

HP's RF spectrum analyzers were and are made by their divisions in Santa Rosa and Rohnert Park here in Sonoma County, California. The local ham club is the Sonoma County Radio Amateurs (http://www.cds1.net/scra/). If you send them a note, I suspect you'll find all sorts of expertise.

With over 100 engineers in just their Signal Analysis Division (spectrum analyzers) when I left there in '89, they have quite a few very active hams, including several who have published widely. They're "Agilent" now, but still a good bunch. And the club is first rate.

Best of luck with your analyzer!

Jim Horn, WB9SYN/6 Penngrove, CA

1425. Re: ISO Manual for a Motorola Tube Linear TLD6622A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 20:32:32 UTC
From: Jim Johnson <jimj@uslink.net>
Message-ID: <3AA3F726.2B3DA511@uslink.net>
Source record: 54322
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Is it a conduction cooled PA? I have a Motorola PA that uses a 8560AS conduction cooled tube I do not have the schematic but I did draw one out I use it on 144 Mc. SSB
Excellent P.A. for 2M a little change should be made in the output coupling but not really nesisarry..,

73
Jim
KBï¿½CIM
"Donald E. Smith" wrote:

> I am trying to locate a manual for the Motorola VHF Linear number TLD6622A. I
> believe it was part of a system and might be included in its manual. The tube
> is missing and its heat sink assembly and I am trying to identify the missing
> parts. Will pay for copying and shipping or reasonable cost of original.
> Please respond via email. Thanks Don KB6GQA

1426. Re: Collins 526-9939-010 Mech. Filter Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 21:25:58 UTC
From: yardleyite@aol.com
Message-ID: <20010305162558.04585.00000151@ng-fm1.aol.com>
Source record: 54323

Randy,
I have (new in box) the following Collins mechanical filter:

Here's the specs on the filter: 6.7 khz @ 6db and 14 khz @ 60 db, case
style C, part #526-9039-000
Collins F 250A-67

Would you be able to use it?
73 de Joe N3IBX

1427. Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 22:01:38 UTC
From: Joshua Paul Dewinter <dewinter@wsunix.wsu.edu>
Message-ID: <Pine.OSF.4.10.10103051356460.29176-100000@unicorn.it.wsu.edu>
Source record: 54324

Hi. mY name is Josh. I have been attending Washington State University for some time now in the Electrical Engineering program, and have noticed a problem. In all the courses I have to take and can opt to take, a mere 2 deal with RF, 1 only vaguely! This frustrates me, as I had very much hoped to know the most about RF of any other sub-fields in electronics with this college experience. Is it still that mystical of an art, or do we just have a poor radio program?
In that vein, does anyone know of any good books they can recommend, and/or web sites that teach the basics and on up about radio? I would like to make a simple VHF reciever as a project. I have made other projects dealing in RF, like an FM transmitter, but never without the help of a schematic from someone else. It almost seems like the reciever will be more complex than a transmitter...something I always thought would be the other way around. But, I am very anxious to get a grip on the knowledge that I have wanted for so long, but has eluded me at every turn.

-Thanks for your help

Josh DeWinter
Pullman, WA

dewinter@wsunix.wsu.edu

1428. Re: Wanted HP8554L Info and HP140/141 Spectrum Analyzer Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 23:02:13 UTC
From: Cortland Richmond <Cortland.Richmond@usa.alcatel.com>
Message-ID: <3AA41AF5.43039F91@usa.alcatel.com>
Source record: 54325
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Now THERE'S a testimonial!

Cortland
ka5s@earthlink.net
Rohnert Park CA

James Horn wrote:

> .... And the club is first rate.

1429. BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 23:33:49 UTC
From: theosus@aol.com
Message-ID: <20010305183349.15882.00000598@ng-fs1.aol.com>
Source record: 54326

Anyone know where to get one (US distributor?), or an acceptable substitute (its a VHF amp). I cant find one anywhere. Its the only thing I cannot find for a particular project.

1430. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-05 23:58:05 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA4280D.E9A69152@coqui.net>
Source record: 54327

Joshua Paul Dewinter wrote:
>
> Hi. mY name is Josh. I have been attending Washington State University
> for some time now in the Electrical Engineering program, and have noticed
> a problem. In all the courses I have to take and can opt to take, a mere
> 2 deal with RF, 1 only vaguely! This frustrates me, as I had very much
> hoped to know the most about RF of any other sub-fields in electronics
> with this college experience. Is it still that mystical of an art, or do
> we just have a poor radio program?
> In that vein, does anyone know of any good books they can recommend,
> and/or web sites that teach the basics and on up about radio? I would
> like to make a simple VHF reciever as a project. I have made other
> projects dealing in RF, like an FM transmitter, but never without the help
> of a schematic from someone else. It almost seems like the reciever will
> be more complex than a transmitter...something I always thought would be
> the other way around. But, I am very anxious to get a grip on the
> knowledge that I have wanted for so long, but has eluded me at every turn.
>
> -Thanks for your help
>
> Josh DeWinter
> Pullman, WA
>
> dewinter@wsunix.wsu.edu
>

Both the ARRL and the RSGB have excellent general 'handbooks' as
well as great VHF manuals. check www.arrl.org, I think you can
get them there.
Good luck,
Bill

1431. Re: IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 00:05:54 UTC
From: Wally Gibbons <wally.gibbons@sdl.usu.edu>
Message-ID: <3AA429E2.F8226885@sdl.usu.edu>
Source record: 54330

Hi Jim,
I don't think soldering all the connections will help. Sounds like classic bad plated thru hole problems, on both the pll and display. The real cure is to take the display and pll boards out, and push a wire through each and every via and solder it on both sides of the board and then put them back in the radio. A job for the "not faint of heart". But that will fix up most of the intermittant problems with that rig and the IC-245 which used the same pll assembly. Good luck, they are a dog to work on but decent radios when they are working right. Oh, use good ESD protection as the pll processos is not available anymore. It's cmos and if it dies, the radio dies with it.

Wally

Jim Johnson wrote:

> Hi, I am looking for information on an Icom IC-211, Mine has a
> interesting problem. I can change frequency but the display and
> frequency skip around I can go from 144.130-144.199.9 ok but then it
> junps to 144.220.0 it seems to skip over everything in the 14X.X00.0 to
> 14X.X19.9 range I resoldered all the connections in the PLL and the
> board for the display, Display drivers. I suspect a component failure on
> the display driver board? Does anyone have any info? maybe a schematic?
>
> Thanks
> KBï¿½CIM
> jimj@uslink.net

1432. Re: ISO Manual for a Motorola Tube Linear TLD6622A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 00:24:10 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <981ana$pu3$7@woodrow.ucdavis.edu>
Source record: 54328
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

: In rec.radio.amateur.homebrew Donald E. Smith <desmith@innercite.com>
: wrote:
: I am trying to locate a manual for the Motorola VHF Linear number TLD6622A. I
: believe it was part of a system and might be included in its manual. The tube
: is missing and its heat sink assembly and I am trying to identify the missing
: parts. Will pay for copying and shipping or reasonable cost of original.
: Please respond via email. Thanks Don KB6GQA

Since you said VHF and heat sink, I'll throw out that the tube was
probably an 8560 and the unit a vintage early Micor or late Motrac Base
Station Repeater type. The often white block inside the pa cab is
beOxide, just be carefull not to sand or breath dust from any broken parts
of it.

Hit the flea markets and have a look around for the Motrac Series of high
powered base / repeater units. God knows I worked on enough of them in my
day...

I've converted the Heathkit SB-230 conduction cooled amplifier to run on
the 8560 tetrode.... similar mounting and lots of gain when set up
properly.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

1433. Re: help with NiMH battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 00:28:00 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <981aug$pu3$8@woodrow.ucdavis.edu>
Source record: 54329

: zed <zed@nowhere.net> wrote:
: Tnx JW and Skipp. Skipp, I've been doing something similar with nicads for
: years, sounds like NiMH are not too different. Like you, I've never been an
: appliance operator and I'm sure as heck not going to give someone $150 to
: charge some AA batteries ;-)
: 73,ed.

Actually, NiMH and NiCads do charge different with the NiCads being more straight forward in the way they act. IE I know what to expect from them NiMH are not very forgiving and the dont send out much of a signal when your abusing them. Hence, I control the NiMH charge more closely than I do NiCads. Power supplies are easier to use than regular chargers if you have a fixture made up.

cheers
skipp@pilot.ucdavis.edu

1434. Re: Wanted HP8554L Info and HP140/141 Spectrum Analyzer Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 00:37:48 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AA434C2.74B@pop.removethistomailme.net>
Source record: 54331
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Allan Henry Kaplan wrote:
>
> I am looking for information on the HP8554L. This is the "economy-model"
> of the HP140/141 Spectrum Analyzer RF plug-in which covers up to 1250
> MHz. I have the 8554B manual and it does not identify the burnt
> component on my Bandwidth switch because the L model wiring is different
> in that area. I am also looking for Amphenol Series 26 connectors, the
> blue 24-pin jobs on the rear of the plug-ins so I can reproduce the HP
> extender cables which allow access to the
> plug-ins under power. I need two pieces each of 24-pin Amphenol Series
> 26 mating connectors, 26-4101-24P and 26-4501-24S. Chances are that I
> could use parts with some variation in the middle number (4x01?)
> provided that they are mating pairs of Series 26 24-pin units. I will
> appreciate any leads you might furnish. The IF and RF plug-ins stack
> vertically using a mated pair of DBM-50 (Cannon et al.) with two coaxial
> inserts. I'd sure like to find a pair of these also.
>
> Please copy to my e-mail address which is <myhamcall at arrl dot net>.
> Use the correct punctuation on the email address which I messed up to
> fool the spam-bots!
> Thanks!
> Allan (W1AEL)
> Sevierville, Tennessee

Manuals: Ed Matsuda (ematsuda@earthlink.net) may be able to help.

Cables: All HP14xT and 8505A cables can be fabricated by George Kerber
(glkinst@earthlink.net). He can also tell you where to get the parts to
make your own (I seem to recall finding some of the D-sub shells and/or
mini-coaxial fittings at Digi-Key).

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1435. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 00:48:48 UTC
From: w4pqwhs@aol.com
Message-ID: <20010305194848.10424.00000575@ng-cs1.aol.com>
Source record: 54332

Josh, it is refreshing to see a youngster show an interest in communications .
I highly recommend the Amateur radio handbook for a starter and with projects
of all levels,and for references ..Libraries carry them ,or you can buy them
here on this group.. After you graduate from engineering you will be the only
one in your group with THE ANSWERS ..... good luck Harold W$PQW>Hi. mY name
is Josh. I have been attending Washington State University
>for some time now in the Electrical Engineering program, and have noticed
>a problem. In all the courses I have to take and can opt to take, a mere
>2 deal with RF, 1 only vaguely! This frustrates me, as I had very

1436. Re: sa612

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 02:48:12 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <981j6i02lrf@news2.newsguy.com>
Source record: 54337

www.radioshack.com has 602's for a reasonable price - they are an exact replacement. 602's and 612's have been scarce lately, but the reappearance of 602's at rs is a good sign. The 612's are basically the same part with fewer tests. As a result, they sell a little cheaper than the 602's but not much. rs's price on 612's is 2.25 vs. 2.75 for the 602's, but they don't have 612's in stock.

You can also get 602's are www.rfparts.com, but they are like 8 bucks - yikes!

didleydadidah

"Robert Grzesek" <donotreply@interbulletin.bogus> wrote in message news:3AA3E6D9.761956@interbulletin.com...
>
> Does anyone know where I can buy sa612's in small quanity?
>
> Thanks,
> Robert Grzesek
> _____
> Submitted via WebNewsReader of http://www.interbulletin.com
>

1437. Re: 4.332MHz or 8.664MHz crystal source needed...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 02:52:08 UTC
From: Rosco <rvaagen@nospam.hotmail.com>
Message-ID: <shYo6.360$X73.78509@news7.onvoy.net>
Source record: 54333
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.design

search for

Bomar Crystal
ICM
Jan Crystal

don't have any addresses with me but could come up with them if needed.

Clay Autery <nospam@noway.net> wrote in message
news:7LTk6.956$Gv.4735@news.inreach.com...
> I apologize for cross-posting, but I'm getting a little desparate.
>
> I need a source for 4.332MHz and/or 8.664MHz (or 17.328MHz) crystals for
an
> important project I'm working on. So far, I've found only one source
(Thanks
> Francine!), but the prudent man never only has one source for a part. This
> is especially true when that source might have trouble delivering the
> quantity desired.
>
> So, if you know a place or places that might have these specific crystal
> values, respond here or send me an email at cautery@montacnospam.com.
Note:
> be sure to remove the "nospam" from the domain name.
>
> I really need y'alls help here!
>
> Thank in advance,
> Clay
>
>

1438. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 02:56:50 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <981jno02mcv@news2.newsguy.com>
Source record: 54338

Josh

The advice several posters have given on the Handbook is good, but beyond the basics, the Handbook isn't a lot of help with design.

"Introduction to Radio Frequency Design" from the ARRL is pretty good, but it's also pretty tough slugging. Still, it may be what you are looking for. It may not be as tough for a EE as it was for a ChemE <g>

An excellent source, tho a little slow, is the Low Power Amateur Radio reflector (http://qrp.lehigh.edu/lists/qrp-l/). This reflector often discusses design issues, but since it happens when it happens, it isn't very direct.

Another good approach is to study what others have done. There are a lot of kits on the market with their manuals, including schematics, on the web. Some even have very well detailed discussions of the circuits and design choices. If you can get someone of similar interest, getting together and comparing different schematics from the perspective of the design choices can be very instructive.

The best plan, in my opinion, is to learn Spice (you probably already have) and just do it. Nothing teaches quite like experience.

didleydadidah

"Joshua Paul Dewinter" <dewinter@wsunix.wsu.edu> wrote in message news:Pine.OSF.4.10.10103051356460.29176-100000@unicorn.it.wsu.edu...

1439. Re: 4.332MHz or 8.664MHz crystal source needed...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 02:57:25 UTC
From: Gudule <gudule88@sympatico.ca>
Message-ID: <pmYo6.342366$f36.12058502@news20.bellglobal.com>
Source record: 54334
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.design

See =

http://www.kenselectronics.com

1440. Re: sa612

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 03:05:21 UTC
From: norway@interlog.com
Message-ID: <TtYo6.8721$ZT5.255177@news.total.net>
Source record: 54335

Try www.radioshack.com and look for item #900-7090 NE612AN-DIP
for $2.25 ea.

David, VA3DKS
norway@interlog.com

In article <3AA3E6D9.761956@interbulletin.com>, Robert Grzesek
<donotreply@interbulletin.bogus> wrote:
>
>Does anyone know where I can buy sa612's in small quanity?
>
>Thanks,
>Robert Grzesek
>____
>Submitted via WebNewsReader of http://www.interbulletin.com
>

1441. Re: sa612

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 03:36:44 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <981m3c02ovs@news2.newsguy.com>
Source record: 54340

David

But if you look in the upper left corner it says it's out of stock. That's the problem everywhere.

Whoops - the 602's are out of stock, too. They weren't a few days ago, but the QRP-L caught wind of them, so I guess they drained the stock. Not too surprising.

didleydadidah

"David Snowdon" <norway@interlog.com> wrote in message news:TtYo6.8721$ZT5.255177@news.total.net...
> Try www.radioshack.com and look for item #900-7090 NE612AN-DIP
> for $2.25 ea.
>
> David, VA3DKS
> norway@interlog.com
>
> In article <3AA3E6D9.761956@interbulletin.com>, Robert Grzesek
> <donotreply@interbulletin.bogus> wrote:
> >
> >Does anyone know where I can buy sa612's in small quanity?
> >
> >Thanks,
> >Robert Grzesek
> >_____
> >Submitted via WebNewsReader of http://www.interbulletin.com
> >

1442. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 03:44:40 UTC
From: Woody <woody.white@att.net>
Message-ID: <3AA45EF5.F9B84CFF@att.net>
Source record: 54336

Must admit, haven't looked for any lately. I work at an R&D lab which is relatively well stocked with the *real stuff* - and has fume hoods. I am gettin' pretty $#%$#^ tired of laws to protect us from ourselves (and make Darwin obsolete). I certainly want to be informed... Then let me take it from there!

And EZ Off... Supprised you can still get AEROSOL lye (is it still?). Could mistake that for hairspray too! It *would* put an end to bad hair days :)

Give me the days when, as a kid, I went to a local chemical supply house, walked to the counter and asked for 2 liters of conc nitric, 1 liter of conc sulfuric, anh (hummm) a liter of glycerine. Their reply was: "Anything else, kid?" I decided I didn't have the proper temperature controlled baths and went no further - at least with that particular formulation.

Woody ---Ran with sissors and lived to tell!

> >
> Well, Woody, you must be searching way back in the cabinet under
> the sink. Drano 'brand' stuff nowadays is pretty lame and real
> Red Devil lye is outlawed in most states since some project mother
> may mistake it for ham-drink or lemonade. But EZ Off has yet to
> be confused with cheezewhiz and is still on the market...up till
> now.
> God help us...he sure seems to help everybody else.
> ---
> Bill Meacham
> Vieques, PR

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1443. Re: cw id circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 04:21:14 UTC
From: Rosco <rvaagen@nospam.hotmail.com>
Message-ID: <_AZo6.361$X73.79387@news7.onvoy.net>
Source record: 54339

check out hamtronics.com
KC8NAP <kc8nap@aol.com> wrote in message
news:20010304145748.02181.00001332@ng-mq1.aol.com...
> I have heard of a cw id'er for a repeater made of diodes and a timer
circuit
> but cannot find any info. Can anyone help?
>
> gary kc8nap

1444. Alternator whine help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 12:19:27 UTC
From: Rod Marsh <rredbeak2@dingoblue.net.au>
Message-ID: <3aa4d626$0$25469$7f31c96c@news01.syd.optusnet.com.au>
Source record: 54341

Hi all,My son has Alternator whine in his sound system [not bad but annoying].His amplifiers are mounted and well grounded under the rear speaker tray.
He has 2 Amplifiers:- one for the 4 speakers and one for the SUB.Power to drive the amps are taken directly from the battery in the engine compartment [vehicle battery] and i told him choke the whine off at the firewall with 2 [one each + line] ferrite chokes with multiple turns etc.

His Alternator is factory filterred etc and had NO trouble before the amps came along,he is using the same radio.

Am i correct in assuming the + leads [2] are carrying the whine to the amps then being amplified thereafter etc??? Am i correct in assuming the ferrite chokes should be placed at the firewall or is there something else i need to consider please?

Before he buys the chokes have i advised him correctly??
cheers Rod VK4XI

1445. Re: IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 15:14:27 UTC
From: n5kzw@iname.com
Message-ID: <3aa4fecf.687726778@news.infohwy.com>
Source record: 54342

On Mon, 05 Mar 2001 20:02:10 GMT, Jim Johnson <jimj@uslink.net> wrote:

>Hi, I am looking for information on an Icom IC-211, Mine has a
>interesting problem. I can change frequency but the display and
>frequency skip around I can go from 144.130-144.199.9 ok but then it
>junps to 144.220.0 it seems to skip over everything in the 14X.X00.0 to
>14X.X19.9 range I resoldered all the connections in the PLL and the
>board for the display, Display drivers. I suspect a component failure on
>the display driver board? Does anyone have any info? maybe a schematic?
>
>Thanks
>KB<unk>CIM
>jimj@uslink.net
>

Jim, if I read your post correctly, then the actual xmit/rcv frequency is skipping over part of the band. If that is the case, I shouldn't think your problem would be in the display circuit as that part is just some BCD counter outputs that are fed to decoder-drivers and then to the LED display.

Does the problem remain the same regardless of whether you are in simplex or duplex, and regardless of what mode you are in? If it does, then your problem is probably somewhere in or around IC1.

Mine has been acting strangely for a year or so. I can only tune it using the RM-2 remote controller, I haven't yet looked to see if I'm getting any pulses out of the tuning dial.

Good luck,
Ed - N5KZW

1446. Re: IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 16:01:50 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3AA509EE.AFF1946D@ieee.org>
Source record: 54343

In addition to the plated through hole problem I frequently have problems with
the
interconnect cable connectors. Just unplugging them and putting them back
will solve some problems.

I have a schematic if you need it.

Bill K7NOM

Wally Gibbons wrote:

> Hi Jim,
> I don't think soldering all the connections will help. Sounds like classic
> bad plated thru hole problems, on both the pll and display. The real cure is
> to take the display and pll boards out, and push a wire through each and
> every via and solder it on both sides of the board and then put them back in
> the radio. A job for the "not faint of heart". But that will fix up most of
> the intermittant problems with that rig and the IC-245 which used the same
> pll assembly. Good luck, they are a dog to work on but decent radios when
> they are working right. Oh, use good ESD protection as the pll processos is
> not available anymore. It's cmos and if it dies, the radio dies with it.
>
> Wally
>
> Jim Johnson wrote:
>
> > Hi, I am looking for information on an Icom IC-211, Mine has a
> > interesting problem. I can change frequency but the display and
> > frequency skip around I can go from 144.130-144.199.9 ok but then it
> > junps to 144.220.0 it seems to skip over everything in the 14X.X00.0 to
> > 14X.X19.9 range I resoldered all the connections in the PLL and the
> > board for the display, Display drivers. I suspect a component failure on
> > the display driver board? Does anyone have any info? maybe a schematic?
> >
> > Thanks
> > KBØCIM
> > jimj@uslink.net

1447. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 16:51:06 UTC
From: Ron Hubbard <hubbard_ron@hotmail.com>
Message-ID: <98349p$2vq0$1@ID-43450.news.dfncis.de>
Source record: 54344

Mouser has the NTE123AP, supposedly an exact substitute for
the BF115 transistor. It's part no. 526-NTE123AP for $1.25
each.

Theosus wrote in message
<20010305183349.15882.00000598@ng-fs1.aol.com>...
>Anyone know where to get one (US distributor?), or an
acceptable substitute
>(its a VHF amp). I cant find one anywhere. Its the only
thing I cannot find for
>a particular project.

1448. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 18:59:25 UTC
From: arm@helix.nih.gov
Message-ID: <hsap6.86$jg.184195@mencken.net.nih.gov>
Source record: 54345

You can use RG-174 (the tiny stuff) at 100W on HF if the SWR
is 1.5:1 or lower. The only problem with 8X at high power
is that you can ruin the coax if the SWR is too high.

CJ (cjr@visi.com) wrote:
: Really? I've used RG-8x and similar cables at 100 watts on all bands
: from 160m to 2m over the years with no problems. I can't imagine any
: problem at HF at any reasonable SWR. I run a KW through it on 160m.
:
: YMMV. 73, CJ K0CJ
:
: John O'Flaherty wrote:
: >
: > I bought some coax for my new transceiver, which puts out about 100w.
: > maximum. The fellow in the electronics store said this cable (RG-8X,
: > about 1/4 inch in diameter, with foam dielectric) would be fine for 100
: > watts. But now, I've looked at the ARRL handbook, and the section on
: > transmission lines says 1/4 inch foam dielectric line shouldn't be used
: > above about 25 watts. What do you all think?
: >
: > john

--

Andrew R. Mitz, Biomedical Engineer arm@helix.nih.gov
Laboratory of Systems Neuroscience
Section on Neurophysiology
National Institute of Mental Health
Bethesda, Maryland 20892-4401

1449. What's a Monimatch??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 19:40:38 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <983efm$qn0$1@agate.berkeley.edu>
Source record: 54346

Hi,

I just made something that a friend of mine tells me he thinks is called a "monimatch," but he isn't sure. Can someone tell me some more information about the monimatch? A web search didn't turn up very much at all, except that I think he might be right.

A QST periodical search turned up 14 articles, and all but 1 are from the 50's and 60's (the latest is 1986).

What I've done was to etch a 50 ohm stripline onto a PCB, along with two etched pickup traces on either side of the stripline, in an attempt to couple to a sample of the forward and reflected voltages. It works, but now I want to find out more about previous work on this.

Thanks for any info,

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

1450. need schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 20:53:05 UTC
From: Spyros Kintzonides <spkintz@the.forthnet.gr>
Message-ID: <983911986.369239@athnrd02.forthnet.gr>
Source record: 54247

I want to build a low cost 1200 packet modem for packet VHF. Can anyone help me by sending me a schematic by e-mail? Thank you and 73's de SV2BXC Take a look at www.geocities.com/sv2bxc

1451. Motorola Maxtrac 40 watt UHF mobiles-NEW!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 21:11:58 UTC
From: Dan W Walterscheid <ministry@wtrt.net>
Message-ID: <taan6nhq70304e@corp.supernews.com>
Source record: 54249

This is a Motorola Maxtrac UHF 40-watt 2-channel mobile commercial
transceiver. These are going very quick, only a few left!
Model number: D44MJA73A5CK. This unit is in PERFECT condition, works and
looks
like a brand new radio. Bench tested and scored a perfect 10. No knicks or
scratches. This radio is PC programmable and includes all CTCSS (PL)
encode/decode and DCS (digital PL) capabilities. Frequency range is from 430
MHz
thru 480 MHz, including the 70 cm Ham band and all GMRS and FRS frequencies.
With a high output power of 50 watts, 40 watts safely without risk of
overheat.
With 5 pin accessory jack, mini-UHF coax connector (standard),
quick-disconnect
power plug (standard), includes a PL-to-ground commercial microphone.
***THIS
RADIO CAN BE COMBINED WITH ANOTHER RADIO AND A REPEATER INTERFACE MODULE TO
CREATE YOUR OWN HAM/COMMERCIAL/GMRS REPEATER.*** Payment options: I accept
Billpoint, Paypal, MO and certified checks. +$15.00 shipping Textronix Inc.
$250.00 Firm, peaked, tuned & Aligned for maximum recv & transmit!! These
make excellent repeater radios or 70 ctmr ham for high power long range &
super recv! Dan (806) 481-9319 cactus4christ@hotmail.com

--
"Finally brethren, whatever is true, whatever is noble, whatever is right,
whatever is pure, whatever is lovely, whatever is admirable-if anything is
excellent or praiseworthy-think about such things!" Phil 4:8
www.cactus4christ.org

1452. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 21:15:40 UTC
From: 2w8ji@akorn.net
Message-ID: <3aa552bc.103648752@news.accessunited.com>
Source record: 54248

On Tue, 06 Mar 2001 18:59:25 GMT, arm@helix.nih.gov (Andrew R Mitz)
wrote:

>You can use RG-174 (the tiny stuff) at 100W on HF if the SWR
>is 1.5:1 or lower. The only problem with 8X at high power
>is that you can ruin the coax if the SWR is too high.

You can ruin any coax if the SWR is too high when running high power.

How high an SWR do you mean, and how much power?

73 Tom

1453. Re: What's a Monimatch??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 22:07:58 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AA55FBE.CDAA2B08@dialpoint.net>
Source record: 54250

The Monomatch was one of the first SWR meters for hams. I believe it
was designed by Lew McCoy, a ham that wrote many articals for the ARRL
and QST about antennas and feedlines.

It is made in many forms but the circuit is basically the same. One of
the simpliest versions was to take a piece of coax about a foot long and
take off the outer jacket. You could then push 2 pieces of enameled wire
under the braid. One end of each wire was terminated with a resistor
and the other end with a diode. A meter, switch and pot were about the
only other components needed.

The only drawback that I can remember is the sensitivity went up as did
the frequency and you also reach a point where you have to use shorter
and shorter lines for the higher frequencies.

Many of the simple just SWR meters (not the ones that read forward and
reverse power) have been made and sold using a similar arangement of the
printed circuit.

>
> I just made something that a friend of mine tells me he thinks is called a
> "monimatch," but he isn't sure. Can someone tell me some more information
> about the monimatch? A web search didn't turn up very much at all, except
> that I think he might be right.
>
> A QST periodical search turned up 14 articles, and all but 1 are from the
> 50's and 60's (the latest is 1986).
>
> What I've done was to etch a 50 ohm stripline onto a PCB, along with two
> etched pickup traces on either side of the stripline, in an attempt to
> couple to a sample of the forward and reflected voltages. It works, but
> now I want to find out more about previous work on this.
>
>

1454. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 22:15:09 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <Njdp6.5271$yv4.392422@bgtnsc07-news.ops.worldnet.att.net>
Source record: 54251

There are a few good books about radio design. One of them is Solid State
Radio Engineering. Another one is Communications Receivers, bu Rohde
Bucher, and Whitaker. A good introductory book is Introduction to Radio
Frequency Design, by Wes Hayward. Another good source of ideas is the ARRL
Handbook; this book has information derived from many sources.
These books will give you an understanding of what "goes on" in a receiver,
but the best way to learn is by building some of the circuits. This is the
only way that you will be able to take a circuit that looks good on paper,
and create a working model!

Pete Gianakopoulos
Chicago, Il.

Joshua Paul Dewinter <dewinter@wsunix.wsu.edu> wrote in message
news:Pine.OSF.4.10.10103051356460.29176-100000@unicorn.it.wsu.edu...
> Hi. mY name is Josh. I have been attending Washington State University
> for some time now in the Electrical Engineering program, and have noticed
> a problem. In all the courses I have to take and can opt to take, a mere
> 2 deal with RF, 1 only vaguely! This frustrates me, as I had very much
> hoped to know the most about RF of any other sub-fields in electronics
> with this college experience. Is it still that mystical of an art, or do
> we just have a poor radio program?
> In that vein, does anyone know of any good books they can recommend,
> and/or web sites that teach the basics and on up about radio? I would
> like to make a simple VHF reciever as a project. I have made other
> projects dealing in RF, like an FM transmitter, but never without the help
> of a schematic from someone else. It almost seems like the reciever will
> be more complex than a transmitter...something I always thought would be
> the other way around. But, I am very anxious to get a grip on the
> knowledge that I have wanted for so long, but has eluded me at every turn.
>
> -Thanks for your help
>
> Josh DeWinter
> Pullman, WA
>
> dewinter@wsunix.wsu.edu
>
>
>

1455. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 22:51:11 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3AA569DF.5CFA2296@midwestmicro-tek.com>
Source record: 54253

Ron Hubbard wrote:

> Mouser has the NTE123AP, supposedly an exact substitute for
> the BF115 transistor. It's part no. 526-NTE123AP for $1.25
> each.
>

If thats true then as I recall the NTE123AP is also a sub for the
2N2222(A). These can be had from BG Micro for 12 cents each or 100 for
$9.00. If you don't mind taking (in my opinion) a small chance you could
go to Radio Shack and pick up there pack of 15 NPN transistors for
$2.29. They spec similar to the 2N3906 which I believe also crosses to
the NTE123AP

Rick KC0GIX

>
> Theosus wrote in message
> <20010305183349.15882.00000598@ng-fs1.aol.com>...
> >Anyone know where to get one (US distributor?), or an
> acceptable substitute
> >(its a VHF amp). I cant find one anywhere. Its the only
> thing I cannot find for
> >a particular project.

1456. WTB heatsink for 3 or 4 xistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-06 23:05:24 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3aa56c63.14858254@news.usfamily.net>
Source record: 54252

Hi,

I need a heatsink that I can fit 3 or 4 T0-3 transistors onto. A bonus would be if it came with premounted NPN transistors something like 2N3055.

I'm building a DC supply for a boatanchor and need parts, so if you want to sell an old heatsink, please email me.

Or if you have a supply capable of putting out 28 VDC at 12 Amps, and the price is right, I might purchase that from you.

Thanks in advance,

Bob

1457. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 02:26:52 UTC
From: Ron Hubbard <hubbard_ron@hotmail.com>
Message-ID: <98462f$7vm6$1@ID-43450.news.dfncis.de>
Source record: 54254

There's a subtle distinction between the NTE123A transistor
and the NTE123AP: the former is a low power transistor [like
the 2N2222} but the latter is an audio/VHF power transistor.
He may pay less, but it may not be what he's looking for.

Rick Haub wrote in message
<3AA569DF.5CFA2296@midwestmicro-tek.com>...
>
>
>Ron Hubbard wrote:
>
>> Mouser has the NTE123AP, supposedly an exact substitute
for
>> the BF115 transistor. It's part no. 526-NTE123AP for
$1.25
>> each.
>>
>
>If thats true then as I recall the NTE123AP is also a sub
for the
>2N2222(A). These can be had from BG Micro for 12 cents each
or 100 for
>$9.00. If you don't mind taking (in my opinion) a small
chance you could
>go to Radio Shack and pick up there pack of 15 NPN
transistors for
>$2.29. They spec similar to the 2N3906 which I believe also
crosses to
>the NTE123AP
>
>Rick KC0GIX
>
>>
>> Theosus wrote in message
>> <20010305183349.15882.00000598@ng-fs1.aol.com>...
>> >Anyone know where to get one (US distributor?), or an
>> acceptable substitute
>> >(its a VHF amp). I cant find one anywhere. Its the only
>> thing I cannot find for
>> >a particular project.
>

1458. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:11:18 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AA5A6D6.647D8141@toast.net>
Source record: 54255

Rick Haub wrote:

> Ron Hubbard wrote:
>
> > Mouser has the NTE123AP, supposedly an exact substitute for
> > the BF115 transistor. It's part no. 526-NTE123AP for $1.25
> > each.
> >
>
> If thats true then as I recall the NTE123AP is also a sub for the
> 2N2222(A). These can be had from BG Micro for 12 cents each or 100 for
> $9.00. If you don't mind taking (in my opinion) a small chance you could
> go to Radio Shack and pick up there pack of 15 NPN transistors for
> $2.29. They spec similar to the 2N3906 which I believe also crosses to
> the NTE123AP

The 2n3904 is npn, the 2n3906 is pnp.

john

1459. Article on Noise Canceling of Power line noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:23:32 UTC
From: af4z@palmnet.net
Message-ID: <UQhp6.148$x7.556253@nntp3.onemain.com>
Source record: 54257

I believe someone wrote a article in CQ or QST about a year ago on building a antenna noise canceller much like the ANC-4. Can anyone tell me the source?
Don AF4Z

1460. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:27:45 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AA5AAB1.DEE5FED5@coqui.net>
Source record: 54256

Theosus wrote:
>
> Anyone know where to get one (US distributor?), or an acceptable substitute
> (its a VHF amp). I cant find one anywhere. Its the only thing I cannot find for
> a particular project.

This may be a long shot, but give a call to Quality RF Services in
Jupiter, Fl. 800-327-9767. They sell CATV rf parts. If they
don't have it exactly, I'd bet they could sub it. I think BF is a
Philips number?

Bill Meacham
Vieques, PR

1461. Re: Alternator whine help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:39:07 UTC
From: Woody <woody.white@att.net>
Message-ID: <3AA5AF2B.671785C1@att.net>
Source record: 54258

Rod,

The ferrite will work well for RF but will not likely be very
effective at audio unless REALLY big with many turns.

A source of alt whine can be a bad diode or a battery with a high
internal resistance. More likely in this installation is a ground
loop. Power should be supplied by both a + and - wire from the
battery. Even doing that, I have experienced whine. It went away
when I isolated the remote amp from the car chassis. The only grounds
are the - wires to the battery and line level feed wires (shields)
from the radio. For really tenacious problems, isolation transformers
may be necessary in the line level feeds from the radio.
...Woody

Rod Marsh wrote:
>
> Hi all,My son has Alternator whine in his sound system [not bad but
> annoying].His amplifiers are mounted and well grounded under the rear
> speaker tray.
> He has 2 Amplifiers:- one for the 4 speakers and one for the SUB.Power to
> drive the amps are taken directly from the battery in the engine compartment
> [vehicle battery] and i told him choke the whine off at the firewall with 2
> [one each + line] ferrite chokes with multiple turns etc.
>
> His Alternator is factory filterred etc and had NO trouble before the amps
> came along,he is using the same radio.
>
> Am i correct in assuming the + leads [2] are carrying the whine to the amps
> then being amplified thereafter etc??? Am i correct in assuming the ferrite
> chokes should be placed at the firewall or is there something else i need to
> consider please?
>
> Before he buys the chokes have i advised him correctly??
> cheers Rod VK4XI

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1462. Re: What's a Monimatch??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:50:45 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <984b8c$g7b$1@slb2.atl.mindspring.net>
Source record: 54260

Actually, the system with etched lines coupling into the main 50 ohm trace is often referred to as a directional coupler.

This is a common approach used in UHF and microwave equipment. You can measure both the forward power on one coupled trace, and the reflected power on the other trace. Of course, the detecting device tends to have troubles since the amount of energy picked up on the coupled trace is low enough that most diode detectors do strange things......

If you can track it down, there was an article in Ham radio, November 1987, showing how to build a nice RF voltage detector that can be used to measure these low levels and maintain an accurate reading.

Jim Pennell
N6BIU

1463. Re: Alternator whine help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 03:52:30 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3aa5b00d.2436889@news.cantech.net.au>
Source record: 54259

Rod

Try lifting the earthing connection at the amps - it may well be a
ground loop problem. remember, the alternator charge current presents
a longitudinal voltage across bodywork. no matter how hard the
manufacturers try <g> to minimise costs - whoops, problems ;-)

Peter

On Tue, 6 Mar 2001 22:19:27 +1000, "Rod Marsh"
<rredbeak2@dingoblue.net.au> wrote:

>Hi all,My son has Alternator whine in his sound system [not bad but
>annoying].His amplifiers are mounted and well grounded under the rear
>speaker tray.
>He has 2 Amplifiers:- one for the 4 speakers and one for the SUB.Power to
>drive the amps are taken directly from the battery in the engine compartment
>[vehicle battery] and i told him choke the whine off at the firewall with 2
>[one each + line] ferrite chokes with multiple turns etc.
>
>His Alternator is factory filterred etc and had NO trouble before the amps
>came along,he is using the same radio.
>
>Am i correct in assuming the + leads [2] are carrying the whine to the amps
>then being amplified thereafter etc??? Am i correct in assuming the ferrite
>chokes should be placed at the firewall or is there something else i need to
>consider please?
>
>Before he buys the chokes have i advised him correctly??
>cheers Rod VK4XI
>
>

1464. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 05:01:43 UTC
From: ECJ <ecj@mari.net>
Message-ID: <xgkp6.423$kw6.31401065@den-news1.rmi.net>
Source record: 54261

Hello Josh,
Congratulations, you chosen a very good first step in learning about RF.
(asking others who know)
The amateur radio community is a great resource of information and most hams
love to share their knowledge.
I am not an engineer, just a tech, so I don't know if it is just your school
that is lacking in teaching about RF, But don't despair, you can do it.
The other responses to your ping for help are correct, the ARRL has some
great books.
But I seem to get the most out of the manufacture's data books.
National Semiconductor, Motorola, Texas Instruments.... just to name a few.
These books have sections in them called "Application Notes" that describe
how to use their devices in real world applications.
Many applications discuss in depth, designs around the real world chips and
devices.
Now days they are also on line, but the nice thing about the books is that
you can page through them and read them in your leisure, keep them in the
bathroom, read them on lunch break, or read them in bed.
Your school library should have them, but if not, ask the electronics lab
tech, he probably has a couple on his bench.
Also, Many radio clubs have "Elmer's", that is the term we hams use for some
body who can and will show you what ever they can about radio.
Your school may have a radio club, but if not, you can look on the ARRL web
site for the nearest club.
73 (very best wishes)
Eric Janssen aka KG9GH

"Joshua Paul Dewinter" <dewinter@wsunix.wsu.edu> wrote in message
news:Pine.OSF.4.10.10103051356460.29176-100000@unicorn.it.wsu.edu...
> Hi. mY name is Josh. I have been attending Washington State University
> for some time now in the Electrical Engineering program, and have noticed
> a problem. In all the courses I have to take and can opt to take, a mere
> 2 deal with RF, 1 only vaguely! This frustrates me, as I had very much
> hoped to know the most about RF of any other sub-fields in electronics
> with this college experience. Is it still that mystical of an art, or do
> we just have a poor radio program?
> In that vein, does anyone know of any good books they can recommend,
> and/or web sites that teach the basics and on up about radio? I would
> like to make a simple VHF reciever as a project. I have made other
> projects dealing in RF, like an FM transmitter, but never without the help
> of a schematic from someone else. It almost seems like the reciever will
> be more complex than a transmitter...something I always thought would be
> the other way around. But, I am very anxious to get a grip on the
> knowledge that I have wanted for so long, but has eluded me at every turn.

>
> -Thanks for your help
>
> Josh DeWinter
> Pullman, WA
>
> dewinter@wsunix.wsu.edu
>
>
>

1465. Re: Alternator whine help please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 06:33:59 UTC
From: Rod Marsh <rredbeak2@dingoblue.net.au>
Message-ID: <3aa5d6a2$0$25467$7f31c96c@news01.syd.optusnet.com.au>
Source record: 54262

I got a LOT of Emails about this one TOO ,THANKS everybody and All comments noted and appreciated.Cheers Rod VK4XI

1466. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 12:04:05 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <b88cat0p60du798ieo13qdbf8dpbmh31n2@4ax.com>
Source record: 54263

Previous suggestions were good. I'm going to suggest two books that I haven't checked for current availability. These are not "start from zero" books but have lots of practical info once some of the basic concepts are understood. They are more practical than theoretical in their presentation.

RF Design Guide Systems, Circuits, and Equations
Peter Vizmuller 1995 Artech House, Inc.

Radio Frequency Transistors Principles and Practical Applications
Norm Dye and Helge Granberg 1993 Butterworth-Heinemann

I hope they are still findable. Good luck in getting started and having fun building and playing.

-Rex, KK6MK

>Joshua Paul Dewinter <dewinter@wsunix.wsu.edu> wrote in message
>news:Pine.OSF.4.10.10103051356460.29176-100000@unicorn.it.wsu.edu...
>> Hi. mY name is Josh. I have been attending Washington State University
>> for some time now in the Electrical Engineering program, and have noticed
>> a problem. In all the courses I have to take and can opt to take, a mere
>> 2 deal with RF, 1 only vaguely! This frustrates me, as I had very much
>> hoped to know the most about RF of any other sub-fields in electronics
>> with this college experience. Is it still that mystical of an art, or do
>> we just have a poor radio program?
>> In that vein, does anyone know of any good books they can recommend,
>> and/or web sites that teach the basics and on up about radio? I would
>> like to make a simple VHF reciever as a project. I have made other
>> projects dealing in RF, like an FM transmitter, but never without the help
>> of a schematic from someone else. It almost seems like the reciever will
>> be more complex than a transmitter...something I always thought would be
>> the other way around. But, I am very anxious to get a grip on the
>> knowledge that I have wanted for so long, but has eluded me at every turn.
>>
>> -Thanks for your help
>>
>> Josh DeWinter
>> Pullman, WA
>>
>> dewinter@wsunix.wsu.edu
>>
>>
>>
>

1467. Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 12:11:34 UTC
From: Jeff Smith <jhsmith@ns.sympatico.ca>
Message-ID: <3AA623B9.ECF5D90B@ns.sympatico.ca>
Source record: 54264

I need some ideas on obtaining hard copy from an older HP spectrum analyzer.

I have outputs from an older spectrum analyzer that I wish to couple to a PC via sound card inputs. (I want to develop hard copy capability.)

These outputs were intended as X-Y for a small pen plotter, and you can control the sweep speed , etc. from the analyzer. What would be great is a piece of software that emulates a plotter by using the sound card inputs. Any ideas ?

Jeff
VE1ZAC

1468. WTB: 9 volt Low Voltage Dropout Regulator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 12:36:52 UTC
From: Richard Gurske <rfgurske@ix.netcom.com>
Message-ID: <985ae2$d1k$1@slb3.atl.mindspring.net>
Source record: 54265

Looking for someone who has some of these and is willing to part with two. I need the TO-92 case configuration. Thes are for Positive voltage regulation.

Thanks
Dick
KF4DSL

1469. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 13:15:46 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <mS9v9kACSjp6EAct@ifwtech.plus.net>
Source record: 54267

Jeff Smith wrote:
>I need some ideas on obtaining hard copy from an older HP spectrum
>analyzer.
>
>I have outputs from an older spectrum analyzer that I wish to couple to
>a PC via sound card inputs. (I want to develop hard copy capability.)
>
>These outputs were intended as X-Y for a small pen plotter, and you can
>control the sweep speed , etc. from the analyzer. What would be great is
>a piece of software that emulates a plotter by using the sound card
>inputs. Any ideas ?
>
Ideas, yes; solutions, not yet.

It would indeed be nice to take the X-Y outputs from the 8552 IF plugins, and feed them into a PC where software could provide many of the facilities of a modern all-digital analyzer:

* Clear, complete traces from very slow sweeps (useful when the storage tube is getting a bit tired)

* Averaged multiple sweeps

* Peak hold for transient measurements

* Notation of measurement conditions on-screen

* Screen capture to file

* Output to printer

* Subtract a stored trace from the current trace (normalization, creates a flat baseline for swept measurements with a tracking generator or return loss bridge)

Since the X and Y outputs are not audio, the sound card inputs to the PC cannot be used. However, it would be simple to build a small 2-channel analog-to-digital converter to interface to the parallel port (the serial port would be too slow for 8-bit or better resolution at high sweep speeds). The detailed circuit is mostly a matter of deciding how the ADC should interface to the PC software.

It's on my project list, but I can't help feeling that someone, somewhere must have done it already. There are thousands of those units out there, many passing into the hands of hams, and the RF performance is still excellent. As Jeff identifies, it's just the analog output that's holding us back.

There doesn't seem to be anything on the web... unless someone here knows better...

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1470. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 15:44:31 UTC
From: troglodite@aol.com
Message-ID: <20010307104431.02246.00000409@ng-cg1.aol.com>
Source record: 54266

>What would be great is
>a piece of software that emulates a plotter by using the sound card
>inputs. Any ideas ?

Unfortunately, the pen plotter outputs are DC, and most sound card inputs are AC coupled, so don't respond to DC. What you would need would be an industrial interface card AND some custom software. You could probably find a used DC plotter cheaper.

Doug Moore

1471. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 16:58:55 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3AA668CF.A21D9A8@mwci.net>
Source record: 54268

Ian White, G3SEK wrote:

> Jeff Smith wrote:
> >I need some ideas on obtaining hard copy from an older HP spectrum
> >analyzer.
> >
> >I have outputs from an older spectrum analyzer that I wish to couple to
> >a PC via sound card inputs. (I want to develop hard copy capability.)
> >
> >These outputs were intended as X-Y for a small pen plotter, and you can
> >control the sweep speed , etc. from the analyzer. What would be great is
> >a piece of software that emulates a plotter by using the sound card
> >inputs. Any ideas ?

There is an HP Pen Plotter simulator program. Unfortunately I don't recall
where I saw it advertised.

Bill W0IYH

1472. Re: WTB: 9 volt Low Voltage Dropout Regulator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 17:26:56 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3AA66F60.45DCF42C@midwestmicro-tek.com>
Source record: 54270

The latest digi-key has the TOKO TK711 low dropout voltage regulator in the
TO-92N package.

Rick KC0GIX

Richard Gurske wrote:

> Looking for someone who has some of these and is willing to part with two. I
> need the TO-92 case configuration. Thes are for Positive voltage regulation.
>
> Thanks
> Dick
> KF4DSL

1473. Re: need TNC-2 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 18:08:27 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <985ter$af8$2@woodrow.ucdavis.edu>
Source record: 54269

: Spyros Kintzonides <spkintz@the.forthnet.gr> wrote:
: I want to build a low cost 1200 packet modem for packet VHF. Can anyone help
: me by sending me a schematic by e-mail? Thank you and 73's de SV2BXC Take a
: look at www.geocities.com/sv2bxc

A circuit diagram for the TAPR TNC-2 or the same/similar MFJ-1270 or 1274
is what your after. Various software versions can be placed in the TNC
depending on your desires. Node software is on the
http://sonic.ucdavis.edu web page amateur radio section.

cheers
skipp@pilot.ucdavis.edu

1474. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 19:03:47 UTC
From: la8ak@online.no
Message-ID: <3aa5e7a4.457091397@news.online.no>
Source record: 54272

On Tue, 06 Mar 2001 21:11:18 -0600, John O'Flaherty
<oflahert@toast.net> wrote:

>Rick Haub wrote:
>
>> Ron Hubbard wrote:
>>
>> > Mouser has the NTE123AP, supposedly an exact substitute for
>> > the BF115 transistor. It's part no. 526-NTE123AP for $1.25
>> > each.
>> >
>>
>> If thats true then as I recall the NTE123AP is also a sub for the
>> 2N2222(A). These can be had from BG Micro for 12 cents each or 100 for
>> $9.00. If you don't mind taking (in my opinion) a small chance you could
>> go to Radio Shack and pick up there pack of 15 NPN transistors for
>> $2.29. They spec similar to the 2N3906 which I believe also crosses to
>> the NTE123AP
>
>The 2n3904 is npn, the 2n3906 is pnp.
>
... and BF115 is also a silicon device, but the more important is that
it is low feedback capacitance device, so if you can't get similar
devices like BF167, BF173, BF199, BF224, BFY90, I'd suggest 2N2369

1475. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 19:13:43 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AA68BF2.296D@pop.removethistomailme.net>
Source record: 54273

William E. Sabin wrote:
>
> Ian White, G3SEK wrote:
>
> > Jeff Smith wrote:
> > >I need some ideas on obtaining hard copy from an older HP spectrum
> > >analyzer.
> > >
> > >I have outputs from an older spectrum analyzer that I wish to couple to
> > >a PC via sound card inputs. (I want to develop hard copy capability.)
> > >
> > >These outputs were intended as X-Y for a small pen plotter, and you can
> > >control the sweep speed , etc. from the analyzer. What would be great is
> > >a piece of software that emulates a plotter by using the sound card
> > >inputs. Any ideas ?
>
> There is an HP Pen Plotter simulator program. Unfortunately I don't recall
> where I saw it advertised.
>
> Bill W0IYH

A few weeks ago I started work on an HP7470 plotter emulator for Win32.
Right now, I have it working with the HPGL command subset used by the
Tek 492 / 494 / 496 analyzers (except for some slight text-formatting
issues which don't really hurt anything). The source and executable
code is on my site below, in case anyone with a 49xP analyzer wants to
check it out.

I've also found that HPGL-compatible instruments can dump their plotter
output to a modern LaserJet or other PCL-compatible printer, by
prefixing the binary dump with the escape sequence 0x1B, 0x26, 0x6C,
0x31, 0x4F, 0x1B, 0x25, 0x23, 0x42. This will put the printer into
landscape mode and configure it for the older HPGL command set. You can
get very nice hardcopies from the Tek analyzers this way -- all you need
is a short program to read the plotter data from GPIB and dump it to
LPT1 with the above escape sequence.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1476. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 19:30:26 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AA68FC3.4FA4@pop.removethistomailme.net>
Source record: 54274

Troglodite wrote:
>
> >What would be great is
> >a piece of software that emulates a plotter by using the sound card
> >inputs. Any ideas ?
>
> Unfortunately, the pen plotter outputs are DC, and most sound card inputs are
> AC coupled, so don't respond to DC. What you would need would be an industrial
> interface card AND some custom software. You could probably find a used DC
> plotter cheaper.
>
> Doug Moore

Not necessarily. If you can find and remove the DC blocking capacitors from your sound card's input path, there's no reason why you couldn't record down to DC. Older, simpler sound cards like the original Sound Blasters should be trivial to work with.

Another alternative that wouldn't involve modifying your sound card: use the plotter X/Y outputs (typically 0-5V or 0-10V) to drive a simple V-to-F converter. http://www.exar.com/products/XR4151.html from JDR Microdevices or Future/Active might be one option. Record the resulting audio with the sound card and count the zero crossings in the .WAV output to calculate the input frequency. Sampling a 44 kHz stereo recording in 10-millisecond chunks would give you close to 8 bits of precision. Longer counting intervals could be used for higher precision at slower sweep speeds.

There is ALWAYS more than one way to skin a cat in the PC world, without resorting to a lot of custom software or hardware.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1477. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 19:53:36 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AA69532.4D6F@pop.removethistomailme.net>
Source record: 54275

William E. Sabin wrote:
>
> Ian White, G3SEK wrote:
>
> > Jeff Smith wrote:
> > >I need some ideas on obtaining hard copy from an older HP spectrum
> > >analyzer.
> > >
> > >I have outputs from an older spectrum analyzer that I wish to couple to
> > >a PC via sound card inputs. (I want to develop hard copy capability.)
> > >
> > >These outputs were intended as X-Y for a small pen plotter, and you can
> > >control the sweep speed , etc. from the analyzer. What would be great is
> > >a piece of software that emulates a plotter by using the sound card
> > >inputs. Any ideas ?
>
> There is an HP Pen Plotter simulator program. Unfortunately I don't recall
> where I saw it advertised.
>

You may be thinking of SPlot http://www.swplot.com/splot.htm. It's
powerful, but expensive to register ($65 per plotter model supported),
can't export simple .BMP / .GIF bitmaps, and seems to work only through
its GUI rather than a (much more desirable IMHO) batch or command-line
mode.

Still a pretty nifty piece of software.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1478. Re: Ramsey FX-146 Rev 1.3 Info Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 20:08:17 UTC
From: Lloyd Thomson <thomson@aros.nospam.net>
Message-ID: <9860nl$2dg1$1@news.aros.net>
Source record: 54271

Try www.ramseyelectronics.com

"Kevin Hastings" <hastings@nbnet.nb.ca> wrote in message
news:HNCo6.11242$br1.72985@sodalite.nbnet.nb.ca...
> I picked up the guts of a Ramsey FX-146 10/91 Rev 1.3 at a local junk
store,
> and need help with the frequency-setting diode matrix, and mic pin-outs.
> I'm betting this is all on the web someplace, but darned if I can locate
one
> thus far.
>
> Can anybody point me to some reference so I can test this thing?
>
>
> hastings@nbnet.nb.ca
>
>

1479. Strong Signal performance of Minicircuits PSC series Splitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 20:37:36 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3AA69C10.8030208@ix.netcom.com>
Source record: 54276

I recently picked up an MCL 12 way splitter, and was hoping to use it to homebrew a 12 way HF receiver multicoupler, if the strong signal handling would be up to it. I could not find any data on the MCL web site as to the IP3 and IP2 performance of these units, and wonder if anyone has been down this road before. I was going to precede it with a strong 12 dB gain amplifier and maybe a LPF to keep local TV and FM broadcast stations out of it.

Thanks in advance for any input, and yes, I know I've only got one pair of ears :-)

Dan AC6AO

1480. FT-890 VFO display modifible to show 10Hz position?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 22:52:36 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3AA6BBB4.AD52D05E@grove.iup.edu>
Source record: 54277
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I am interested in the Yaesu FT-890 - but didn't like the fact the VFO display shown in ads only has 6 digits. Is there a mod to get 7 digits to display (like on the Kenwood TS-430S)?

Thanks,

Scott McClements

1481. FT-890 VFO display modifible to show 10Hz position?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-07 22:52:53 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3AA6BBC5.20E8FFBE@grove.iup.edu>
Source record: 54278
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I am interested in the Yaesu FT-890 - but didn't like the fact the VFO display shown in ads only has 6 digits. Is there a mod to get 7 digits to display (like on the Kenwood TS-430S)?

Thanks,

Scott McClements

1482. Re: Help for the uninitiated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 00:22:25 UTC
From: "Al, N2NKB"
Message-ID: <5hAp6.119$QT5.8447@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54279

I find that a technician who has a true interest in RF often knows more about
RF than some engineers. Also, interested people are more intuitive.
For example, ask a person what happens when you take a 1/4 wave length
transmission line, short one end, and what do you see on the other end?
This classic example is often answered by technicians correctly- the other
end looks like a very high impedance. Some RF engineers who are good
with calculus can't answer that off hand.
Al, an electrical engineer

ECJ wrote in message ...
>Hello Josh,
>Congratulations, you chosen a very good first step in learning about RF.
>(asking others who know)
snip
>I am not an engineer, just a tech, so ...

1483. Re: Article on Noise Canceling of Power line noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 00:34:13 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3aa6d34c.7964741@news.usfamily.net>
Source record: 54280

HI,

Doug DeMaw W1FB CQ June 1996.

"How to build a simple QRN squasher."

Works well!

Bob

n) wrote:

>I believe someone wrote a article in CQ or QST about a year ago on building a
>antenna noise canceller much like the ANC-4. Can anyone tell me the source?
>Don AF4Z
>

1484. Re: Aluminum knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 00:52:46 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3AA6DA6D.5DA60ED8@netscape.net>
Source record: 54281

Woody wrote:
>
> Must admit, haven't looked for any lately. I work at an R&D lab which
> is relatively well stocked with the *real stuff* - and has fume
> hoods. I am gettin' pretty $#%$#^ tired of laws to protect us from
> ourselves (and make Darwin obsolete). I certainly want to be
> informed... Then let me take it from there!
>
> And EZ Off... Supprised you can still get AEROSOL lye (is it still?).
> Could mistake that for hairspray too! It *would* put an end to bad
> hair days :)
>
> Give me the days when, as a kid, I went to a local chemical supply
> house, walked to the counter and asked for 2 liters of conc nitric, 1
> liter of conc sulfuric, anh (hummm) a liter of glycerine. Their reply
> was: "Anything else, kid?" I decided I didn't have the proper
> temperature controlled baths and went no further - at least with that
> particular formulation.
>
> Woody ---Ran with sissors and lived to tell!
> ---------------------------------
> > >
> > Well, Woody, you must be searching way back in the cabinet under
> > the sink. Drano 'brand' stuff nowadays is pretty lame and real
> > Red Devil lye is outlawed in most states since some project mother
> > may mistake it for ham-drink or lemonade. But EZ Off has yet to
> > be confused with cheezewhiz and is still on the market...up till
> > now.
> > God help us...he sure seems to help everybody else.
> > ---
> > Bill Meacham
> > Vieques, PR
>
> --
> Woody, WB4QXE
> For Ham Radio homebrewing and
> Scanning Electron Microscope Images,
> visit: http://woody.white.home.att.net
>
> Puritanism: The haunting fear that someone, somewhere may be happy.

Obviously!

1485. Re: WTB heatsink for 3 or 4 xistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 02:01:49 UTC
From: denton sprague <denton@oregontrail.net>
Message-ID: <3AA6E80D.F4B63036@oregontrail.net>
Source record: 54282

Hi Bob..
I have a couple of those heat sinks that are pictured in the Handbook, I think they are already drilled for TO-3 transistor cases. Drop me a line if you are still interested.

Bob wrote:

> Hi,
>
> I need a heatsink that I can fit 3 or 4 T0-3 transistors onto. A
> bonus would be if it came with premounted NPN transistors something
> like 2N3055.
>
> I'm building a DC supply for a boatanchor and need parts, so if you
> want to sell an old heatsink, please email me.
>
> Or if you have a supply capable of putting out 28 VDC at 12 Amps, and
> the price is right, I might purchase that from you.
>
> Thanks in advance,
>
> Bob

1486. Re: FT-890 VFO display modifible to show 10Hz position?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 03:26:51 UTC
From: Ed Cregger <nuke663jlm@vei.net>
Message-ID: <tadurrrqmf7m3b@corp.supernews.com>
Source record: 54284
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Yes, it will show the extra digit.

The bad news is that mine was enabled when I bought it, so I
am not aware of the modification, but I do know there is
one. Good luck.
--
Ed Cregger, NM2K
nuke663jlm@vei.net

*Remove the "nuke" for correct email address

"Scott McClements" <yetbbwa@grove.iup.edu> wrote in message
news:3AA6BBC5.20E8FFBE@grove.iup.edu...
> I am interested in the Yaesu FT-890 - but didn't like the
fact the VFO
> display shown in ads only has 6 digits. Is there a mod to
get 7 digits
> to display (like on the Kenwood TS-430S)?
>
> Thanks,
>
> Scott McClements
>
>

1487. Re: FT-890 VFO display modifible to show 10Hz position?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 04:47:54 UTC
From: Murray Neece <RadioRanch@qth.com>
Message-ID: <3AA70EFA.EB36AA8A@qth.com>
Source record: 54283
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment
Body handling: Binary attachment payload not displayed: RadioRanch.vcf

There is , because the one I have has it...but I didnt do it...look at the German site...mods.dk...they may have it...73 Murray

Scott McClements wrote:

> I am interested in the Yaesu FT-890 - but didn't like the fact the VFO
> display shown in ads only has 6 digits. Is there a mod to get 7 digits
> to display (like on the Kenwood TS-430S)?
>
> Thanks,
>
> Scott McClements

[One or more binary attachments are retained only in the source text.]

1488. Re: WTB: 9 volt Low Voltage Dropout Regulator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 10:52:40 UTC
From: Richard Gurske <rfgurske@ix.netcom.com>
Message-ID: <987orq$p8r$1@nntp9.atl.mindspring.net>
Source record: 54285

They are in the catalog but they don't make them anymore. I already checked with Digikey.

Dick
KF4DSL
Rick Haub <rhaub@midwestmicro-tek.com> wrote in message news:3AA66F60.45DCF42C@midwestmicro-tek.com...
> The latest digi-key has the TOKO TK711 low dropout voltage regulator in the
> TO-92N package.
>
> Rick KC0GIX
>
> Richard Gurske wrote:
>
> > Looking for someone who has some of these and is willing to part with two. I
> > need the TO-92 case configuration. Thes are for Positive voltage regulation.
> >
> > Thanks
> > Dick
> > KF4DSL
>

1489. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 13:41:25 UTC
From: Alan Melia <Alan.Melia@btinternet.com>
Message-ID: <9882chjit1@uranium.btinternet.com>
Source record: 54286

Hi It, just depends what you want to spend on it. Can I suggest that the cheapest alternative might be a Pico Technology 8 bit ADC (abt 49 GBP), and a copy of Pscope (which is available free from their web site). The software provides print out facilities. I am not sure whether it is possible to 'scale' the axes although this is available on Picolog software.

Cheers Alan G3NYK

Jeff Smith wrote in message <3AA623B9.ECF5D90B@ns.sympatico.ca>...
>I need some ideas on obtaining hard copy from an older HP spectrum
>analyzer.
>
>I have outputs from an older spectrum analyzer that I wish to couple to
>a PC via sound card inputs. (I want to develop hard copy capability.)
>
>These outputs were intended as X-Y for a small pen plotter, and you can
>control the sweep speed , etc. from the analyzer. What would be great is
>a piece of software that emulates a plotter by using the sound card
>inputs. Any ideas ?
>
>Jeff
>VE1ZAC
>

1490. 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 14:00:42 UTC
From: Spyros Kintzonides <spkintz@the.forthnet.gr>
Message-ID: <984060038.674899@athnrd02.forthnet.gr>
Source record: 54287

Can anyone know how to build a transverter from 11m band to 2 m ham band?

1491. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 14:41:43 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <taf6giek9a7212@corp.supernews.com>
Source record: 54288

"Spyros Kintzonides" <spkintz@the.forthnet.gr> wrote in message
news:984060038.674899@athnrd02.forthnet.gr...
> Can anyone know how to build a transverter from 11m band to 2 m ham band?

Are you sure you really mean "11m" to 2m? If your not a licensed Ham fat chance you're going to get any help here. If you are licensed, and your going to use a stock CB radio, the only mode you can use would be SSB. As far as I know AM is not permitted on 2m. If you want to run FM, then you need to modify the CB.

--
Leland C. Scott
KC8LDO

1492. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 15:30:17 UTC
From: Ted Hay <tedh@xcelco.on.ca>
Message-ID: <tafocomoqbrn13@corp.supernews.com>
Source record: 54291

> far as I know AM is not permitted on 2m. If you want to run FM, then you
> need to modify the CB.
>
> --
> Leland C. Scott
> KC8LDO
>
>
Since when wasn't AM allowed on two meters? It was used before FM. CW is
allowed on two meters also.

Ted VE3ONJ

1493. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 16:07:05 UTC
From: troglodite@aol.com
Message-ID: <20010308110705.02253.00000923@ng-cg1.aol.com>
Source record: 54289

> As
>far as I know AM is not permitted on 2m. If you want to run FM, then you

That is incorrect. The first 100Khz of 2m is reserved for CW, the rest of the band is open for any mode. You won't find a lot of activity on 2m AM, just some special clubs running old Gonsets, Hallicrafters, Heath "lunch boxes" and the like. But, it's perfectly legal if you are licensed.

Doug Moore KB9TMY

1494. Re: BF115 transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 17:08:05 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3AA7BC75.1735EC06@midwestmicro-tek.com>
Source record: 54290

John O'Flaherty wrote:

> Rick Haub wrote:
>
> > Ron Hubbard wrote:
> >
> > > Mouser has the NTE123AP, supposedly an exact substitute for
> > > the BF115 transistor. It's part no. 526-NTE123AP for $1.25
> > > each.
> > >
> >
> > If thats true then as I recall the NTE123AP is also a sub for the
> > 2N2222(A). These can be had from BG Micro for 12 cents each or 100 for
> > $9.00. If you don't mind taking (in my opinion) a small chance you could
> > go to Radio Shack and pick up there pack of 15 NPN transistors for
> > $2.29. They spec similar to the 2N3906 which I believe also crosses to
> > the NTE123AP
>
> The 2n3904 is npn, the 2n3906 is pnp.
>

You are correct, 2n3904 is what I ment. Slight brain malfunction while typing
in the number.

Rick KC0GIX

>
> john

1495. FS: 6U5 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 20:10:44 UTC
From: arnoldg@sf.telia.no
Message-ID: <3aa7e79b.1771326@news.telia.no>
Source record: 54292
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I have now a good stock of the old magic eye valve 6U5. They are all
NOS and in mint condition. They are rebranded Haltron, but I guess
they are originally made in US. The price is NOK 186.70 each or about
US$ 21.20

Regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

1496. Wireless Speaker System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 20:23:43 UTC
From: %NAME% <W7WONG@engmail.uwaterloo.ca>
Message-ID: <3AA7EA4F.D56F7835@engmail.uwaterloo.ca>
Source record: 54294

Hi,

We are a group of university students planning to build a wireless speaker system for computer audio output. We are planning to use Direct Sequence Spread Spectrum (DSSS) at the 900 MHz band. We are planning to buy existing modulator and demodulator chipset on the market. So we are wondering if anyone knows which chipsets will be more suited for our purposes.

Thanx,
Witty Wong

1497. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 20:43:34 UTC
From: k4yz@aol.com
Message-ID: <20010308154334.04531.00000663@ng-mq1.aol.com>
Source record: 54293

>Subject: 10m to 2m transverter
>From: "Spyros Kintzonides" spkintz@the.forthnet.gr
>Date: 03/08/01 9:00 AM Eastern Standard Time

>Can anyone know how to build a transverter from 11m band to 2 m ham band?

Spyros,

Go here: http://www.tentec.com

I have built three of TenTec's 20M to 6M trnasverters for friends and
myself and it's an excellent kit.

The also have other frequency combinations. The transverter will allow
you to operate any mode on two meters that the 10 meter rig is capable of.

If you are trying to use an 11 meter (CB) rig as the exciter, I'd really
suggest you convert it to 10 meters first. It will reduce interference in the
long run.

73 and good luck

Steve Robeson, K4YZ
Dunlap Tennessee, United States

1498. looking for switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 21:23:14 UTC
From: Gomes <ct1hix@netc.pt>
Message-ID: <3aa80549@212.18.160.197>
Source record: 54295

Im looking for RF Switch ceramic wafer 8 position 1 circuit .

Gomes CT1HIX

1499. OT PIC Programming for St. Patrick's Day

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 22:59:49 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <F9Up6.360330$w35.57399311@news1.rdc1.nj.home.com>
Source record: 54296

If you go to Maxim's software page, an engineer, obviously with too much time on his hands, has written a program to count-down the period over which a Guinness Stout loses it's head -- mille failte!. The Maxim application arises from the use of their MAX7219 LED Driver and a PIC 16C54.

1500. Need price on 813 new or used

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 23:17:33 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3aa812e3.6609723@news.usfamily.net>
Source record: 54197

Hi,

What does a new or used 813 go for today. I may need one in the near future.

Thanks,

Bob

1501. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-08 23:26:28 UTC
From: Spyros Kintzonides <spkintz@the.forthnet.gr>
Message-ID: <984093986.945748@athnrd02.forthnet.gr>
Source record: 54198

My call is SV2BXC and i just wonder if i can build a transverter to transmit from President Grand 11-10m CB Radio which includes also FM mode, to 144 MHz band. TNX for ur reply es 73!
"Leland C. Scott" <no-spam@junk-mail.net> wrote in message news:taf6giek9a7212@corp.supernews.com...
>
> "Spyros Kintzonides" <spkintz@the.forthnet.gr> wrote in message
> news:984060038.674899@athnrd02.forthnet.gr...
> > Can anyone know how to build a transverter from 11m band to 2 m ham band?
>
> Are you sure you really mean "11m" to 2m? If your not a licensed Ham fat
> chance you're going to get any help here. If you are licensed, and your
> going to use a stock CB radio, the only mode you can use would be SSB. As
> far as I know AM is not permitted on 2m. If you want to run FM, then you
> need to modify the CB.
>
> --
> Leland C. Scott
> KC8LDO
>
>

1502. Re: FT-890 VFO display modifible to show 10Hz position?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 01:08:05 UTC
From: Rod KI0KT <rliebeg@spininternet.com>
Message-ID: <3AA82CF5.26CF606B@spininternet.com>
Source record: 54200
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Its in the manual on page 12..

Rod KI0KT

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1503. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 01:32:49 UTC
From: Woody <woody.white@att.net>
Message-ID: <3AA83499.18C92D1F@att.net>
Source record: 54199

Hello Spyros,

You may get some ideas from one of my projects, a 20 meter to 6 meter linear transverter. Local oscillator and filter frequencies would have to change, but the principles are the same. The output stage is a 18 watt "brick" (similar RF power hybrids are available for 2 M). I don't know about parts availability where you live, but MMICs, mixers, etc. are available here from MiniCircuits (http://www.minicircuits.com/). Also "Down East Microwave" carries many of the "bricks" (http://www.downeastmicrowave.com/) and other parts. Don't know about exports...

For my project, go the the homebrew section of my web site (below).

73, Woody

Spyros Kintzonides wrote:
> Can anyone know how to build a transverter from 11m band to 2 m ham band?

Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

1504. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 06:26:46 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <iqrgat0sice9bdo9ncs372fs0icbemmc8s@4ax.com>
Source record: 54201

On Fri, 9 Mar 2001 01:26:28 +0200, "Spyros Kintzonides"
<spkintz@the.forthnet.gr> wrote:

>My call is SV2BXC and i just wonder if i can build a transverter to transmit
>from President Grand 11-10m CB Radio which includes also FM mode, to 144 MHz
>band. TNX for ur reply es 73!

The amateur literature is full of 28/144 Mhz transverter circuits that
mixes the 28 .. 30Mhz band with a 116 MHz crystal oscillator and
transfers it into the 144 .. 146 MHz band. If your input signal is in
the 27 .. 29 MHz range, change that oscillator frequency to 117 MHz.

One problem with the 28/144 MHz transverter is that the 5th harmonic
(e.g. 5x28 MHz = 140 MHz) will fall outside of the 2 m amateur band.
This signal can quite easily pass through or be internally generated
within a transverter.

It is a good idea to use a transverter circuit with some selectivity
(at least some low pass filtering at the transverter input at 28 MHz)
to prevent harmonics from the CB radio to enter the transverter.

Use a good transmitter mixer, such as a double balanced diode ring
mixer (e.g. SBL-1) that will have a relatively good isolation from
input port to output port and from local oscillator port to output
port. This will reduce the 5th harmonic leakage and also the 116 MHz
leakage. In addition, this mixer will produce less own spurious mixing
products than simpler mixers.

Use some bandpass filters in the amplification stages between the
transmit mixer and final output transistor. Using only a low pass
filter after the final output transistor is not enough to attenuate
spurious responses near or below the 2 m band (such as the 116-28=88
MHz image response).

Paul OH3LWR

1505. Re: What's a Monimatch??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 16:56:29 UTC
From: Mr G H Ireland <igor@argonet.co.uk>
Message-ID: <na.29a1ce4a58.a70320igor@argonet.co.uk>
Source record: 54203

snip. . . Of course, the detecting device tends to have
> troubles since the amount of energy picked up on the coupled trace is low
> enough that most diode detectors do strange things......
> If you can track it down, there was an article in Ham radio, Nov.'87,
showing how to build a nice RF voltage detector that can be used to measure
these low levels and maintain an accurate reading. - Jim Pennell/N6BIU

And there is a power meter in this month's "RadCom"vol77.3, p.17 entitled,"A
Precision Peak-following Power Meter", giving a summary of the principles,
and references:

"Antenna Handbook" of the G-QRP club ,
"The Tandem Match" by KA3BLO, QST, Jan'87,pp.18-2,6 and
"An Inside Picture of Directional Wattmeters" by Bruene,
QST,Apr'59,pp.24-28.

You could perhaps contact the RSGB for more info. - www.rsgb.org

Hope this helps - G3CCL, Manchester, UK.

--
__ __ __ __ __ ___ _____
|__||__)/ __/ \|\ ||_ | /
| || __/__/| \||__ | /...Internet access for all Acorn RISC machines
_____/ igor@argonet.co.uk

1506. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 17:43:45 UTC
From: Ken & Mary <kenmary@interpac.net>
Message-ID: <3oQq6.560$VG2.2424@newsfeed.slurp.net>
Source record: 54147
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Depending on what distance you want to work, either don't worry about height
of a horizontal antenna and work locals (within a few hundred miles) using
high angle radiation (presently popular is the buzzword NVIS=Near Vertical
Incident Skywave) OR if you want to work DX use a vertical, then only one
support is needed and the support is the radiating element. A full quarter
wavelength vertical can easily be mechanically sound without guying as low
(in frequency) as fourty meters. You just have to have good foundation (in
the ground or part of a building) to mount it to, AND a good radial system
if you want it to be efficient.
Richard Clark wrote in message
<0tinat8bf2n1g7ble5c3vmdpef10bd0pe7@4ax.com>...
>On Sun, 11 Mar 2001 12:10:16 -0500, "John (KB3CDF)"
><murphman@erols.com> wrote:
>
>>I have read all these great tales of excellent success with inverted V
>>and flat top antennas. The word spoken is "get them as high as you
>>can".
>>
>>Can anyone suggest ideas for "man-made" supports that would enable
>>such worthy antenna beasts?
>>
>>Thanks in advance,
>
>Hi John,
>
>There's a glut of military surplus field masts on the market. They
>come kitted up ready to deploy (no instructions provided) a 30 to 40
>foot tall mast guyed at two or three levels. You get the mast as
>stackable 5 foot tubes (heavy wall), guy plates, guy lines, stakes,
>and sledge hammer for stakes (no instructions provided).
>
>As a kit, not much bigger than my old seabag (same color, same
>material). $90 and 40 footer was mine.
>
>73's
>Richard Clark, KB7QHC

1507. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 22:38:56 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <4Ycq6.363701$w35.57820763@news1.rdc1.nj.home.com>
Source record: 54202

If you go to Maxim's website:
http://www.maxim-ic.com
and look in their apnotes there is an XY plotter and plotting program (it's in C++ I think).

I picked up an HP7475a plotter a few weeks ago for $20 (cost more to ship) and subsequently picked up the manuals and the HP PCL5 manual which contains the HPGL instruction set. This has turned out to be a great toy. You can communicate quite easily to the HP7475a via the serial port with any text editor. An HP7475a and a '486 laptop will give you enormous flexibility compared to what was around when HP started busing things together.. (Why is it that dad gets the '486 while junior has an 833?)

Jack exWA8PZL

"Jeff Smith" <jhsmith@ns.sympatico.ca> wrote in message
news:3AA623B9.ECF5D90B@ns.sympatico.ca...
> I need some ideas on obtaining hard copy from an older HP spectrum
> analyzer.
>
> I have outputs from an older spectrum analyzer that I wish to couple to
> a PC via sound card inputs. (I want to develop hard copy capability.)
>
> These outputs were intended as X-Y for a small pen plotter, and you can
> control the sweep speed , etc. from the analyzer. What would be great is
> a piece of software that emulates a plotter by using the sound card
> inputs. Any ideas ?
>
> Jeff
> VE1ZAC
>

1508. Re: Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-09 23:23:45 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3AA96601.928B7C69@netdoor.com>
Source record: 54204

John, you are making this much too complicated. If you remember the formula
for a dipole, build one to the lowest frequency you want to work and feed
the antenna with coax. Your tuner will now tune everything that is legal
for you. It will not be the most efficient antenna, especially the further
away you get from the design freq., but you WILL get on the air and you will
be heard!

Gud DXing, 73
Butch KF5DE

John O'Flaherty wrote:

> When I got my new transceiver, I bought an antenna tuner with it, that
> said it would tune a wire of some minimum length to any frequency in the
> hf bands. I connected it up to a horizontal wire of about 50 feet long,
> and it tunes it (at least the indicator says it successfully tuned it).
> The antenna isn't very effective. I have some questions about ways to
> improve matters:
>
> 1. I talked to a ham about 300 miles away, and he said the antenna's
> performance could be improved by stretching out some ground wires along
> the ground. The books I've looked at mention that ground radials are
> good for a vertical antenna, but don't mention them in the context of a
> horizontal wire. Would they make an improvement?
>
> 2. If I stretched out another antenna wire in the opposite direction and
> trimmed both for length, I would have a dipole. The antenna tuner has an
> unbalanced output- if I connected a second wire to the ground of the
> antenna tuner and stretched it in the opposite direction to that of the
> first wire, would it still form a sort of dipole, or would the second
> wire have no effect?
>
> 3. If I made a dipole and wound a balun to convert it from balanced to
> unbalanced, would it still be meaningful to feed the unbalanced side of
> the balun with this remote, unbalanced output antenna tuner? That is,
> can the antenna be tuned _through_ the balun?
>
> If anyone has any ideas about how to improve a simple antenna setup with
> more or less easy changes (at least until this miserable winter is over)
> I'd appreciate hearing them.
>
> john

1509. Re: IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 00:00:48 UTC
From: dinoal7lz@aol.com
Message-ID: <20010309190048.22156.00000958@ng-ch1.aol.com>
Source record: 54205

Or let Scott Malcom fix it for you...he did for my IC-211 and many others.
Great service at reasonable rates. See:

http://www.angelfire.com/biz2/mts/

GL -- Dino KL0S/4

1510. Odetics GPStar???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 01:19:12 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <taj08nhkftjlcb@corp.supernews.com>
Source record: 54206

HELP

I just bought a Odetics GPStar Time and Frequency System on ebay. I haven't
received it yet but I know the power supply and antenna are missing. The ad
said it requires +12 and +5 volts which I have. In additon I have a MICRO
PULSE GPS N 1334NW/A GPS antenna that I'm going to try to use with the unit.
My main
interest is getting the PPS for disciplining an oscillator.
Odetics doesn't recognize the model number 335-101-1 that was given on ebay,
it could be wrong. BTW the ebay number is 563393815 and it has a picture.
If anyone can point me to where I can get additional info I'd appreciate it.
thanks
hank wd5jfr

1511. Re: Wireless Speaker System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 01:26:40 UTC
From: hrbcrb@aol.com.goaway
Message-ID: <20010309202640.06927.00000584@ng-mo1.aol.com>
Source record: 54207

Hello Witty

You may want to consider a frequency other than the 900Mhz area. Amateur radio interest in this band has increased as commercial radios are now plentyful since Nextel came to market. Many folks with part 15 900Mhz gear may find it unusable.

Hugh KF6HHS
Retired, now life moves at my pace.
please note spam filter

1512. Re: Antenna Support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 02:43:13 UTC
From: "Stan Labinsky Jr." <stanbarb@warwick.net>
Message-ID: <3AA994C1.25448C5B@warwick.net>
Source record: 54208

If you can find any 40's or 50's vintage ARRL Antenna or Handbooks, they dealt with 2x4 "A" frame supports. Not too common any more with Rohn and the like now being the stuff to use. But with the advent of pretreated lumber, wooden supports just might not be the "you've got to paint it regularly" hassle that they used to be. I seem to remember structures of about thirty feet or so being mentioned.
Stan

Willaim Ellis wrote:
>
> Looking for any input about constructing antenna supports for wire antennae.
> You guessed it, I have no trees. I like to experiment with different types.
>
> Bill Ellis

1513. Re: need TNC-2 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 10:50:08 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <PUGpOjOtMkLI+oLhAWRZb5MRCsLS@wingate>
Source record: 54210

On Wed, 7 Mar 2001 18:08:27 +0000 (UTC) Skipp <skipp@pilot.ucdavis.edu>
wrote:

>: Spyros Kintzonides <spkintz@the.forthnet.gr> wrote:
>: I want to build a low cost 1200 packet modem for packet VHF. Can anyone help
>: me by sending me a schematic by e-mail? Thank you and 73's de SV2BXC Take a
>: look at www.geocities.com/sv2bxc
>
>A circuit diagram for the TAPR TNC-2 or the same/similar MFJ-1270 or 1274
>is what your after. Various software versions can be placed in the TNC
>depending on your desires. Node software is on the
>http://sonic.ucdavis.edu web page amateur radio section.

TNC2 clone schematic and PCB artwork are available from my pages at:

http://www.terra.es/personal2/melus0/gwlelec.html

73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

1514. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 10:50:09 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <3wSqOopLM6Hyubp2sosLaqDac9zw@wingate>
Source record: 54209

On Wed, 7 Mar 2001 13:15:46 +0000 "Ian White, G3SEK" <G3SEK@ifwtech.com>
wrote:
>
>It would indeed be nice to take the X-Y outputs from the 8552 IF
>plugins, and feed them into a PC where software could provide many of
>the facilities of a modern all-digital analyzer:
(SNIP)
>It's on my project list, but I can't help feeling that someone,
>somewhere must have done it already. There are thousands of those units
>out there, many passing into the hands of hams, and the RF performance
>is still excellent. As Jeff identifies, it's just the analog output
>that's holding us back.
>
>There doesn't seem to be anything on the web... unless someone here
>knows better...

I didn't found anything last time that searched for it. But if you want to
discuss about the design, and build it, I will be very glad to participate.

Haven't to say that I've dreaming to interface it to the PC since a long
time, but the software part slowed me a bit.
73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

1515. Re: Antenna Support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 12:46:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AAA2213.255B215B@eznec.com>
Source record: 54211

I've had one in my back yard for nearly 20 years now, just over 40 feet tall and made from Douglas fir 2 X 4's. I've painted it a few times with deck or siding stain, and it's still sound. The trick is to keep it off the ground, which I do by setting it on three concrete pyramids with bolts to keep it from falling off. I had another one up for quite a few years made from 2 X 3's which was much lighter and plenty sturdy. I took it down when my Seqoia got taller than it was.

Roy Lewallen, W7EL

"Stan Labinsky Jr." wrote:
>
> If you can find any 40's or 50's vintage ARRL Antenna or Handbooks, they dealt
> with 2x4 "A" frame supports. Not too common any more with Rohn and the like now
> being the stuff to use. But with the advent of pretreated lumber, wooden
> supports just might not be the "you've got to paint it regularly" hassle that
> they used to be. I seem to remember structures of about thirty feet or so being
> mentioned.
> Stan
>
> Willaim Ellis wrote:
> >
> > Looking for any input about constructing antenna supports for wire antennae.
> > You guessed it, I have no trees. I like to experiment with different types.
> >
> > Bill Ellis

1516. Balun info needed for 1991 ARRL Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 16:02:34 UTC
From: k9sqg@aol.com
Message-ID: <20010310110234.04552.00000667@ng-bh1.aol.com>
Source record: 54212

Wonder what the Handbook, page 16-9, reports about number of turns, diameter, and type of coax versus frequency for a choke style balun.

Thanks for reading the posting.

73s,

Evan

1517. Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 16:38:22 UTC
From: rusticartist@aol.com
Message-ID: <20010310113822.06402.00000631@ng-mp1.aol.com>
Source record: 54213

Maybe someone here can help me out. I's considering some projects here and am thinking of using bnc antenna connectors, however I do not know the max rf power they are rated for. They are common on qrp rigs (5 watts or less) and seem to work FB.

My project will have an output of 25 watts max.....are BNC connectors ok for this?

Any advise would be appreciated......Thanks in advance.....Jerry kg2jf

1518. wooden antenna support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 17:34:51 UTC
From: Dick Elliott <elliotta@netusa1.net>
Message-ID: <rytq6.198$CW1.1167@newsfeed.slurp.net>
Source record: 54214

Read your very interesting article. I live on the edge of the city park. I am trying to keep my yard look like it belongs with the surrounding settings. Could you direct me to the plans for a tower like yours? Thank you. W9FPF

1519. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 17:39:38 UTC
From: Dick Elliott <elliotta@netusa1.net>
Message-ID: <WCtq6.202$CW1.2951@newsfeed.slurp.net>
Source record: 54215

I have used bnc connectors since 1987 for projects and have experienced no failures. I have two home made 1/4 wave antennas with an SO239 as the base and a female bnc screwed on to them. No problems running 50 + watts to the verticals. One antenna has been in service since May of 1987 W9FPJ
"Rusticartist" <rusticartist@aol.com> wrote in message news:20010310113822.06402.00000631@ng-mp1.aol.com...
> Maybe someone here can help me out. I's considering some projects here and am
> thinking of using bnc antenna connectors, however I do not know the max rf
> power they are rated for. They are common on qrp rigs (5 watts or less) and
> seem to work FB.
>
> My project will have an output of 25 watts max.....are BNC connectors ok for
> this?
>
> Any advise would be appreciated......Thanks in advance.....Jerry kg2jf

1520. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 17:42:44 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9akq16.g64.w9wi@linux1.localdomain>
Source record: 54216

On 10 Mar 2001 16:38:22 GMT, Rusticartist <rusticartist@aol.com> wrote:
>Maybe someone here can help me out. I's considering some projects here and am
>thinking of using bnc antenna connectors, however I do not know the max rf
>power they are rated for. They are common on qrp rigs (5 watts or less) and
>seem to work FB.
>
>My project will have an output of 25 watts max.....are BNC connectors ok for
>this?

I don't know what frequency you're talking about, but I've used them at HF
at the 100-watt power level, and at VHF at up to 50 watts without any
trouble.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1521. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 19:07:13 UTC
From: Bob Weiss <bob.weiss@mail.verizon.net>
Message-ID: <3AAA7B9F.F128BDBD@mail.verizon.net>
Source record: 54217

I've used them as a replacement for the crummy RCA output connector on older Heath HF gear, with no failures at the 100 W power level.

Bob Weiss N2IXK

Rusticartist wrote:

> Maybe someone here can help me out. I's considering some projects here and am
> thinking of using bnc antenna connectors, however I do not know the max rf
> power they are rated for. They are common on qrp rigs (5 watts or less) and
> seem to work FB.
>
> My project will have an output of 25 watts max.....are BNC connectors ok for
> this?
>
> Any advise would be appreciated......Thanks in advance.....Jerry kg2jf

1522. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 20:11:47 UTC
From: Bob Lewis <rlewis@staffnet.com>
Message-ID: <JSvq6.239$CW1.3613@newsfeed.slurp.net>
Source record: 54218

The AMP company web page specifies their 50 ohm BNC connectors for a maximum working voltage of 500 volts RMS. With a 1:1 SWR it would take 5KW to develop that much voltage. The maximum current is not specified but it should be as good as any RG58 coax you are going to get to fit into the connector. You should be way on the safe side with 25 watts.

1523. Power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 21:11:26 UTC
From: bill hennessy <hennessy@281.com>
Message-ID: <2Mwq6.806$1x.208178@paloalto-snr1.gtei.net>
Source record: 54219

I just built a little radio from a PC board. It runs off of a 9 volt battery. I have a 12 volt power supply with 5 amps. If I hitch the radio up with this power supply will It be to much and blow the components?

1524. Re: RG-8X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 23:31:10 UTC
From: 2w8ji@akorn.net
Message-ID: <3aaab794.457197116@news.accessunited.com>
Source record: 54220

>>
>> While I don't think I misinterpreted it, everyone who has answered (including
>> several who answered in private emails) agrees that it's flat wrong (maybe a
>> typo), and that RG8-X is good for one heck of a lot more than 25 W.
>

You'll find the ratings VERY conservative on good quality RG-8X.

I use RG-8X at 1500 watts all the time, and have never had a failure
ever.

I have some test cables that were made in the early 1980's, and they
are still working. They were used on a test bench checking new PA's.
Right now one set of those cables is between a 1500 watt 6 meter
amplifer and the power meter and from there to feedline. While they
get warm on CW at that frequency and power level, they haven't had
problems.

73 Tom

1525. Re: Article on Noise Canceling of Power line noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 23:35:03 UTC
From: 2w8ji@akorn.net
Message-ID: <3aaab90c.457573496@news.accessunited.com>
Source record: 54221

On Thu, 08 Mar 2001 00:34:13 GMT, enigma_y_2000@yahoo.com (Bob) wrote:

>HI,
>
>Doug DeMaw W1FB CQ June 1996.
>
>"How to build a simple QRN squasher."
>
>Works well!
>
>Bob

Hi Bob,

The DeMaw circuit does NOT work well, unless you are very lucky with noise to signal antenna phase.

That circuit does not shift phase more than a few degrees, except for a 180 degree flip as the level crosses zero. There is no mechanism in that circuit to rotate phase.

73 Tom

1526. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 23:38:36 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AAABA86.EDEACF38@GTE.net>
Source record: 54222

Rusticartist wrote:

> Maybe someone here can help me out. I's considering some projects here and am
> thinking of using bnc antenna connectors, however I do not know the max rf
> power they are rated for. They are common on qrp rigs (5 watts or less) and
> seem to work FB.
>
> My project will have an output of 25 watts max.....are BNC connectors ok for
> this?
>
> Any advise would be appreciated......Thanks in advance.....Jerry kg2jf

The internal portion of the BNC is the same as the N. While I have not used these levels, I would think legal limit at HF would be no problem.

Dale W4OP

1527. QST Mar & Apr 99?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-10 23:56:50 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <NTgbUDAC9rq6EwRM@invest.fsbusiness.co.uk>
Source record: 54223

I am seeking a copy of the two part article by WA2EBY in the above issues of QST.

It was a design for a FET amplifier for HF.

Can anyone help me with this?

Many thanks.

Phil G4ZOW

1528. Re: Power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 01:32:34 UTC
From: STEVE RATZLAFF <sratzlaf@flash.net>
Message-ID: <3AAAD539.55182D0C@flash.net>
Source record: 54224

Hi Bill,
The radio was designed to work off of 9volts; that means all the transistor's biassing was for 9volts. It might run off 12 volts, but may not work properly. Also, if the voltage rating of the electrolytic capacitors were only 10 volts, you would be stressing them. I would not take the chance. If you have measured your 12 volt supply and it really reads 12volts, not 13.8 or something else, then a quick and dirty voltage reduction scheme would put 5 rectifier diodes in series to drop 12 volts to a nominal 9 volts (nominal .6v drop for each diode)--use the common 1N4000 series diodes, rated for 1 amp. Or choose the number of diodes to drop whatever voltage your supply really puts out, to around 9 volts. 8.5-9.5volts should be OK.
And, of course, why not just run the radio with the 9volt battery it was designed for.
Steve

bill hennessy wrote:
>
> I just built a little radio from a PC board. It runs off of a 9 volt
> battery. I have a 12 volt power supply with 5 amps. If I hitch the radio
> up with this power supply will It be to much and blow the components?

1529. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 02:12:47 UTC
From: "Al, N2NKB"
Message-ID: <zaBq6.3733$Rb.293592@bgtnsc05-news.ops.worldnet.att.net>
Source record: 54225

Excellent point Dale.
In fact, you have just motivated me to go downstairs to the basement and pull out some adapters. I am now holding a male N connector that mates perfectly with a female SMA connector. It doesn't lock of course, but it provides a great RF path. The coupling nut on an N connector is there for mechanical reasons, the RF path flows through the ring about the center conductor.
I saw this a few years ago, and I was amazed. Hopefully other NG readers will appreciate this also.
Al

Dale Parfitt wrote in message <3AAABA86.EDEACF38@GTE.net>...
>
>
>Rusticartist wrote:
>
>> Maybe someone here can help me out. I's considering some projects here and am
>> thinking of using bnc antenna connectors, however I do not know the max rf
>> power they are rated for. They are common on qrp rigs (5 watts or less) and
>> seem to work FB.
>>
>> My project will have an output of 25 watts max.....are BNC connectors ok for
>> this?
>>
>> Any advise would be appreciated......Thanks in advance.....Jerry kg2jf
>
>The internal portion of the BNC is the same as the N. While I have not used these
>levels, I would think legal limit at HF would be no problem.
>
>Dale W4OP
>

1530. How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 02:59:06 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AAAE9FA.591AE73F@ix.netcom.com>
Source record: 54226

See web page
http://www.geocities.com/wa2ise/radios/repair.htm
Secret is to keep air away from freshly scraped aluminum.
A puddle of molten solder will do this.

1531. Re: Odetics GPStar???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 05:20:18 UTC
From: Tom Woodrow <tomwoodrow@internetconnect.net>
Message-ID: <3AAB0B12.9B441CD3@internetconnect.net>
Source record: 54227

I think digikey now sells some GPS antennas and stuff. Charh it out at
www.digikey.com

Tom Woodrow

Henry Kolesnik wrote:
>
> HELP
>
> I just bought a Odetics GPStar Time and Frequency System on ebay. I haven't
> received it yet but I know the power supply and antenna are missing. The ad
> said it requires +12 and +5 volts which I have. In additon I have a MICRO
> PULSE GPS N 1334NW/A GPS antenna that I'm going to try to use with the unit.
> My main
> interest is getting the PPS for disciplining an oscillator.
> Odetics doesn't recognize the model number 335-101-1 that was given on ebay,
> it could be wrong. BTW the ebay number is 563393815 and it has a picture.
> If anyone can point me to where I can get additional info I'd appreciate it.
> thanks
> hank wd5jfr

1532. I'd rather switch than switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 05:34:20 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AAB0E5C.9247FDEB@toast.net>
Source record: 54228

I found that my new transceiver picked up some strange noise. It was most prominent on 80 meters. The noise sounded like intermittent line related noise (60 hz buzzing). The spectrum display on the transceiver (Icom 756 pro) showed a band of spikes, with one spike about every 800 hz, and the group of spikes would occupy about 20 to 30 khz of band space, and the space it occupied would move around unpredictably. It was strong enough to make it hard to listen to all but the strongest signals. I tried turning things in the house off, one by one, until I finally traced it to my computer network. I have three computers, hooked together in a network hub, and one of the computers is at my ham station.

Well, I found that disconnecting the network cable from the computer at the ham station would usually stop the noise after a few seconds. I figured that the network was just sending messages back and forth all by itself to keep from getting bored. I tried putting numerous turns of the network cable through a big FT 271-61 toroid, and it had no effect at all, no matter where I put the core. Finally, I tried networking just the computer in the ham shack with one of the others using a crossover cable, and not using the network hub (which is required for more than two computers in a network). Bingo!- good network connection, no noise. So the network hub (a Linksys 5-port 10/100 mb/s hub, about a $40 item, if I remember right) was the source.

I figured maybe the hub was putting noise back on the power line, so I tried wrapping the wire from the plug-in transformer around a toroid before plugging it into the hub. This didn't help at all.

Finally, I noticed something strange- it was quite a large wall wart, but it was very light- there couldn't be a big transformer in there. Then I tumbled- it was a miserable little switching power supply. I sawed it open, and found that it had a circuit board, with a couple of little high frequency transformers, and a lot of components. Obviously, the toroid I tried in the line from the transformer to the hub was useless- the little devil was plugged right into the power lines.

I put it on the workbench and tried to arrange some toroids, common mode and differential mode, on the ac input, and nothing would keep the noise from getting into the power lines- I gave up, got a 6.3v filament transformer, bridge, filter cap, LM317 adjustable regulator and two resistors, and made a 3.3v dc regulated supply for the hub. It's now as quiet, rfi-wise, as you could want.

It was new to me that a wall transformer could contain a switching power supply. It was also interesting that during the tracing of the noise, the radio was operating on a car battery, so the noise wasn't getting in through its power leads. The power lines in the house were radiating the rf noise, and it was being picked up by my wire antenna, outside the house.

One other interesting thing was that the noise would disappear or at least shift frequency when I disconnected the network cable from one of the computers. I surmise the reason is that the switching power supply draws more from the lines, and injects more noise into them, when its load increases.

john

1533. Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 05:44:20 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AAB10B4.61AF70CC@toast.net>
Source record: 54229

I notice that my computer monitor puts a lot of noise into my
receiver. It's especially noticeable when I'm tuned to some carrier,
which sounds buzzy and unclear, and then becomes clean when I turn the
monitor off. It improved things when I grounded the chassis of the
monitor with some tubular braid to the same point as the computer and
the radio, but it's still there to some degree.
It occurred to me that one of those LCD monitors might put out a lot
less noise, since there's no high voltage or current at high frequencies
for deflection. Since they're not cheap, I'd like to know first, has
anyone tried one of these, and is it actually better?

john

1534. AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 07:47:32 UTC
From: paolo@odone.it
Message-ID: <006501c0a9ff$7d467ce0$5f791c97@odone>
Source record: 54230

I am very interested on a low phase noise DDS, to be used as 1st LO on a single conversion homebrew transceiver, (9MHz IF).
Right now I am using a well known AD9850 clocking at 120MHz (noisy oscillator).
Is there any project using an AD9854 clocked at 300MHz (external clock)?
Thanks.
Paul i1odp

1535. Re: Ramsey FX-146 diode & Mic information query, or web site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 09:25:07 UTC
From: pmunsel@aol.com
Message-ID: <20010311042507.19059.00000688@ng-co1.aol.com>
Source record: 54231

Ramsey did have a website at one time, but they are not very good at responding to e-mails... I have built some of their kits, and was less than pleased with the performance. For info, look at some of the Mod pages, they will sometimes have info which may help you in setting the freqs with the diodes. If this doesn't help, let me know, and I'll try to find somethinng for you. I still have the manual for the 440 version, and we may be able to "devise & develop" the freq settings for you with that info.
73,
Paul Munsel N5XMV

1536. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 12:15:14 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <i8qf89.sp2.ln@localhost.localdomain>
Source record: 54233

John O'Flaherty wrote:

> I notice that my computer monitor puts a lot of noise into my
> receiver.

Computer monitors can be a real nightmare. You can get interference
from the video signal, harmonics of the H and V sync, hash from
digital control circuitry and noise from the switching power supply.
If the monitor is very close the receiver, the magnetic field can
cause FM of the VCO circuit in a PLL rig.

If the signal is radiated directly from the monitor, there is very little
you can do about it. Moving the monitor further from the rig or
moving the receiving antenna further from the monitor will probably
help.

If the signal is radiated from the power or VGA cables, you should
be able to reduce it with a couple of large ferrite cores. This sounds
easy in theory but can be very difficult in practice.

A lot of monitors have an energy-saving feature that puts the monitor
into a low power mode when there are no sync-pulses from the
computer. Check your screen saver and BIOS settings to see
if you can put the monitor to sleep when you are not using the
computer. Changing the screen resolution won't get rid of the
QRM but it might move it to a different frequency. Computers
always work in accordance with Murphys law - if there is
only one harmonic within the entire band, it will always be
on the frequency that you want to use.

Good Luck.

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1537. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 12:20:46 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <uiqf89.sp2.ln@localhost.localdomain>
Source record: 54232

Robert Casey wrote:

> See web page
> http://www.geocities.com/wa2ise/radios/repair.htm
> Secret is to keep air away from freshly scraped aluminum.
> A puddle of molten solder will do this.

I haven't tried it but I heard that a film of ordinary motor oil
will do the job.

Ed. EI9GQ

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1538. FS: Group of 5 Books on Transistors/Electronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 14:43:30 UTC
From: oldbooks78@aol.com
Message-ID: <20010311094330.26170.00000752@ng-ca1.aol.com>
Source record: 54234

I currently have for sale a group of 5 books on transistors/electronics, all in very good or better condition. The books are: (1) "Transistors: Principles and Applications" by R.G. Hibberd, published in 1965. The 304 page hardbound book is in fine condition, fresh and clean except for a Naval Research Lab property stamp on the title page and again inside the rear cover. (2) "A Dictionary of Electronic Terms" edited by Robert Beam, published in 1959 by Allied Radio. The softbound 80 page book is in very good condition, clean except for a previous owners name marked out inside the front cover. (3) "Understanding Transistors, Allied's Handbook of Transistor Fundamentals" by Milton Kiver, published in 1962 by Allied Radio. The 64 page softbound book is in fine condition, clean inside and out. (4) "Allied's Electrical Data Handbook" by Eugene Carrington, published by Allied Radio in 1956. The 64 page softbound book is in very good condition, clean except for a previous owners name marked out inside the front cover. (5) "The Practical Dictionary of Electricity and Electronics" by R.L. Oldfield, published in 1959 by the American Technical Society. The 216 page hardbound book is in fine condition, fresh and clean inside and out, in a very good dust jacket (some wear to the dust jacket edges). Available as a set for $8 plus $3 postage (book rate within the US, at cost elsewhere). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

1539. Re: QST Mar & Apr 99?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 14:52:05 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <piMq6.371527$w35.58737613@news1.rdc1.nj.home.com>
Source record: 54235

The ARRL will sell you the 1999 CD-ROM -- it's a neat thing to have since
it's searchable and include QEX as well.

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:NTgbUDAC9rq6EwRM@invest.fsbusiness.co.uk...
> I am seeking a copy of the two part article by WA2EBY in the above
> issues of QST.
>
> It was a design for a FET amplifier for HF.
>
> Can anyone help me with this?
>
> Many thanks.
>
> Phil G4ZOW
>

1540. Need M57726 PA module

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 15:24:25 UTC
From: Duffer <hduff@ica.net>
Message-ID: <3AAB98A9.6D21E6C3@ica.net>
Source record: 54236
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I'm looking for a Mitsubishi M57726 2 meter power module to repair an
old Yaesu FT-270R.
New or used would be fine so long as it is known to be working fine.

Please reply by e-mail.
Thanks.

1541. Diagram Needed Singer FM 10 Service Monitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 16:58:51 UTC
From: Heath <radiovintage@hotmail.com>
Message-ID: <14Oq6.123$7R3.148340@nntp3.onemain.com>
Source record: 54238
Cross-posted to:
rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi,

I am in need of a schematic for a Singer model FM 10 Service Monitor.Will
pay reasonable cost for copy.
THANKS,
...Charlie...KC0EH...

1542. Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 17:10:16 UTC
From: "John (KB3CDF)" <murphman@erols.com>
Message-ID: <98gbi0$14f$1@bob.news.rcn.net>
Source record: 54239
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I have read all these great tales of excellent success with inverted V and flat top antennas. The word spoken is "get them as high as you can".

Can anyone suggest ideas for "man-made" supports that would enable such worthy antenna beasts?

Thanks in advance,
--
~~~
John
73's de KB3CDF
~~~

1543. Re: Diagram Needed Singer FM 10 Service Monitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 17:28:22 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <WAOq6.24432$Ok4.2597399@news1.rdc1.ct.home.com>
Source record: 54240
Cross-posted to:
rec.antiques.radio+phono,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

try rec.radio.swap
lots of two-way types there.

"Heath" <radiovintage@hotmail.com> wrote in message
news:14Oq6.123$7R3.148340@nntp3.onemain.com...
> Hi,
>
> I am in need of a schematic for a Singer model FM 10 Service
Monitor.Will
> pay reasonable cost for copy.
> THANKS,
> ...Charlie...KC0EH...
>
>

1544. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 18:01:54 UTC
From: Keith Wood <kw@bctv.com>
Message-ID: <3AABBD92.D479ADE2@bctv.com>
Source record: 54241
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"John (KB3CDF)" wrote:
>
> I have read all these great tales of excellent success with inverted V
> and flat top antennas. The word spoken is "get them as high as you
> can".
>
> Can anyone suggest ideas for "man-made" supports that would enable
> such worthy antenna beasts?

Take 3 noncunductive poles. Tie them hear the top, then lift them up
into a tripod (teepee supports). Just drop the line across the fork and
you're in business.

1545. Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 18:05:10 UTC
From: novatech@eskimo.com
Message-ID: <98geom$7u0$1@eskinews.eskimo.com>
Source record: 54242

paolo@odone.it ("Paolo Odone") writes:

>I am very interested on a low phase noise DDS, to be used as 1st LO on a =
>single conversion homebrew transceiver, (9MHz IF).
>Right now I am using a well known AD9850 clocking at 120MHz (noisy =
>oscillator).
>Is there any project using an AD9854 clocked at 300MHz (external clock)?
>Thanks.
>Paul i1odp

The AD9854 is a much nicer part than the AD9850. There are more bits in the Phase accumulator, phase truncation path and DAC. You will be pleased with the part.

Analog Devices has a nice demo board, but (shameful plug here) my company makes a nice board (http://www.novatech-instr.com, see the DDS8m), but it will be too expensive for hobby work.

You have to choose your oscillator and PLL mult factory carefully to get good performance. Off-the-shelf dip oscillators are NO GOOD!!

Send some email and I can give some tips (without the sales pitch).

Have fun.

--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

1546. Re: 10m to 2m transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 19:00:51 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <3AABCB63.657C@bellsouth.net>
Source record: 54243

Leland,

I *think* there are some AM operations on 29.000. There is where I
hear Amers, and have operated on a limited basis in the past.

Jerry,

K4KWH

Leland C. Scott wrote:
>
> "Spyros Kintzonides" <spkintz@the.forthnet.gr> wrote in message
> news:984060038.674899@athnrd02.forthnet.gr...
> > Can anyone know how to build a transverter from 11m band to 2 m ham band?
>
> Are you sure you really mean "11m" to 2m? If your not a licensed Ham fat
> chance you're going to get any help here. If you are licensed, and your
> going to use a stock CB radio, the only mode you can use would be SSB. As
> far as I know AM is not permitted on 2m. If you want to run FM, then you
> need to modify the CB.
>
> --
> Leland C. Scott
> KC8LDO

1547. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 19:09:25 UTC
From: Richard Clark <kb7qhc@home.com>
Message-ID: <0tinat8bf2n1g7ble5c3vmdpef10bd0pe7@4ax.com>
Source record: 54244
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Sun, 11 Mar 2001 12:10:16 -0500, "John (KB3CDF)"
<murphman@erols.com> wrote:

>I have read all these great tales of excellent success with inverted V
>and flat top antennas. The word spoken is "get them as high as you
>can".
>
>Can anyone suggest ideas for "man-made" supports that would enable
>such worthy antenna beasts?
>
>Thanks in advance,

Hi John,

There's a glut of military surplus field masts on the market. They
come kitted up ready to deploy (no instructions provided) a 30 to 40
foot tall mast guyed at two or three levels. You get the mast as
stackable 5 foot tubes (heavy wall), guy plates, guy lines, stakes,
and sledge hammer for stakes (no instructions provided).

As a kit, not much bigger than my old seabag (same color, same
material). $90 and 40 footer was mine.

73's
Richard Clark, KB7QHC

1548. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 19:15:35 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AABCED7.2EC2D431@IEEE.org>
Source record: 54245
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"John (KB3CDF)" wrote:
> Can anyone suggest ideas for "man-made" supports that would enable
> such worthy antenna beasts?

I use 2x4s in a 4x4 configuration for the bottom sections and then
fiberglas pipe for the upper sections.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1549. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 19:17:45 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AABCF59.344336E2@IEEE.org>
Source record: 54246
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Richard Clark wrote:
> As a kit, not much bigger than my old seabag (same color, same
> material). $90 and 40 footer was mine.

Last time I checked, fiberglas pipe was about $2 per foot.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1550. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 21:15:54 UTC
From: GAR GARIGUE <garigue@home.com>
Message-ID: <3AABF9B7.2471B6F6@home.com>
Source record: 54148
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hello there John ... Tom KI3R Port Vue Pa. I ran an inverted vee for a number of years on 40 using metal TV mast. Now I know some guys will say that the metal and its inherent length will cause difficulties. I had none. However I did turn down a dowel rod to fit inside the last section and used a HyGain balun there. Again if there were problems my signal or neighbors didn't let me know. Just be sure to guy obviously ..I used 2 at 90 degrees to the wires ... rayon line if I remember.

God Bless 73 Tom

"John (KB3CDF)" wrote:
>
> I have read all these great tales of excellent success with inverted V
> and flat top antennas. The word spoken is "get them as high as you
> can".
>
> Can anyone suggest ideas for "man-made" supports that would enable
> such worthy antenna beasts?
>
> Thanks in advance,
> --
> ~~~
> John
> 73's de KB3CDF

1551. Info on duplexers for my FT-767GX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 22:13:16 UTC
From: ke6emr@aol.com
Message-ID: <20010311171316.06906.00000775@ng-mo1.aol.com>
Source record: 54149

Thanks for reading this message,

I have a Yaesu FT-767GX with all three modules. My antennas are the R6000 HF/6 and a dual band for 2M/70cm. The radio has 4 antenna connecters one for HF, 6M, 2m, and 70cm. I would like information on referances for building duplexers for running the hf/6 and 2/70 together. Or good commercial duplexer information. Also looking for a accessories listing for the FT-767GX

Thanks Jim

1552. Re: wooden antenna support

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 22:18:50 UTC
From: Dick Elliott <elliotta@netusa1.net>
Message-ID: <wPSq6.703$VG2.2924@newsfeed.slurp.net>
Source record: 54150

OPPsssss my call sign is W9FPJ....sorry.
"Dick Elliott" <elliotta@netusa1.net> wrote in message
news:rytq6.198$CW1.1167@newsfeed.slurp.net...
> Read your very interesting article. I live on the edge of the city park. I
> am trying to keep my yard look like it belongs with the surrounding
> settings. Could you direct me to the plans for a tower like yours? Thank
> you. W9FPF
>
>

1553. Wanted - Circuit diagram / description

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 22:57:02 UTC
From: Martin John Hallsworth <_NOSPAM_FOR_ME_Martin@g1gyc.demon.co.uk>
Message-ID: <984352052.1750.0.nnrp-12.9e98acde@news.demon.co.uk>
Source record: 54152
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.design,sci.electronics.repair,uk.radio.amateur

Hello,
I am looking for a circuit diagram and circuit description
for the Kenwood TMG 707 (any variant A or E) VHF / UHF
amateur band transceiver

Thanks Martin

~~~~~~
Each of us is given a bag of tools, shapeless mind and a book of Rules
~~~~~~
Remove :-

_NOSPAM_FOR_ME_

from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~
~~~~~~

1554. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 23:07:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AAC052E.6643474B@eznec.com>
Source record: 54151
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

The plans for the wood A-frame is still in the ARRL Antenna Book, at least in the 17th Edition, as it's been for decades.

Roy Lewallen, W7EL

"John (KB3CDF)" wrote:
>
> I have read all these great tales of excellent success with inverted V
> and flat top antennas. The word spoken is "get them as high as you
> can".
>
> Can anyone suggest ideas for "man-made" supports that would enable
> such worthy antenna beasts?
>
> Thanks in advance,
> --
> ~~~
> John
> 73's de KB3CDF

1555. F/S 3-1000Z TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 23:55:46 UTC
From: kf4toh@aol.com
Message-ID: <20010311185546.06729.00000836@ng-ct1.aol.com>
Source record: 54153

I HAVE 2 FULL POWER PULLS EIMAC 3-1000Z TO SELL
project#1 SWITCHING TO 8877 TUBE IN MY HOMEBREW. I WILL GUARANTEE THESE TUBES
TO HAVE FULL POWER WHEN YOU GET THEM
RARE AND HARD TO FIND
$350 EACH TRIPLE PACKED
AND SHIPPED LOWER 48
MIGHT TRADE FOR A SET OF 3CX800A7 TUBES.PROJECT#2
GOING TO CHANGE OUT A ALPHA FROM 8874's TO 800'S
THANKS JOE KF4TOH

1556. Re: Need support. NO TREEs and No TOWER.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-11 23:58:58 UTC
From: Glen <ozdream@iname.com>
Message-ID: <3AAC1142.35C67B87@iname.com>
Source record: 54154
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

G'day, as for the inverted "V" I have a B & W end fed wire antenna in a inverted "V" configuration and it works great the centre is about 50 feet high and both ends about 12 feet off the ground.

I work DX all over the world and have good coverage on 80 meters 300 to 600 miles at least running only 100 watts..

Glen VE7SDX

"John (KB3CDF)" wrote:

> I have read all these great tales of excellent success with inverted V
> and flat top antennas. The word spoken is "get them as high as you
> can".
>
> Can anyone suggest ideas for "man-made" supports that would enable
> such worthy antenna beasts?
>
> Thanks in advance,
> --
> ~~~
> John
> 73's de KB3CDF

--
Cheers, Glen ozdream@iname.com
ICQ #17239752

1557. Hams;dont be prosecuted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:14:08 UTC
From: Rod Marsh <rredbeak2@dingoblue.net.au>
Message-ID: <3aac1532$0$25468$7f31c96c@news01.syd.optusnet.com.au>
Source record: 54159

Ive noticed MANY CB'ers posting How to MODIFY & operate Ham equipment on the CB freq's [assuming its only cb they're wanting],that is how to get "general coverage TX".

It is ILLEGAL [in VK at least] to assist ANYONE with modifications to equipment for unlicensed/illegal usage,This is punishable by law via the ACA.
You'll notice the NG's are full of questions on HOW TO,They blatantly ask without ANY concern if you're caught helping them,and maybe afterwards even boast about how they PLASTERRED a ham.

In my opinion you first should ascertain their amateur callsign,THEN CHECK IT.

The world is full of apathy,statements like "what can i do to make any difference" ,WELL, you can simply by stop helping illegal activity.

The majority of hams are not involved here but there are a few who either want to show "how clever" they are or are just apathetical.
Ive got my "flack jacket"on because im gonna get roasted here but the short answer is stop helping illegal activities,there is no grey its either black or white.

Cheers people,Rod

1558. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:17:08 UTC
From: 9a3mr@usa.net
Message-ID: <1103_984356227@as1-m60.net.hinet.hr>
Source record: 54237

Always use notebooks with LCD monitors. This is simpliest way to avoid RFI to your receiver. Notebooks are
also more resistent then desktop PCs on strong RF fields from your transmitter.
Roland 9A3MR

1559. Re: I'd rather switch than switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:41:08 UTC
From: Russ Ellsworth <erg6@qwest.net>
Message-ID: <sSUq6.2803$gI6.564406@news.uswest.net>
Source record: 54155

Good info John. I'm glad I read the news today.; I have a similar network with hub that isn't in service yet but now I know what to look for if I have problems.The PS is also very lightweight!!!!! Ain't Hams wonderful!!!
Russ Ellsworth
WA6CWV

"John O'Flaherty" <oflahert@toast.net> wrote in message news:3AAB0E5C.9247FDEB@toast.net...
> I found that my new transceiver picked up some strange noise. It was
> most prominent on 80 meters. The noise sounded like intermittent line
> related noise (60 hz buzzing). The spectrum display on the transceiver
> (Icom 756 pro) showed a band of spikes, with one spike about every 800
> hz, and the group of spikes would occupy about 20 to 30 khz of band
> space, and the space it occupied would move around unpredictably. It was
> strong enough to make it hard to listen to all but the strongest
> signals. I tried turning things in the house off, one by one, until I
> finally traced it to my computer network. I have three computers, hooked
> together in a network hub, and one of the computers is at my ham
> station.
> Well, I found that disconnecting the network cable from the computer
> at the ham station would usually stop the noise after a few seconds. I
> figured that the network was just sending messages back and forth all by
> itself to keep from getting bored. I tried putting numerous turns of the
> network cable through a big FT 271-61 toroid, and it had no effect at
> all, no matter where I put the core. Finally, I tried networking just
> the computer in the ham shack with one of the others using a crossover
> cable, and not using the network hub (which is required for more than
> two computers in a network). Bingo!- good network connection, no noise.
> So the network hub (a Linksys 5-port 10/100 mb/s hub, about a $40 item,
> if I remember right) was the source.
> I figured maybe the hub was putting noise back on the power line, so I
> tried wrapping the wire from the plug-in transformer around a toroid
> before plugging it into the hub. This didn't help at all.
> Finally, I noticed something strange- it was quite a large wall wart,
> but it was very light- there couldn't be a big transformer in there.
> Then I tumbled- it was a miserable little switching power supply. I
> sawed it open, and found that it had a circuit board, with a couple of
> little high frequency transformers, and a lot of components. Obviously,
> the toroid I tried in the line from the transformer to the hub was
> useless- the little devil was plugged right into the power lines.
> I put it on the workbench and tried to arrange some toroids, common
> mode and differential mode, on the ac input, and nothing would keep the
> noise from getting into the power lines- I gave up, got a 6.3v filament
> transformer, bridge, filter cap, LM317 adjustable regulator and two

> resistors, and made a 3.3v dc regulated supply for the hub. It's now as
> quiet, rfi-wise, as you could want.
> It was new to me that a wall transformer could contain a switching
> power supply. It was also interesting that during the tracing of the
> noise, the radio was operating on a car battery, so the noise wasn't
> getting in through its power leads. The power lines in the house were
> radiating the rf noise, and it was being picked up by my wire antenna,
> outside the house.
> One other interesting thing was that the noise would disappear or at
> least shift frequency when I disconnected the network cable from one of
> the computers. I surmise the reason is that the switching power supply
> draws more from the lines, and injects more noise into them, when its
> load increases.
>
> john
>

1560. Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:49:48 UTC
From: Joshua Paul Dewinter <dewinter@wsunix.wsu.edu>
Message-ID: <Pine.OSF.4.10.10103111642450.3075-100000@unicorn.it.wsu.edu>
Source record: 54157

HI. Josh DeWinter here again. Thanks for all the help from my last inquiry, everyone who responded. I've ordered the books that were recommended, and I'm looking forward to diving into them. (This is not a sudden urge for me, but a lifelong desire. I hope these can provide a lot more info. Its amazing how you can flounder around forever yourself, but when you ask someone who knows, how much quality information you can find).

OK. Enough of the last post. Here's my new scenario/question: I would like to build some kind of a VHF reciever project. It was recommended to me that I find and use one of those nifty FM reciever-on-a-chip IC's, as I don't know a ton about the individual stages of FM reciever construction on the component level yet. Can anyone recommend a good IC I can find to do this? The simpler the operation and external components, the better. I am looking to recieve right smack in the middle of the VHF business band, around 154 MHz.
Thanks for your help

-Josh DeWinter
dewinter@wsunix.wsu.edu

1561. Re: Odetics GPStar???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:51:39 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AAC1D9B.21F673E0@nettally.com>
Source record: 54158

I don't think Odetics is a GPS manaufaturer. I think they make broadcast station/studio equipment. So the GPS you have might be an OEM version of one of the more traditional manufaturers. Why don't you open it up and look at the boards and chipset?

Also, if when you power it up, you can measure the voltage on the antenna cable, you can match it with another antenna. Most have a preamplifier inside which requires an operating voltage.

Henry Kolesnik wrote:

> HELP
>
> I just bought a Odetics GPStar Time and Frequency System on ebay. I haven't
> received it yet but I know the power supply and antenna are missing. The ad
> said it requires +12 and +5 volts which I have. In additon I have a MICRO
> PULSE GPS N 1334NW/A GPS antenna that I'm going to try to use with the unit.
> My main
> interest is getting the PPS for disciplining an oscillator.
> Odetics doesn't recognize the model number 335-101-1 that was given on ebay,
> it could be wrong. BTW the ebay number is 563393815 and it has a picture.
> If anyone can point me to where I can get additional info I'd appreciate it.
> thanks
> hank wd5jfr

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

1562. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 00:55:20 UTC
From: mcalhoun@ksu.edu
Message-ID: <98h6po$ee7@unix2.cc.ksu.edu>
Source record: 54156

Robert Casey <wa2ise@ix.netcom.com> writes:
>Secret is to keep air away from freshly scraped aluminum.
>A puddle of molten solder will do this.

At several hamfests I've seen something which looked just like a welding rod but was used (with a propane torch) to solder/weld aluminum.

On the home front, I've had some success soldering through a blob of pasty silver polish.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

1563. Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 01:22:03 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <%wVq6.145928$Vj5.21795634@news02.optonline.net>
Source record: 54160

Paolo,

Be careful with the 9854 and high speed clocks. The standard part is only rated to 200 MHz. There is a second part that has a metal heat sink sticking out of the bottom of it. This part is rated for 300 MHz.

The 9854 is fairly quiet in terms of phase noise. However it has a lot of spurs coming out of it. I would highly recommend some kind of VCO locked to the 9854 if you are going to use it as a first LO.

Most people lock the VCO to the dds via a PLL chip. If you do it this way you may not have to clock the dds quite as fast.

Hope this helps.

Bob Camp
KB8TQ
""Paolo Odone"" <paolo@odone.it> wrote in message
news:006501c0a9ff$7d467ce0$5f791c97@odone...
I am very interested on a low phase noise DDS, to be used as 1st LO on a single conversion homebrew transceiver, (9MHz IF).
Right now I am using a well known AD9850 clocking at 120MHz (noisy oscillator).
Is there any project using an AD9854 clocked at 300MHz (external clock)?
Thanks.
Paul i1odp

1564. Re: Hams;dont be prosecuted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 01:28:25 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <ZCVq6.3286$o64.309947@paloalto-snr1.gtei.net>
Source record: 54161

"Rod Marsh" <rredbeak2@dingoblue.net.au> wrote in message
news:3aac1532$0$25468$7f31c96c@news01.syd.optusnet.com.au...
> Ive noticed MANY CB'ers posting How to MODIFY & operate Ham equipment on
the
> CB freq's [assuming its only cb they're wanting],that is how to get
"general
> coverage TX".
>
> It is ILLEGAL [in VK at least] to assist ANYONE with modifications to
> equipment for unlicensed/illegal usage,This is punishable by law via the
> ACA.
> You'll notice the NG's are full of questions on HOW TO,They blatantly ask
> without ANY concern if you're caught helping them,and maybe afterwards
even
> boast about how they PLASTERRED a ham.
>
> In my opinion you first should ascertain their amateur callsign,THEN
CHECK
> IT.
>
> The world is full of apathy,statements like "what can i do to make any
> difference" ,WELL, you can simply by stop helping illegal activity.
>
> The majority of hams are not involved here but there are a few who either
> want to show "how clever" they are or are just apathetical.
> Ive got my "flack jacket"on because im gonna get roasted here but the
short
> answer is stop helping illegal activities,there is no grey its either
black
> or white.
>
> Cheers people,Rod

Personally, I figure that most hams know how to read a schematic and modify a circuit, so I never respond to these type of questions on a public forum. In some cases, I'll verify the requesters' callsign and then reply to them via personal e-mail, but the key is to never post the info on a public forum, especially to an anonymous poster.

73 de W6DKN

1565. Re: If Napster won't help - WE WILL! Read how inside!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 02:22:14 UTC
From: theosus@aol.com
Message-ID: <20010311212214.02254.00001010@ng-fy1.aol.com>
Source record: 54162

just download bearshare, from bearshare.com. No need to mess with IRC an those anal ops.

1566. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 03:00:04 UTC
From: ke6emr@aol.com
Message-ID: <20010311220004.07017.00000442@ng-mj1.aol.com>
Source record: 54163

Go to your local welding store. Two types of aluminum welding products are now available. One works just like a brazing rod and the other is welding rods for your electric welder.

Hope this info helps,

Jim KG6BJI

1567. Re: Odetics GPStar???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 05:49:26 UTC
From: Tom Woodrow <tomwoodrow@internetconnect.net>
Message-ID: <3AAC6366.84A5EC3C@internetconnect.net>
Source record: 54164

Actually they do make GPS stuff. The local rep keeps calling me to
switch from TrueTime.

Tom Woodrow

Joe Leikhim wrote:
>
> I don't think Odetics is a GPS manaufaturer. I think they make broadcast
> station/studio equipment. So the GPS you have might be an OEM version of one of
> the more traditional manufaturers. Why don't you open it up and look at the
> boards and chipset?
>
> Also, if when you power it up, you can measure the voltage on the antenna cable,
> you can match it with another antenna. Most have a preamplifier inside which
> requires an operating voltage.
>
> Henry Kolesnik wrote:
>
> > HELP
> >
> > I just bought a Odetics GPStar Time and Frequency System on ebay. I haven't
> > received it yet but I know the power supply and antenna are missing. The ad
> > said it requires +12 and +5 volts which I have. In additon I have a MICRO
> > PULSE GPS N 1334NW/A GPS antenna that I'm going to try to use with the unit.
> > My main
> > interest is getting the PPS for disciplining an oscillator.
> > Odetics doesn't recognize the model number 335-101-1 that was given on ebay,
> > it could be wrong. BTW the ebay number is 563393815 and it has a picture.
> > If anyone can point me to where I can get additional info I'd appreciate it.
> > thanks
> > hank wd5jfr
>
> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com
>
> http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
> "tv dinner by the pool,
> i'm so glad i finished school" -F.Zappa 1967
>
> "The Revolution will NOT be televised" -Gil Scott Heron
>
> "Whats he building in there?"- Tom Waits
>

> "The large print giveth
> and the small print taketh away..." Tom Waits.

1568. Re: If Napster won't help - WE WILL! Read how inside!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 11:13:26 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <m0bi89.0e4.ln@localhost.localdomain>
Source record: 54165

vnqncd@aol.com wrote:

> Napster is now censoring files - but w aren't!

This is all very interesting but it is way off topic for this NG.

Followup set to alt.flame

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1569. Re: Need M57726 PA module

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 11:54:45 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AACB905.31DD1E20@bloomer.net>
Source record: 54166
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

RF Parts sells them for $59.95. http://www.rfparts.com/ then click on Products, then RF Power Modules, then Mitsubishi....or try M57726 on their search page.

Scott
N0EDV

Duffer wrote:
>
> I'm looking for a Mitsubishi M57726 2 meter power module to repair an
> old Yaesu FT-270R.
> New or used would be fine so long as it is known to be working fine.
>
> Please reply by e-mail.
> Thanks.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1570. Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 12:33:39 UTC
From: richardh@iinet.net.au
Message-ID: <3aacbfe4.1422675@news.m.iinet.net.au>
Source record: 54167
Body handling: HTML body converted to readable text

Paolo
I have nearly got the software written for such a board driven by a
AT90S8535 (Atmel AVR) micro
Currently I can tune the DDS using a rotary encoder and get a n output
accurate to 1 Hz. I am writing the software for the keypad a t
present.
At some point I will have to do a second version of the boards for
this project. The DDS board will have to be redone because of some
errors and I will have to use different regulators - the current ones
get too hot at max clock.
As the boards are DS PTH they are quite expensive with a minimum setup
cost of about AUS$400 - if there is sufficient interest I will
proceed.
I am using the plastic (non heatsink) version of the AD9854 - the
slug version needs a special multilayer board. I can run mine at
150MHz and the output looks and sounds quite clean with no processor
noise on the output as the DDS is tuned with the rotary encoder.
This may be adequate for your needs - it would give a usable output to
60 MHz or so

Richard

On 11 Mar 2001 08:47:32 +0100, paolo@odone.it ("Paolo Odone") wrote:

>Messaggio in formato MIME composto da pi&#65533; parti.
>
>------=_NextPart_000_0062_01C0AA07.DE8DC5A0
>Content-Type: text/plain;
> charset="iso-8859-1"
>Content-Transfer-Encoding: quoted-printable
>
>I am very interested on a low phase noise DDS, to be used as 1st LO on a =
>single conversion homebrew transceiver, (9MHz IF).
>Right now I am using a well known AD9850 clocking at 120MHz (noisy =
>oscillator).
>Is there any project using an AD9854 clocked at 300MHz (external clock)?
>Thanks.
>Paul i1odp
>
>------=_NextPart_000_0062_01C0AA07.DE8DC5A0
>Content-Type: text/html;
> charset="iso-8859-1"
>Content-Transfer-Encoding: quoted-printable
>

>
>
>
>
I am very interested on a low phase noise DDS, to be used as 1st LO =
>on a=20
>single conversion homebrew transceiver, (9MHz IF).

>
Right now I am using a well known AD9850 clocking at 120MHz (noisy=20
>oscillator).

>
Is there any project using an AD9854 clocked at 300MHz (external=20
>clock)?

>
Thanks.

>
Paul i1odp

>
>------=_NextPart_000_0062_01C0AA07.DE8DC5A0--
>
>
>--
>Posted from [151.4.174.2]
>via Mailgate.ORG Server - http://www.Mailgate.ORG

http://www.iinet.net.au/~richardh/VK6BRO.htm

zaprichardh@iinet.net.au
(remove the zap)

1571. 2 meter transmitter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 13:44:52 UTC
From: JJS <jarrodsmith@hotmail.com>
Message-ID: <tapkmm7iude12a@corp.supernews.com>
Source record: 54168

I am looking for a small two meter transmitter in kit form. I am trying to build a transmitter for foxhunting purposes. The enclosure that I want to put it in is only three inches in diameter and an inch and a half (1.5 inches) thick.

Do anyone have any ideas on a kit to fit?

Thanks,
JJ, K5RPD

1572. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 13:56:10 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3aacd547.2298350@news.usfamily.net>
Source record: 54169

Hi,

Also make sure your monitor has a toroid on the wires going to the
neck of the CRT. If it doesn't buy a snap on one at Radio Sack and try
that.

Bob

On Sun, 11 Mar 2001 12:15:14 +0000, Eamon Skelton
<Xnospam@oceanfree.net> wrote:

>John O'Flaherty wrote:
>
>> I notice that my computer monitor puts a lot of noise into my
>> receiver.
>
>Computer monitors can be a real nightmare. You can get interference
>from the video signal, harmonics of the H and V sync, hash from
>digital control circuitry and noise from the switching power supply.
>If the monitor is very close the receiver, the magnetic field can
>cause FM of the VCO circuit in a PLL rig.
>
>If the signal is radiated directly from the monitor, there is very little
>you can do about it. Moving the monitor further from the rig or
>moving the receiving antenna further from the monitor will probably
>help.
>
>If the signal is radiated from the power or VGA cables, you should
>be able to reduce it with a couple of large ferrite cores. This sounds
>easy in theory but can be very difficult in practice.
>
>A lot of monitors have an energy-saving feature that puts the monitor
>into a low power mode when there are no sync-pulses from the
>computer. Check your screen saver and BIOS settings to see
>if you can put the monitor to sleep when you are not using the
>computer. Changing the screen resolution won't get rid of the
>QRM but it might move it to a different frequency. Computers
>always work in accordance with Murphys law - if there is
>only one harmonic within the entire band, it will always be
>on the frequency that you want to use.
>
>Good Luck.
>
>73, Ed. EI9GQ.
>

>--
>Remove 'X' to reply by mail.
>http://www.qsl.net/ei9gq
>
>Linux 2.4.2
>
>

1573. Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 14:51:04 UTC
From: arm@helix.nih.gov
Message-ID: <sn5r6.97$jg.232026@mencken.net.nih.gov>
Source record: 54170

Is it possible to wind a 4:1 coax cable choke balun for HF?

--

Andy Mitz (WA3LTJ)

1574. Re: Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 14:54:54 UTC
From: arm@helix.nih.gov
Message-ID: <2r5r6.98$jg.232086@mencken.net.nih.gov>
Source record: 54171

The TDA-7000 by Phillips is a FM receiver on a chip.
It just barely works on the FM broadcast band without an
RF stage. Also, the schematics you will find are all
for broadband FM. There is a rare and impossible to find
"narrowband FM" applications note that explains how to use
the chip for narrowband FM.

Another simple design approach is super regen. It is very
difficult to made super regen work with narrowband FM,
but Charles Kitchin has done this. See his recent QEX article.

Joshua Paul Dewinter (dewinter@wsunix.wsu.edu) wrote:
: HI. Josh DeWinter here again. Thanks for all the help from my last
: inquiry, everyone who responded. I've ordered the books that were
: recommended, and I'm looking forward to diving into them. (This is not a
: sudden urge for me, but a lifelong desire. I hope these can provide a lot
: more info. Its amazing how you can flounder around forever yourself, but
: when you ask someone who knows, how much quality information you can
: find).
:
: OK. Enough of the last post. Here's my new scenario/question: I would
: like to build some kind of a VHF reciever project. It was recommended to
: me that I find and use one of those nifty FM reciever-on-a-chip IC's, as I
: don't know a ton about the individual stages of FM reciever construction
: on the component level yet. Can anyone recommend a good IC I can find to
: do this? The simpler the operation and external components, the better.
: I am looking to recieve right smack in the middle of the VHF business
: band, around 154 MHz.
: Thanks for your help
:
: -Josh DeWinter
: dewinter@wsunix.wsu.edu
:
:
:

--

Andrew R. Mitz, Biomedical Engineer arm@helix.nih.gov
Laboratory of Systems Neuroscience
Section on Neurophysiology
National Institute of Mental Health
Bethesda, Maryland 20892-4401

1575. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 15:30:37 UTC
From: lasse.moell@swipnet.se
Message-ID: <3aaceabe.27011655@news.lin.foa.se>
Source record: 54172

If I recall correctly the plotter output from older HP stuff is NOT
HPGL nor GPIB!

So I guess the best/simplest way is to get two A/D convertes and write
some software... (not me ;-)))

/Lasse SM5GLC

On Wed, 07 Mar 2001 19:13:43 GMT, John Miles
<jmiles@pop.removethistomailme.net> wrote:

>William E. Sabin wrote:
>>
>> Ian White, G3SEK wrote:
>>
>> > Jeff Smith wrote:
>> > >I need some ideas on obtaining hard copy from an older HP spectrum
>> > >analyzer.
>> > >
>> > >I have outputs from an older spectrum analyzer that I wish to couple to
>> > >a PC via sound card inputs. (I want to develop hard copy capability.)
>> > >
>> > >These outputs were intended as X-Y for a small pen plotter, and you can
>> > >control the sweep speed , etc. from the analyzer. What would be great is
>> > >a piece of software that emulates a plotter by using the sound card
>> > >inputs. Any ideas ?
>>
>> There is an HP Pen Plotter simulator program. Unfortunately I don't recall
>> where I saw it advertised.
>>
>> Bill W0IYH
>
>A few weeks ago I started work on an HP7470 plotter emulator for Win32.
>Right now, I have it working with the HPGL command subset used by the
>Tek 492 / 494 / 496 analyzers (except for some slight text-formatting
>issues which don't really hurt anything). The source and executable
>code is on my site below, in case anyone with a 49xP analyzer wants to
>check it out.
>
>I've also found that HPGL-compatible instruments can dump their plotter
>output to a modern LaserJet or other PCL-compatible printer, by
>prefixing the binary dump with the escape sequence 0x1B, 0x26, 0x6C,
>0x31, 0x4F, 0x1B, 0x25, 0x23, 0x42. This will put the printer into
>landscape mode and configure it for the older HPGL command set. You can
>get very nice hardcopies from the Tek analyzers this way -- all you need

>is a short program to read the plotter data from GPIB and dump it to
>LPT1 with the above escape sequence.
>
>-- jm
>
>---
>http://www.qsl.net/ke5fx
>Note: My E-mail address has been altered to avoid spam
>---

1576. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 16:03:45 UTC
From: 2w8ji@akorn.net
Message-ID: <3aacf20c.4424360@news.accessunited.com>
Source record: 54174

On Mon, 12 Mar 2001 14:51:04 GMT, arm@helix.nih.gov (Andrew R Mitz)
wrote:

>
>Is it possible to wind a 4:1 coax cable choke balun for HF?

The easiest way is to use a 4:1 balun driven by a 1:1 choke.

I use a 9:1 bal-bal transformer (voltage-type) driving my 450 ohm
open-wire line, and a 1:1 choke balun to drive it because I have coax
feeding the trifilar winding of the 9:1 transformer.

This is a standard proceedure, and would work for you.

73 Tom

1577. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 17:12:04 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9aq0vv.sui.w9wi@linux1.localdomain>
Source record: 54175
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

On Tue, 13 Mar 2001 07:57:19 GMT, arcam <arcam@hotmail.com> wrote:
>My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
>the set if I changed this into a 144 Mhz to match my other hand-held
>tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
>of course.

It should work OK though you'll probably have to realign the transceiver, most crystal-controlled sets aren't designed to cover a 20MHz band. (after you realign it, it will no longer work properly at 161.45MHz. If you're wanting to use the radio both in amateur and commercial service you're probably going to have to get a different radio.)

I do presume:

1. You have an amateur radio license. (without which you are not allowed to transmit in the 144MHz band. I don't know how likely you are to get in trouble for that in Singapore but in the USA there are serious fines.)

2. You don't actually plan to operate on exactly 144.0MHz.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1578. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 18:15:52 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AAD1253.61D876B9@GTE.net>
Source record: 54176

"Al, N2NKB" wrote:

> Excellent point Dale.
> In fact, you have just motivated me to go downstairs to the basement and pull
> out some adapters. I am now holding a male N connector that mates perfectly
> with a female SMA connector. It doesn't lock of course, but it provides a great RF
> path. The coupling nut on an N connector is there for mechanical reasons, the
> RF path flows through the ring about the center conductor.
> I saw this a few years ago, and I was amazed. Hopefully other NG readers
> will appreciate this also.
> Al
>
>
> >The internal portion of the BNC is the same as the N. While I have not used these
> >levels, I would think legal limit at HF would be no problem.
> >
> >Dale W4OP
> >

Hi Al,

This all harks back to the designers of this series of connectors- Neils and Concilman (spelling?) Think they worked at Bell labs. Anyway, Neils named the N connector after himself while Concilman gave his initial to the C connectors. The BNC then is a Bayonette Neils-Concilman.

Dale W4OP

1579. Re: Need M57726 PA module

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 18:16:50 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AAD128E.BA59C3B8@GTE.net>
Source record: 54177
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Duffer wrote:

> I'm looking for a Mitsubishi M57726 2 meter power module to repair an
> old Yaesu FT-270R.
> New or used would be fine so long as it is known to be working fine.
>
> Please reply by e-mail.
> Thanks.

Try RF Parts Co.

Dale W4OP

1580. Re: Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 19:03:29 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3AAD1D81.623CE5B9@neicoltech.org>
Source record: 54178

Andrew R Mitz wrote:

> The TDA-7000 by Phillips is a FM receiver on a chip.
> It just barely works on the FM broadcast band without an
> RF stage. Also, the schematics you will find are all
> for broadband FM. There is a rare and impossible to find
> "narrowband FM" applications note that explains how to use
> the chip for narrowband FM.

As a follow-up on this chip, see http://www.smartkit.gr/sk1055.htm
for some info on a WB FM rx using this chip. With some work on the detector,
and perhaps a narrow filter, it might be made to work a bit on NBFM.

BTW, I seem to recall that Motorola made a NBFM rx chip a few years back. A
search of their site might yield something. I *think* it was an MC 33660 or
something like that.

Good luck

Bob WB0POQ

1581. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 20:08:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AAD2CCC.CA4E9172@eznec.com>
Source record: 54179

You can do it directly with coax in theory, but I've never tried it in practice. You would need two coils that have minimal mutual coupling. You might be able to satisfy this requirement by putting the coils at right angles to each other and moving them as far apart as practical. At one end (the high Z end) connect them in series by connecting the braids together and using the center conductors for the balun connections, and at the other (the low Z end) connect them in parallel. You can use the coax lengths and number of turns in the ARRL Handbook for each coil. Tom's method might be better, but it would interesting to see if an all-coax one would work well enough. It would do best on about three adjacent bands. Beyond that, it's likely to add reactance to the system.

Roy Lewallen, W7EL

Tom W8JI wrote:
>
> On Mon, 12 Mar 2001 14:51:04 GMT, arm@helix.nih.gov (Andrew R Mitz)
> wrote:
>
> >
> >Is it possible to wind a 4:1 coax cable choke balun for HF?
>
> The easiest way is to use a 4:1 balun driven by a 1:1 choke.
>
> I use a 9:1 bal-bal transformer (voltage-type) driving my 450 ohm
> open-wire line, and a 1:1 choke balun to drive it because I have coax
> feeding the trifilar winding of the 9:1 transformer.
>
> This is a standard proceedure, and would work for you.
>
> 73 Tom

1582. Rock receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 22:51:46 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <984437509.611421@athnrd02.forthnet.gr>
Source record: 54180

Does anyone know how i can build a receiver with the galinite? Please a schematic diagram if it is possible. TNX ES 73

1583. Re: Question about BNC coax connectors, ok for 25watts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 22:57:47 UTC
From: "Al, N2NKB"
Message-ID: <Lvcr6.6439$fw6.511340@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54181

Dale Parfitt wrote in message <3AAD1253.61D876B9@GTE.net>...
>
>
>"Al, N2NKB" wrote:
>
>> Excellent point Dale.
>> In fact, you have just motivated me to go downstairs to the basement and pull
>> out some adapters. I am now holding a male N connector that mates perfectly
>> with a female SMA connector. It doesn't lock of course, but it provides a great RF
>> path. The coupling nut on an N connector is there for mechanical reasons, the
>> RF path flows through the ring about the center conductor.
>> I saw this a few years ago, and I was amazed. Hopefully other NG readers
>> will appreciate this also.
>> Al
>>
>>
>> >The internal portion of the BNC is the same as the N. While I have not used these
>> >levels, I would think legal limit at HF would be no problem.
>> >
>> >Dale W4OP
>> >
>
>Hi Al,
>
>This all harks back to the designers of this series of connectors- Neils and Concilman
>(spelling?) Think they worked at Bell labs. Anyway, Neils named the N connector after
>himself while Concilman gave his initial to the C connectors. The BNC then is a
>Bayonette Neils-Concilman.
>
>Dale W4OP
>
Interesting tidbit Dale. I've heard that before, but this time I will save it!
Al

1584. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 23:36:47 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AAD5D8F.EE6A1770@bloomer.net>
Source record: 54182
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Do you want to convert it to 144 from 161? Is it a single channel unit?
If so, you could change the crystal and you would have to retune the
tuned circuits for 144. Shouldn't be a problem if you're comfortable
doing this. And...this is assuming there is enough range on the
variable coils or capacitors in the tuned circuits.

Scott
N0EDV

arcam wrote:
>
> My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
> the set if I changed this into a 144 Mhz to match my other hand-held
> tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
> of course.
>
> Thanks

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1585. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 23:37:18 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AAD5DAE.AAF537A6@bloomer.net>
Source record: 54183
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Do you want to convert it to 144 from 161? Is it a single channel unit?
If so, you could change the crystal and you would have to retune the
tuned circuits for 144. Shouldn't be a problem if you're comfortable
doing this. And...this is assuming there is enough range on the
variable coils or capacitors in the tuned circuits.

Scott
N0EDV

arcam wrote:
>
> My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
> the set if I changed this into a 144 Mhz to match my other hand-held
> tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
> of course.
>
> Thanks

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1586. Re: Ramsey FX-146 diode & Mic information query, or web site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-12 23:52:15 UTC
From: Lionel Booth PE <l.booth-pe@worldnet.att.net>
Message-ID: <Pidr6.6501$fw6.514345@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54184

I have a manual and partially completed 146. If still needed I can scan the appropriate pages.

PMunsel <pmunsel@aol.com> wrote in message news:20010311042507.19059.00000688@ng-co1.aol.com...
> Ramsey did have a website at one time, but they are not very good at responding
> to e-mails... I have built some of their kits, and was less than pleased with
> the performance. For info, look at some of the Mod pages, they will sometimes
> have info which may help you in setting the freqs with the diodes. If this
> doesn't help, let me know, and I'll try to find somethinng for you. I still
> have the manual for the 440 version, and we may be able to "devise & develop"
> the freq settings for you with that info.
> 73,
> Paul Munsel N5XMV

1587. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 00:11:53 UTC
From: KB9WFK <KB9WFK@mindspring.com>
Message-ID: <98jovigsv1@slb4.atl.mindspring.net>
Source record: 54185
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

You may find "trimming" the antenna the wrong thing to do since you are lowering the frequency. You will need to extend it. Lower Freq.=longer wavelength=longer antenna.

--

"arcam" <arcam@hotmail.com> wrote in message news:3aadd29d.716309@news.pacific.net.sg...
> My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
> the set if I changed this into a 144 Mhz to match my other hand-held
> tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
> of course.
>
> Thanks
>

1588. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 02:25:03 UTC
From: 2w8ji@akorn.net
Message-ID: <3aad82c1.41475020@news.accessunited.com>
Source record: 54186

On Mon, 12 Mar 2001 12:08:45 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Tom's method might be better, but it would interesting to see if an
>all-coax one would work well enough. It would do best on about three
>adjacent bands. Beyond that, it's likely to add reactance to the system.
>
>Roy Lewallen, W7EL

I don't know why I missed that!

If we are thinking of the same thing, I have done something similar in
PA's. If I remember correctly, bandwidth is maximized when the line is
half of the output impedance when doing a 4:1 transformation. So he'd
be better off with 75 ohm lines or higher if he could manage.

The lines are choked, are in parallel at the input. They are in series
at the output.

Thanks Roy.

73 Tom

1589. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 03:09:52 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AAD8F80.EDFF9C4D@ix.netcom.com>
Source record: 54190

Tried the motoroil trick, didn't work. Maybe I used the wrong
stuff. You mean car engine motor oil, 10W30, right?

Robert Casey wrote:

> See web page
> http://www.geocities.com/wa2ise/radios/repair.htm
> Secret is to keep air away from freshly scraped aluminum.
> A puddle of molten solder will do this.

1590. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 03:16:26 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AAD910A.F94090BF@ix.netcom.com>
Source record: 54191

Tom W8JI wrote:

> The lines are choked, are in parallel at the input. They are in series
> at the output.

Using ferrite cores should help a lot. If you can't get a ring big enough,
look at http://www.geocities.com/wa2ise/radios/ham.htm for a trick
using ferrite bars instead.

1591. Re: Strong Signal performance of Minicircuits PSC series Splitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 04:22:17 UTC
From: STEVE RATZLAFF <sratzlaf@flash.net>
Message-ID: <3AAD9FFD.299431EB@flash.net>
Source record: 54192

Hi Dan,
Well, I have not worked with a 12-way splitter, but have used MCL's 2-way splitter/combiners a number of times at work. I haven't run specific IP tests on any of them, but can say they will generally tolerate up to about +20dBm for two tones input. Of course, a broadband feed to a 12-way splitter might not have a couple of very strong tones, but the total aggregate might add up to an average fairly high level. I would probably be more concerned with the preceding amp going into distortion, than the small passive transformer used in a splitter.
Steve

Dan Rae wrote:
>
> I recently picked up an MCL 12 way splitter, and was hoping to use it to
> homebrew a 12 way HF receiver multicoupler, if the strong signal
> handling would be up to it. I could not find any data on the MCL web
> site as to the IP3 and IP2 performance of these units, and wonder if
> anyone has been down this road before. I was going to precede it with a
> strong 12 dB gain amplifier and maybe a LPF to keep local TV and FM
> broadcast stations out of it.
>
> Thanks in advance for any input, and yes, I know I've only got one pair
> of ears :-)
>
> Dan AC6AO

1592. Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 07:41:49 UTC
From: Josh DeWinter <dewinter@wsunix.wsu.edu>
Message-ID: <98kij9raf1@leopard.it.wsu.edu>
Source record: 54194

Hi. I am a student of Electrical Engineering at Washington State University, in Pullman, WA. I would very much like to get my hands on the ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or the softcover will do). Is there anywhere anyone can recommend I find it at a student discount or a low rate?

Thanks
Josh DeWinter

1593. Re: Rock receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 07:45:29 UTC
From: 123 <yano@home.com>
Message-ID: <tekr6.3827$L7.26183@news1.sshe1.sk.home.com>
Source record: 54193

?galinite ? I think you mean Galena, PbS, Lead Sulfide ! Just
replace the detector diode (1N34) germanium with the Galena
Xtal/cats-whisker assembly in a working radio, not very romantic, not very
reliable, or why the 1N34 is there in the first place !

Yukio YANO

VE5YS

"Spyros SV2BXC" <spkintz@the.forthnet.gr> wrote in message
news:984437509.611421@athnrd02.forthnet.gr...
> Does anyone know how i can build a receiver with the galinite? Please a
> schematic diagram if it is possible. TNX ES 73
>
>

1594. Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 07:57:19 UTC
From: arcam@hotmail.com
Message-ID: <3aadd29d.716309@news.pacific.net.sg>
Source record: 54173
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage the set if I changed this into a 144 Mhz to match my other hand-held tranceiver in frequency? Assuming I trim the antenna length to 144MHz, of course.

Thanks

1595. Re: Hams;dont be prosecuted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 09:41:14 UTC
From: Rod Marsh <rredbeak2@dingoblue.net.au>
Message-ID: <3aadeba0$0$25491$7f31c96c@news01.syd.optusnet.com.au>
Source record: 54195

Hello everyone,
Im relatively new to the NG's and i was not aware that some of my favourite NG's are from outside AUS.

I apologise for posting my "dont get prosecuted" to NG's outside of AUS [VK],It was unintentional and i am sorry for any upset it may have caused.
Cheers Rod VK4XI

1596. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 12:05:49 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AAE0D1D.68E51817@bloomer.net>
Source record: 54097
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

It might not hurt the radio, but you will probably get VERY low
output...you are trying to transmit on a frequency about 10% lower than
where it is tuned up. Receive sensitivity would probably suck as well.
The other problem is if the use a bandpass filter tuned to the 161 area,
you may not get nuch signal in to and out of the unit. As hams, that's
the beauty of it...we're allowed to try stuff like that :)

Scott
N0EDV

arcam wrote:
>
> On Mon, 12 Mar 2001 17:12:04 GMT, w9wi@linux1.localdomain () wrote:
>
> >On Tue, 13 Mar 2001 07:57:19 GMT, arcam <arcam@hotmail.com> wrote:
> >>My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
> >>the set if I changed this into a 144 Mhz to match my other hand-held
> >>tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
> >>of course.
> >
> >It should work OK though you'll probably have to realign the transceiver,
> >most crystal-controlled sets aren't designed to cover a 20MHz band. (after
> >you realign it, it will no longer work properly at 161.45MHz. If you're
> >wanting to use the radio both in amateur and commercial service you're
> >probably going to have to get a different radio.)
>
> I don't plan to realign the circuit. There are actually 5 empty
> crystal sockets on the PCB (the front panel selects any of 6 freqs). I
> would leave the original 161 MHz xtal in the first socket and insert a
> 144.xxx MHz xtal in one of the spare sockets. All I want is to
> ocassionally operate the set at 144.xxx so I can talk to my handheld.
> Reasonable loss of range is OK, I just don't want to damage the
> circuit in any way.
>
> Thanks for the advice.
>
> >I do presume:
> >
> >1. You have an amateur radio license. (without which you are not
> >allowed to transmit in the 144MHz band. I don't know how likely you are to
> >get in trouble for that in Singapore but in the USA there are serious
> >fines.)
> >
> >2. You don't actually plan to operate on exactly 144.0MHz.

> >--
> >Doug Smith W9WI
> >Pleasant View (Nashville), TN EM66
> >http://www.w9wi.com
> >Due to excessive spam, messages from uu.net are deleted unread.
> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

1597. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 12:06:43 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <n3or6.377460$w35.59825705@news1.rdc1.nj.home.com>
Source record: 54196

As a college engineering student you should be aware of the following equation:

1 ARRL Handbook = 6 6pks Heinekens

Of course, that's new. A four or five year old handbook will set you back about 4 bucks.

"Josh DeWinter" <dewinter@wsunix.wsu.edu> wrote in message news:98kij9raf1@leopard.it.wsu.edu...
> Hi. I am a student of Electrical Engineering at Washington State
> University, in Pullman, WA. I would very much like to get my hands on the
> ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or
the
> softcover will do). Is there anywhere anyone can recommend I find it at a
> student discount or a low rate?
>
>
> Thanks
> Josh DeWinter
>
>
>

1598. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 13:15:42 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AAE1D77.8C570797@GTE.net>
Source record: 54099
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

arcam wrote:

> On Mon, 12 Mar 2001 18:11:53 -0600, "KB9WFK" <KB9WFK@mindspring.com>
> wrote:
>
> >You may find "trimming" the antenna the wrong thing to do since you are
> >lowering the frequency. You will need to extend it. Lower Freq.=longer
> >wavelength=longer antenna.
>
> Oops, You're right. That's what I actually meant...lengthen it. My
> bad.
>

Still haven't read if you have an amateur license or not. Also be aware the
low end of 2M is reserved for weak signal work not FM.

Dale W4OP

1599. Re: I'd rather switch than switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 13:23:57 UTC
From: Larry Gauthier <larryg5099@chartermi.net>
Message-ID: <tas7rjp2fsv8c6@corp.supernews.com>
Source record: 54098

John,

Thanks for the information. I have just begun a similar troubleshooting exercise here - also with a Linksys router. Mine is an 8 port Cable/DSL 10/100 router. I have observed that running at 100T is a LOT noisier than running at 10T, and I have intentionally routed my shack's UTP network feed through a secondary 10T hub to limit the speed of my shack PC to 10 MBPS. This really quiets things down, but there is still spurious noise across the bands (worse on 10 meters - my favorite band <sigh>, but still noticeable on 20 and 30).

My router does not have a "wall wart", but a line-cord mounted power supply. I had not considered replacing that supply with a stock DC supply, but will experiment with that to see if it solves the birdie problem.

Thanks again for your post.

-larry
K8UT

"John O'Flaherty" <oflahert@toast.net> wrote in message
news:3AAB0E5C.9247FDEB@toast.net...
> I found that my new transceiver picked up some strange noise. It was
> most prominent on 80 meters. The noise sounded like intermittent line
> related noise (60 hz buzzing). The spectrum display on the transceiver
> (Icom 756 pro) showed a band of spikes, with one spike about every 800
> hz, and the group of spikes would occupy about 20 to 30 khz of band
> space, and the space it occupied would move around unpredictably. It was
> strong enough to make it hard to listen to all but the strongest
> signals. I tried turning things in the house off, one by one, until I
> finally traced it to my computer network. I have three computers, hooked
> together in a network hub, and one of the computers is at my ham
> station.
> Well, I found that disconnecting the network cable from the computer
> at the ham station would usually stop the noise after a few seconds. I
> figured that the network was just sending messages back and forth all by
> itself to keep from getting bored. I tried putting numerous turns of the
> network cable through a big FT 271-61 toroid, and it had no effect at
> all, no matter where I put the core. Finally, I tried networking just
> the computer in the ham shack with one of the others using a crossover
> cable, and not using the network hub (which is required for more than
> two computers in a network). Bingo!- good network connection, no noise.
> So the network hub (a Linksys 5-port 10/100 mb/s hub, about a $40 item,
> if I remember right) was the source.
> I figured maybe the hub was putting noise back on the power line, so I
> tried wrapping the wire from the plug-in transformer around a toroid

> before plugging it into the hub. This didn't help at all.
> Finally, I noticed something strange- it was quite a large wall wart,
> but it was very light- there couldn't be a big transformer in there.
> Then I tumbled- it was a miserable little switching power supply. I
> sawed it open, and found that it had a circuit board, with a couple of
> little high frequency transformers, and a lot of components. Obviously,
> the toroid I tried in the line from the transformer to the hub was
> useless- the little devil was plugged right into the power lines.
> I put it on the workbench and tried to arrange some toroids, common
> mode and differential mode, on the ac input, and nothing would keep the
> noise from getting into the power lines- I gave up, got a 6.3v filament
> transformer, bridge, filter cap, LM317 adjustable regulator and two
> resistors, and made a 3.3v dc regulated supply for the hub. It's now as
> quiet, rfi-wise, as you could want.
> It was new to me that a wall transformer could contain a switching
> power supply. It was also interesting that during the tracing of the
> noise, the radio was operating on a car battery, so the noise wasn't
> getting in through its power leads. The power lines in the house were
> radiating the rf noise, and it was being picked up by my wire antenna,
> outside the house.
> One other interesting thing was that the noise would disappear or at
> least shift frequency when I disconnected the network cable from one of
> the computers. I surmise the reason is that the switching power supply
> draws more from the lines, and injects more noise into them, when its
> load increases.
>
> john
>

1600. Re: Help with analyser hard copy

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 13:58:27 UTC
From: IT9XXS <it9xxs@informaction.com>
Message-ID: <98l8f2$489$1@fe1.cs.interbusiness.it>
Source record: 54100

Hi Jeff,

I realized an adapter for a very old spectrum analyzer using an ad-converter
and a simple pascal program. Just have a look, maybe you can modify it for
your purposes ?

http://www.qsl.net/it9xxs

Best 73's

Giovanni

"Jeff Smith" <jhsmith@ns.sympatico.ca> ha scritto nel messaggio
news:3AA623B9.ECF5D90B@ns.sympatico.ca...
> I need some ideas on obtaining hard copy from an older HP spectrum
> analyzer.
>
> I have outputs from an older spectrum analyzer that I wish to couple to
> a PC via sound card inputs. (I want to develop hard copy capability.)
>
> These outputs were intended as X-Y for a small pen plotter, and you can
> control the sweep speed , etc. from the analyzer. What would be great is
> a piece of software that emulates a plotter by using the sound card
> inputs. Any ideas ?
>
> Jeff
> VE1ZAC
>

1601. Re: I'd rather switch than switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 14:47:33 UTC
From: troglodite@aol.com
Message-ID: <20010313094733.24250.00001305@ng-fc1.aol.com>
Source record: 54101

>Thanks for the information. I have just begun a similar troubleshooting
>exercise here - also with a Linksys router. Mine is an 8 port Cable/DSL
>10/100 router. I have observed that running at 100T is a LOT noisier than
>running at 10T, and I have intentionally routed my shack's UTP network feed
>through a secondary 10T hub to limit the speed of my shack PC to 10 MBPS.
>This really quiets things down, but there is still spurious noise across the
>bands (worse on 10 meters - my favorite band <sigh>, but still noticeable on
>20 and 30).

It's a bit of a pain, but passing each output lead through the center of a
Fair-Rite #43 toroid twice before plugging it into the router will also quiet
things down. It doesn't seem to affect the performance at all. You might also
try the Steward 28B2029-0A0, which just clips onto the wire.

Doug Moore.

1602. Re: QST Mar & Apr 99?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 15:04:02 UTC
From: Larry Deering <w2gl@qsl.net>
Message-ID: <3AAE36E2.DE441969@qsl.net>
Source record: 54102

Philip,
I was going to suggest the following URL's, but you have to be a member of ARRL to be able to get them. Mouser (http://www.mouser.com/) is listed as a source for boards and kits, however searching their site was fruitless. The part numbers should be P/N 371-HFAMP1, -HFAMP2, and HFAMP3.

Good Luck!
Larry, W2GL

http://www.arrl.org/members-only/tis/info/pdf/9903040.pdf
http://www.arrl.org/members-only/tis/info/pdf/9904043.pdf

Philip de Cadanet wrote:
>
> I am seeking a copy of the two part article by WA2EBY in the above
> issues of QST.
>
> It was a design for a FET amplifier for HF.
>
> Can anyone help me with this?
>
> Many thanks.
>
> Phil G4ZOW
>

1603. Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 17:53:05 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98lmpj$1t6$1@slb7.atl.mindspring.net>
Source record: 54103

I have been trying to understand Larry Scheff's (W4QEJ) receiver article in the February and March issues of QST. He somehow thinks that if he cuts back the RF gain enough, interfering signals magically disappear and nothing but the desired signals come on through.

I know that strong unwanted signals do blow right on though the broad, high gain front ends in the modern transceivers and create broadening of the signals somewhere along the line before the filters and detector. A little RF attenuation helps here but it does not change filter characteristics as Larry indicates.

He inverts the bandpass curve and calls it an attenuation curve. which it is. then draws the conclusion that any signal below the curve totally goes away, even if it is in the passband.

If I understand his writings, he infers that:

1. Bandwidth changes with amplitude. This would cause a lot of clipping.me thinks.
2. There is a threshold below which no signal gets through. He shows this in the shaded areas. This is possible with DSP but I don't think you'll see it in conventional mechanical or crystal filters.

Am I missing something or is this extensive two part article flawed?

Harvey, K5LJM

1604. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 18:31:08 UTC
From: arcam@hotmail.com
Message-ID: <3aae6766.2077760@news.pacific.net.sg>
Source record: 54187
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

On Mon, 12 Mar 2001 18:11:53 -0600, "KB9WFK" <KB9WFK@mindspring.com>
wrote:

>You may find "trimming" the antenna the wrong thing to do since you are
>lowering the frequency. You will need to extend it. Lower Freq.=longer
>wavelength=longer antenna.

Oops, You're right. That's what I actually meant...lengthen it. My
bad.

>
>"arcam" <arcam@hotmail.com> wrote in message
>news:3aadd29d.716309@news.pacific.net.sg...
>> My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
>> the set if I changed this into a 144 Mhz to match my other hand-held
>> tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
>> of course.
>>
>> Thanks
>>
>
>

1605. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 18:31:19 UTC
From: arcam@hotmail.com
Message-ID: <3aae6772.2089035@news.pacific.net.sg>
Source record: 54189
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Actually its a 6-channel unit with 5 empty xtal sockets. I just want
to insert a 144.xxx xtal into one of the empty sockets and use it at
that freq occasionally. I don't plan to re-tune any of the circuits.
I presume then there will be a loss of range, but thats OK. Perhaps I
can limit that loss by tuning the antenna. I just don't want to damage
the set.

On Mon, 12 Mar 2001 23:37:18 +0000, Scott <acepilot@bloomer.net>
wrote:

>Do you want to convert it to 144 from 161? Is it a single channel unit?
>If so, you could change the crystal and you would have to retune the
>tuned circuits for 144. Shouldn't be a problem if you're comfortable
>doing this. And...this is assuming there is enough range on the
>variable coils or capacitors in the tuned circuits.
>
>Scott
>N0EDV

1606. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 18:31:36 UTC
From: arcam@hotmail.com
Message-ID: <3aae6780.2103689@news.pacific.net.sg>
Source record: 54188
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

On Mon, 12 Mar 2001 17:12:04 GMT, w9wi@linux1.localdomain () wrote:

>On Tue, 13 Mar 2001 07:57:19 GMT, arcam <arcam@hotmail.com> wrote:
>>My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
>>the set if I changed this into a 144 Mhz to match my other hand-held
>>tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
>>of course.
>
>It should work OK though you'll probably have to realign the transceiver,
>most crystal-controlled sets aren't designed to cover a 20MHz band. (after
>you realign it, it will no longer work properly at 161.45MHz. If you're
>wanting to use the radio both in amateur and commercial service you're
>probably going to have to get a different radio.)

I don't plan to realign the circuit. There are actually 5 empty
crystal sockets on the PCB (the front panel selects any of 6 freqs). I
would leave the original 161 MHz xtal in the first socket and insert a
144.xxx MHz xtal in one of the spare sockets. All I want is to
ocassionally operate the set at 144.xxx so I can talk to my handheld.
Reasonable loss of range is OK, I just don't want to damage the
circuit in any way.

Thanks for the advice.

>I do presume:
>
>1. You have an amateur radio license. (without which you are not
>allowed to transmit in the 144MHz band. I don't know how likely you are to
>get in trouble for that in Singapore but in the USA there are serious
>fines.)
>
>2. You don't actually plan to operate on exactly 144.0MHz.
>--
>Doug Smith W9WI
>Pleasant View (Nashville), TN EM66
>http://www.w9wi.com
>Due to excessive spam, messages from uu.net are deleted unread.
>

1607. Heathkits FOR SALE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 18:54:51 UTC
From: docky <docky@earthlink.net>
Message-ID: <%1ur6.8030$6p5.701062@newsread1.prod.itd.earthlink.net>
Source record: 54104

I have about 30 Heathkits for sale at http://www.heathkits.com They are selling fast but I am adding more. 73 Gary

1608. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 19:31:55 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10103131346070.8531-100000@Gloria.CAM.ORG>
Source record: 54105

On Mon, 12 Mar 2001, Josh DeWinter wrote:

> Hi. I am a student of Electrical Engineering at Washington State
> University, in Pullman, WA. I would very much like to get my hands on the
> ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or the
> softcover will do). Is there anywhere anyone can recommend I find it at a
> student discount or a low rate?
>
>
> Thanks
> Josh DeWinter
>

While it would be nice if it was cheaper, compared to most technical books, it is a bargain. The price listed in the latest issue of QST is $32 (plus $7 postage if you can't buy it locally). It would be hard to find many technical books that sell for less (except for the rest of the ARRL books). The only reason I could afford Rohde's book on receivers was by joining a book club, and that had it's problems.

I bought the 2001 ARRL Handbook a few months ago, and paid $51.36 Canadian, so the US price is downright cheap.

You don't need to buy the very latest edition. A new edition is published every year, but other than some construction articles, there is very little variation between editions. I seem to buy them every 7 years now.

So you can look for an older edition. The best place might be a fleamarket put on by a local ham radio club. People will sell off their older editions, and at a much lower cost. This is also a good place to find other technical books cheap, as well as components, test equipment and other electronic junk. You can find a list of upcoming hamfests at http://www.arrl.org

Although I've never found any myself, you might try used bookstores, especially one that deals in technical books. Even if you can't find a Handbook there, you might find other books that will be useful, at a more decent price.

I've had more success at used book sales. These are put on by libraries, Rotary Clubs, high schools, and groups associated with universities. Here, I haven't found recent editions of the Handbook, but I've found thirty year old editions for under a dollar. I also found my copy of The Radiotron Designer's Handbook for $3 a few years back at a sale put on by a group to raise money for university scholarships. And at the same sale, just last fall I picked up a number of books on cellphones and

"wireless communication" for a few dollars each. I had no need for these, and would not have spent fifty dollars or so for them, but for a few dollars, I had a chance to read up on new areas of technology. What you can find at these sales depends on what people donate, so it varies from sale to sale. I also imagine that some locals would be better than others, depending on local industry, etc.

Try contacting a local ham club, there's a list of at least some US clubs at the ARRL site. Many have newsletters which include a classified ad section, and you might find someone locally that has a used Handbook for sale.

Or try advertising in rec.radio.swap if you're open to buying by mail from an individual. Or EBay, for that matter.

It's fairly easy to find a used edition, since so many copies have been printed. It probably is harder to find used decent edition, since many will still be using theirs.

I thought the ARRL puts the previous edition on sale when the new edition is published. If this happens, it would be in the fall.

Many libraries have copies of the ARRL Handbook, so it's worth checking their. Not as handy as having your own copy, but it is cheaper.

Micahel VE2BVW

1609. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 19:45:06 UTC
From: Norman Litsche <nlitsche@worldnet.att.net>
Message-ID: <6Nur6.7128$Rb.591853@bgtnsc05-news.ops.worldnet.att.net>
Source record: 54106

They make LCD monitors for use with desktops. A bit pricey though...

I have seen some laprops create interference in radios. Mine for example - but only when the computer is 'doing' something. Nothing coming from the LCD display that I can discern.

de Norm KA2TYt

Rolando Milin <9a3mr@usa.net> wrote in message <1103_984356227@as1-m60.net.hinet.hr>...
>Always use notebooks with LCD monitors. This is simpliest way to avoid RFI to your receiver. Notebooks are
>also more resistent then desktop PCs on strong RF fields from your transmitter.
>Roland 9A3MR

1610. Oskerblock SWR-200

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 21:00:41 UTC
From: la8ak@online.no
Message-ID: <3aad7547.32572348@news.online.no>
Source record: 54107

Have an Oskerblock swr-200, but not really impressed by the accuracy. It is not much used, but would like to know what others might think of it. Perhaps just as good to remove the bridge and put some more modern powermeter bridge for better sensitivity on 1.8-30MHz. Have also Bird model 43 for more accurate readings.
Suggestions?

73
Jan-Martin
LA8AK

1611. WTB" 19" Rack Panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 21:37:45 UTC
From: rs2bk@aol.com
Message-ID: <20010313163745.24133.00001294@ng-fx1.aol.com>
Source record: 54110

I have a home brew project that needs 19" aluminum rack
panels. 12 1/4" & 10 1/2" high. Black crakle would be great,
but any color will do.

Jim w9ud
Moline, IL

1612. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 21:38:40 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AAE9360.9E61BB5A@zylay.com>
Source record: 54109

Rolando Milin wrote:
>
> Maybe i'm lucky ...
> I use to borrow several types of laptops (from 'no name" to
> "brand name") and did not observe any kind of RFI to my
> RCVR.
> All the times I using an old 286 laptop for PR also without
> any problem.
> Seems to be cheapest to buy an old brand name 386 or 486
> laptop (prices up to 150$) for ham use then try to shield new
> desktop PC.
> Also, my kids are not happy with those old PCs, they're
> prefer new ones.

Which means that they keep their PB&J-crusted fingers off of your KBD

1613. Vintage VHF/UHF equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 22:33:16 UTC
From: "Phil T. (VA3UX)" <phil@vaxxine.com>
Message-ID: <3AAEA02C.3230D20F@vaxxine.com>
Source record: 54111

have two pieces of what I would call "vintage" commercial radio
equipment.

One is a GE Transmitter/Receiver combination; all vacuum tube, power
amp
uses a 5894. Currently set-up for 168.99 Mhz. This is the original
cabinet which is about 3 feet tall, 2 feet wide and about 10" deep
(kinda
of like a big cereal box). The receiver and transmitter are on separate

chassis and can be removed from the cabinet. each has its own integral
power supply. Weighs 60 - 75 lbs (estimate)

The second is a Motorola repeater set-up for 412.0125 Mhz
transmit/417.0125
Mhz receive. This appears to be vintage solid state. Weight is around
80
lbs+ (estimate). Cabinet is similar size and shape to the GE unit
above.
Model number is XC34MSY-3IQ1CT.

These were both working when taken out of service last year. I bought
'em
but I really doubt I'll get around to using them (too many other
projects
on the go).

Any interested parties out there, please make reasonable offers. I'm
not a
VHF/UHF guy, so if these are just plain junk, feel free to tell me so.
There's a good pile of parts in these that I can use for something else.

Please reply direct to : phil@vaxxine.com

Thanks

Phil

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

1614. Re: Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 23:20:43 UTC
From: Vittorio De Tomasi <vdetomasi@tiscalinet.it>
Message-ID: <3AAEAB4B.5A36A19E@tiscalinet.it>
Source record: 54112

Bob Liesenfeld wrote:
>
> Andrew R Mitz wrote:
>
> > The TDA-7000 by Phillips is a FM receiver on a chip.
> > It just barely works on the FM broadcast band without an
> > RF stage. Also, the schematics you will find are all
> > for broadband FM. There is a rare and impossible to find
> > "narrowband FM" applications note that explains how to use
> > the chip for narrowband FM.
>
> As a follow-up on this chip, see http://www.smartkit.gr/sk1055.htm
> for some info on a WB FM rx using this chip. With some work on the detector,
> and perhaps a narrow filter, it might be made to work a bit on NBFM.
>
> BTW, I seem to recall that Motorola made a NBFM rx chip a few years back. A
> search of their site might yield something. I *think* it was an MC 33660 or
> something like that.
>
> Good luck
>
> Bob WB0POQ

Hi,
the "rare and impossible to find data sheet" (AN192) can be found here,
thanks to an indonesian guy who digitized it...

http://me.internet.co.id/orari/ic/tda7000/tda7000.html

There you will find how to use TDA7000 for reception of narrow band FM
signals: the trick is to use an external oscillator, so that the
internal frequency lock loop (used to compress the fm deviation of the
incoming signal) cannot work.
As a personal opinion, I am afraid that a narrow band receiver built
with the TDA700 will be affected by poor image reception, although
Philips claims this is not the case. However given the cost of the chip
(about 3 USD here in Italy), it could be worth a try.

I have not used them by myself, but as far as I know Motorola has
several receiver-on-a-chip available, like the mc3362 (discontinued
?!?), or the mc13135. Look here

http://ftp.qsl.net/ok2xdx/DK/rxminien.html

or here

http://www.sonic.net/~shageman/2_meter.html

for a circuit example.

vy 73

Vittorio ik2czl

--
****
Vittorio De Tomasi ik2czl@amsat.org
http://www.weaksignals.com

"Wir muessen wissen; wir werden wissen" (David Hilbert)

1615. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-13 23:23:07 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <rnatatocugae3l3brr66lfit5r42h6oda6@4ax.com>
Source record: 54113

On Sat, 10 Mar 2001 23:44:20 -0600, John O'Flaherty
<oflahert@toast.net> wrote:

> I notice that my computer monitor puts a lot of noise into my
>receiver. It's especially noticeable when I'm tuned to some carrier,
>which sounds buzzy and unclear, and then becomes clean when I turn the
>monitor off. It improved things when I grounded the chassis of the
>monitor with some tubular braid to the same point as the computer and
>the radio, but it's still there to some degree.
> It occurred to me that one of those LCD monitors might put out a lot
>less noise, since there's no high voltage or current at high frequencies
>for deflection. Since they're not cheap, I'd like to know first, has
>anyone tried one of these, and is it actually better?
>
>john

Yes, I change to an LCD monitor and all my noise problems went
away.... Now I can listen on my receiver and turn the monitor on and
off and detect no change in noise lever. Prior to that my VGA monitor
produced about 20 Db of noise.

Outside of the higher price it is a good solution.

Danny, K6MHE

1616. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 00:58:40 UTC
From: 2w8ji@akorn.net
Message-ID: <3aaec08f.122845136@news.accessunited.com>
Source record: 54114

Harvey,

Congratulations on reading all that information.

>I know that strong unwanted signals do blow right on though the broad, high
>gain front ends in the modern transceivers and create broadening of the
>signals somewhere along the line before the filters and detector. A little
>RF attenuation helps here but it does not change filter characteristics as
>Larry indicates.

If you are puching some device into non-linear operation than reducing
gain helps. Hopefully the filters remain linear.

>He inverts the bandpass curve and calls it an attenuation curve. which it
>is. then draws the conclusion that any signal below the curve totally goes
>away, even if it is in the passband.

Of course that isn't true.

>If I understand his writings, he infers that:
>
>1. Bandwidth changes with amplitude. This would cause a lot of clipping.me
>thinks.

Bandwidth does change with amplitude, but not the way I think you are
implying he says it does.

>2. There is a threshold below which no signal gets through. He shows this in
>the shaded areas. This is possible with DSP but I don't think you'll see it
>in conventional mechanical or crystal filters.

Not unless you put the signal into noise floor, or gate it somehow.
Maybe he means it goes below the threshold of hearing??

73 Tom

1617. Re: Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 01:01:54 UTC
From: arm@helix.nih.gov
Message-ID: <6qzr6.103$jg.252903@mencken.net.nih.gov>
Source record: 54115

Vittorio De Tomasi (vdetomasi@tiscalinet.it) wrote:
: Bob Liesenfeld wrote:
: >
: > Andrew R Mitz wrote:
: >
: > > The TDA-7000 by Phillips is a FM receiver on a chip.
: > > It just barely works on the FM broadcast band without an
: > > RF stage. Also, the schematics you will find are all
: > > for broadband FM. There is a rare and impossible to find
: > > "narrowband FM" applications note that explains how to use
: > > the chip for narrowband FM.
: >
: > As a follow-up on this chip, see http://www.smartkit.gr/sk1055.htm
: > for some info on a WB FM rx using this chip. With some work on the detector,
: > and perhaps a narrow filter, it might be made to work a bit on NBFM.
: >
: > BTW, I seem to recall that Motorola made a NBFM rx chip a few years back. A
: > search of their site might yield something. I *think* it was an MC 33660 or
: > something like that.
: >
: > Good luck
: >
: > Bob WB0POQ
:
: Hi,
: the "rare and impossible to find data sheet" (AN192) can be found here,
: thanks to an indonesian guy who digitized it...
:
: http://me.internet.co.id/orari/ic/tda7000/tda7000.html
:
: There you will find how to use TDA7000 for reception of narrow band FM
: signals: the trick is to use an external oscillator, so that the
: internal frequency lock loop (used to compress the fm deviation of the
: incoming signal) cannot work.
: As a personal opinion, I am afraid that a narrow band receiver built
: with the TDA700 will be affected by poor image reception, although
: Philips claims this is not the case. However given the cost of the chip
: (about 3 USD here in Italy), it could be worth a try.

I am glad you find this web site. This is not the Ap note that I
was talking about, but it does have some figures from the Ap
note that is specific for narrow band FM. There is enough in this
one to design for a narrow band receiver.

-- Andy

:
: I have not used them by myself, but as far as I know Motorola has
: several receiver-on-a-chip available, like the mc3362 (discontinued
: ?!?), or the mc13135. Look here
:
: http://ftp.qsl.net/ok2xdx/DK/rxminien.html
:
: or here
:
: http://www.sonic.net/~shageman/2_meter.html
:
: for a circuit example.
:
: vy 73
:
: Vittorio ik2czl
:
:
: --
: **
: Vittorio De Tomasi ik2czl@amsat.org
: http://www.weaksignals.com
:
: "Wir muessen wissen; wir werden wissen" (David Hilbert)

--

Andrew R. Mitz, Biomedical Engineer arm@helix.nih.gov
Laboratory of Systems Neuroscience
Section on Neurophysiology
National Institute of Mental Health
Bethesda, Maryland 20892-4401

1618. Re: Where can I find a good FM reciever on a chip?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 01:34:11 UTC
From: david@adobe.com
Message-ID: <nUzr6.6873$aW5.86424@dfw-read.news.verio.net>
Source record: 54116

>: the "rare and impossible to find data sheet" (AN192) can be found here,
>: thanks to an indonesian guy who digitized it...
>:
>: http://me.internet.co.id/orari/ic/tda7000/tda7000.html
>:
>: There you will find how to use TDA7000 for reception of narrow band FM
>: signals: the trick is to use an external oscillator, so that the
>: internal frequency lock loop (used to compress the fm deviation of the
>: incoming signal) cannot work.
>: As a personal opinion, I am afraid that a narrow band receiver built
>: with the TDA700 will be affected by poor image reception, although
>: Philips claims this is not the case. However given the cost of the chip
>: (about 3 USD here in Italy), it could be worth a try.
>
>I am glad you find this web site. This is not the Ap note that I
>was talking about, but it does have some figures from the Ap
>note that is specific for narrow band FM. There is enough in this
>one to design for a narrow band receiver.

The TDA7000 PDF data sheet and the Signetics NBFM app note (AN193) can be found on http://www.freetradezone.com - well worth the trouble of registering.

1619. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 03:00:10 UTC
From: Dan Halbert <halbert@world.std.com>
Message-ID: <3AAEDEBE.540E7C85@world.std.com>
Source record: 54117

There is a very interesting pair of articles from Ham Radio Magzine,
February and March 1980, entitled "A New Class of Coaxial-Line Transformers",
by George Badger, W6TC. He uses loops of coax in a choke-like way, but also
uses paralleled sections of coax to create 4:1 and 1:4 baluns. His
measurements show that they compare favorably with core baluns.
Perhaps someone more knowledgable than I who has these in his/her library
can comment.

Dan, KB1RT

Roy Lewallen wrote:
>
> You can do it directly with coax in theory, but I've never tried it in
> practice. You would need two coils that have minimal mutual coupling.
> You might be able to satisfy this requirement by putting the coils at
> right angles to each other and moving them as far apart as practical. At
> one end (the high Z end) connect them in series by connecting the braids
> together and using the center conductors for the balun connections, and
> at the other (the low Z end) connect them in parallel. You can use the
> coax lengths and number of turns in the ARRL Handbook for each coil.
> Tom's method might be better, but it would interesting to see if an
> all-coax one would work well enough. It would do best on about three
> adjacent bands. Beyond that, it's likely to add reactance to the system.
>
> Roy Lewallen, W7EL

1620. Re: AD9850 Programming quirks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 03:03:53 UTC
From: Bob Miller <bmiller@calweb.com>
Message-ID: <3aaedfe1$1_2@news3.calweb.com>
Source record: 54118

Hi

I'm helping a buddy work with an Analog Devices AD 9850BSR DDS chip.
He's trying to use the bit banger method to program the rascal and is not having much luck. Any of you mates had luck with the chip either bit banger or parallel load? I put the chip on an Aires adaptor header for him with a hot air smt unit so I'm pretty sure the chip survived the soldering process. He is a pretty savy programmer and is using an Atmel 51 core controller to manipulate the AD 9850 chip. But so far not peep out of the DDS chip. Any hints would be appreciated.

tnx es 73

Bob Miller, KE6F

1621. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 03:34:48 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98mopd$4e7$1@slb3.atl.mindspring.net>
Source record: 54119

Tom,

Good to hear from you again and thanks for your comments. I was hoping you would come out of the woodwork and add some intelligence to the posting.

To your comments...

If you operate a filter in the linear range...which you must to minimize amplitude distortion...the frequency response must be the same at say -30 dB as it will be at -10 dB. If you put two signals in at the same amplitude with one in the center of the passband and the other on the slope, they will come out at different levels. Drop the inputs 20 dB and they will come out with the same relative levels, only 20 dB down. The bandwidth is not wider for input signals at -30 dB than it is at -10dB. Larry seems to think it is.

As for the threshold of hearing, he suggests turning up the AF gain to hear the wanted signal. When you do, the unwanted signal comes right up with the desired signal. This is linear stuff... you know!

As for the signals disappearing in the shaded areas of the curves, the lower signals are well above the noise level which he has drawn in below. The shaded area somehow performs magic... or is the whole thing smoke and mirrors? Tell us enough times, with enough words and pictures, on enough pages, in enough issues and it starts be convincing.

I e-mailed Ed Hare, W1RFI about the first article the first of February. After waiting almost a month, I contacted Steve Ford, WB8IMY, QST Managing Editor and he prompted Ed to reply. Ed's response was that he had looked over the article and didn't see any problems with it. He said I could sent QST a technical response with my ideas, if I wanted to do so.

As a ham of forty something years and some time in grade as an RF engineering design manager, I hate to see this type of thing printed in such detail and with so many errors, go unanswered. Like J. R. Ewing from the TV program Dallas said, "Once you give up integrity, the rest is a piece of cake!"

Got any ideas?

Harvey, K5LJM

"Tom W8JI" <2w8ji@akorn.net> wrote in message
news:3aaec08f.122845136@news.accessunited.com...
> Harvey,
>
> Congratulations on reading all that information.

>
> >I know that strong unwanted signals do blow right on though the broad,
high
> >gain front ends in the modern transceivers and create broadening of the
> >signals somewhere along the line before the filters and detector. A
little
> >RF attenuation helps here but it does not change filter characteristics
as
> >Larry indicates.
>
> If you are puching some device into non-linear operation than reducing
> gain helps. Hopefully the filters remain linear.
>
> >He inverts the bandpass curve and calls it an attenuation curve. which it
> >is. then draws the conclusion that any signal below the curve totally
goes
> >away, even if it is in the passband.
>
> Of course that isn't true.
>
> >If I understand his writings, he infers that:
> >
> >1. Bandwidth changes with amplitude. This would cause a lot of
clipping.me
> >thinks.
>
> Bandwidth does change with amplitude, but not the way I think you are
> implying he says it does.
>
> >2. There is a threshold below which no signal gets through. He shows this
in
> >the shaded areas. This is possible with DSP but I don't think you'll see
it
> >in conventional mechanical or crystal filters.
>
> Not unless you put the signal into noise floor, or gate it somehow.
> Maybe he means it goes below the threshold of hearing??
>
> 73 Tom

1622. Re: IC-211

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 03:35:57 UTC
From: Kerry Whittle <kk7jo@arrl.net>
Message-ID: <3AAEE71D.3060507@arrl.net>
Source record: 54120

Jim,

I had an Icom IC-211 that had problems with keeping itself on the frequency that I desired. The symptoms were different since mine got to the point where it wouldn't tune frequencies away from the default frequency that comes up after the radio comes up after having no power supplied. It started out where the rig would come up like that every now and then or go off freq unexpectedly. I wound up trying to solder teh connections in the VFO to fix it. It seemed to work for a while until I decided to pull the whole metal box out so that I could really do a good job. That was the whole idea until I broke off one of the coax cables that went into the VCO box.

I never seemed to be able to recover from that. It seems that there were many different versions of that model. I also understand that there are very few people that have a good hold on fixing them. At this point I have to ask: do you have the original manual that came with it? If not, everything from here on is a crap shoot with that radio unless you can find the docs or a set of alignment instructions for that radio EXACTLY. I wound up chasing quite a few wild geese before I gave up and wen to the Radio Archives (not sure of the whole name) place that sells documents for old radios. They had something, but it was far from sure being the correct documents. Heck, even the internal placement and the shape of the VCO changed dramatically from model to model.

I hate to tell you all of this, then again if you have the original docs, this could help and it might save you some cash seeking out more docs that aren't available as far as I know unless from a desperate plea posted in newsgroups.

73 es gud luk,

Kerry de kk7jo

1623. Re: Monitor noise

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 05:13:34 UTC
From: 9a3mr@usa.net
Message-ID: <1103_984546814@as4-m186.net.hinet.hr>
Source record: 54108

Maybe i'm lucky ...
I use to borrow several types of laptops (from 'no name" to
"brand name") and did not observe any kind of RFI to my
RCVR.
All the times I using an old 286 laptop for PR also without
any problem.
Seems to be cheapest to buy an old brand name 386 or 486
laptop (prices up to 150$) for ham use then try to shield new
desktop PC.
Also, my kids are not happy with those old PCs, they're
prefer new ones.
73 de Roland 9A3MR

http://www.qsl.net/9a3mr/

1624. Re: Coax choke balun 4:1?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 06:41:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AAF1284.263A07F9@eznec.com>
Source record: 54121

These articles are what first got me interested in "air core" coaxial choke baluns. As I learned more about baluns, I saw that Badger's designs were classical voltage baluns, and that voltage baluns weren't the best kind to use for antennas. (See "Baluns: What They Do and How They Do It" in the ARRL Antenna Compendium, Vol. 1.) The designs work better for antenna use if you remove the third ("tertiary") winding, converting them to current baluns.

Roy Lewallen, W7EL

Dan Halbert wrote:
>
> There is a very interesting pair of articles from Ham Radio Magzine,
> February and March 1980, entitled "A New Class of Coaxial-Line Transformers",
> by George Badger, W6TC. He uses loops of coax in a choke-like way, but also
> uses paralleled sections of coax to create 4:1 and 1:4 baluns. His
> measurements show that they compare favorably with core baluns.
> Perhaps someone more knowledgable than I who has these in his/her library
> can comment.
>
> Dan, KB1RT

1625. Re: QST Mar & Apr 99?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 10:34:07 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <cc2v3iAfk0r6EwLG@invest.fsbusiness.co.uk>
Source record: 54123

Hi,

>The ARRL will sell you the 1999 CD-ROM -- it's a neat thing to have since
>it's searchable and include QEX as well.
Thanks for the suggestion but I think it's contents would be of limited
interest to me.

I have rather unusual amateur radio interests:

QRO HF mobile amplifier design and AM Pulse Width Modulation techniques
and design info.

Thanks anyhow.

(((73)))

Phil G4ZOW

1626. Re: QST Mar & Apr 99?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 10:36:10 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <fMHvjmAam0r6EwLS@invest.fsbusiness.co.uk>
Source record: 54124

Larry,

Many thanks.
> I was going to suggest the following URL's, but you have to be a member
>of ARRL to be able to get them. Mouser (http://www.mouser.com/) is
>listed as a source for boards and kits, however searching their site was
>fruitless. The part numbers should be P/N 371-HFAMP1, -HFAMP2, and
>HFAMP3.
>
>Good Luck!
>Larry, W2GL
>
>http://www.arrl.org/members-only/tis/info/pdf/9903040.pdf
>http://www.arrl.org/members-only/tis/info/pdf/9904043.pdf
I think I have a Mouser cat around the shack.

I was unawares they offered kit pcb's.

I'll go see what this amp can do and am awaiting copies of the original
article.

(((73)))

Phil G4ZOW

1627. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 13:13:36 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AAF6E7F.AC95A219@ix.netcom.com>
Source record: 54122

Hello Harvey
As for RF Gain down and AF Gain up, they taught us to do this in Navy schools. Old time Military ops do this routinely. I suspect the stuff is linear as far as amplification of noise and signal, however this doesn't take into account the human ear. I find it much easier to copy weak signals using this method with earphones and have taught numerous others to do the same . All have noted a marked improvement. The human ear/mind has a way as acting as a filter (Tuning out your Mother-in-law while watching TV). I wonder if there has been any studies on this. True enough my observations are subjective - but so then is human hearing. I can hear two signals on a frequency and discern either one while partially ignoring the other and lowering the receiver gain helps considerably. The audio gain is only advanced to the point where one can perceive the intelligence.

Would be interested if others have experienced this.
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!
==========

Harvey Tetmeyer wrote:

>
> As for the threshold of hearing, he suggests turning up the AF gain to hear
> the wanted signal. When you do, the unwanted signal comes right up with the
> desired signal. This is linear stuff... you know!
>
> Harvey, K5LJM

1628. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 13:52:04 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3AAF7784.C7CD93B1@mwci.net>
Source record: 54125

AC6V wrote:

> As for RF Gain down and AF Gain up, they taught us to do this in Navy schools.
> Old time Military ops do this routinely.

The problem with this is that if a strong sig suddenly appears, it can destroy your eardrums. It is always good to have an AGC circuit that ignores the weaker sig (RF Gain down, Audio Gain up) but catches and restrains the strong sig.

Bill W0IYH

1629. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 13:55:22 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AAF7849.6FCE77E7@ix.netcom.com>
Source record: 54126

Interesting Bill as most of the DXers and contesters I know emphatically use no AGC or Fast AGC. With receiver gain down and audio up, I have never heard an interloping signal that would "destroy your
eardrums". As I said the audio gain is turned up just to the point of intelligibility and an interloper can be loud but with RF gain down, no way near busted ear drum level.

True enough for rag chewing you probably want medium to slow AGC, but not for DXing on weak signals. In contesting with Med to slow AGC a strong interloper will decrease rx gain so severely as to render the weak signal inaudible, not so with no or fast AGC from my experience.

You ear may vary -- hi hi.
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

"William E. Sabin" wrote:

> AC6V wrote:
>
> > As for RF Gain down and AF Gain up, they taught us to do this in Navy schools.
> > Old time Military ops do this routinely.
>
> The problem with this is that if a strong sig suddenly appears, it can destroy your
> eardrums. It is always good to have an AGC circuit that ignores the weaker sig (RF
> Gain down, Audio Gain up) but catches and restrains the strong sig.
>
> Bill W0IYH

1630. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 14:05:01 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AAF7A8C.D663447F@ix.netcom.com>
Source record: 54127

Interesting Bill as most of the DXers and contesters I know emphatically use no AGC or Fast AGC. With receiver gain down and audio up, I have never heard an interloping signal that would "destroy your
eardrums". As I said the audio gain is turned up just to the point of intelligibility and an interloper can be loud but with RF gain down, no way near busted ear drum level.

True enough for rag chewing you probably want medium to slow AGC, but not for DXing on weak signals. In contesting with Med to slow AGC a strong interloper will decrease rx gain so severely as to render the weak signal inaudible, not so with no or fast AGC from my experience.

And it is the weak signal I want -- not the strong one and slow AGC or even medium AGC won't do that.

You ear may vary -- hi hi.

"William E. Sabin" wrote:

> AC6V wrote:
>
> > As for RF Gain down and AF Gain up, they taught us to do this in Navy schools.
> > Old time Military ops do this routinely.
>
> The problem with this is that if a strong sig suddenly appears, it can destroy your
> eardrums. It is always good to have an AGC circuit that ignores the weaker sig (RF
> Gain down, Audio Gain up) but catches and restrains the strong sig.
>
> Bill W0IYH

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

1631. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 14:45:30 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3AAF840A.3C3F50A@mwci.net>
Source record: 54128

AC6V wrote:

> Interesting Bill as most of the DXers and contesters I know emphatically use no AGC or
> Fast AGC. With receiver gain down and audio up, I have never heard an interloping
> signal that would "destroy your
> eardrums". As I said the audio gain is turned up just to the point of intelligibility
> and an interloper can be loud but with RF gain down, no way near busted ear drum level.

As a DX and Contest guy with 55 years of experience, my personal experience is different than yours. My practice, since the early 1960's, is to adjust RF gain until the AGC is inoperative and set the audio as required. When the strong sig appears, as is *very* common in a contest, the AGC saves the eardrums. It gives time to readjust the controls, if necessary. If you have the July 1963 QST you will see an article that I wrote regarding this subject.

AGC for CW is very common.

The design problem is to have an AGC threshold that remains constant, so that it overrides the RF gain control at any setting of the RF gain control. This, plus the audio gain setting, minimizes the amount of knob twisting.

AGC design has been an interesting subject for many years.

Bill W0IYH

1632. Heathkits F.S.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 16:04:23 UTC
From: Gary <gary@heathkits.com>
Message-ID: <bEMr6.10676$6p5.958412@newsread1.prod.itd.earthlink.net>
Source record: 54129

```
Heathkit Apache TX-1, for sale also SB-10, SSB adaptor for the
TX-1 see at http://www.heathkits.com
```

--
Gary KIMJ 44 years of Heathkit fun http://www.heathkits.com

1633. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 16:06:37 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AAF970D.922EE2FD@ix.netcom.com>
Source record: 54131

Ah very good Bill, your statement of "My practice, since the early 1960's, is to adjust RF gain
until the AGC is inoperative and set the audio as required".
Is what many of us have been doing for years, perhaps without realizing the "AGC inoperative"
part. Thanks for that insight.

In the Navy we operated CW circuits without AGC, riding the RF Gain and AF Gain controls. But
of course we had clear channels. So I would agree that Fast AGC is in order for contesting. For
weak signal DXing on a closing band, I still use no AGC, don't want an interloper reducing my
receiver gain, so I'll tolerate any interlopers, usually can hear both the DX and the
interloper with no AGC and its the weak DX I'm after.

Thanks for the discussion
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!
================

"William E. Sabin" wrote:

> AC6V wrote:
>
> > Interesting Bill as most of the DXers and contesters I know emphatically use no AGC or
> > Fast AGC. With receiver gain down and audio up, I have never heard an interloping
> > signal that would "destroy your
> > eardrums". As I said the audio gain is turned up just to the point of intelligibility
> > and an interloper can be loud but with RF gain down, no way near busted ear drum level.
>
> As a DX and Contest guy with 55 years of experience, my personal experience is different
> than yours. My practice, since the early 1960's, is to adjust RF gain until the AGC is
> inoperative and set the audio as required. When the strong sig appears, as is *very*
> common in a contest, the AGC saves the eardrums. It gives time to readjust the controls, if
> necessary. If you have the July 1963 QST you will see an article that I wrote regarding
> this subject.
>
> AGC for CW is very common.
>
> The design problem is to have an AGC threshold that remains constant, so that it

overrides
> the RF gain control at any setting of the RF gain control. This, plus the audio gain
> setting, minimizes the amount of knob twisting.
>
> AGC design has been an interesting subject for many years.
>
> Bill W0IYH

1634. Re: Hams;dont be prosecuted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 16:09:54 UTC
From: n8blk@aol.com
Message-ID: <20010314110954.29750.00000567@nso-fa.aol.com>
Source record: 54130

In article <3aadeba0$0$25491$7f31c96c@news01.syd.optusnet.com.au>, "Rod Marsh"
<rredbeak2@dingoblue.net.au> writes:

>I apologise for posting my "dont get prosecuted" to NG's outside of AUS
>[VK],It was unintentional and i am sorry for any upset it may have caused.
>Cheers Rod VK4XI
>

Considering how parochial some US hams are, when said hams assume that US rules
apply to all hams, don't worry about it. I note that you weren't suggesting
any illegal actions even in the US. 73 de n8blk
-art clemons-

1635. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 16:19:44 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98o5le$8nf$1@slb3.atl.mindspring.net>
Source record: 54132

Bill,

Thanks for your thoughts on AGC, RF gain, etc...

The origianl question was, "Is the QST Receiver Selectivity Article Correct?" Have you read the two part article by Larry? If so, do you agree with his analysis of how filters work in Kenwood radios? If so, please explain it to us. It doesn't match what I have seen, tested, designed, built and fiddled with for forty something years. {;>)

Harvey, K5LJM

1636. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 18:10:32 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3AAFB418.CE31208E@mwci.net>
Source record: 54133

Harvey Tetmeyer wrote:

> The origianl question was, "Is the QST Receiver Selectivity Article
> Correct?"

I skimmed those articles, but did not study them closely. I was somewhat bothered by them because some of the diagrams did not ring my chimes too well, but I cannot be critical because I did not give them the close attention that they require.

Bill W0IYH

1637. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 18:24:52 UTC
From: 2w8ji@akorn.net
Message-ID: <3aafb46a.185281285@news.accessunited.com>
Source record: 54134

On Wed, 14 Mar 2001 05:55:22 -0800, AC6V <ac6v@ix.netcom.com> wrote:

>Interesting Bill as most of the DXers and contesters I know emphatically use no AGC or
>Fast AGC. With receiver gain down and audio up, I have never heard an interloping
>signal that would "destroy your
>eardrums". As I said the audio gain is turned up just to the point of intelligibility
>and an interloper can be loud but with RF gain down, no way near busted ear drum level.

Then you need to operate from here and use my receivers!

That is a major problem, and I do EXACTLY what Bill suggests to
eliminate the problem . I allow the AGC to run, but reduce gain until
the AGC is not activated .

I also have added an audio limiter, so the maximum voltage to the
headsets is clamped a a level that won't damage my hearing.

I don't doubt, with some receivers, stages in the receivers clamp or
limit and serve the same purpose.

>True enough for rag chewing you probably want medium to slow AGC, but not for DXing on
>weak signals. In contesting with Med to slow AGC a strong interloper will decrease rx
>gain so severely as to render the weak signal inaudible, not so with no or fast AGC
>from my experience.

I always use AGC, and almost always use full gain and let the AGC work
when working weak signals. It's actually only when the signal is above
an annoying noise (or QRM), that I limit gain.

The only condition where I do not use AGC is when there is severe QRN,
and I don't want to lose any bits of the signal beyond the noise. In
that case I also turn the fileters to a wider position, so they
respond faster (ring less).

AGC is so important, I've built entirely new AGC systems for my
primary receivers. I made every effort to make the AGC fast enough to
following the rising edge of the fastest rising signal that can make
it through the filters, and not overshoot or sag.

I can now listen on fast AGC, and hear noise between dots and dashes
of very strong signals. My own transmitter comes out virtually the
same volume as a 1 uV signal. Of course I have slower AGC positions.

I think the reason people avoid using AGC is many receivers have
horrible AGC systems.

73 Tom

1638. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 18:38:38 UTC
From: 2w8ji@akorn.net
Message-ID: <3aafb743.186010815@news.accessunited.com>
Source record: 54135

On Tue, 13 Mar 2001 20:34:48 -0700, "Harvey Tetmeyer"
<k5ljm@mindspring.com> wrote:

>If you operate a filter in the linear range...which you must to minimize
>amplitude distortion...the frequency response must be the same at say -30 dB
>as it will be at -10 dB. If you put two signals in at the same amplitude
>with one in the center of the passband and the other on the slope, they will
>come out at different levels. Drop the inputs 20 dB and they will come out
>with the same relative levels, only 20 dB down. The bandwidth is not wider
>for input signals at -30 dB than it is at -10dB. Larry seems to think it

I don't know what Larry thinks, but I agree with what you are saying.

>As for the threshold of hearing, he suggests turning up the AF gain to hear
>the wanted signal. When you do, the unwanted signal comes right up with the
>desired signal. This is linear stuff... you know!

Right you are, I agree again.

>As for the signals disappearing in the shaded areas of the curves, the lower
>signals are well above the noise level which he has drawn in below. The
>shaded area somehow performs magic... or is the whole thing smoke and
>mirrors? Tell us enough times, with enough words and pictures, on enough
>pages, in enough issues and it starts be convincing.

The signals do not and can not disappear. We know that. Assuming what
you say is true, maybe he misunderstands what the filter does?

>As a ham of forty something years and some time in grade as an RF
>engineering design manager, I hate to see this type of thing printed in such
>detail and with so many errors, go unanswered. Like J. R. Ewing from the
>TV program Dallas said, "Once you give up integrity, the rest is a piece of
>cake!"

If the article wasn't so long, I'd read it. Not having read and/or
taken additional time to understand what was being said, I really
can't comment on it.

Did you ask them who reviewed it before publication, or if it was
reviewed?

73 Tom

1639. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 18:51:03 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98oehslbd1@slb1.atl.mindspring.net>
Source record: 54136

Tom,

I didn't ask them who reviewed the article but think I will... good idea!

Harvey, K5LJM

> Did you ask them who reviewed it before publication, or if it was
> reviewed?
>
> 73 Tom

1640. Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 19:05:32 UTC
From: Ron H <blahblah@mn.mediaone.net>
Message-ID: <0iPr6.679$5Y4.21738@typhoon.mn.mediaone.net>
Source record: 54137
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

Aside from brute force approximation of the manual method, does anyone know
of a proven algorithm for an auto-tune antenna tuner? Assume "tune" & "load"
caps and a roller inductor.

73
Ron H.
--
DO NOT REPLY TO THIS MESSAGE:
Sorry but it's the only way to beat spam: To reply please use K3PID at
arrl.net of course you'll have to put it together correctly. Cheers

1641. what might be a silly question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 19:12:40 UTC
From: KB9YXM <kb9yxm@arrl.net>
Message-ID: <98ofoj$sr2$1@ousrvr3.oulu.fi>
Source record: 54138

Hello everyone.
Kb9YXM here.
I would like to start to build my own antennas for VHF/UHF. To start, I would like to build what might be a strange 6 meter antenna design.
I am trying to build a 6 meter 2 element phased array.
I was hoping someone could send me some idiot proof instructions or direct me to a website that they know fdirst hand might have information on this type of antenna.
The other quesiton is a simple one. When building an antenna, why must one use a gamma match, isnmt it possible just to use a ballun as with a di-pole?

Thanks and73's in advance.
oh8/kb9yxm

1642. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 19:49:09 UTC
From: David Snyder Hale <david@isi9.mtwilson.edu>
Message-ID: <98ohvl$79$1@agate.berkeley.edu>
Source record: 54139

www.bestbookbuys.com

1998 edition $15.04 shipped.

--
Dave * N3WTK (DM04xf) * http://isi.mtwilson.edu * n3wtk@arrl.net

1643. WTB: HBR Receiver and parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 19:49:44 UTC
From: ljl160@aol.com
Message-ID: <20010314144944.01749.00001797@ng-da1.aol.com>
Source record: 54140

Looking for an HBR receiver complete or incomplete. Im also looking for associated parts to build my own ie IF cans, dial, porcelain tube and coil sockets, power transformer etc. Any help appreciated 73s Lew KlNDV

1644. Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 21:33:28 UTC
From: paolo@odone.it
Message-ID: <002d01c0acce$7d051760$2c061c97@odone>
Source record: 54141

Hello Steven,
thanks for all info.
I know very well your site http://www.novatech-instr.com and the very interesting DDS8m.
On the oter side I was unable to find info about the programming sofware for DDS8pc.
About DIP oscillator beeing noisy I remember the very interesting Application note by yourself and Richard Cushing, http://www.analog.com/techsupt/application_notes/an419.pdf .
I am just looking for a completed project, perhaps a kit priced for ham radio .
Best regards.

Paul i1odp

1645. Ericsson Mobitex 900mhz schematic??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 22:13:24 UTC
From: "Keith E. Spainhour" <KSpainhour@wilkes.net>
Message-ID: <3AAFED04.4029CE85@wilkes.net>
Source record: 54142

Hello All,
I recently acquired some really inexpensive 900 Mhz Ericsson Mobitex data radios, model C 719/m. Does anybody have any diagrams or info on these. I really just need a schematic for the RF section, which looks wonderful for tinkering. (10w module, separate PLL's MB1501's, and such) Some programming info on these would be wonderful, but what I am looking to do is scrap the control boards, and just use the RF board with a custom controller. Any help would be appreciated.

Thanks for your help,
--
73 DE KT4XW
Keith Spainhour
KSpainhour@wilkes.net

1646. Re: Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-14 23:49:25 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3ab002dc@news.svn.net>
Source record: 54143
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

Hi, Ron -

Autotune systems include a mismatch detector and control circuit. The detector can be a simple VSWR bridge going to a microprocessor which seeks a minimum (standard zero finding algorithms apply). Fancier systems have phase and magnitude detectors which drive the two servo'ed capacitors via the appropriate gain.

The latter approach is used widely in the plasma etching field - where 13.56MHz power is sent to a reactive plasma chamber via a tuning network. Here, the impedance of the load depends on the energy going to the plasma, which depends on the quality of the match. A design which always and quickly finds a stable tuning point is much valued. These designs also don't use pi networks, but L networks since the load is always a low (2 to 25 ohms) and capacitive impedance.

Best of luck with your designs!

Jim Horn, WB9SYN/6

1647. Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 00:05:54 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_>
Message-ID: <984615203.15918.0.nnrp-12.9e98acde@news.demon.co.uk>
Source record: 54146
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Hello all
this is probably a question that is asked many times and probably
has about the same number of different answers !!

But here goes ....

In mV emf at the aerial (antenna) socket what is the recognised
standard for an "S9" signal indication ?

Also I am given to believe that each S unit approximately equates
to an increase or decrease in signal by 6db (ie doubling or halving
the emf voltage) at the aerial socket is this correct ?

Any comments or corrections ?

Many thanks Martin
~~~~~~
Each of us is given a bag of tools, shapeless mind and a book of Rules
~~~~~~
Remove :-
_NOSPAM_FOR_ME_
from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~
~~~~~~

1648. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 00:08:10 UTC
From: Bob McConnell <rmcconne.NOSPAM@lightlink.com>
Message-ID: <uk10btgo695taeo8ob0sm6dbc8bp7ee3ke@4ax.com>
Source record: 54144

Hi Josh,

In order of likelihood for success:

1. Find a local ham club and see if anyone has a recent used copy they will sell or 'loan' to you. There aren't a lot of changes year to year, so anything in the last 5-10 years will be adequate to get you started.

2. Check around the area for hamfests, computer shows, etc and check out the swap meet areas.

3. Very occasionally they will show up at used book stores or larger used book sales. Ask if they can check with other used book dealers.

4. Even less frequently you will see one at an estate sale or auction. Usually these are burried in a box or pallet of books and can't be purchased individually unless you know one of the auctioneer's helpers.

Good luck,
Bob McConnell
N2SPP

On Mon, 12 Mar 2001 23:41:49 -0800, "Josh DeWinter"
<dewinter@wsunix.wsu.edu> wrote:

>Hi. I am a student of Electrical Engineering at Washington State
>University, in Pullman, WA. I would very much like to get my hands on the
>ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or the
>softcover will do). Is there anywhere anyone can recommend I find it at a
>student discount or a low rate?
>
>
>Thanks
>Josh DeWinter

1649. fs: Kenwood GDO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 00:14:20 UTC
From: "alkrol@mcs.com " <alkrol@mcs.net>
Message-ID: <wPTr6.48$JN5.7132@news.goodnet.com>
Source record: 54145

Kenwood model DM-81 grid dip meter with manual and all coils
has a small scratch on lower mhz window and few minor case scuffs

750kc-250mhz
accepts hc25u and ft243 crystals for marker generator/checker
absorption and field strength meter functions
has earphone jack to monitor signals
capacitive probe for shielded coils and toroids

$65 plus shipping

http://www.mcs.com/~alkrol/images/dip_meter.jpg
http://www.mcs.com/~alkrol/images/side_view.jpg

1650. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 01:05:53 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3AB01517.B985202F@cmcorp.com>
Source record: 53997
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Martin John Hallsworth wrote:

> Hello all
> this is probably a question that is asked many times and probably
> has about the same number of different answers !!
>
> But here goes ....
>
> In mV emf at the aerial (antenna) socket what is the recognised
> standard for an "S9" signal indication ?

There is no standard.

> Also I am given to believe that each S unit approximately equates
> to an increase or decrease in signal by 6db (ie doubling or halving
> the emf voltage) at the aerial socket is this correct ?
>

At one time it was suggested, but no receivers actually do this.

>
> Any comments or corrections ?
>
> Many thanks Martin
> ~~~~~~
> Each of us is given a bag of tools, shapeless mind and a book of Rules
> ~~~~~~
> Remove :-
> _NOSPAM_FOR_ME_
> from return address to reply or click this link
>
> mailto:martin@g1gyc.demon.co.uk
> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

1651. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 01:26:36 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AB01A4C.D7FCA514@ix.netcom.com>
Source record: 53998
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Hi Martin -- although there are several "standards" and manufacturers seem
to use what the want, the best writeup I've seen is by VE7TMA at URL:
http://www.ac6v.com/sunit.htm
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!
==========

Martin John Hallsworth wrote:

> Hello all
> this is probably a question that is asked many times and probably
> has about the same number of different answers !!
>
> But here goes ....
>
> In mV emf at the aerial (antenna) socket what is the recognised
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> ~~~~~~

1652. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 02:41:03 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98pa41$o0c$1@slb4.atl.mindspring.net>
Source record: 53999

Bill,

If you do get around to reading the articles, I would appreciate your comments.

Thanks,

Harvey, K5LJM

> I skimmed those articles, but did not study them closely. I was somewhat
> bothered by them because some of the diagrams did not ring my chimes too well,
> but I cannot be critical because I did not give them the close attention that
> they require.
>
> Bill W0IYH
>

1653. OpenSourceGPS a homebuilt GPS receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 03:09:33 UTC
From: Clifford Kelley <cwkelley@earthlink.net>
Message-ID: <NnWr6.15139$R_6.1566665@newsread2.prod.itd.earthlink.net>
Source record: 54000

I have a new website at http://home.earthlink.net/~cwkelley/ devoted to OpenSourceGPS which is open source software for a homebuilt GPS receiver based on the Mitel GPS chipset. It still has a few rough edges but I would like any comments and or suggestions on how to make it better.

Thanks,

Cliff

1654. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 04:22:23 UTC
From: Eddie Haskell <harleybum@easyriders.com>
Message-ID: <3sXr6.61165$Ch.6613409@typhoon.we.rr.com>
Source record: 54065
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

THREE DB or half/double the power for a single "S" unit change.

1655. Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 04:35:35 UTC
From: paolo@odone.it
Message-ID: <000601c0ad09$74628b20$3c7e1c97@odone>
Source record: 54038

Bob,
I agree with you, about spurs and PLL solution.
Hands electronics http://www.rf-kits.demon.co.uk/run.htm in UK has a module DDS3A using an AD9851 clocked at 180 MHz and phase locked for high purity applications to a clean up loop available as the GQ-PL9 at about $200.
My question was in order to achieve the maximum phase noise performance, and to have a 300 MHz clean source as in http://www.analog.com/techsupt/application_notes/an419.pdf
Best 73',

Paul i1odp

1656. Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 04:53:03 UTC
From: paolo@odone.it
Message-ID: <000601c0ad0b$e45fc120$3c7e1c97@odone>
Source record: 54028

Richard,
fine project, I am wondering about features.
It has SPLIT RIT and Memories capability?
Is there a Keypad in parallel with a rotary encoder?
I was thinking to use it for the 50 Mhz band (+ 9 MHz IF).
I agree about board cost US$ 200 is quite expensive.
Please keep me informed if you will proceed.

Paul i1odp

1657. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 07:15:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AB06C08.42CDD5C4@eznec.com>
Source record: 54066
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

I wouldn't count on any particular value for S9, although some receivers seem to be adjusted to 50 uV.

The S meter in an amateur meter simply shows the AGC voltage, which is a more-or-less logarithmic function of the signal strength. I'm not aware of any manufacturer currently making any attempt to make the AGC truly logarithmic over a wide range, which would be necessary for S units to be a fixed number of dB. Basically, hams are satisfied with a wiggling meter, and simply showing the AGC voltage is adequate to do this.

Here are measurements of my Icom 730 S meter on 40 meters, preamp out:

S1 - 2 1.4 dB
S2 - 3 1.3 dB
S3 - 4 1.6 dB
S4 - 5 2.3 dB
S5 - 6 1.8 dB
S6 - 7 3.2 dB
S7 - 8 3.1 dB
S8 - 9 4.0 dB
S9 - S9+10dB 5.6 dB
S9+10dB - S9+20dB 7.3 dB
S9+20dB - S9+30dB 6.6 dB
S9+30dB - S9+40dB 10.5 dB
S9+40dB - S9+50dB 11.3 dB
S9+50dB - S9+60dB 13.5 dB

If you switched from a dipole to your new antenna and your signal went from S2 to S6 on my rig and you assumed that this was 24 dB (6 dB per S unit), you'd be in error by 14 dB. You'd think your 3 element Yagi had the gain of an array of about 100 elements. (You'd need a boom length of nearly half a mile to get 24 dB of gain from a 20 meter Yagi.) This is probably one reason a lot of people think their antennas have a lot more gain than they really do.

You should regard your S meter only as something that wiggles, and by no means depend on it for even crude estimates of actual signal strength or signal strength change, unless you've calibrated it. To make quantitative measurements or to calibrate an S meter, use a simple step attenuator. You can find the plans in the ARRL Handbook or other source, and build it in an evening.

Now, the question is, why do you continue to see in ARRL publications and other sources that should know better, the assumption that an S unit

is 6 dB? When asked they say something like, "We don't mean the marks on the meter on every receiver sold for the last 50 years that says 'S units'. We mean something else." But we already have an unambiguous, well defined unit called a decibel. What's the need for another unit that people naturally assume means the marks on their S meters -- but isn't?

Roy Lewallen, W7EL

Martin John Hallsworth wrote:
>
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> has about the same number of different answers !!
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> Remove :-
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> from return address to reply or click this link
>
> mailto:martin@g1gyc.demon.co.uk
> ~~~~~~

1658. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 08:44:44 UTC
From: Dave@devans.demon.co.uk
Message-ID: <3ab07fb3.2412244@news.demon.co.uk>
Source record: 54070
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Couldn't agree more.

fwiw, my measured S-meter (!) readings on my IC746 are:

S1-2 1dB
S2-3 2dB
S3-4 2dB
S4-5 3dB
S5-6 3dB
S6-7 5dB
S7-8 5dB
S8-9 5dB
s9-9+10 10dB
+10-+20 10dB

to nearest dB - checked overall by dropping from S9 to S1 - total
atten is within 1dB of the sum of the increments.

Pre-amp seems to have abt 12dB gain - at least on 17M.

The other day someone gave me an increase in S-points when I put my
TL922 in that suggested it's giving about 100kW out. Hmmm.

Dave
GW4GTE

On Wed, 14 Mar 2001 23:15:20 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>I wouldn't count on any particular value for S9, although some receivers
>seem to be adjusted to 50 uV.
>
>The S meter in an amateur meter simply shows the AGC voltage, which is a
>more-or-less logarithmic function of the signal strength. I'm not aware
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>S6 - 7 3.2 dB
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>S8 - 9 4.0 dB
>S9 - S9+10dB 5.6 dB
>S9+10dB - S9+20dB 7.3 dB
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>S9+30dB - S9+40dB 10.5 dB
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>If you switched from a dipole to your new antenna and your signal went
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>the gain of an array of about 100 elements. (You'd need a boom length of
>nearly half a mile to get 24 dB of gain from a 20 meter Yagi.) This is
>probably one reason a lot of people think their antennas have a lot more
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>You should regard your S meter only as something that wiggles, and by no
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>Now, the question is, why do you continue to see in ARRL publications
>and other sources that should know better, the assumption that an S unit
>is 6 dB? When asked they say something like, "We don't mean the marks on
>the meter on every receiver sold for the last 50 years that says 'S
>units'. We mean something else." But we already have an unambiguous,
>well defined unit called a decibel. What's the need for another unit
>that people naturally assume means the marks on their S meters -- but
>isn't?
>
>Roy Lewallen, W7EL
>
>Martin John Hallsworth wrote:
>>
>> Hello all
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>> But here goes ....
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>> Any comments or corrections ?
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>> Many thanks Martin
>> ~~~~~~
>> Each of us is given a bag of tools, shapeless mind and a book of Rules
>> ~~~~~~
>> Remove :-
>> _NOSPAM_FOR_ME_
>> from return address to reply or click this link
>>
>> mailto:martin@g1gyc.demon.co.uk
>> ~~~~~~

1659. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 09:48:26 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <Kd0s6.3259$5c.487650@paloalto-snr1.gtei.net>
Source record: 54071
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

6 db is a 4x increase. 1 "S" unit represents a 6db increase (although most
"S" meters are not accurate).

73 de W6DKN

"Eddie Haskell" <harleybum@easyriders.com> wrote in message
news:3sXr6.61165$Ch.6613409@typhoon.we.rr.com...
> THREE DB or half/double the power for a single "S" unit change.
>
>

1660. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 10:06:05 UTC
From: FJose <eb5agv@ctv.es>
Message-ID: <3AB0940D.CFA8D9DD@ctv.es>
Source record: 54079
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Hello!

I know S-meters are really innacurate but it seems that there is one 'coincidence point' among lots of rigs, in the S-9 marking: 50uV (or -73dBm, which is the voltage I select in my HP-8640B for testing). I have checked this in about 25 rigs, both valved and solid state and, to my surprise, most of them are very close to a '9' with the test signal at -73dBm.

Just my 0.02 Euro worth ;-)

JOSE

--
---
73 EB5AGV / EC5AAU - JOSE V. GAVILA
La Canyada - Valencia (SPAIN)

EB5AGV Vintage Radio Site: http://www.geocities.com/eb5agv

European Boatanchors List: http://groups.yahoo.com/group/euro_ba_swap

1661. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 10:28:04 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB09934.B3321A1D@toast.net>
Source record: 54073
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

"Bob Lewis (AA4PB)" wrote:

> At one time it was supposed to be S9 = 50 uV but I don't think many
> mfgs of amateur receivers worry about getting very close any more. QST
> still tests it on 20 meters for their product reviews. I looked up the
> IC756PRO review. It was not specified by Icom but measured 64 uV with
> the preamp off.
>
> 1 S unit was supposed to be 6dB but I doubt they get very close to
> that either.

The 64uv/50uv works out to 2.14 db, which would be just over 1/3 s unit,
if the 6db/s unit figure is right. Given how much space 1/3 s unit
occupies on the scale, that doesn't seem too awfully far off.

john

1662. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 10:38:48 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB09BB8.E5902B40@toast.net>
Source record: 54072
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Roy Lewallen wrote:

>
> Now, the question is, why do you continue to see in ARRL publications
> and other sources that should know better, the assumption that an S unit
> is 6 dB? When asked they say something like, "We don't mean the marks on
> the meter on every receiver sold for the last 50 years that says 'S
> units'. We mean something else." But we already have an unambiguous,
> well defined unit called a decibel. What's the need for another unit
> that people naturally assume means the marks on their S meters -- but
> isn't?

That's a really good question, especially given that most receivers are computer controlled. It would seem like almost a trivial exercise to characterize the receiver agc in terms of received signal strength, and then program the results, however non-linear, into the computer's memory, and display an accurate meter reading in terms of db above or below 50 uv, for example. It could even calibrate itself on startup with a few precision resistors switched in and out, feeding itself its own calibration signal.

john

1663. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 12:20:07 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <98qbuidhb1@uranium.btinternet.com>
Source record: 54068
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

The S9 Standard at HF is a receiver power input level of 50
picowatts = 50 divided by 10^12 watts.

This corresponds to 50 micro-volts into 50 ohms when the receiver
input resistance is a standard 50 ohms.

A pre-amp should set to 0 dB. Likewise should be an input
attenuator.

Look up the maintenance manual of a modern Icom HF transceiver. No
doubt other reputable manufacturers use the same S-meter
calibration procedure.

It can be deduced from the calibration procedure and examination of
meter scale graduations that 1 S-unit is approx 6 dB. Things may go
awry below S-6 and above S-14. But that's a shortcoming of the
S-meter and receiver AGC - not the Standard.

S-14 = S9 + 30 dB.

Been around for at least 50 years.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

1664. Re: Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 12:29:56 UTC
From: John Seney <wd1v@mediaone.net>
Message-ID: <wd1v-312B60.07295615032001@enews.newsguy.com>
Source record: 54018
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

In article <3ab002dc@news.svn.net>, James Horn <jimhorn@svn.net> wrote:

> Hi, Ron -
>
> Autotune systems include a mismatch detector and control circuit. The
> detector can be a simple VSWR bridge going to a microprocessor which seeks
> a minimum (standard zero finding algorithms apply). Fancier systems have
> phase and magnitude detectors which drive the two servo'ed capacitors via
> the appropriate gain.
>
> The latter approach is used widely in the plasma etching field - where
> 13.56MHz power is sent to a reactive plasma chamber via a tuning network.
> Here, the impedance of the load depends on the energy going to the plasma,
> which depends on the quality of the match. A design which always and
> quickly finds a stable tuning point is much valued. These designs also
> don't use pi networks, but L networks since the load is always a low (2 to
> 25 ohms) and capacitive impedance.
>
> Best of luck with your designs!
>
> Jim Horn, WB9SYN/6
>

Now that we have sound cards and PCs connected to our radios, when will
the autotune routines go after our receivers for optimizations? That
could be pretty cool!

--
JS
http://www.qsl.net/wd1v

1665. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 13:43:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AB0C718.62BB997D@eznec.com>
Source record: 54069
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

That would only be done if doing so would sell additional units. But I, like the manufacturers, doubt that it would.

Actually, it's unfortunately not that simple. The response is likely to be temperature sensitive, as well as varying with frequency and other parameters. This could all be accounted for or calibrated out (as it is in a good spectrum analyzer, say), but it's just not worthwhile. (Oscilloscopes I was involved with some years ago would recalibrate whenever the internal temperature changed by a few degrees. I'm sure this is common now in a variety of test equipment.) And there's another problem. Judging by the meter, the AGC range of my Icom is around 74 dB. So instead of a meter marked S1 to S9 + 60 dB, it'd only go from S1 to S9 + 26 dB at 6 dB per unit. Plus, I think if you gave hams a real 6 dB per unit meter, there'd be a lot of complaints about how dead the meter is.

I've been told the Kachina receiver reports direct signal strengths, but I have no idea how accurate it is.

The proponents of the S unit seem to fall into two camps. One is the group that assures us that receivers (at least, "properly calibrated" ones) really do indicate 6 dB per S unit. A universal and telling characteristic of this group is that they somehow never get around to actually measuring their S meters. Things are always so much more precise if not sullied by the facts! Then there's the larger group that assures us that it's ok (and for some reason that totally escapes me, desirable) to supplement the traditional dB with an additional unit, a 6 dB "S unit". But, they tell me, it's not really the "S unit" that's marked on the front panel meter of every receiver sold for decades and, don't worry, people know that the "S units" on their meters aren't the same as the 6 dB "S unit" they're so fond of. I suppose if our receiver meters were marked in dB we shouldn't be so presumptuous as to assume that they're really indicating anywhere near real dB.(*)

Roy Lewallen, W7EL

(*) Some time back I suggested to "Kurt Sterba" of WorldRadio that, if he felt a compelling need for a 6 dB unit of measure, he should call it something other than an "S unit", to avoid confusion with the marks on receiver meters. I offered the idea of calling this unit the "Sterby". After his usual one-sided derision and selective quotation of what I had written, he actually did use "Sterbys" ("Sterbies"?) for one issue or so. But then he went back to S units.

John O'Flaherty wrote:
>
> Roy Lewallen wrote:
>
> >
> > Now, the question is, why do you continue to see in ARRL publications
> > and other sources that should know better, the assumption that an S unit
> > is 6 dB? When asked they say something like, "We don't mean the marks on
> > the meter on every receiver sold for the last 50 years that says 'S
> > units'. We mean something else." But we already have an unambiguous,
> > well defined unit called a decibel. What's the need for another unit
> > that people naturally assume means the marks on their S meters -- but
> > isn't?
>
> That's a really good question, especially given that most receivers are
> computer controlled. It would seem like almost a trivial exercise to
> characterize the receiver agc in terms of received signal strength, and then
> program the results, however non-linear, into the computer's memory, and
> display an accurate meter reading in terms of db above or below 50 uv, for
> example. It could even calibrate itself on startup with a few precision
> resistors switched in and out, feeding itself its own calibration signal.
>
> john

1666. Re: what might be a silly question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 13:59:02 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <98qhr6$fj8$1@ausnews.austin.ibm.com>
Source record: 54027

In <98ofoj$sr2$1@ousrvr3.oulu.fi>, "KB9YXM" <kb9yxm@arrl.net> writes:
>Hello everyone.
>Kb9YXM here.
>I would like to start to build my own antennas for VHF/UHF. To start, I
>would like to build what might be a strange 6 meter antenna design.
>I am trying to build a 6 meter 2 element phased array.
>I was hoping someone could send me some idiot proof instructions or direct
>me to a website that they know fdirst hand might have information on this
>type of antenna.
>The other quesiton is a simple one. When building an antenna, why must one
>use a gamma match, isnmt it possible just to use a ballun as with a di-pole?
>
>Thanks and73's in advance.
>oh8/kb9yxm
>

Probably the best place to start would be with a copy of the ARRL
Antenna Book. You might also want to pick up a copy of some of the
Antenna Compendiums.

The reason a gamma match is used instead of a simple balun is that
the load presented by the active element(s) in a parasitic array may
not present a known, pure resistive value. A balun only transforms
the impedance, since it's basically a transformer. If the active
element presents a reactive component, the balun will transform that,
too, but it will still be present as a reactive component. Plus,
unless you know the exact impedance value, you won't know what the
turns ratio on a transformer type balun should be. And, since it's
generally hard to adjust the turns ratio on a balun, it could be
difficult to get the antenna matched to the transmission line.
Finally, as you're developing the antenna, the feed point impedance
can vary wildly as you reposition reflector or director (or active)
elements slightly. The gamma match allows you to match both the
resistive and reactive elements of the impedance over a continously
variable range.

Or, something like that. :*)

Note that there are other matching techniques besides the gamma match.
However, for VHF or UHF antenna systems, few are as easy to construct
as the gamma match.

Dave
WA4QAL

1667. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 13:59:46 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <jshq89.26c.ln@localhost.localdomain>
Source record: 54015
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Martin John Hallsworth wrote:

> In mV emf at the aerial (antenna) socket what is the recognised
> standard for an "S9" signal indication ?

This is one of those 'how long is a piece of string' questions.
There is no real standard for S-meter calibration. The most
commonly accepted convention is: 50 microvolts into 50 Ohms
for S 9 and 6dB per S unit. No doubt others will disagree.

Note: this was cross-posted to many groups. Followup set to: r.r.a.homebrew

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1668. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 15:40:26 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB0E26A.978352EC@toast.net>
Source record: 54067
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Roy Lewallen wrote:

> That would only be done if doing so would sell additional units. But I,
> like the manufacturers, doubt that it would.
>
> Actually, it's unfortunately not that simple. The response is likely to
> be temperature sensitive, as well as varying with frequency and other
> parameters. This could all be accounted for or calibrated out (as it is
> in a good spectrum analyzer, say), but it's just not worthwhile.
> (Oscilloscopes I was involved with some years ago would recalibrate
> whenever the internal temperature changed by a few degrees. I'm sure
> this is common now in a variety of test equipment.) And there's another
> problem. Judging by the meter, the AGC range of my Icom is around 74 dB.
> So instead of a meter marked S1 to S9 + 60 dB, it'd only go from S1 to
> S9 + 26 dB at 6 dB per unit. Plus, I think if you gave hams a real 6 dB
> per unit meter, there'd be a lot of complaints about how dead the meter
> is.
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> I've been told the Kachina receiver reports direct signal strengths, but
> I have no idea how accurate it is.
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> The proponents of the S unit seem to fall into two camps. One is the
> group that assures us that receivers (at least, "properly calibrated"
> ones) really do indicate 6 dB per S unit. A universal and telling
> characteristic of this group is that they somehow never get around to
> actually measuring their S meters. Things are always so much more
> precise if not sullied by the facts! Then there's the larger group that
> assures us that it's ok (and for some reason that totally escapes me,
> desirable) to supplement the traditional dB with an additional unit, a 6
> dB "S unit". But, they tell me, it's not really the "S unit" that's
> marked on the front panel meter of every receiver sold for decades and,
> don't worry, people know that the "S units" on their meters aren't the
> same as the 6 dB "S unit" they're so fond of. I suppose if our receiver
> meters were marked in dB we shouldn't be so presumptuous as to assume
> that they're really indicating anywhere near real dB.(*)
>
> Roy Lewallen, W7EL
>
> (*) Some time back I suggested to "Kurt Sterba" of WorldRadio that, if
> he felt a compelling need for a 6 dB unit of measure, he should call it
> something other than an "S unit", to avoid confusion with the marks on
> receiver meters. I offered the idea of calling this unit the "Sterby".
> After his usual one-sided derision and selective quotation of what I had

> written, he actually did use "Sterbys" ("Sterbies"?) for one issue or
> so. But then he went back to S units.
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> >
> > Roy Lewallen wrote:
> >
> > >
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> > > and other sources that should know better, the assumption that an S unit
> > > is 6 dB? When asked they say something like, "We don't mean the marks on
> > > the meter on every receiver sold for the last 50 years that says 'S
> > > units'. We mean something else." But we already have an unambiguous,
> > > well defined unit called a decibel. What's the need for another unit
> > > that people naturally assume means the marks on their S meters -- but
> > > isn't?
> >
> > That's a really good question, especially given that most receivers are
> > computer controlled. It would seem like almost a trivial exercise to
> > characterize the receiver agc in terms of received signal strength, and then
> > program the results, however non-linear, into the computer's memory, and
> > display an accurate meter reading in terms of db above or below 50 uv, for
> > example. It could even calibrate itself on startup with a few precision
> > resistors switched in and out, feeding itself its own calibration signal.
> >
> > john

I can see that what you're saying about temperature and stability is true if you're talking about something with real precision; but to get better than the figures you quoted, it would be pretty easy, I think- start with a cmos 5 volt square wave, maybe straight out of the vco, put it through an attenuator consisting of resistors switched by 4066's (I haven't fooled with this stuff for about 15 years; there's probably better stuff by now), and feed it through a calibration relay with good isolation, or a pair of dpdt relay contacts with the center contacts connecting to ground when the calibration is off, to the antenna terminal. The isolation would be improved by setting the attenuation to max and turning off the square wave input to the attenuator. It would at least straighten out the non-linearities in the center of the scales.
As to the manufacturers' motivation, you must be right. It isn't being demanded, and it would be just one more thing they could be held to. In any case, the existing system is probably better than needed- from my admittedly limited listening on the ham bands, people don't like to report worse than 5-9.
But I agree that they should use db's referenced to an absolute standard, and it wouldn't be much of a job to add that feature to a software meter.

john

1669. Re: AD9850 Programming quirks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 16:40:37 UTC
From: Gerhard Hoffmann <ghf@berlin.snafu.de>
Message-ID: <3AB0F085.A0D4434F@berlin.snafu.de>
Source record: 54037

Bob Miller wrote:

> I'm helping a buddy work with an Analog Devices AD 9850BSR DDS chip.
> He's trying to use the bit banger method to program the rascal and is not
> having much luck. Any of you mates had luck with the chip either bit banger
> or parallel load?

This worked for me. Sorry for the 3KB attachment.

73 Gerhard DK4XP

```
PL 105
; Control Program for the Phase Locked Crystal Oscillator
; (c) 1997-2001 Gerhard Hoffmann DK4XP
; This is part of a project that will appear in DUBUS
; in the summer of 2001 (ww.dubus.org)
; A low noise crystal oscillator of arbitrary frequency
; is phaselocked to a given reference (crystal oven
; or gps etc). The DDS is used as a fractional divider
; so we can use a 123.456768 MHz Crystal and a 4.096 MHz
; oven that happens to be available.
; ad9850 will go to sleep mode if its Clock <= 1MHz or so.

chip 8051 ; really an Atmel 89c2051
f_update reg p1.2
w_clk reg p1.3
sdat reg p1.6
led reg p1.7
ref_ok reg p3.2 ; ist auch \int0 LO = ref available
close_loop reg p3.3 ; ist auch \int1
dds_reset reg p3.5 ; ist auch timer1

org 0
reset: ajmp initialise ; Reset-Vektor

org 30h
ddsdat: db 0 ; presently unused storage for DDS frequency word
db 100
db 100
db 0

initialise: ; we use default stack
; initial sp = 7, first ram location used = 8
clr ea ; Alle Interrupts aus
mov p1, #0ffh ; keinen Pin runterziehen
mov p3, #0ffh ; keinen Pin runterziehen
```

```
call dds_init

next_cmnd:
mov c, ref_ok ; check if reference is still available
cpl c
mov close_loop, c

; we could watch the serial port here
; for tuning commands etc
; or run a CallSign generator

clr led ; einschalten
call delay_100ms
call delay_100ms

setb led ; ausschalten
call delay_100ms
call delay_100ms
call delay_100ms

jmp next_cmnd

dds_shift: ; Shift a byte into the DDS, up from Bit 0
mov c, a.0
mov sdat, c
call dds_clk

mov c, a.1
mov sdat, c
call dds_clk

mov c, a.2
mov sdat, c
call dds_clk

mov c, a.3
mov sdat, c
call dds_clk

mov c, a.4
mov sdat, c
call dds_clk

mov c, a.5
mov sdat, c
call dds_clk

mov c, a.6
mov sdat, c
call dds_clk

mov c, a.7
mov sdat, c
call dds_clk
ret
```

```
dds_fupd:
setb f_update
nop;
clr f_update
nop;
ret

dds_clk:
setb w_clk
nop;
clr w_clk
nop;
ret

dds_init:
clr f_update
clr w_clk

setb dds_reset ; reset width is 5 dds clocks minimum
call delay_100u
clr dds_reset

call dds_fupd ; reset address to 0

call dds_clk
call dds_fupd ; enable serial mode

mov a, #e3h ; load 1st frequency byte
call dds_shift

mov a, #38h ; load 2nd frequency byte
call dds_shift

mov a, #aeh ; load 3rd frequency byte
call dds_shift

mov a, #08h ; load 4th frequency byte
call dds_shift

mov a, #0 ; Bit7..3=Phase, 2..0=command
call dds_shift

call dds_fupd
ret

delay_100u: ; 7.3MHz=1ah, 8MHz=1ch, 20MHz=49h
push r0
mov r0, #1ah; 7.37 MHz
djnz r0, $
pop r0
ret

delay_10ms:
push r0
mov r0, #100
```

```
noch_100u:
call delay_100u
djnz r0, noch_100u

pop r0
ret

delay_100ms:
push r0
mov r0, #10
noch_10:
call delay_10ms
djnz r0, noch_10

pop r0
ret

end
```

1670. Re: what might be a silly question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 17:27:36 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <cY6s6.16501$R_6.1748060@newsread2.prod.itd.earthlink.net>
Source record: 54040

<glass2@glass2.lexington.ibm.com> wrote in message
news:98qhr6$fj8$1@ausnews.austin.ibm.com...
> In <98ofoj$sr2$1@ousrvr3.oulu.fi>, "KB9YXM" <kb9yxm@arrl.net> writes:
> >Hello everyone.
> >Kb9YXM here.
> >I would like to start to build my own antennas for VHF/UHF. To start, I
> >would like to build what might be a strange 6 meter antenna design.
> >I am trying to build a 6 meter 2 element phased array.
> >I was hoping someone could send me some idiot proof instructions or
direct
> >me to a website that they know fdirst hand might have information on this
> >type of antenna.
> >The other quesiton is a simple one. When building an antenna, why must
one
> >use a gamma match, isnmt it possible just to use a ballun as with a
di-pole?
> >
> >Thanks and73's in advance.
> >oh8/kb9yxm
> >
>
> Probably the best place to start would be with a copy of the ARRL
> Antenna Book. You might also want to pick up a copy of some of the
> Antenna Compendiums.
>
> The reason a gamma match is used instead of a simple balun is that
> the load presented by the active element(s) in a parasitic array may
> not present a known, pure resistive value. A balun only transforms
> the impedance, since it's basically a transformer. If the active
> element presents a reactive component, the balun will transform that,
> too, but it will still be present as a reactive component. Plus,
> unless you know the exact impedance value, you won't know what the
> turns ratio on a transformer type balun should be. And, since it's
> generally hard to adjust the turns ratio on a balun, it could be
> difficult to get the antenna matched to the transmission line.
> Finally, as you're developing the antenna, the feed point impedance
> can vary wildly as you reposition reflector or director (or active)
> elements slightly. The gamma match allows you to match both the
> resistive and reactive elements of the impedance over a continously
> variable range.
>
> Or, something like that. :*)
>
> Note that there are other matching techniques besides the gamma match.

> However, for VHF or UHF antenna systems, few are as easy to construct
> as the gamma match.
>
> Dave
> WA4QAL

Excellent advice from Dave here. A lot of very good reasons to use one type of
feed over another, however, one of the other reasons has to do with the mounting
of the driven element.

As you learn more about building an antenna, you will notice that, on antennas with
gamma matches, the driven element is attached directly to the metal mast. The Gamma
match uses the capacitance of the Gamma element to find and match the feedline to
the driven element. The shield of your coax would be tied to the center of your driven
element and the center conductor would feed the Gamma match element.

On antennas that use a dipole of folded dipole driven element, the feed point of
the driven element must be insulated from the boom. This sometimes causes a
mechanical problem, so a builder opts to use a Gamma match, for ease in construction.
A folded dipole as a driven element will present around 300 ohms of impedance
at it's design frequency so you will need a 4:1 Balun, if you plan to feed the antenna
with 75 or 50 ohm coax. The nice part about a folded dipole, mechanically, is that the
very center can be tied directly to the boom without any ill effects. This helps solve
some of the mechanical problems.

I have a tri-bander beam where the driven element is a trap dipole with the feed point
insulated from the boom. To bring the impedances within reason, a Beta match is used
and the Beta match is fed with a Balun. The Balun allows me to use coax instead of
openwire feedline from the shack. Openwire feedline would be nicer to use, but it's
use would be problematic for me.

Well, just my $0.02.

Martin, K7MEM

--
Martin Meserve, K7MEM
martin.e.meserve at lmco.com

1671. Re: Rock receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 18:28:45 UTC
From: "H. P. Friedrichs" <h.friedrichs@honeywell.com>
Message-ID: <3AB109DC.7482E066@honeywell.com>
Source record: 54036

See:
http://www.lindsaybks.com/bks2/vxtal/index.html
http://www.midnightscience.com/

123 wrote:

> ?galinite ? I think you mean Galena, PbS, Lead Sulfide ! Just
> replace the detector diode (1N34) germanium with the Galena
> Xtal/cats-whisker assembly in a working radio, not very romantic, not very
> reliable, or why the 1N34 is there in the first place !
>
> Yukio YANO
>
> VE5YS
>
> "Spyros SV2BXC" <spkintz@the.forthnet.gr> wrote in message
> news:984437509.611421@athnrd02.forthnet.gr...
> > Does anyone know how i can build a receiver with the galinite? Please a
> > schematic diagram if it is possible. TNX ES 73
> >
> >

1672. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 18:35:51 UTC
From: Alan Price <AJP@topechelon.com>
Message-ID: <3AB10B87.3BD1CC7A@topechelon.com>
Source record: 54031

Harvey:

I am not technical, but I own a 950SDX. I tried to follow the articles and got lost after the first sentence. I tried to lower rf gain and it did not solve any problems. You are not alone.

73
Alan
W1HYV

Harvey Tetmeyer wrote:

> I have been trying to understand Larry Scheff's (W4QEJ) receiver article in
> the February and March issues of QST. He somehow thinks that if he cuts back
> the RF gain enough, interfering signals magically disappear and nothing but
> the desired signals come on through.
>
> I know that strong unwanted signals do blow right on though the broad, high
> gain front ends in the modern transceivers and create broadening of the
> signals somewhere along the line before the filters and detector. A little
> RF attenuation helps here but it does not change filter characteristics as
> Larry indicates.
>
> He inverts the bandpass curve and calls it an attenuation curve. which it
> is. then draws the conclusion that any signal below the curve totally goes
> away, even if it is in the passband.
>
> If I understand his writings, he infers that:
>
> 1. Bandwidth changes with amplitude. This would cause a lot of clipping.me
> thinks.
> 2. There is a threshold below which no signal gets through. He shows this in
> the shaded areas. This is possible with DSP but I don't think you'll see it
> in conventional mechanical or crystal filters.
>
> Am I missing something or is this extensive two part article flawed?
>
> Harvey, K5LJM

1673. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 18:58:03 UTC
From: paul <apollo_six@nospambtinternet.com>
Message-ID: <shir8jA7CRs6Ewmk@btinternet.com>
Source record: 54024

I was once told Vinegar works, Scratch the Ali through a drop of the
vinegar and solder with a hot Iron..

Paul

In article <3AAD8F80.EDFF9C4D@ix.netcom.com>, Robert Casey
<wa2ise@ix.netcom.com> writes
>Tried the motoroil trick, didn't work. Maybe I used the wrong
>stuff. You mean car engine motor oil, 10W30, right?
>
>Robert Casey wrote:
>
>> See web page
>> http://www.geocities.com/wa2ise/radios/repair.htm
>> Secret is to keep air away from freshly scraped aluminum.
>> A puddle of molten solder will do this.
>

--

To try and not succeed is better than not to try at all (Anon)

1674. Germainium transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 21:31:52 UTC
From: tk41c@aol.com
Message-ID: <20010315163152.25547.00000432@ng-cr1.aol.com>
Source record: 54034

Does anyone know of a source for 2N398B transistors? I tried Surplus Sales which listed this item, but they were out of stock.

Any leads would be greatly appreciated.

Best,

J. Ballard

1675. Re: Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 21:38:01 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3ab1358f@news.svn.net>
Source record: 54019
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

In rec.radio.amateur.homebrew John Seney <wd1v@mediaone.net> wrote:

> Now that we have sound cards and PCs connected to our radios, when will
> the autotune routines go after our receivers for optimizations? That
> could be pretty cool!

Different definition of 'tuning', John. The earlier discussion is about finding a adjustable matching network's setting which results in the best match for an unknown load. Tuning a receiver is actually an altogether different process.

If you are receiving AM, the carrier can be recovered via any of a variety of synchronous reception techniques and tuning with as much precision as you want is simple. Phase locked loops work well too.

For CW, a raft of methods are available too. In either case, ignoring spurious signals is the trick, not tuning once the desired signal is identified.

For SSB, automatic tuning is more challenging. With ACSB (amplitude compandored sideband), a pilot carrier makes it easy. For general SSB, I'd lean toward speech compressing algorithms to extract the speech parameters and try to determine the tuning offset from there. Definitely DSP time - which, as you say, a soundcard and software could do. But isn't it a bit of overkill?

A stable receiver local oscillator and backlash free tuning makes manual tuning both easy and satisfying, at least for me. Especially for weak, fading, or partially buried signals. I suspect that automatic tuning will have a way to go to beat the human ear here.

At least that's my guess. More power to anyone working to prove me wrong!!

Jim Horn, WB9SYN/6

1676. FERRITE ANT-AM BROADCAST BAND

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 21:40:30 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <98rcv5$802$1@bob.news.rcn.net>
Source record: 54033

i am making a ferrite ant for the am broadcast band...do i wrap the primary coil over the secondary coil or should the primary coil be at one end of the rod?...also which coil do i connect the var cap to?

1677. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 21:45:35 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_>
Message-ID: <984693264.25453.0.nnrp-02.9e98acde@news.demon.co.uk>
Source record: 54076
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Eddie Haskell wrote in message <3sXr6.61165$Ch.6613409@typhoon.we.rr.com>...
>THREE DB or half/double the power for a single "S" unit change.
>

Hmmm....
I do believe that my 6db assumption is still correct as we are measuring
aerial (antenna) voltage not power.
a 3db increase in power is a doubling in that power level
and a 6db increase in voltage is a doubling in the voltage.
This is rooted deep back in my mind .....
Log10 for power to db conversion use and Log20 for voltage I think.

Must get the text books out again

73 and Thanks to all that responded a most interesting thread.

Martin G1GYC
PS
see you all at Blackpool on Sunday 18th March for the NARSA
Norbreck Rally

Http://www.NARSA.org.uk

1678. FERRITE ANT-AM BROADCAST BAND

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 21:46:54 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <98rdb5$9ri$1@bob.news.rcn.net>
Source record: 54026

should the primary coil be wound over the secondary coil or placed alone at the end of the rod?...also the var cap--connected to the primary or secondary coil?

1679. Icom2100H Modifications

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-15 22:40:03 UTC
From: Lottoman <lottoman@skypoint.com>
Message-ID: <98rgc1$2lmk$1@shadow.skypoint.net>
Source record: 54085
Cross-posted to: alt.ham-radio,alt.ham-radio.vhf-uhf,alt.radio.amateur,alt.radio.scanner,rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Anyone ever perform the extended range tx modification on the radio. I opened up my radio and followed the instructions according to those posted on the QRZ website and I am not sure where the diode is that they are talking about. Is it the surface mount component just below the (D16) label or is this diode supposed to be to the left of the label where the white brackets are? Incidentally if there is no component where the brackets are, it came that way!

1680. R.F. AMP. METERS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 00:01:20 UTC
From: Max <codtrap@usa.net>
Message-ID: <3AB157D0.47A647B8@usa.net>
Source record: 54039

I have a bunch of military R.F. amp. meters. $5.00 each plus postage.
Let me know your needs.

Max

1681. gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 00:37:15 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tb2o2c46152hbe@corp.supernews.com>
Source record: 54021

ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
i'm getting tired of writing stuff down and plotting by hand..
what kind of card do i need to be able to control and gather data on a pc
hard drive?
also need to know what kind of software?
is this stuff availbale on the used market?
what does it cost?
are there any tutorials around?
as you can see by my questions i'm new to this end of the test eqpt but
would like to learn.
tnx
hank wd5jfr

1682. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 00:47:07 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AB1628A.AEF9BDF7@ix.netcom.com>
Source record: 54025

From URL:
http://www.transera.com/htbasic/tutgpib.html#Bus History

The IEEE-488 bus was developed to connect and control programmable instruments, and to
provide a standard interface for communication between instruments from different sources.
Hewlett-Packard originally developed the interfacing technique, and called it HP-IB. The interface
quickly gained popularity in the computer industry. Because the interface was so versatile, the
IEEE committee renamed it GPIB (General Purpose Interface Bus).

You can use google.com and type in HP-IB the GPIB and gets lots of programming info.
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

Henry Kolesnik wrote:

> ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
> i'm getting tired of writing stuff down and plotting by hand..
> what kind of card do i need to be able to control and gather data on a pc
> hard drive?
> also need to know what kind of software?
> is this stuff availbale on the used market?
> what does it cost?
> are there any tutorials around?
> as you can see by my questions i'm new to this end of the test eqpt but
> would like to learn.
> tnx
> hank wd5jfr

1683. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:04:36 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AB16675.1CE7@pop.removethistomailme.net>
Source record: 54044

Henry Kolesnik wrote:
>
> ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
> i'm getting tired of writing stuff down and plotting by hand..
> what kind of card do i need to be able to control and gather data on a pc
> hard drive?
> also need to know what kind of software?
> is this stuff availbale on the used market?
> what does it cost?
> are there any tutorials around?
> as you can see by my questions i'm new to this end of the test eqpt but
> would like to learn.
> tnx
> hank wd5jfr

National Instruments (http://www.ni.com) is your friend. Their online documentation will take you all the way from newbie to expert in the IEEE-488 business.

I'd suggest buying a NatInst PCII/IIa or similar card on ebay. I bought one similar to this (http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=563459416) from the same seller, and have been very happy with it. The info on the NI site makes it very easy to get started. They supply free libraries for C/C++ and VB programmers that can talk to any of their cards.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1684. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:28:16 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AB16C30.3C91C33E@ix.netcom.com>
Source record: 54077
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

> Basically, hams are satisfied with a wiggling
> meter, and simply showing the AGC voltage is adequate to do this.
>

I tend to use the S reading as a rough indication of propagation. That is, if someone is useing an amp and registers an S2 on my radio, I know it's unlikely he will hear my 100W rig.

1685. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:28:55 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <r%ds6.384724$w35.61421048@news1.rdc1.nj.home.com>
Source record: 54023

If you have a 5328a repair and maintenance manual you will find a lot of the info.

Anyone who needs the 5328a HP IB board let me know. I have a spare.

Jack

xWA8PZL

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message news:tb2o2c46152hbe@corp.supernews.com...
> ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
> i'm getting tired of writing stuff down and plotting by hand..
> what kind of card do i need to be able to control and gather data on a pc
> hard drive?
> also need to know what kind of software?
> is this stuff availbale on the used market?
> what does it cost?
> are there any tutorials around?
> as you can see by my questions i'm new to this end of the test eqpt but
> would like to learn.
> tnx
> hank wd5jfr
>
>

1686. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:32:07 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AB16D17.AA6E1A4F@ix.netcom.com>
Source record: 54075
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Everyone is S9 on my meter! :-)

> In any case, the
> existing system is probably better than needed- from my admittedly limited
> listening on the ham bands, people don't like to report worse than 5-9.

1687. Re: FERRITE ANT-AM BROADCAST BAND

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:34:54 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AB16DBE.E52A67F4@ix.netcom.com>
Source record: 54042

All the commercially made loopsticks I've seen have the secondary next
to but not over or under the primary. The primary is many more turns and
connects to the variable cap. The end of the primary next to the secondary
is usually at RF ground.

marvin rosen wrote:

> i am making a ferrite ant for the am broadcast band...do i wrap the primary
> coil over the secondary coil or should the primary coil be at one end of the
> rod?...also which coil do i connect the var cap to?

1688. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 01:37:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AB16E54.1F5207A1@eznec.com>
Source record: 54035

The bus is called GPIB by HP's competitors, who wouldn't get caught dead advertising HPIB compatibility. Everybody else calls it HPIB.

Roy Lewallen, W7EL

-- who never heard the term HPIB even once in 17 years at Tektronix.

AC6V wrote:
>
> From URL:
> http://www.transera.com/htbasic/tutgpib.html#Bus History
>
> The IEEE-488 bus was developed to connect and control programmable
> instruments, and to
> provide a standard interface for communication between instruments from
> different sources.
> Hewlett-Packard originally developed the interfacing technique, and called
> it HP-IB. The interface
> quickly gained popularity in the computer industry. Because the interface
> was so versatile, the
> IEEE committee renamed it GPIB (General Purpose Interface Bus).
>
> You can use google.com and type in HP-IB the GPIB and gets lots of
> programming info.
> --
> 73 From Rod AC6V In San Diego
> 700 Ham Topics & 6,000 Links
> http://ac6v.com/
> I Doubt, Therefore I Might Be!!!
>
> Henry Kolesnik wrote:
>
> > ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
> > i'm getting tired of writing stuff down and plotting by hand..
> > what kind of card do i need to be able to control and gather data on a pc
> > hard drive?
> > also need to know what kind of software?
> > is this stuff availbale on the used market?
> > what does it cost?
> > are there any tutorials around?
> > as you can see by my questions i'm new to this end of the test eqpt but
> > would like to learn.
> > tnx
> > hank wd5jfr

1689. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 03:00:45 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <xlfs6.971$M%2.62076@bgtnsc05-news.ops.worldnet.att.net>
Source record: 54022

You should be able to find it at your local library. The library at you
school might also have it.

Josh DeWinter <dewinter@wsunix.wsu.edu> wrote in message
news:98kij9raf1@leopard.it.wsu.edu...
> Hi. I am a student of Electrical Engineering at Washington State
> University, in Pullman, WA. I would very much like to get my hands on the
> ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or
the
> softcover will do). Is there anywhere anyone can recommend I find it at a
> student discount or a low rate?
>
>
> Thanks
> Josh DeWinter
>
>
>

1690. Re: sa612

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 03:09:08 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <otfs6.976$M%2.63133@bgtnsc05-news.ops.worldnet.att.net>
Source record: 54030

I bought some SA602s (replacement part) from Future Electronics, in Canada, for around $1.26 each last year. The only catch is that you have to buy them in lots of 50, but at this price, you can't go wrong. Future also stocks the TDA1572, which is the AM receiver on a chip that the AOR-7030 receiver uses as its 2nd IF subsystem.

Pete Gianakopoulos

WB8RCR <wb8rcr_NOSPAM@qsl.net> wrote in message
news:981j6i02lrf@news2.newsguy.com...
> www.radioshack.com has 602's for a reasonable price - they are an exact
> replacement. 602's and 612's have been scarce lately, but the
reappearance
> of 602's at rs is a good sign. The 612's are basically the same part with
> fewer tests. As a result, they sell a little cheaper than the 602's but
not
> much. rs's price on 612's is 2.25 vs. 2.75 for the 602's, but they don't
> have 612's in stock.
>
> You can also get 602's are www.rfparts.com, but they are like 8 bucks -
> yikes!
>
> didleydadidah
>
> "Robert Grzesek" <donotreply@interbulletin.bogus> wrote in message
> news:3AA3E6D9.761956@interbulletin.com...
> >
> > Does anyone know where I can buy sa612's in small quanity?
> >
> > Thanks,
> > Robert Grzesek
> > ____
> > Submitted via WebNewsReader of http://www.interbulletin.com
> >
>
>

1691. Re: PLL for Broadcast Radio (87.5-108MHz)?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 03:27:17 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <pKfs6.997$M%2.65165@bgtnsc05-news.ops.worldnet.att.net>
Source record: 54029

The Motorola MC145152 parallel programmable synthesizer chip should fill the
bill. I have used this chip in the past, and it isn't too bad. With a
50KHz reference frequency, the phase noise performance should be ok.

Pete Gianakopoulos
Chicago, Il.

Richard Crowley <rcrowley7@xprt.net> wrote in message
news:4t5e6.2986$ai.40910@e420r-sjo2.usenetserver.com...
> <acid74@my-deja.com> wrote ...
> > I want to bulid a FM-Test-Broadcast-Transmitter
> > is stereo for testing selfmade receivers. The
> > only problem I've got is that a free running VFO
> > isn't as stable as I wish. So what I need would
> > be a PLL for 87.5 to 108MHz in 50kHz steps.
> > 100kHz would also do but not as good as 50. The
> > circuit shouldn't heve IC's that I've got to
> > chase to the end of the world. I want to get them
> > very quickly with not long searching for any
> > things...
>
> DC Electronics offers a nice PLL-SFM Stereo FM Treansmitter kit at $79.95
I
> have almost completed constructing mine.
>
> http://www.dckits.com/
>
> RC
>
>

1692. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 03:27:24 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab1820f.58792008@news.accessunited.com>
Source record: 54032

Hi Harvey,

I read the articles, and here is my take on it.

What really bothers me most is the article makes serious errors when considering the ultimate attenuation of the receiver. Look at the opening article, and the first filter shape (1A).

Now look at 1B, where two 1A filters are cascaded. You can see the attenuation at any point is the same as a single filter. The article repeats that mistake over and over again.

Using the passband tuning to offset the filter does not hurt the skirts or the ultimate attenuation (which is assumed to be a lousy value for a receiver, none of mine have that much blowby), it simply makes the filter narrower. The attenuation is not the sum of filter attenuations, it is always the attenuation of the deepest filter.

If the filter attenuation isn't correctly shown, how much sense can anything make?

The last thing I would want to do if I had strong signals above and below me is to stagger the filters, as is suggested. I'd try to keep them perfectly aligned so I had the best shape factor. If I needed more selectivity, I'd use a narrower group of filters.

The reason staggering of filters works ao well in the diagrams is because the filter's attenuations do not add. Very weird.

As to the attenuator eliminating signals, the text does say the signal "falls into receiver noise", which it claims is better to listen to than the rough noise from the antenna. So while S/N ratio does not improve (if the article claims that I missed that claim), the article claims the receiver noise is less bothersome than antenna noise.

Of course the problem I see with that is the antenna noise may vary, and you would be replacing it with a fixed noise level (from the receiver). Operating this way would certainly, if there was QSB, reduce the average S/N ratio unless you "rode" the attenuation.

Personally, I think it is better to let the AGC ride the attenuation....and not use receiver noise to block external noise and signals. When I want to do that, I switch to SLOW AGC.

Did you find out if the article was reviewed?

73 Tom

1693. Re: Where can a student find the ARRL handbook cheap?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 04:01:14 UTC
From: "Al, N2NKB"
Message-ID: <eegs6.1043$wQ3.69949@bgtnsc04-news.ops.worldnet.att.net>
Source record: 54041

Josh,
I would like to emphasize the point that Bob made with #1.
There are many hams around you local area that would be glad
to help you out if you can find a nearby club. They can probably help
you with equipment also, and tips on antennas.
Hopefully, you can find a way of getting to the local
ham meetings in your area. If you don't have a car on campus, I'm sure that
some local ham would be more than willing to provide transportation.
Good luck,
Al

Bob McConnell wrote in message ...
>Hi Josh,
>
>In order of likelihood for success:
>
>1. Find a local ham club and see if anyone has a recent used copy they
>will sell or 'loan' to you. There aren't a lot of changes year to
>year, so anything in the last 5-10 years will be adequate to get you
>started.
>
>2. Check around the area for hamfests, computer shows, etc and check
>out the swap meet areas.
>
>3. Very occasionally they will show up at used book stores or larger
>used book sales. Ask if they can check with other used book dealers.
>
>4. Even less frequently you will see one at an estate sale or auction.
>Usually these are burried in a box or pallet of books and can't be
>purchased individually unless you know one of the auctioneer's
>helpers.
>
>Good luck,
>Bob McConnell
>N2SPP
>
>On Mon, 12 Mar 2001 23:41:49 -0800, "Josh DeWinter"
><dewinter@wsunix.wsu.edu> wrote:
>
>>Hi. I am a student of Electrical Engineering at Washington State
>>University, in Pullman, WA. I would very much like to get my hands on the
>>ARRL handbook at a low rate. (Either the CD-ROM disk, the hardcover or the
>>softcover will do). Is there anywhere anyone can recommend I find it at a
>>student discount or a low rate?

>>
>>
>>Thanks
>>Josh DeWinter
>

1694. Re: Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 04:28:59 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AB1968B.F9EE4CAF@nettally.com>
Source record: 54020
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

For those working the amateur satellites, an autotuning sheme would be a plus.
I would love to see a means of correcting doppler at post detection.

James Horn wrote:

> In rec.radio.amateur.homebrew John Seney <wd1v@mediaone.net> wrote:
>
> > Now that we have sound cards and PCs connected to our radios, when will
> > the autotune routines go after our receivers for optimizations? That
> > could be pretty cool!
>
> Different definition of 'tuning', John. The earlier discussion is about
> finding a adjustable matching network's setting which results in the best
> match for an unknown load. Tuning a receiver is actually an altogether
> different process.
>
> If you are receiving AM, the carrier can be recovered via any of a variety
> of synchronous reception techniques and tuning with as much precision as
> you want is simple. Phase locked loops work well too.
>
> For CW, a raft of methods are available too. In either case, ignoring
> spurious signals is the trick, not tuning once the desired signal is
> identified.
>
> For SSB, automatic tuning is more challenging. With ACSB (amplitude
> compandored sideband), a pilot carrier makes it easy. For general SSB,
> I'd lean toward speech compressing algorithms to extract the speech
> parameters and try to determine the tuning offset from there. Definitely
> DSP time - which, as you say, a soundcard and software could do. But
> isn't it a bit of overkill?
>
> A stable receiver local oscillator and backlash free tuning makes manual
> tuning both easy and satisfying, at least for me. Especially for weak,
> fading, or partially buried signals. I suspect that automatic tuning will
> have a way to go to beat the human ear here.
>
> At least that's my guess. More power to anyone working to prove me
> wrong!!
>
> Jim Horn, WB9SYN/6

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

1695. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 04:51:52 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB19BE8.555B0C11@toast.net>
Source record: 54074
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Martin John Hallsworth wrote:

> Eddie Haskell wrote in message <3sXr6.61165$Ch.6613409@typhoon.we.rr.com>...
> >THREE DB or half/double the power for a single "S" unit change.
> >
>
> Hmmm....
> I do believe that my 6db assumption is still correct as we are measuring
> aerial (antenna) voltage not power.
> a 3db increase in power is a doubling in that power level
> and a 6db increase in voltage is a doubling in the voltage.
> This is rooted deep back in my mind .....
> Log10 for power to db conversion use and Log20 for voltage I think.

Db is always a power ratio. But if you double the voltage in a constant impedance circuit, you change the power level by 6 db because the power = e squared / z, or four times greater.

john

1696. Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 05:58:59 UTC
From: TC Dufresne <tdufres@radiks.net>
Message-ID: <dXhs6.1702$Fb5.1684324@nntp3.onemain.com>
Source record: 54043

Anyone have any ideas for simple sidetone for a homebrew?
Tried and failed using a 741 op amp :(
Dunno what I did wrong.
Any other ideas?
Tom
KC0GXX

1697. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 06:40:31 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ab1b55c.113196451@news.aepnet.com>
Source record: 54045

On Thu, 15 Mar 2001 17:37:24 -0800, Roy Lewallen <w7el@eznec.com> wrote:

>The bus is called GPIB by HP's competitors, who wouldn't get caught dead
>advertising HPIB compatibility. Everybody else calls it HPIB.

Isn't it called the AIB (Agilent Interface Bus) now?

Probably not. Believe it or not, I couldn't remember the name and had to do a
web search to find "Agilent." What a clever marketing move.

73.

Wes N7WS

>
>Roy Lewallen, W7EL
>
> -- who never heard the term HPIB even once in 17 years at Tektronix.
>
>AC6V wrote:
>>
>> From URL:
>> http://www.transera.com/htbasic/tutgpib.html#Bus History
>>
>> The IEEE-488 bus was developed to connect and control programmable
>> instruments, and to
>> provide a standard interface for communication between instruments from
>> different sources.
>> Hewlett-Packard originally developed the interfacing technique, and called
>> it HP-IB. The interface
>> quickly gained popularity in the computer industry. Because the interface
>> was so versatile, the
>> IEEE committee renamed it GPIB (General Purpose Interface Bus).
>>
>> You can use google.com and type in HP-IB the GPIB and gets lots of
>> programming info.
>> --
>> 73 From Rod AC6V In San Diego
>> 700 Ham Topics & 6,000 Links
>> http://ac6v.com/
>> I Doubt, Therefore I Might Be!!!
>>
>> Henry Kolesnik wrote:
>>
>> > ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
>> > i'm getting tired of writing stuff down and plotting by hand..

>> > what kind of card do i need to be able to control and gather data on a pc
>> > hard drive?
>> > also need to know what kind of software?
>> > is this stuff availbale on the used market?
>> > what does it cost?
>> > are there any tutorials around?
>> > as you can see by my questions i'm new to this end of the test eqpt but
>> > would like to learn.
>> > tnx
>> > hank wd5jfr

1698. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 07:21:05 UTC
From: Paul Westwell <paulw@btinternet.com>
Message-ID: <98setgjtj1@plutonium.btinternet.com>
Source record: 54078
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

I was told that S9 +60 is -12dBm or 56mV

S9 would therefore be -73dBm or 56uV

These are referred to by the ARRL and used by most manufacturers I think !!

Certainly my Yaesu was calibrated at the S9 +60 point for -12dBm

Paul
G4HLF

"Thomas C. Sefranek" <tcs@cmcorp.com> wrote in message
news:3AB01517.B985202F@cmcorp.com...
>
>
> Martin John Hallsworth wrote:
>
> > Hello all
> > this is probably a question that is asked many times and probably
> > has about the same number of different answers !!
> >
> > But here goes ....
> >
> > In mV emf at the aerial (antenna) socket what is the recognised
> > standard for an "S9" signal indication ?
>
> There is no standard.
>
> > Also I am given to believe that each S unit approximately equates
> > to an increase or decrease in signal by 6db (ie doubling or halving
> > the emf voltage) at the aerial socket is this correct ?
> >
>
> At one time it was suggested, but no receivers actually do this.
>
> >
> > Any comments or corrections ?
> >
> > Many thanks Martin
> > ~~~~~~
> > Each of us is given a bag of tools, shapeless mind and a book of Rules
> > ~~~~~~
> > Remove :-
> > _NOSPAM_FOR_ME_

> > from return address to reply or click this link
> >
> > mailto:martin@g1gyc.demon.co.uk
> > ~~~~~~
>
> --
> *
> | __O Thomas C. Sefranek tcs@cmcorp.com
> |_-\<,_ Amateur Radio Operator: WA1RHP
> (*)/ (*) Bicycle mobile on 145.41, 448.625 MHz
>
> http://hamradio.cmcorp.com/inventory/Inventory.html
> http://www.harvardrepeater.org
>
>

1699. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 08:04:06 UTC
From: Robert Mozeleski <moz@ncx.com>
Message-ID: <tb3lcr15lvtab6@corp.supernews.com>
Source record: 54084
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Here is a web page with some info.
http://www.qru.de/dbm.htm

"Martin John Hallsworth" <Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_> wrote in
message news:984615203.15918.0.nnrp-12.9e98acde@news.demon.co.uk...
> Hello all
> this is probably a question that is asked many times and probably
> has about the same number of different answers !!
>
> But here goes ....
>
> In mV emf at the aerial (antenna) socket what is the recognised
> standard for an "S9" signal indication ?
>
> Also I am given to believe that each S unit approximately equates
> to an increase or decrease in signal by 6db (ie doubling or halving
> the emf voltage) at the aerial socket is this correct ?
>
> Any comments or corrections ?
>
>
> Many thanks Martin
> ~~~~~~
> Each of us is given a bag of tools, shapeless mind and a book of Rules
> ~~~~~~
> Remove :-
> _NOSPAM_FOR_ME_
> from return address to reply or click this link
>
> mailto:martin@g1gyc.demon.co.uk
> ~~~~~~
>
>
>

1700. Re: gpib & hpib ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 08:18:23 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <tb3j0jrsfr1v8b@corp.supernews.com>
Source record: 54046

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:tb2o2c46152hbe@corp.supernews.com...
> ive got a Racal Dana 1992 with gpib and an HP 5328A with hpib...
> i'm getting tired of writing stuff down and plotting by hand..
> what kind of card do i need to be able to control and gather data on a
pc
> hard drive?

What you need is a HPIB (GPIB) "controller". This is a
computer that speaks HPIB language. Probably the
cheapest you could get would be an HP-85, a desktop
engineering "PC" dating from the early '80s. As others
will tell you, there are also cards and software for the
IBM type PC available.

It's not hard to program. I've used my HP-85 for all
sorts of HPIB stuff over the years ;-)

73,

John, K6QQ

1701. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 09:46:19 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab1dc6a.81926941@news.accessunited.com>
Source record: 54080
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

On Thu, 15 Mar 2001 21:45:35 -0000, "Martin John Hallsworth"
<Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_> wrote:
>
>I do believe that my 6db assumption is still correct as we are measuring
>aerial (antenna) voltage not power.

3dB change in voltage is exactly equal to 3dB change in current and
3dB change in power. That's the way decibels work (thank goodness).

>a 3db increase in power is a doubling in that power level
>and a 6db increase in voltage is a doubling in the voltage.

That's right, power is log10 and voltage or current log20.

There is NO standard for S units, or even for S-9. There are a bunch
of suggestions, but that's all. The suggestion the ARRL makes varies
with frequency.

Most of my receivers, when designed, tried to use about 5dB per S
unit. They have various S-9 calibration points. Very few receivers
attempt to use 6 dB per S unit compred to the one's using 5dB or less.

My dozen or so receivers (Drake R4C's, IC-751A's, Yaesu FT1000D,
Collins 75S and KWM-2, etc) all range from about 1 or less dB per S
unit at S1, to maybe 3 or 5dB per S unit near S-9.

Most are pretty close in the dB area of the scale, or at least in part
of the dB area of the scale. With so much change in antennas and local
noise, it makes little sense to try for any standard.

What I do, when I build something, is calibrate the meter in 5 dB
steps, which is what most manufacturers have always done. I set S-1 at
my noise floor, and the pin at the receiver gain compression point.
Most people who ask for S meter readings are interested in
comparisons, not absolute FS. Absolute signal level would be foolish,
with all the variations in antennas or propagation.

What do I care if I am 50uV, or 200uV? All I care about is my signal
to noise and how I compare to others from my area.

73 Tom

1702. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 13:31:48 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AB215C3.6118243B@ix.netcom.com>
Source record: 54082
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Hank - from the Halicrafters book by Chuck Dachis - The Super Skyrider of 1937
was the first Halli to have an S-meter.

Henry Kolesnik wrote:

> I wonder if anyone has a recollection or an ad showing the date of the first
> S meter?
> tnx
> hank wd5jfr

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

1703. Re: FERRITE ANT-AM BROADCAST BAND

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 13:34:34 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3ab215fc.3597591@news.usfamily.net>
Source record: 54048

The National Radio Club has a lot of information on loop and loopstick
antennas. Check their site, and order the appropriate information
from them. Their prices are quite low. I needed several of their
pubs and saved enough money by joining NRC to pay for the membership
due to the reduced cost of printed materials to members.

Bob

>i am making a ferrite ant for the am broadcast band...do i wrap the primary
>coil over the secondary coil or should the primary coil be at one end of the
>rod?...also which coil do i connect the var cap to?
>
>

1704. FS: Old Radio Books, 1942-1950

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 14:58:56 UTC
From: oldbooks78@aol.com
Message-ID: <20010316095856.04375.00000447@ng-mq1.aol.com>
Source record: 54049

I currently have for sale the following old books about Radio:

"Basic Radio; The Essentials of Electron Tubes and Their Circuits" by J. Barton Hoag, published in 1942 by D. Van Nostrand. The 379 page hardbound book is in very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover. Solid binding. Available for $10 plus $2 postage (book rate within the US).

"Radio Operating Questions and Answers" by J.L. Hornung, 10th edition, published in 1950 by McGraw-Hill. The 588 page hardbound book is in about very good condition. Clean with no page tears or pen marks, and a strong binding. The cloth covers scuffs and wear, but no tears in the cloth. Available for $7 plus $2 postage.

"Radio Fundamentals" by Arthur Lemuel Albert, published in 1948 by McGraw-Hill, first edition. The 595 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Nicely illustrated. Available for $10 plus $2 postage.

Or, all 3 books for $25 post paid. If interested in any of the above, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

1705. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 15:01:11 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98t9ob$k8k$1@slb3.atl.mindspring.net>
Source record: 54047

Hi Tom,

Thanks for your comments... now my response to your comments and questions...

> What really bothers me most is the article makes serious errors when
> considering the ultimate attenuation of the receiver. Look at the
> opening article, and the first filter shape (1A).
>
> Now look at 1B, where two 1A filters are cascaded. You can see the
> attenuation at any point is the same as a single filter. The article
> repeats that mistake over and over again.

I certainly agree...

>
> Using the passband tuning to offset the filter does not hurt the
> skirts or the ultimate attenuation (which is assumed to be a lousy
> value for a receiver, none of mine have that much blowby), it simply
> makes the filter narrower. The attenuation is not the sum of filter
> attenuations, it is always the attenuation of the deepest filter.

If I understand variable bandwidth tuning, and I think I do, both filters must be "good" filters with similar bandwidths and shape factors. Otherwise the filter attenuation curves would be asymetrical when used in the VBT mode. Their attenuations do add up but only when they overlap.

>
> If the filter attenuation isn't correctly shown, how much sense can
> anything make?

Actually none... When you start off with an incorrect basic assumption, any conclusions drawn must be flawed.

>
> The last thing I would want to do if I had strong signals above and
> below me is to stagger the filters, as is suggested. I'd try to keep
> them perfectly aligned so I had the best shape factor. If I needed
> more selectivity, I'd use a narrower group of filters.

That works if you have narrower filters. Larry's argument is, I think, you don't have narrower filters and he wants to make what you have work better. That's nice, but does it work?

>
> The reason staggering of filters works ao well in the diagrams is
> because the filter's attenuations do not add. Very weird.

>
> As to the attenuator eliminating signals, the text does say the signal
> "falls into receiver noise", which it claims is better to listen to
> than the rough noise from the antenna. So while S/N ratio does not
> improve (if the article claims that I missed that claim), the article
> claims the receiver noise is less bothersome than antenna noise.

I don't believe the Figures agree with the text. They may.

>
> Of course the problem I see with that is the antenna noise may vary,
> and you would be replacing it with a fixed noise level (from the
> receiver). Operating this way would certainly, if there was QSB,
> reduce the average S/N ratio unless you "rode" the attenuation.
>
> Personally, I think it is better to let the AGC ride the
> attenuation....and not use receiver noise to block external noise and
> signals. When I want to do that, I switch to SLOW AGC.

As a "phonie", I almost always use slow AGC. I will kick it up to fast AGC
when I really want to strain the brain and bombard the ears to hear someone.

>
> Did you find out if the article was reviewed?

Last night I e-mailed Steve Ford, WB8IMY, QST Managing Editor, and have not
heard back from him yet. I also ask Steve about the protocol for addressing
issues like this with QST/ARRL. I got almost a month's delay and a waveoff
from the ARRL lab folks in earlier correspondence. Ed Hare, W1RFI said he
had looked over the article and didn't see anything wrong with it. And this
is the technical staff...? {;>)

And so it goes, my friend...

Harvey, K5LJM

1706. Re: Follow up to Signal level for S9 on meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 15:22:27 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AB22FB1.36CD8550@ix.netcom.com>
Source record: 54083
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Nice synopsis Martin - however I would suggest the RST System as the universally accepted reporting system as it includes CW reports as well. Your definition of S7 may mean little to the other person. But an RST of 57(9) has a definite meaning.

I once made a CW contact and my QSL card came back with a 59 report and the DXAC turned it down as it should have been 599. So QSL cards should give the RST report and indicate the mode of operation 59 for voice, 599 etc for data. So might as well give the other person an RST report not an S-Meter reading or give both, perhaps. S7 ain't necessarily RST 57

Incidentally DXpeditions, contesters, and some DX stations always use "Ur 59" "Ur 599" so they don't have to type in or write in the true report, saves time. A questionable practice but an oft used one.

Then there is the military report of you are 5 by 5 with the last 5 being the highest, confuses everyone on the Ham bands as folks think it is 5 by 5 in the RST system.

FYI for readers

READABILITY
1 -- Unreadable
2 -- Barely readable, occasional words distinguishable
3 -- Readable with considerable difficulty
4 -- Readable with practically no difficulty
5 -- Perfectly readable

SIGNAL STRENGTH
1 -- Faint signals, barely perceptible
2 -- Very weak signals
3 -- Weak signals
4 -- Fair signals
5 -- Fairly good signals
6 -- Good signals
7 -- Moderately strong signals
8 -- Strong signals
9 -- Extremely strong signals

TONE 1 -- Sixty cycle a.c. or less, very rough and broad
2 -- Very rough a.c. , very harsh and broad
3 -- Rough a.c. tone, rectified but not filtered
4 -- Rough note,some trace of filtering
5 -- Filtered rectified a.c.but strongly ripple-modulated

6 -- Filtered tone, definite trace of ripple modulation
7 -- Near pure tone, trace of ripple modulation
8 -- Near perfect tone, slight trace of modulation
9 -- Perfect tone, no trace of ripple or modulation of any kind

Infrequently used is the addition of a letter to the end of the 3 numbers.
These are: X = the signal is rock steady like a crystal controlled signal;
C = the signal is chirpy as the frequency varies slightly with keying;
and K = the signal has key clicks.

X is from the early days of radio when such steady signals were rare.

Today most all signals could be given an X but it is hardly ever used. It is
helpful to report a chirpy or clicky signal
by using the C or K, e.g. 579C or 579K.
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!
==========

Martin John Hallsworth wrote:

> Thanks to all that have read and posted views and comments.
>
> In summary the consensus is :-
> 1) Signal meters are not calibrated to a recognised standard reference
> held by any body (ie NBS, ISO, BSi, etc)
> 2) Manufactures use simple AGC following techniques to give signal strength
> indication and as such is a non linear scale.
> 3) Each manufacturer sets the calibration points / values arbitrarily.
> 4) The "Un-written" standard is that 50uV = S9 with each S unit equal to
> an increase / decrease of 6db in signal level.
>
> Now most of the responses that gave S9 = 50uv stated that this was for
> HF (shortwave) radios !!
> Is this value the same for VHF, UHF and higher ?
>
> As a reporting system I believe that S units do have a value and I use this
> definition of signal strengths - my "S meter" being in my head with the
> instrument on the rig giving just a guide to how much the rigs circuits are
> amplifying the received signal.
> S1 = Extremely weak
> S2 = Very very weak
> S3 = Very weak
> S4 = Weak
> S5 = Moderate
> S6 = Moderately strong
> S7 = Strong
> S8 = Very Strong
> S9 = Very very strong

> S9 + / S9 ++ = Extremely strong
>
> 73 all and thanks again Martin G1GYC
>
> ~~~~~~
> Each of us is given a bag of tools, shapeless mind and a book of Rules
> ~~~~~~
> Remove :-
> _NOSPAM_FOR_ME_
> from return address to reply or click this link
>
> mailto:martin@g1gyc.demon.co.uk
> ~~~~~~

1707. Re: Follow up to Signal level for S9 on meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 15:42:25 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AB23461.E92704FC@ix.netcom.com>
Source record: 54081
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

Almost forgot -- in addition to the RST system previously posted -- there is other reporting systems often used by SWL's -- these are the SINPO and SIO reporting systems -- see Netherlands SWL pages at URL:
http://www.rnw.nl/realradio/practical/html/reportingcode.html

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

1708. Re: Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 16:02:06 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <98tcsp$1hl2$1@news.hal-pc.org>
Source record: 54050

Take a look at http://commlinx.com.au/schematics.htm
-- there is an oscillator using a 555 timer.
Alternatively, do a web search on "555 timer" and you'll
probably find lots of other schematics.
Jack, W5EB

"TC Dufresne" <tdufres@radiks.net> wrote in message
news:dXhs6.1702$Fb5.1684324@nntp3.onemain.com...
> Anyone have any ideas for simple sidetone for a homebrew?
> Tried and failed using a 741 op amp :(
> Dunno what I did wrong.
> Any other ideas?
> Tom
> KC0GXX
>
>

1709. Re: Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 17:37:41 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <lass6.1858$341.6476@nntpserver.swip.net>
Source record: 54001

http://home5.swipnet.se/~w-54761/sidetone.gif

Single transistor, sine wave.

/sm6pxj

>Anyone have any ideas for simple sidetone for a homebrew?

1710. Re: Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 19:07:59 UTC
From: Tom Repstad <tr@zoo.uvm.edu>
Message-ID: <3AB2648F.D4866B84@zoo.uvm.edu>
Source record: 54002

Try using a 555 timer chip as an oscillator... they work great :)

--Tom
K1VG

TC Dufresne wrote:

> Anyone have any ideas for simple sidetone for a homebrew?
> Tried and failed using a 741 op amp :(
> Dunno what I did wrong.
> Any other ideas?
> Tom
> KC0GXX

1711. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 19:18:51 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab26430.116689896@news.accessunited.com>
Source record: 54003

On Fri, 16 Mar 2001 08:01:11 -0700, "Harvey Tetmeyer"
<k5ljm@mindspring.com> wrote:

>If I understand variable bandwidth tuning, and I think I do, both filters
>must be "good" filters with similar bandwidths and shape factors. Otherwise
>the filter attenuation curves would be asymetrical when used in the VBT
>mode. Their attenuations do add up but only when they overlap.

In any sort of normal use the filters ALWAYS overlap in some part of
the curve, so the attenuations must always be added in that area.
Since the article never adds the attenuation, everything shown is
incorrect.

>> If the filter attenuation isn't correctly shown, how much sense can
>> anything make?
>
>Actually none... When you start off with an incorrect basic assumption, any
>conclusions drawn must be flawed.

OK, so we know the passbands are all incorrect.

>That works if you have narrower filters. Larry's argument is, I think, you
>don't have narrower filters and he wants to make what you have work better.
>That's nice, but does it work?

Not as shown. As I said:
>> The reason staggering of filters works ao well in the diagrams is
>> because the filter's attenuations do not add. Very weird.

Not adding the filter attenuation was a major oversight, since every
conclusion is based on the attenuation.

I also agree the noise thing is misleading. Pushing the noise or QRM
into the receiver noise floor does NOT improve S/N or S/QRM ratio.

73 Tom

1712. Re: Follow up to Signal level for S9 on meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 19:32:01 UTC
From: John Woodgate <jmw@jmwa.demon.co.uk>
Message-ID: <7kFbvWBxoms6EwVY@jmwa.demon.co.uk>
Source record: 54005
Cross-posted to:
alt.ham-radio.hf,alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.homebrew,sci.electronics.design,uk.radio.amateur

<984754548.4990.0.nnrp-07.9e98acde@news.demon.co.uk>, Martin John Hallsworth <Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_> inimitably wrote:
>Signal meters are not calibrated to a recognised standard reference
> held by any body (ie NBS, ISO, BSi, etc)

True. IEC60315-6 gives the method of measurement of S-meter characteristics but it is not a performance standard and therefore does not define the meanings of S numbers. In spite of this standard being proposed and written (largely) by UK experts, BSI failed to adopt it as BS4054-6.
--
Regards, John Woodgate, OOO - Own Opinions Only. Phone +44 (0)1268 747839 Fax +44 (0)1268 777124. http://www.jmwa.demon.co.uk Foxhunters suffer from tallyhosis. PLEASE do not mail copies of newsgroup posts to me.

1713. Hallicrafters Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 20:01:19 UTC
From: Mike Barrett <zootv@mgfairfax.rr.com>
Message-ID: <3AB27092.BFB2861@mgfairfax.rr.com>
Source record: 54004
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi, I have a Hallicrafters SR-160 that starts to screech/whine when there is little or no receive signal present. The static on 20m is usually enough to prevent the problem, but not always. Does anyone know what may be causing the problem? I've had the rig for 9 years and use it primarily as a reciever. I know I have never changed any of the tubes and I don't know how long they were in before I was given the radio. Thanks!
Mike
KD4RNF

1714. Homebrew UHF station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 22:13:16 UTC
From: Scorpio FM <ScorpioFM@schorpioen.bizland.com>
Message-ID: <3AB28FFC.6DBBC3@schorpioen.bizland.com>
Source record: 54007

http://home.hetnet.nl/~rshmd/

1715. FS (Aust) Tektronix 453 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-16 23:01:07 UTC
From: berd_kalamunda@techemail.com
Message-ID: <3ab29aa7.2177391@news.m.iinet.net.au>
Source record: 54006

Have Tektronix 453 Scope surplus to requirements in workung order.
Price $AUS400 + P&P.

--Rolie Baldock. email: <berd_kalamunda@techemail.com>

1716. Re: Hallicrafters Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:29:18 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3ab2af36@news.svn.net>
Source record: 54008
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Being tube based, it probably has a number of grid-leak bias circuits in the received signal path. If the capacitor becomes leaky, the bias won't hold up without a signal, changing the operating point of the tube (and, for many, the gain). Those old capacitors may be the problem.

Best of luck!

Jim Horn, WB9SYN/6

1717. Re: Hallicrafters Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:31:14 UTC
From: Harvey Tetmeyer <k5ljm@mindspring.com>
Message-ID: <98ub2qrju1@slb6.atl.mindspring.net>
Source record: 54009
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Mike,

My guess is you have one or more bad decoupling capacitors in the high voltage line to your RF and/or IF amplifiers stages. With the reduced signal, the AGC allows the gain to go to max and there is enough positive feedback through the high voltage supply line to cause oscillation.

Try temporarily paralling each one of these capacitors with another of equal or larger capacitance and see if the noise goes away. If it does, replace the old capacitor.

Good luck and 73,

Harvey, K5LJM

"Mike Barrett" <zootv@mgfairfax.rr.com> wrote in message
news:3AB27092.BFB2861@mgfairfax.rr.com...
>
> Hi, I have a Hallicrafters SR-160 that starts to screech/whine when
> there is little or no receive signal present. The static on 20m is
> usually enough to prevent the problem, but not always. Does anyone know
> what may be causing the problem? I've had the rig for 9 years and use
> it primarily as a reciever. I know I have never changed any of the
> tubes and I don't know how long they were in before I was given the
> radio. Thanks!
> Mike
> KD4RNF
>

1718. Re: Ericsson Mobitex 900mhz schematic??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:39:22 UTC
From: la8ak@online.no
Message-ID: <3ab2af1c.170733149@news.online.no>
Source record: 54011

On Wed, 14 Mar 2001 17:13:24 -0500, "Keith E. Spainhour"
<KSpainhour@wilkes.net> wrote:

>Hello All,
>I recently acquired some really inexpensive 900 Mhz Ericsson Mobitex
>data radios, model C 719/m. Does anybody have any diagrams or info on
>these. I really just need a schematic for the RF section, which looks
>wonderful for tinkering. (10w module, separate PLL's MB1501's, and such)
>Some programming info on these would be wonderful, but what I am looking
>to do is scrap the control boards, and just use the RF board with a
>custom controller. Any help would be appreciated.
>
>Thanks for your help,
>--
>73 DE KT4XW
>Keith Spainhour
>KSpainhour@wilkes.net

suggest you check http://oh3tr.ele.tut.fi/english/modifications.html

1719. Re: Follow up to Signal level for S9 on meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:39:23 UTC
From: la8ak@online.no
Message-ID: <3ab2afe4.170933589@news.online.no>
Source record: 54010
Cross-posted to: alt.ham-radio.hf,alt.radio.amateur,rec.radio.amateur.homebrew

On Fri, 16 Mar 2001 07:42:25 -0800, AC6V <ac6v@ix.netcom.com> wrote:

>Almost forgot -- in addition to the RST system previously posted -- there is
>other reporting systems often used by SWL's -- these are the SINPO and SIO
>reporting systems -- see Netherlands SWL pages at URL:
>http://www.rnw.nl/realradio/practical/html/reportingcode.html
>
>--
>73 From Rod AC6V In San Diego
>700 Ham Topics & 6,000 Links
>http://ac6v.com/
>I Doubt, Therefore I Might Be!!!
>
>
where signal strength is QSA...

hi

1720. Sidetone thanks and ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:45:47 UTC
From: TC Dufresne <tdufres@radiks.net>
Message-ID: <bvys6.111$J_6.35173@nntp1.onemain.com>
Source record: 54012

Thanks to all who helped with sidetone problem. Ended up using a 555 chip and a N3053 transistor. WOW!! Its really loud! Can I use a small variable resistor somewhere for volume control? I tried a 1K miniature pot from hot side of the speaker but it got real warm (the pot), and it didn't really help much. It was either way too quiet or too loud. Was my resistor too big? Ideas?
Tom
KC0GXX

1721. Toko Inductor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 00:47:23 UTC
From: Sam Brutcher <sbrutcher@-->
Message-ID: <SAys6.17$kT2.181@bos-service2.ext.raytheon.com>
Source record: 54013

I'm getting back into homebrewing after an absence of several years. I'm not an engineer. I've been browsing the net looking for projects to build. Several British sites (esp. the G3YCC "tribute" sites) have some QRP gear that looks interesting. I've already figured out that NTE can show me subsitutes for the "BC" type transistors specified in their schematics. What I can't locate is correct part numbers for Toko coils.

The schematics I've found refer to parts such as "BKANK3333R." Toko's web site, however, shows no such part in their inventory. The "G3RJV Data Card" for coils at http://www.btinternet.com/~g4wif/q_tech5.htm provides specs for some commonly-used inductors, but again, none of Toko's current products seem to match in terms of inductance or Q.

Is this a European vs. American or old vs. new part number question? Can anyone tell me if there's a simple way to cross-reference these part numbers? If not, can I safely substitute a 47uH inductor with a Q of 45 for a 45uH inductor with a Q of 60?

Thanks for your help (and patience with a newbie question...)

Sam Brutcher KD4YOB
Alexandria, Virginia USA

1722. Re: Sidetone thanks and ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 05:40:13 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10103170029500.29177-100000@Gloria.CAM.ORG>
Source record: 54014

On Sat, 17 Mar 2001, TC Dufresne wrote:

> Thanks to all who helped with sidetone problem. Ended up using a 555 chip
> and a N3053 transistor. WOW!! Its really loud! Can I use a small variable
> resistor somewhere for volume control? I tried a 1K miniature pot from hot
> side of the speaker but it got real warm (the pot), and it didn't really
> help much. It was either way too quiet or too loud. Was my resistor too big?
> Ideas?
> Tom
> KC0GXX
>
>
>
The only place you can put a volume control in such a circuit is between
the output of the 555 and the speaker.

The too quiet and too loud split is because the trimpot is too large
compared to the impedance of the speaker. Say the speaker is 8 ohms.
If the trimpot is out of the circuit, or at zero resistance, you
of course get maximum volume. If you set the trimpot to 8 ohms, which
would be just a teensy bit from zero resistance, the volume would be
half. Look up voltage dividers in your reference book. But since
it's finicky to get that little resistance, a tiny change of the trimpot
will likely set it to a higher resistance, and then the volume is
way down, and it only gets worse as you adjust the trimpot from
there.

The simple solution is to use a trimpot or pot with a much lower
maximum resistance, like 100 ohms or maybe even less. This
doesn't change the matter of a large resistance giving you no
volume, but it will mean that more of the turn of the trimpot
will be in a range where volume will be affected.

As for the trimpot getting warm, it's because it is being asked
to drop voltage, and that voltage is being dissipated as heat.
You need to use something that can better handle more current (just
as when building, sometimes you need to use large wattage resistors).

You do have a coupling capacitor between the output of the 555 and
the speaker?

Michael VE2BVW

1723. Re: Toko Inductor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 08:21:55 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <uB2UrABj6xs6EAUu@ifwtech.plus.net>
Source record: 54016

Sam Brutcher wrote:
>I'm getting back into homebrewing after an absence of several years. I'm
>not an engineer. I've been browsing the net looking for projects to build.
>Several British sites (esp. the G3YCC "tribute" sites) have some QRP gear
>that looks interesting. I've already figured out that NTE can show me
>subsitutes for the "BC" type transistors specified in their schematics.
>What I can't locate is correct part numbers for Toko coils.
>
>The schematics I've found refer to parts such as "BKANK3333R." Toko's web
>site, however, shows no such part in their inventory. The "G3RJV Data Card"
>for coils at http://www.btinternet.com/~g4wif/q_tech5.htm provides specs for
>some commonly-used inductors, but again, none of Toko's current products
>seem to match in terms of inductance or Q.
>
>Is this a European vs. American or old vs. new part number question? Can
>anyone tell me if there's a simple way to cross-reference these part
>numbers? If not, can I safely substitute a 47uH inductor with a Q of 45 for
>a 45uH inductor with a Q of 60?
>
>Thanks for your help (and patience with a newbie question...)

The BKANK3333R is in the web catalog of the UK distributor, BEC. Go to
http://www.bonex.co.uk/PG800/8var/p25.htm and scroll down the long page
(or use your browser to search the page for the part number).

If you can't get any sense out of TOKO USA, I'm sure that BEC can help -
their main site is www.bec.co.uk and they take small credit-card orders
by phone and fax.

For UK buyers: the old TOKO suppliers, Cirkit, are now out of the retail
components business - BEC is the place to go for TOKO.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1724. Bill Carver's AGC Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 12:31:55 UTC
From: BarryG <bgNOSPAM@albany.net>
Message-ID: <HOIs6.3850$I5.3456753@newsfeed1.thebiz.net>
Source record: 54051

May 96 QST featured a technical award winning article on an advanced AGC/IF system by Bill Carver. It included values for a 9Mhz if. Far circuits, which is on the Web at http://www.cl.ais.net/farcir/receiver1.htm , sells circuit boards for the fairly complex circuit.

I'd appreciate hearing from anyone who himself has tried the circuit or might know of someone else who has. I am hoping to adapt it for use in a Ten-Tec Corsair and replace the audio-derived hang agc. [Any other circuit suggestions also gratefully received.]

Tnx/73,

Barry N1EU

(when replying by email, please remove the "nospam" from the address - bee gee at albany dot net)

1725. Re: Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 14:02:40 UTC
From: n2cqr@clix.pt
Message-ID: <3ab36e49.312303@news.clix.pt>
Source record: 54017

There are a lot of simple, RF activated, two transistor multivibrator circuits out there. 73 Bill N2CQR CU2JL

On Fri, 16 Mar 2001 05:58:59 -0000, "TC Dufresne" <tdufres@radiks.net> wrote:

>Anyone have any ideas for simple sidetone for a homebrew?
>Tried and failed using a 741 op amp :(
>Dunno what I did wrong.
>Any other ideas?
>Tom
>KC0GXX
>
>

1726. HTX-400 power source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 14:28:27 UTC
From: AB2HR <ab2hr@arrl.net>
Message-ID: <2es6bt8ufnsjduj8sfcnffmdgf9gv8h5kk@4ax.com>
Source record: 54052

Hi folks... Picked up an HTX-400 440 rig from Radio Shack the other day, couldn't resist as the price was a VERY attractive $70. Anyway, as those of you who are familiar with this product know, it's not a very powerful transmitter but it IS capable of 1 watt output with an "external 9 VDC power source." I had planned on building a 6 cell Alkaline battery holder which I could connect to the radio which would give me the 9 VDC for 1 watt output in "walking around mode." Well, as I was wandering about Radio Shack, I noticed that they sell a 9.6 volt 1000 mAh battery for R/C toys. Immediately I began wondering whether or not this 9.6 VDC power source was compatable with the radio, and if not, what could be done to make it suitable for use with the HTX-400.

The guy behind the counter (at three stores) had no answers. I e-mail the Shack's own tech support. The response was a canned reply stating that they do not offer mods or modification advice on any of their radios (HELLO! I'm talking about building a battery pack here, NOT modifying the radio!). Got nada....

So, here's what I came up with.... at 9 VDC current train at transmit is 900mA (from the manual). at "standby" or receive, current drain seems to be 50 mA (based on QST review of the 2-meter variant, the HTX-200). If I were to simply insert a 12 Ohm resistance (.6v drop at .05 A) to bring the voltage to 9VDC during standby operations, this results in a voltage deficit of 1.2 volts on transmit! (.9 mA * 12 Ohm = 10.8 VDC). By inserting a .67 Ohm resistance the .600 VDC drop is realized on transmit, but at standby I'm pushing 9.57 volts through the unit. Is this acceptable? Would the radio accept 9.6 VDC directly from the battery? Obviously there must be a way of regulating the voltage (yes folks, I think I need to build a voltage regulator) to allow the use of this NiCad battery pack as a power supply for this radio. I'd appreciate any and all information anyone can give me on this.... schematics would be GREATLY appreciated.

Thanks much!

73 de

Ray / AB2HR

1727. Re: Bill Carver's AGC Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 15:22:09 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab37e00.188845382@news.accessunited.com>
Source record: 54053

On Sat, 17 Mar 2001 12:31:55 GMT, "BarryG" <bgNOSPAM@albany.net>
wrote:

>I'd appreciate hearing from anyone who himself has tried the circuit or
>might know of someone else who has. I am hoping to adapt it for use in a
>Ten-Tec Corsair and replace the audio-derived hang agc. [Any other circuit
>suggestions also gratefully received.]

Hi Barry,

It's amazing where manufacturers quit worrying about performance.

I replaced the AGC system in my R4C's with a homebrew AGC that wasn't
fancy at all. I used an emitter follower to drive a transformer that
had a full-wave rectifier system, and then drove a darlington emitter
follower that charged the "hang time" components.

I can't imagine needing something fancier, because this simple system
stays right with the rise time of even the fastest envelope that can
make it through the filters. It also sources enough current to charge
all kinds of bypass capacitors rapidly.

In the Drake, the biggest problem I had was the group delay in the IF
filters and leakage of the BFO into the IF. With 3-8mS group delay, I
could NOT apply normal AGC to stages in front of the narrow filters.
(I do use a little "level delayed" slow-discharge AGC to the RF amp,
it is applied when signals get over 0dBm at the receiver input).

You'll have to watch for odd things like that when making a mod like
this to any receiver.

73 Tom

1728. Re: HTX-400 power source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 16:48:32 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB39560.5598F1F8@toast.net>
Source record: 54054

AB2HR wrote:

> Hi folks... Picked up an HTX-400 440 rig from Radio Shack the other
> day, couldn't resist as the price was a VERY attractive $70. Anyway,
> as those of you who are familiar with this product know, it's not a
> very powerful transmitter but it IS capable of 1 watt output with an
> "external 9 VDC power source." I had planned on building a 6 cell
> Alkaline battery holder which I could connect to the radio which would
> give me the 9 VDC for 1 watt output in "walking around mode." Well,
> as I was wandering about Radio Shack, I noticed that they sell a 9.6
> volt 1000 mAh battery for R/C toys. Immediately I began wondering
> whether or not this 9.6 VDC power source was compatable with the
> radio, and if not, what could be done to make it suitable for use with
> the HTX-400.
>
> The guy behind the counter (at three stores) had no answers. I e-mail
> the Shack's own tech support. The response was a canned reply stating
> that they do not offer mods or modification advice on any of their
> radios (HELLO! I'm talking about building a battery pack here, NOT
> modifying the radio!). Got nada....
>
> So, here's what I came up with.... at 9 VDC current train at transmit
> is 900mA (from the manual). at "standby" or receive, current drain
> seems to be 50 mA (based on QST review of the 2-meter variant, the
> HTX-200). If I were to simply insert a 12 Ohm resistance (.6v drop at
> .05 A) to bring the voltage to 9VDC during standby operations, this
> results in a voltage deficit of 1.2 volts on transmit! (.9 mA * 12
> Ohm = 10.8 VDC). By inserting a .67 Ohm resistance the .600 VDC drop
> is realized on transmit, but at standby I'm pushing 9.57 volts through
> the unit. Is this acceptable? Would the radio accept 9.6 VDC
> directly from the battery? Obviously there must be a way of
> regulating the voltage (yes folks, I think I need to build a voltage
> regulator) to allow the use of this NiCad battery pack as a power
> supply for this radio. I'd appreciate any and all information anyone
> can give me on this.... schematics would be GREATLY appreciated.
>
> Thanks much!

If you're talking about the difference between running it on 9v. versus
9.6 v., I can't imagine it not being able to sustain that. One of those
external plug-ins that would put out 9v. with one amp would probably run
up quite a bit higher with no load, unless it was regulated. Unless the
htx thingy specifies a close tolerance on its supply voltage, I wouldn't
worry about such a small difference. In fact, if the thing is made to work
with alkaline cells, when new they put out 1.55 volts each, which times

six is 9.3 already.

john

1729. radio website

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 17:06:29 UTC
From: Brian Smith <brainz90@hotmail.com>
Message-ID: <9905m6sjt5@neptunium.btinternet.com>
Source record: 54055

hi
as well as lots of homebrew projects and links, i have added a message board
to my all free website
--
EMAIL : bri1@btinternet.com
WEB : http://www.bri1.btinternet.co.uk

1730. VA QSO PARTY (3/17 - 3/18)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 17:11:11 UTC
From: "John (KB3CDF)" <murphman@erols.com>
Message-ID: <9905rn$f1f$1@bob.news.rcn.net>
Source record: 54056
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

500 pts to contact K4NVA, the club station.

More details @ http://www.qsl.net/sterling

73's

1731. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 17:29:18 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3AB39EED.EE991DEE@snet.net>
Source record: 54057

As far as oil goes, I heard that 3 and 1 oil works, but I never tried it. I am quoting it from some publication but I can't remember it right now.
Vince

paul wrote:

> I was once told Vinegar works, Scratch the Ali through a drop of the
> vinegar and solder with a hot Iron..
>
> Paul
>
> In article <3AAD8F80.EDFF9C4D@ix.netcom.com>, Robert Casey
> <wa2ise@ix.netcom.com> writes
> >Tried the motoroil trick, didn't work. Maybe I used the wrong
> >stuff. You mean car engine motor oil, 10W30, right?
> >
> >Robert Casey wrote:
> >
> >> See web page
> >> http://www.geocities.com/wa2ise/radios/repair.htm
> >> Secret is to keep air away from freshly scraped aluminum.
> >> A puddle of molten solder will do this.
> >
>
> --
>
> To try and not succeed is better than not to try at all (Anon)

1732. Manual for Tektronix 453 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 18:46:29 UTC
From: bobb@ulster.net
Message-ID: <3AB3873F.A409B36D@ulster.net>
Source record: 54058

Manual for Tektronix 453 Scope. This is a original Tektronix manual and not a copy. Weights 2 1/4 Lbs. Price $15 plus $4 Shipping in CONUS.

Bob W2AWS

1733. Need O'scope schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 18:57:34 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <tb7d02cnm5hf3@corp.supernews.com>
Source record: 54059
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Not quite an antique or a radio..... but I have a late 60's Tektronix 422 with auto-trigger problem as in it won't auto-trigger. I was wondering if anyone with the service book might be able to copy the trigger board schematic. ??
Thanks
Bob
kb8tl@yahoo.com

1734. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 19:25:24 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ESOs6.39857$Ok4.3792234@news1.rdc1.ct.home.com>
Source record: 54060
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

You'd better check the technical manual for the exact model you own before hand. You never mentioned the brand or model. For example, a Motorola Micor receiver made for the High VHF split (the 160 MHz region) will NOT reach the amateur band unless the helical frontend is replaced. For many other commercial radios you might also have to consider going from low-side to high side LO injection.

Also, most modern VHF transmitters use broadband matching in the predriver, driver and PA stages. Again, the parts are often picked at the factory for the intended VHF split the radio was intended to be used for. A government or railroad 160 MHz set often becomes extremely inefficient when operated in the 2-meter band for these reasons.

So yes, you run the risk of damaging the PA, and your radio may not reach the 2-meter band regardless. There is no quick or easy answer to your question based on the info you/ve provided.

--
Peter, K1ZJH

"arcam" <arcam@hotmail.com> wrote in message > >
>
> >
> >"arcam" <arcam@hotmail.com> wrote in message
> >news:3aadd29d.716309@news.pacific.net.sg...
> >> My VHF Mobile Transceiver uses a 161.45 MHz crystal. Would I damage
> >> the set if I changed this into a 144 Mhz to match my other hand-held
> >> tranceiver in frequency? Assuming I trim the antenna length to 144MHz,
> >> of course.
> >>
> >> Thanks
> >>
> >
> >
>

1735. Re: VA QSO PARTY (3/17 - 3/18)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 20:41:48 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <990i6r$lu0$1@slb5.atl.mindspring.net>
Source record: 54061
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Yeah and he is easy to find... right now he is on 14.278 with buckshot all the way down to 14.273 and up to 283. Probably forgot the ALC plug-in.

Dan/W4NTI

"John (KB3CDF)" <murphman@erols.com> wrote in message news:9905rn$f1f$1@bob.news.rcn.net...
> 500 pts to contact K4NVA, the club station.
>
> More details @ http://www.qsl.net/sterling
>
> 73's
>
>

1736. FS - TET 40-10 Yagi Beam - new in box

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 22:13:46 UTC
From: k5bdz@aol.com
Message-ID: <20010317171346.03239.00002669@ng-md1.aol.com>
Source record: 54062

For Sale - TET 433 Yagi Beam
The TET Model 433 specs which are below.

The TET model 433 is a three element beam for 40, 20, 15, and 10 meters. Two driven elements, with two active elements on 40 and three active elements on 20, 15, and 10.

This TET was one of the last ones made just prior to the closing of TET and the death of the owner Mac Taniguchi TET Beams were outstanding in their exceptional bandwidth, construction, and operation. Bought new in August 1988 and still in original box, never assembled.

Selling for $450. Pick up at my home in Houston.

Specs:

Active elements: 40 M - Two
20, 15, 10 M - Three

Gain: 40 M - 2.1 dBd
20 M - 8.2 dBd
15 M - 8.7 dBd
10 M - 7.3 dBd
Bandwidth (1.5:1 SWR) 40 M - over 100 kHz
20 M - over 350 kHz
15 M - over 450 kHz
10 M - over 1 MHz
Element Length 30.5 feet
Boom Length 13.2 feet
Weight 32.1 lbs
Power 1 KW CW (higher SSB)

e-mail me direct off-net please.
Bill K5BDZ K5BDZ@aol.com

1737. Re: Need O'scope schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-17 23:14:16 UTC
From: Lamb <k7fm@teleport.com>
Message-ID: <f6Ss6.453$ea7.366645@nntp2.onemain.com>
Source record: 54063
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi Bob:

I do not have the 422 info - but I have a number of other Tek scopes and found a place in Canada that will rent the manuals to you for a month for $10 plus shipping. I have made copies and it works great.

If you do not get a better offer, let me know and I will get the site for you.

73, Colin K7FM

Am trying to get a 422 that has the built in 12 volt inverter for portable work. They should be ok, although they have limited bandwidth.

1738. Re: Vintage VHF/UHF equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 02:49:07 UTC
From: Tom Brown <tab@signalgrp.com>
Message-ID: <3AB42223.AC33BB7@signalgrp.com>
Source record: 54064

The GE is a "DO" cabinet, probably a Progress Line, circa 1965. Junk
it.

The Motorola is a useable radio, but will require substantial mods to
put it in the 440 mHz range. There is something non-standard about it
as indicated by the "X" model prefix. That generally meant "Special
Product built on a production line", as opposed to a suffix of -SPxx
which indicated a "Special Product" built in a small quantity.

Good luck.

Tom N4TAB

>>>>>>>>>>>>>>>>>>>>>

"Phil T. (VA3UX)" wrote:
>
> have two pieces of what I would call "vintage" commercial radio
> equipment.
>
> One is a GE Transmitter/Receiver combination; all vacuum tube, power
> amp
> uses a 5894. Currently set-up for 168.99 Mhz. This is the original
> cabinet which is about 3 feet tall, 2 feet wide and about 10" deep
> (kinda
> of like a big cereal box). The receiver and transmitter are on separate
>
> chassis and can be removed from the cabinet. each has its own integral
> power supply. Weighs 60 - 75 lbs (estimate)
>
> The second is a Motorola repeater set-up for 412.0125 Mhz
> transmit/417.0125
> Mhz receive. This appears to be vintage solid state. Weight is around
> 80
> lbs+ (estimate). Cabinet is similar size and shape to the GE unit
> above.
> Model number is XC34MSY-3IQ1CT.
>
> These were both working when taken out of service last year. I bought
> 'em
> but I really doubt I'll get around to using them (too many other
> projects
> on the go).
>
> Any interested parties out there, please make reasonable offers. I'm
> not a

> VHF/UHF guy, so if these are just plain junk, feel free to tell me so.
> There's a good pile of parts in these that I can use for something else.
>
> Please reply direct to : phil@vaxxine.com
>
> Thanks
>
> Phil

1739. Re: FERRITE ANT-AM BROADCAST BAND

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 04:08:20 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <UwWs6.3664$9J5.294670@bgtnsc06-news.ops.worldnet.att.net>
Source record: 54086

The primary coil is the one that you would tune. It should be around 240uH, if you use it with an 18 to 400pF tuning capacitor. You do not need to wrap the secondary over the primary, it can be around 10 turns of Litz wire, wound next to the primary. You should have pretty tight coupling, if you use a ferrite rod.

Pete Gianakopoulos
Chicago, Il.

marvin rosen <n3bqa@starpower.net> wrote in message
news:98rcv5$802$1@bob.news.rcn.net...
> i am making a ferrite ant for the am broadcast band...do i wrap the
primary
> coil over the secondary coil or should the primary coil be at one end of
the
> rod?...also which coil do i connect the var cap to?
>
>

1740. Y448 Tube?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 08:40:35 UTC
From: dturner@pacbell.net
Message-ID: <7w_s6.114$WR.263022@news.pacbell.net>
Source record: 54087

Does anyone have the spec sheet on the Y448. I sure would like to know the operating conditions.

1741. Re: Need O'scope schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 09:13:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AB47C45.C168F900@eznec.com>
Source record: 54088
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

A very good source for manuals for older Tek equipment is Deane Kidd,
503-625-7363.

Roy Lewallen, W7EL

Lamb wrote:
>
> Hi Bob:
>
> I do not have the 422 info - but I have a number of other Tek scopes and
> found a place in Canada that will rent the manuals to you for a month for
> $10 plus shipping. I have made copies and it works great.
>
> If you do not get a better offer, let me know and I will get the site for
> you.
>
> 73, Colin K7FM
>
> Am trying to get a 422 that has the built in 12 volt inverter for portable
> work. They should be ok, although they have limited bandwidth.

1742. WTB: large faced SWR wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 15:39:24 UTC
From: k9sqg@aol.com
Message-ID: <20010318103924.26179.00001422@ng-fa1.aol.com>
Source record: 54089

Posting this message for a visually impaired ham. He needs a very large faced SWR wattmeter, something like SWAN, Dosy, Siltronix, etc.

Please call Bill at 317-849-2487. His callsign is N9GWT.

Thanks for reading the posting.

73s,

Evan

1743. Re: HTX-400 power source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 18:05:54 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <6O6t6.7183$lm6.839968@newsread1.prod.itd.earthlink.net>
Source record: 54090

"AB2HR" <ab2hr@arrl.net> wrote in message
news:2es6bt8ufnsjduj8sfcnffmdgf9gv8h5kk@4ax.com...
> Hi folks... Picked up an HTX-400 440 rig from Radio Shack the other
> day, couldn't resist as the price was a VERY attractive $70. Anyway,
> as those of you who are familiar with this product know, it's not a
> very powerful transmitter but it IS capable of 1 watt output with an
> "external 9 VDC power source." I had planned on building a 6 cell
> Alkaline battery holder which I could connect to the radio which would
> give me the 9 VDC for 1 watt output in "walking around mode." Well,
> as I was wandering about Radio Shack, I noticed that they sell a 9.6
> volt 1000 mAh battery for R/C toys. Immediately I began wondering
> whether or not this 9.6 VDC power source was compatable with the
> radio, and if not, what could be done to make it suitable for use with
> the HTX-400.
>
> The guy behind the counter (at three stores) had no answers. I e-mail
> the Shack's own tech support. The response was a canned reply stating
> that they do not offer mods or modification advice on any of their
> radios (HELLO! I'm talking about building a battery pack here, NOT
> modifying the radio!). Got nada....
>
> So, here's what I came up with.... at 9 VDC current train at transmit
> is 900mA (from the manual). at "standby" or receive, current drain
> seems to be 50 mA (based on QST review of the 2-meter variant, the
> HTX-200). If I were to simply insert a 12 Ohm resistance (.6v drop at
> .05 A) to bring the voltage to 9VDC during standby operations, this
> results in a voltage deficit of 1.2 volts on transmit! (.9 mA * 12
> Ohm = 10.8 VDC). By inserting a .67 Ohm resistance the .600 VDC drop
> is realized on transmit, but at standby I'm pushing 9.57 volts through
> the unit. Is this acceptable? Would the radio accept 9.6 VDC
> directly from the battery? Obviously there must be a way of
> regulating the voltage (yes folks, I think I need to build a voltage
> regulator) to allow the use of this NiCad battery pack as a power
> supply for this radio. I'd appreciate any and all information anyone
> can give me on this.... schematics would be GREATLY appreciated.
>
> Thanks much!
>
> 73 de
>
> Ray / AB2HR
>

My guess is that 9.6 volts wouldn't damage anything in the rig but I understand
your want to stick to the specification. However, you have a problem trying to
regulate 9.6 volts down to 9 volts. The differental is just too small for standard
voltage regulators to work properly. They usually need about 2.5 volts differential.
I don't think that even low differential regulators go that low. And as soon as the
battery drains to the point that the differential is insufficient, regulation becomes
poor.

The dropping resistor method is not the way to go. As the battery drains, the
drop is going to change. Depending on the mode, the drain might change while
you are talking. This will change the voltage drop. Also, the 900 ma drain may
be a peak specification. It may nominally be much less. I would first hook up a
9 volt battery and check the actual current drain in all of it's modes, then work from
there. As an example, I have a HTX-100. The manual specifies 13.5 volts at
8 amps for full output. But in SSB mode 8 amps is only necessary on voice peaks.
Most of the time the average speech needs less than half that. I ran the rig on a
3 amp power supply for a long time by just limiting my audio peaks. I have
since upgraded the power supply to an 8 amp one and don't have to worry about
the audio peaks.

But, all of this can be taken care of by using a 12 volt battery instead of a 9.6 volt.
It would then be very straight forward to build a 12 --> 9 volt regulator. Radio
Shack also has some nice 13.5 volt 3 amp hour batteries. A simple LM317 regulator
would easily handle an input of 10.5 to 15 volts and keep the output at 9.0 volts.
The regulator and all the parts can be obtained at Radio Shack. The advantage of
this is that you can then get a cigarette lighter plug and run your rig directly from
a car battery or charge your battery from the car.

A fused lighter plug is also available at Radio Shack. I'm really not on
the payroll of Radio Shack but they do have a lot of useful stuff, if you know what
you are looking for. I built a 8 amp 13.5 volt power supply for my HTX-100 all

from Radio Shack parts. I put it all in a nice case and now have a nice
base rig
for 10 Meters.

Martin

--
Martin Meserve, K7MEM
martin.e.meserve at lmco.com

1744. Re: Need O'scope schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 18:34:25 UTC
From: Bill Jeffrey <NOSPAMajeffrey@aspi.net>
Message-ID: <3AB4FFB1.3FD3F707@aspi.net>
Source record: 54091
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Lamb wrote:
>
> Hi Bob:
>
> I do not have the 422 info - but I have a number of other Tek scopes and
> found a place in Canada that will rent the manuals to you for a month for
> $10 plus shipping. I have made copies and it works great.
>
> If you do not get a better offer, let me know and I will get the site for
> you.
>
> 73, Colin K7FM
>
> Am trying to get a 422 that has the built in 12 volt inverter for portable
> work. They should be ok, although they have limited bandwidth.

Colin -

I would be interested in this bit of info. Would you be kind enough
either to post it to the group, or REPLY to me (removing the NOSPAM)?

Thanks

Bill Jeffrey
--
If "NOSPAM" appears in my return address, you must remove it after you
hit REPLY.

1745. WTB: Millen 90801 EXCITER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 22:48:33 UTC
From: austrade@ix.netcom.com
Message-ID: <3ab53b18.26398917@nntp.ix.netcom.com>
Source record: 54092

Will pay top dollar for a Millen Model 90801 Exciter in good condx..

Please email price, condx. and contact information.

Jamie nantidulu@aol.com

1746. Point-to-point communication using SSBSC and DSBSC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-18 23:55:41 UTC
From: la8ak@online.no
Message-ID: <3ab54921.341260705@news.online.no>
Source record: 54093

Rumours says that SSBSC and DSBSC has been in use in Germany since the
30's for point-to-point overseas communication, so although some
versions of K�ln E52 is provided for it, it was used earlier.
A document from Telefunken dated 1950 is "Seitenband-Ausw�hlger�t
EB1/3A using E52 receiver

Do you know any sources referring to the technique used for PTP
communication services? I worked at the Post-Office radio station in
Bearly near Stratford on Avon in 73-74 were such receivers were used,
but need some documentation for earlier use, possibly on internet

73
Jan-Martin

1747. Radio Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 01:36:48 UTC
From: peter <donotreply@interbulletin.bogus>
Message-ID: <3AB562B0.1A80302B@interbulletin.com>
Source record: 54095

Greetings everyone.
I am interested in building a radio receiver that can receive frequency
between 43MHz and 46MHz

1)Where can I find circuits on the web for such a receiver?

2)Will a trimmer capacitor work for this receiver or do I need the
kind of variable (tuning) capacitor that is used in an old radio?

Thanks

Submitted via WebNewsReader of http://www.interbulletin.com

1748. Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 02:00:44 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <gLdt6.234929$Vj5.31386729@news02.optonline.net>
Source record: 54094

Paolo,

The oscillator in the an419 note is only good to about 150 MHz. Above this frequency you will have trouble with it.

You might want to try it running at 300MHz/4 = 75 MHz and then use the 9854's internal multiplier to get to 300 MHz.

The other alternative would be to phase lock a SAW based oscillator at 300 MHz to a lower frequency crystal oscillator. Then you would play with the loop filter in the phase lock to clean up the SAW.

My experience with the 9854 would indicate that you will not see a major improvement in performance using either of these methods.

Bob
""Paolo Odone"" <paolo@odone.it> wrote in message
news:000601c0ad09$74628b20$3c7e1c97@odone...
Bob,
I agree with you, about spurs and PLL solution.
Hands electronics http://www.rf-kits.demon.co.uk/run.htm in UK has a module DDS3A using an AD9851 clocked at 180 MHz and phase locked for high purity applications to a clean up loop available as the GQ-PL9 at about $200.
My question was in order to achieve the maximum phase noise performance, and to have a 300 MHz clean source as in http://www.analog.com/techsupt/application_notes/an419.pdf
Best 73',

Paul i1odp

1749. Re: Radio Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 04:54:17 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AB590F9.6704FC1B@toast.net>
Source record: 54096

peter wrote:

> Greetings everyone.
> I am interested in building a radio receiver that can receive frequency
> between 43MHz and 46MHz
>
> 1)Where can I find circuits on the web for such a receiver?
>
> 2)Will a trimmer capacitor work for this receiver or do I need the
> kind of variable (tuning) capacitor that is used in an old radio?

If you are talking about tuning the frequency range 43 to 46 mhz, that's only a 7% change, and a trimmer should do it. If you compare that to the broadcast band on an old AM radio, where you go from 550 khz to 1650 khz, that's about a factor of 3, or +300%, which would require a much larger capacitance ratio. On the other hand, it might not be convenient to tune the thing with a screwdriver, so you might use a wide range variable capacitor hooked to the tuned circuit through a series capacitor so that it made only a 7% change to the tuned circuit.

john

1750. Re: Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 06:23:12 UTC
From: paolo@odone.it
Message-ID: <001601c0b03d$11b76860$24051c97@odone>
Source record: 53947

Bob,

thanks for sharing your experiences.
So finally what do you suggest as a better compromise to achieve a minimum spurs level and a maximum performance in terms of phase noise , as your previous reply stated, is to use some kind of VCO, locked to the 9854, if I will use it as a first LO via a PLL chip so I can clock the standard unit (AD9854ASQ or AST?) at a lower frequency.
Wich frequency please?
Discrete or DIP clock?
Are you going to write an article about that on some magazine?
Thanks.

Paolo i1odp

1751. 23 cm superturnstile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 06:31:38 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <99492mjfd1@wanadoo.fr>
Source record: 53948

Hello !

Presently, I build an ATV repeater with some friends and we are looking for an antenna horizontally polarized with an omnidirectional radiation pattern. The equipment is going to operate in the 23 cm band and a high gain is obviously highly wishable.

I have seen descriptions of the Alford slot antenna which has a medium gain and would be suitable, but commercial TV stations often use superturnstile antenna which have more gain.

Does someone hear of homebrew superturnstile antenna for the 23 cm ham band or other high gain antenna ?

Thank you for your help.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

1752. Variable Capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 07:10:29 UTC
From: peter <donotreply@interbulletin.bogus>
Message-ID: <3AB5B0E5.2521EF65@interbulletin.com>
Source record: 53949

Where can I purchase wide range variable capacitors online?
Can anyone recommend some websites that sells them?

Thanks

Submitted via WebNewsReader of http://www.interbulletin.com

1753. Re: Variable Capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 12:36:15 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AB5FD3F.53155901@coqui.net>
Source record: 53950

peter wrote:
>
> Where can I purchase wide range variable capacitors online?
> Can anyone recommend some websites that sells them?
>
> Thanks
> ____
> Submitted via WebNewsReader of http://www.interbulletin.com

Depends on what you are looking for. Transmitting or receiving?
VHF of MF values? Ocean State Electronics online has a variety of
typical receiving caps.

Bill Meacham
Vieques, PR

1754. Re: Variable Capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 13:24:41 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3AB60899.D9DAE5A3@mwci.net>
Source record: 53951

peter wrote:

> Where can I purchase wide range variable capacitors online?
> Can anyone recommend some websites that sells them?

Check Surplus Sales of Nebraska at www.surplussales.com

Bill W0IYH

1755. Re: Is QST Receiver Selectivity Article correct?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 14:43:55 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab61a2f.359925472@news.accessunited.com>
Source record: 53952

On Wed, 14 Mar 2001 12:10:32 -0600, "William E. Sabin"
<sabinw@mwci.net> wrote:

>I skimmed those articles, but did not study them closely. I was somewhat
>bothered by them because some of the diagrams did not ring my chimes too well,
>but I cannot be critical because I did not give them the close attention that
>they require.
>
>Bill W0IYH

Look at the selectivity curves Bill, and your chimes will go silent.

The attentuation of cascaded filters is not added correctly
(attenuation is not added at all), so every conclusion through the
whole article based on attenuation amounts (and that's the whole
thing) is wrong.

73 Tom

1756. Re: HTX-400 power source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 17:04:00 UTC
From: Larry Deering <"w2gl "@nospam.qsl.net>
Message-ID: <3AB63C00.210289BC@nospam.qsl.net>
Source record: 53953

Ray,
Although I wouldn't worry too much about .6 volts over rating, you can put a diode drop in. The forward drop has a pretty sharp knee, so you might loose 0.55 volts at 50 ma, and 0.65 volts at 1 amp. Although most regulators drop at least a couple of volts, there are some that work on a lot less. They use a pnp series pass transistor, so in theory can regulate to within a drop of 0.2 volts.

Larry W2GL

AB2HR wrote:
>
> Hi folks... Picked up an HTX-400 440 rig from Radio Shack the other
> day, couldn't resist as the price was a VERY attractive $70. Anyway,
> as those of you who are familiar with this product know, it's not a
> very powerful transmitter but it IS capable of 1 watt output with an
> "external 9 VDC power source." I had planned on building a 6 cell
> Alkaline battery holder which I could connect to the radio which would
> give me the 9 VDC for 1 watt output in "walking around mode." Well,
> as I was wandering about Radio Shack, I noticed that they sell a 9.6
> volt 1000 mAh battery for R/C toys. Immediately I began wondering
> whether or not this 9.6 VDC power source was compatable with the
> radio, and if not, what could be done to make it suitable for use with
> the HTX-400.
>
> The guy behind the counter (at three stores) had no answers. I e-mail
> the Shack's own tech support. The response was a canned reply stating
> that they do not offer mods or modification advice on any of their
> radios (HELLO! I'm talking about building a battery pack here, NOT
> modifying the radio!). Got nada....
>
> So, here's what I came up with.... at 9 VDC current train at transmit
> is 900mA (from the manual). at "standby" or receive, current drain
> seems to be 50 mA (based on QST review of the 2-meter variant, the
> HTX-200). If I were to simply insert a 12 Ohm resistance (.6v drop at
> .05 A) to bring the voltage to 9VDC during standby operations, this
> results in a voltage deficit of 1.2 volts on transmit! (.9 mA * 12
> Ohm = 10.8 VDC). By inserting a .67 Ohm resistance the .600 VDC drop
> is realized on transmit, but at standby I'm pushing 9.57 volts through
> the unit. Is this acceptable? Would the radio accept 9.6 VDC
> directly from the battery? Obviously there must be a way of
> regulating the voltage (yes folks, I think I need to build a voltage
> regulator) to allow the use of this NiCad battery pack as a power
> supply for this radio. I'd appreciate any and all information anyone
> can give me on this.... schematics would be GREATLY appreciated.

>
> Thanks much!
>
> 73 de
>
> Ray / AB2HR

1757. WTB:60's-70's CB Books/Mags/etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 19:04:44 UTC
From: Heath <radiovintage@hotmail.com>
Message-ID: <5Gst6.53$SR1.216640@nntp1.onemain.com>
Source record: 53954
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.cb

Want to buy literature for a history of CB.Especially from the 60's into the 70's.On fixed income so price IS important.Please reply with information and price.
Thanks...

1758. Re: HTX-400 power source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 19:05:12 UTC
From: nathan j burnside <nburnsid@students.uiuc.edu>
Message-ID: <Pine.GSO.4.10.10103191249470.19255-100000@ux5.cso.uiuc.edu>
Source record: 53955

I just purchased a couple of these rigs also and had the same thought. My first concern is that although nicads are rated at 1.2 V/cell, they can be as high as 1.4 V/cell when freshly charged, and given a light load. This would be 11.2 volts instead of 9.6, which would concern me. However, I looked over the parts list and noticed a 3V regulator, probably for the microprocessor, and other digital stuff. So I'd say that the brains of the radio are safe.

The next concern would be overloading the
output circuitry. Assuming that the resistance of the load remains the same, the power dissipated increases with the square of the voltage, so a difference of 11.2-9.6=2.2V may be significant. However, a nicad cell, even when fresh would probably drop to 1.2V when generating 800mA, so when you are transmitting, the voltage should drop to near 9.6V and the .6V overvoltage would probably translate to about a 5%-10% increase in power dissipated, wich shouldn't be significant. I doubt their design tolerances were that tight. Anyway, my radios are on order, so I haven't been able to test my theory yet. If you try it, and it works fine, please let me know. Thanks,

Nathan kb9yzf

On Sat, 17 Mar 2001, AB2HR wrote:

> Hi folks... Picked up an HTX-400 440 rig from Radio Shack the other
> day, couldn't resist as the price was a VERY attractive $70. Anyway,
> as those of you who are familiar with this product know, it's not a
> very powerful transmitter but it IS capable of 1 watt output with an
> "external 9 VDC power source." I had planned on building a 6 cell
> Alkaline battery holder which I could connect to the radio which would
> give me the 9 VDC for 1 watt output in "walking around mode." Well,
> as I was wandering about Radio Shack, I noticed that they sell a 9.6
> volt 1000 mAh battery for R/C toys. Immediately I began wondering
> whether or not this 9.6 VDC power source was compatable with the
> radio, and if not, what could be done to make it suitable for use with
> the HTX-400.
>
> The guy behind the counter (at three stores) had no answers. I e-mail
> the Shack's own tech support. The response was a canned reply stating
> that they do not offer mods or modification advice on any of their
> radios (HELLO! I'm talking about building a battery pack here, NOT
> modifying the radio!). Got nada....
>
> So, here's what I came up with.... at 9 VDC current train at transmit
> is 900mA (from the manual). at "standby" or receive, current drain

> seems to be 50 mA (based on QST review of the 2-meter variant, the
> HTX-200). If I were to simply insert a 12 Ohm resistance (.6v drop at
> .05 A) to bring the voltage to 9VDC during standby operations, this
> results in a voltage deficit of 1.2 volts on transmit! (.9 mA * 12
> Ohm = 10.8 VDC). By inserting a .67 Ohm resistance the .600 VDC drop
> is realized on transmit, but at standby I'm pushing 9.57 volts through
> the unit. Is this acceptable? Would the radio accept 9.6 VDC
> directly from the battery? Obviously there must be a way of
> regulating the voltage (yes folks, I think I need to build a voltage
> regulator) to allow the use of this NiCad battery pack as a power
> supply for this radio. I'd appreciate any and all information anyone
> can give me on this.... schematics would be GREATLY appreciated.
>
> Thanks much!
>
> 73 de
>
> Ray / AB2HR
>
>

1759. FS Tektronox 465 Scope Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-19 21:07:41 UTC
From: bobb@ulster.net
Message-ID: <3AB64B58.772B0F14@ulster.net>
Source record: 53956

Tektronix 465 Scope Manual. This is a original Tektronix manual and not a copy. It is about 3/4" thick. The manual is in excellent condition. Price $20 plus 2.25 Shipping.

Bob W2AWS

1760. Re: Radio Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 02:29:48 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tbdg5k4l5gno46@corp.supernews.com>
Source record: 53957

get a copy of the Radio Amateurs Handbook any issue since the 80s is fine..
your specs need to include sensitvity required, am or fm, selectivity,
stability, etc..
the easiest is to build a converter and use it with an existing receiver..
"John O'Flaherty" <oflahert@toast.net> wrote in message
news:3AB590F9.6704FC1B@toast.net...
> peter wrote:
>
> > Greetings everyone.
> > I am interested in building a radio receiver that can receive frequency
> > between 43MHz and 46MHz
> >
> > 1)Where can I find circuits on the web for such a receiver?
> >
> > 2)Will a trimmer capacitor work for this receiver or do I need the
> > kind of variable (tuning) capacitor that is used in an old radio?
>
> If you are talking about tuning the frequency range 43 to 46 mhz, that's
> only a 7% change, and a trimmer should do it. If you compare that to the
> broadcast band on an old AM radio, where you go from 550 khz to 1650 khz,
> that's about a factor of 3, or +300%, which would require a much larger
> capacitance ratio. On the other hand, it might not be convenient to tune
> the thing with a screwdriver, so you might use a wide range variable
> capacitor hooked to the tuned circuit through a series capacitor so that
it
> made only a 7% change to the tuned circuit.
>
> john
>

1761. loopstick wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 02:36:37 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tbdgnkq5q325f2@corp.supernews.com>
Source record: 53958

i need a ferrite loopstick over 7 inches long to make a 60kHz antenna..
anyone got one for sale or point me...

tnx
hank wd5jfr

1762. Re: loopstick wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 03:10:28 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AB6CA24.9942AEF6@coqui.net>
Source record: 53959

Henry Kolesnik wrote:
>
> i need a ferrite loopstick over 7 inches long to make a 60kHz antenna..
> anyone got one for sale or point me...
>
> tnx
> hank wd5jfr

I see some at
http://www.oselectronics.com/ose_p50.htm
Be sure you are sitting down when you see the price.
--

Bill Meacham
Vieques, PR

1763. Re: Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 03:40:34 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <SiAt6.251488$Vj5.32783921@news02.optonline.net>
Source record: 53960

Hi Paolo,

Here's what I would do:

1) Grab what ever crystal you have in the 90 to 120 MHz range, frequency isn't that important. Build an oscillator and use that to clock the 9854. No matter what circuit you use your oscillator will be better than the cheap DIP clocks. I could recommend a brand of oscillator, but then I'd have mention that I'm recommending my employer's parts ....

2) Depending on crystal frequency come out of the DDS at about 1/5th to 1/6th of the crystal frequency. Run the DDS output through a simple bandpass filter, Run the output of the filter into a PLL chip. The National Semiconductor parts seem to work well.

3) Build as good a VCO as you can -or- buy a MiniCircuits part for < $30.

4) Lock the VCO up to the output of the DDS with the PLL chip.

5) Use the DDS in a narrow band mode (say about 10% range). Use the PLL chip for large steps (say 5.0,5.5,6.0,6.6,7.2 etc).

6) Once you have the receiver system running sit down with a good signal generator (or a crystal oscillator) and measure how wide you can make the PLL bandwidth on the National chip before things begin to degrade. With a whole lot of data you could calculate it, but for a one of a kind project measurement makes more sense.

You can play with VCO range and VCO performance. Generally a narrow band VCO will have better characteristics than a wide band VCO. If you are running a 70 MHz IF frequency and trying to cover DC to 30 MHz your VCO would need to cover 70 to 100 MHz. If you split that into four segments then each of them would be about a 10% range (69 to 77, 76 to 84, 83 to 92, 91 to 101 MHz).

One other trick to consider on the VCO - run it at 4x or 8x the desired output frequency and then divide it down with a digital divider chip. This will give you very good load isolation and good power output leveling. With a good divider it should make the spurs and phase noise better.

If the main concern is for the ham bands I'd build a VCO for each band of interest and bandpass filter the VCO before I put it into the mixer. You might even put the whole front end on a card and switch out cards.
Each card would have:

front end preselector(s)
RF preamp or RF attenuator depending on band
first mixer
mixer if termination
LO VCO
VCO divider
VCO bandpass filter

Sounds like a lot, but about the only parts that would be duplicated are the preamp, mixer and attenuator. Each card would connect to power, antenna, IF, and the synthesizer chips.

One other note - there is no reason why you can not run the DDS output from say 14 to 20 MHz and lock up a VCO running from 70 to 100 MHz with a fixed division on the PLL chip. This would make a more simple system and cut out all the VCO switching.

There are a *number* of people lurking around here that know a whole lot more about this than I do. Maybe one of them can write the magazine article :)

Enjoy!

Bob
""Paolo Odone"" <paolo@odone.it> wrote in message
news:001601c0b03d$11b76860$24051c97@odone...
Bob,

thanks for sharing your experiences.
So finally what do you suggest as a better compromise to achieve a minimum spurs level and a maximum performance in terms of phase noise , as your previous reply stated, is to use some kind of VCO, locked to the 9854, if I will use it as a first LO via a PLL chip so I can clock the standard unit (AD9854ASQ or AST?) at a lower frequency.
Wich frequency please?
Discrete or DIP clock?
Are you going to write an article about that on some magazine?
Thanks.

Paolo i1odp

1764. Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 04:15:18 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AB6D963.6C51@pop.removethistomailme.net>
Source record: 53961

Bob Camp wrote:
><snip>

Interesting discussion!

[obnoxious_netcop]

Sure would be nice if you guys would quit using HTML, though. It's
making your posts take up dozens of K apiece, for no reason.

[/obnoxious_netcop]

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

1765. Re: Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 10:25:23 UTC
From: John Mortlock <jmort@global.freeserve.co.uk>
Message-ID: <997c68$ve7$1@newsg2.svr.pol.co.uk>
Source record: 53962

>Bob Camp wrote in message ...
>
> Here's what I would do:
>
>2) Depending on crystal frequency come out of the DDS at about 1/5th to
1/6th of the crystal frequency. Run >the DDS output through a simple
bandpass filter, Run the output of the filter into a PLL chip. The National
>Semiconductor parts seem to work well.

Do you have any part numbers for the National PLL chips ?

1766. What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 11:39:05 UTC
From: Josh DeWinter <dewinter@wsunix.wsu.edu>
Message-ID: <997f2o$doo5$1@murrow.murrow.it.wsu.edu>
Source record: 53963

Hi. My name's Josh. As some of you who have seen my previous posts know, I am new to radio design. I am looking to play with what I think is the very fascinating concept of mixers for the first time. I have been studying some schematics I have seen, and noticed a mixer, the NE602, which is used several times in the design of radios by the Wilderness radio company. Is this unit a good one to get ahold of to toy with for learning purposes? And for that matter, when I have two frequencies mixed together, how will I be able to detect each of them at the same time...or will I? (I would guess my scope won't show me the two at once, neither will the freq. counter.) Is this generally the way a transmitter is built...one low freq. is mixed with another to make a higher and higher freq., with alot of filtering in between, until the desired is met?

Thanks for your help

-Josh DeWinter
KC7KJC

1767. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 12:42:24 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AB75030.65619030@coqui.net>
Source record: 53964

Josh DeWinter wrote:
>
> Hi. My name's Josh. As some of you who have seen my previous posts know,
> I am new to radio design. I am looking to play with what I think is the
> very fascinating concept of mixers for the first time. I have been studying
> some schematics I have seen, and noticed a mixer, the NE602, which is used
> several times in the design of radios by the Wilderness radio company. Is
> this unit a good one to get ahold of to toy with for learning purposes? And
> for that matter, when I have two frequencies mixed together, how will I be
> able to detect each of them at the same time...or will I? (I would guess my
> scope won't show me the two at once, neither will the freq. counter.)
> Is this generally the way a transmitter is built...one low freq. is mixed
> with another to make a higher and higher freq., with alot of filtering in
> between, until the desired is met?
>
> Thanks for your help
>
> -Josh DeWinter
> KC7KJC

Josh,
You're on the right track. The output of a mixer is going to have
both the sum and difference of the two signals inserted, as well
as remnants of the original freqs. This has to be filtered at the
output.
Various bands in a transmitter (or receiver) are obtained by
various methods...sometimes its a single 'conversion' process,
sometimes more stages are utilized. Typically in a single
conversion receiver, the oscillator range is switched to beat
against the incoming signal, always resulting in a common
Intermediate Frequency. In this case, the IF amplifying stage(s)
serve for the filtering process and all the other freq components
are removed.
From that basic premise, there's zillions of various
configurations as the receiver gets more sophisticated...and of
course, an xmtr often works in the "reverse" fashion.
As for seeing and measuring the freqs, as you rightly suspect, a
counter can't tell you anything. However, with some idea of what
the freqs should be, you can 'find' them on a scope display.

Bill Meacham WX4A
Vieques, PR

1768. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 13:32:35 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <997m6q02mkh@news1.newsguy.com>
Source record: 53965

OK, Bill talked about the output, let me talk about the chip.

The NE/SA 602/612 is a good part, and it's not. Like so many things, it all depends.

Recently, the 602 has been hard to get, but you can get them. They are cheap, easy to use, and very sensitive. For most HF applications you can take your antenna through a bandpass filter and straight into the 602 with no amplification. You can simply attach a crystal or LC network to the 602 and use it's internal oscillator. You can build a perfectly useable HF receiver with nothing more than a 602 and an audio amplifier. For learning purposes, it's a great little part.

You will see NE602, SA602 and SA612 parts. For practical purposes, they are all the same.

Basically, there are 2 kinds of mixers in common use, ring diode and Gilbert cell. The Gilbert cell mixers are more complicated internally but easier to apply. The only other Gilbert cell mixer I know of is a 1496 which is a lot messier to use than the 602.

Ring diode mixers are a lot more expensive than the 602, although you can build one from 4 diodes and a couple of ferrite cores. The problem with a diode mixer is that you generally need to provide more amplification going into the mixer, which results in more power consumption. Most of the QRP rigs that use 602's are after the low power consumption because people often run these radios off batteries.

The big downside of the 602 is that it suffers horribly from IMD. Depending on your application this may not be much of a problem, and you can reduce the problem with a good front end filter. For experimentation it's really not much of an issue. Some very fine radios use the 602. Check out the schematics (online) for the SW-40+, the Norcal SMK-1, and the Elecraft K1 for some examples.

hope this helps
didleydadidah

"Josh DeWinter" <dewinter@wsunix.wsu.edu> wrote in message
news:997f2o$doo5$1@murrow.murrow.it.wsu.edu...

> some schematics I have seen, and noticed a mixer, the NE602, which is used
> several times in the design of radios by the Wilderness radio company. Is
> this unit a good one to get ahold of to toy with for learning purposes?
And

1769. Vacuum tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 15:23:49 UTC
From: Ron Wicker <ronwick@flash.net>
Message-ID: <9CKt6.670$XL4.241795175@newssvr16.news.prodigy.com>
Source record: 53966
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

I have 5 NOS 826 tubes and 3 NOS 829b tubes. These are the military versions. Question is what equipment did the 826 go in?

1770. HP606 Signal Generator Op and Service Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 15:39:45 UTC
From: Joe Schreiber <jschreiber@adelphia.net>
Message-ID: <5RKt6.1687$l61.306764@news1.news.adelphia.net>
Source record: 53967
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap,sci.electronics.equipment

High quality spiral bound photocopy includes operating instructions, theory of operation, maintenance, alignment, schematics, pictorials, and parts lists. I can ship for $1.50 within USA.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1222470134

1771. Return loss bridge tradeoffs.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 17:55:53 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <5pS3OkVeTGuL=dGQExxIFLs7adCi@wingate>
Source record: 53968
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.misc

[Please, note that this message are being crossposted to
rec.radio.amateur.homebrew and sci.electronics.misc]

I want to build some Return loss bridges for use with my home spectrum
analyzer. For use from ~DC-12GHz(dreaming) in various subbands, to test
homebrew equippment.

The RLB (hibrid combiner) I knew about was the Z0 resistive bridge with 1:1
transformer balun with 0 or 180 deg detector output, that has a 6dB
insertion loss. But recently came across a design that uses a transformer
instead resistors for the upper half of the bridge that intuitively seems
that will save 3dB at the expense of (mainly) the low frequency response.

The simulations in spice I did seems to comfirm this, although was the
ideal case.

What I'm questioning are the tradeoffs between using resistors or a
transformer for the upper half of the bridge, before building a bunch of
both. Also comments about the best way to homebre the higher frequency ones
will be wellcomed.

73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

1772. AVOID TRIPOD WEB SERVICES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 18:11:50 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.1521ad8057f4907b989699@news.earthlink.net>
Source record: 53969
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

AVOID TRIPOD WEB SERVICES

Last weekend, Tripod removed all of my web
pages for "violating their acceptable use policies."

I could not figure what I had done, but I'm not
one to whine and I moved my pages to:

http://www.qsl.net/k7on/

Now, I receive the following:

Date: Tue, 20 Mar 2001 04:38:43 -0500 (EST)
From: membership@tripod.com
X-Authentication-Warning: bos-uhaul1.tripod.com: web set sender to
membership@tripod.com using -f
To: k7on@earthlink.net
subject: Your Tripod Membership

Dear Tripod Member,
We apologize for the removal of your site over the weekend. Due to some
technical errors, we mistakenly removed several member sites and are in
the process of restoring them. We did not single out you or your site,
please accept our apologies, your site has now been restored.

Sincerely,
The Tripod Team

--
http://www.qsl.net/k7on/
--

1773. Re: Return loss bridge tradeoffs.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 19:06:10 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9989n2$mb2$1@woodrow.ucdavis.edu>
Source record: 53970
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.misc

: I want to build some Return loss bridges for use with my home spectrum
: analyzer. For use from ~DC-12GHz(dreaming) in various subbands, to test
: homebrew equippment.

Hi there,

you would be dreaming to cover that large of a bandwidth in one box. most
of the commercial and better projects limit their ranges to specific
blocks of bandwidth.

: The RLB (hibrid combiner) I knew about was the Z0 resistive bridge with 1:1
: transformer balun with 0 or 180 deg detector output, that has a 6dB
: insertion loss. But recently came across a design that uses a transformer
: instead resistors for the upper half of the bridge that intuitively seems
: that will save 3dB at the expense of (mainly) the low frequency response.

The transformer unit will preform better.

: The simulations in spice I did seems to comfirm this, although was the
: ideal case.

and in reality, I have a few of them myself. Check out Eagle's rlb if
your need some typical specs.

: What I'm questioning are the tradeoffs between using resistors or a
: transformer for the upper half of the bridge, before building a bunch of
: both. Also comments about the best way to homebre the higher frequency ones
: will be wellcomed.
: 73's de Luis

Hi Luis,
I've got a few commercial and amateur versions here for my own use, the
"swrsweep", hp, eagle and a few other oddballs work pretty well. I like
the predictable nature/responce of the transformer units although they
tend to have much more drastic problems near their uppper and lower
frequency limits. I don't have much time to look, but I do have some
circuit diagrams I could share with you if your patient and want to wait
for me to dig them out.
cheers
skipp@pilot.ucdavis.edu

1774. Re: AVOID TRIPOD WEB SERVICES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 19:52:03 UTC
From: panzer240@hotmail.com
Message-ID: <Xns906AA161CA0A0me109g6@142.177.129.14>
Source record: 53971
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

Brian Short <k7on@earthlink.net> wrote in
<MPG.1521ad8057f4907b989699@news.earthlink.net>:

>AVOID TRIPOD WEB SERVICES
>
>Last weekend, Tripod removed all of my web
>pages for "violating their acceptable use policies."
>
>I could not figure what I had done, but I'm not
>one to whine and I moved my pages to:
>
>http://www.qsl.net/k7on/
>
>Now, I receive the following:
>
>Date: Tue, 20 Mar 2001 04:38:43 -0500 (EST)
>From: membership@tripod.com
>X-Authentication-Warning: bos-uhaul1.tripod.com: web set sender to
>membership@tripod.com using -f
>To: k7on@earthlink.net
>subject: Your Tripod Membership
>
>Dear Tripod Member,
>We apologize for the removal of your site over the weekend. Due to some
>technical errors, we mistakenly removed several member sites and are in
>the process of restoring them. We did not single out you or your site,
>please accept our apologies, your site has now been restored.
>
>Sincerely,
>The Tripod Team

Ummmm..... gee looks like the people working at Tripod are human
after all and make mistakes just like you and me. At least they were men
enough to apologize and make things right. Whar's your beef or do you just
like to whine and moan.

Panzer

1775. Re: AVOID TRIPOD WEB SERVICES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 19:53:29 UTC
From: Jeff Weinberg <jjweinb@earthlink.net>
Message-ID: <ZyOt6.13751$Im6.1452667@newsread1.prod.itd.earthlink.net>
Source record: 53972
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

Sounds to me that it was a "sign" for you to move your pages to QSL.net.
That's where I have mine, and have been very happy there. I'd pass on
Tripod for the future, if it were me.

Jeff W.
W0QO

"Brian Short" <k7on@earthlink.net> wrote in message
news:MPG.1521ad8057f4907b989699@news.earthlink.net...
>
> AVOID TRIPOD WEB SERVICES
>
> Last weekend, Tripod removed all of my web
> pages for "violating their acceptable use policies."
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> I could not figure what I had done, but I'm not
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>
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> From: membership@tripod.com
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> membership@tripod.com using -f
> To: k7on@earthlink.net
> subject: Your Tripod Membership
>
> Dear Tripod Member,
> We apologize for the removal of your site over the weekend. Due to some
> technical errors, we mistakenly removed several member sites and are in
> the process of restoring them. We did not single out you or your site,
> please accept our apologies, your site has now been restored.
>
> Sincerely,
> The Tripod Team
>
> --
> http://www.qsl.net/k7on/
> --
>

1776. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 19:58:51 UTC
From: Josh DeWinter <dewinter@wsunix.wsu.edu>
Message-ID: <998cbt$e7ra$1@murrow.murrow.it.wsu.edu>
Source record: 53973

Thanks for your help, guys. I'm getting a little more q'ed in every day.
Maybe one day, I can make something work.

-Josh

1777. FS: EL 34 Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 20:41:55 UTC
From: arnoldg@sf.telia.no
Message-ID: <3ab7bfb9.1101889@news.telia.no>
Source record: 53974
Cross-posted to: rec.radio.amateur.homebrew,rec.antiques.radio+phono

Hello,

I have some Mullard EL 34 valves for sale. All are unused, original packed, only opened by me for inspection. The have double, round getters on the top and the coding is:

9 pcs Xf2 6703 (I guess they are made in March 1967)
These have one pin missing in the base

1 pcs Xf1 B1K
1 pcs Xf1 B1K4
and these have all their pins.

and so there is one valve that are labeled Siemens, but it is obviously a Mullard valve. It is identical to the others and it has a code: Xf2 B7J4

Please give me an offer by e-mail.

Regards,

Arnold Goks�yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

1778. Re: Vacuum tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-20 21:44:13 UTC
From: Bob Weiss <bob.weiss@mail.verizon.net>
Message-ID: <3AB7CF72.FE1EA701@mail.verizon.net>
Source record: 53975
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

At least one old Gonset 2M amp used a pair of them....

Bob Weiss N2IXK

Ron Wicker wrote:

> I have 5 NOS 826 tubes and 3 NOS 829b tubes. These are the military
> versions. Question is what equipment did the 826 go in?

1779. ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 02:51:37 UTC
From: Randy Belcher <psg4u@bellsouth.net>
Message-ID: <8FUt6.389$by2.27616@news2.atl>
Source record: 53976
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Hey, I have a question... has anyone tried the CLIFFDWELLER II antenna?? I'm moving to a small neighborhood and may need to be a bit stealthy... are these any good? What's a good way to stealth an HF antenna? I know the attic is an option, but how good is the setup? will an attic antenna really work that well??? what about commercial vhf and uhf? What about dreaded RF into everything in the house? I have only used an 80m dipole my entire 'career' so any advice on another equally worthwhile setup be it dipole or unobtrusive vertical would be great.
Please email direct and Thanks!
Randy

1780. Re: ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 05:36:59 UTC
From: John
Message-ID: <%5Xt6.2942$n07.133232@newsfeed.intelenet.net>
Source record: 53977
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

its old design go buy 4 slinkys at the toys r us.. and make your own. its a slinky antenna.
"Randy Belcher" <psg4u@bellsouth.net> wrote in message news:8FUt6.389$by2.27616@news2.atl...
> Hey, I have a question... has anyone tried the CLIFFDWELLER II antenna?? I'm
> moving to a small neighborhood and may need to be a bit stealthy... are
> these any good? What's a good way to stealth an HF antenna? I know the attic
> is an option, but how good is the setup? will an attic antenna really work
> that well??? what about commercial vhf and uhf? What about dreaded RF into
> everything in the house? I have only used an 80m dipole my entire 'career'
> so any advice on another equally worthwhile setup be it dipole or
> unobtrusive vertical would be great.
> Please email direct and Thanks!
> Randy
>
>
>

1781. Re: ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 07:18:56 UTC
From: Brenda Ann <brendaannd@uswest.net>
Message-ID: <999kgnbpj1@news1.kornet.net>
Source record: 53978
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Can you still get metal Slinky's???????? I haven't seen anything but plastic ones for years.

1782. Get help for selecting VHF wireless microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 07:42:43 UTC
From: Joshua Lo <joshualo@vtc.edu.hk>
Message-ID: <999le0$eo1$1@dragon.vtc.edu.hk>
Source record: 53979

Hi
Would anybody help me for selecting a suitable VHF wireless microphone?
Because I am using a SONY WCS 900MHz wireless microphone for voice pickup of the speaker during the meeting or sharing, but the performance is not satisfactory.
It is always interfered with the noises, even the distance between the transmitter and receiver is less than 1.5 meters and I have already tested the performance of three sets of this product, the result are the same. Not satisfactory.

I am now want to source for another set of Wireless Microphone (VHF). Would you please refer to the following working condition and the product information to give me some comments and advises?
Does the power of the transmitter have significant difference for 20mW and 50mW for my application?

Working condition: The maximum distance between transmitter and receiver is under
10 meters. (in Hong Kong)
It may have one or two concrete walls and peoples seperating from
the transmitter and the receiver.
Portability: can use bettery for both transmitter and receiver.

Product 1: SAMSON Camcorder VHF wireless microphone
Transmitter : model VT3L, RF Power,20mW;
Receiver: VM1 Double antenna, Single Conversion Super Heterodyne Diversity (I don't know whether it is true diversity or
phase diversity and the actual performance between these two),
sensitivity: =<6 micro volt @ 20dB S/N

Product 2: SHURE Camcorder VHF wireless microphone
Transmitter : model T1, RF Power,50mW;
Receiver: Non-diversity single antenna,
sensitivity: -109dBm (0.8 micro volt @ 12dB SINAD)

I will not consider buying the following product, because it cannot use bettery for the receiver unit. But do you have any comments for the comparison between product 1 & 3. Since there is only the difference between the Receiver Sensitivities and with the same transmitter unit VT3L; and I had the experience (very good performance, without any noise) in using an OLD model SAMSON VHF wireless microphone which is nearly the same as the product 3.

Product 3: SAMSON VHF wireless microphone
Transmitter : model VT3L, RF Power, 20mW;
Receiver: VR3TD Double antenna, Single Conversion Super
Heterodyne Microprocessor True Diversity
Sensitivity: <3 microvolt for 20dB SINAD, < 10 microvolt
for
50dB S/N

1783. Get help for selecting a VHF wireless microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 07:45:25 UTC
From: Joshua Lo <joshualo@vtc.edu.hk>
Message-ID: <999lj3ett1@dragon.vtc.edu.hk>
Source record: 53980

Hi
Would anybody help me for selecting a suitable VHF wireless microphone?
Because I am using a SONY WCS 900MHz wireless microphone for voice pickup of the speaker during the meeting or sharing, but the performance is not satisfactory.
It is always interfered with the noises, even the distance between the transmitter and receiver is less than 1.5 meters and I have already tested the performance of three sets of this product, the result are the same. Not satisfactory.

I am now want to source for another set of Wireless Microphone (VHF). Would you please refer to the following working condition and the product information to give me some comments and advises?
Does the power of the transmitter have significant difference for 20mW and 50mW for my application?

Working condition: The maximum distance between transmitter and receiver is under
10 meters. (in Hong Kong)
It may have one or two concrete walls and peoples seperating from
the transmitter and the receiver.
Portability: can use bettery for both transmitter and receiver.

Product 1: SAMSON Camcorder VHF wireless microphone
Transmitter : model VT3L, RF Power,20mW;
Receiver: VM1 Double antenna, Single Conversion Super Heterodyne Diversity (I don't know whether it is true diversity or
phase diversity and the actual performance between these two),
sensitivity: =<6 micro volt @ 20dB S/N

Product 2: SHURE Camcorder VHF wireless microphone
Transmitter : model T1, RF Power,50mW;
Receiver: Non-diversity single antenna,
sensitivity: -109dBm (0.8 micro volt @ 12dB SINAD)

I will not consider buying the following product, because it cannot use bettery for the receiver unit. But do you have any comments for the comparison between product 1 & 3. Since there is only the difference between the Receiver Sensitivities and with the same transmitter unit VT3L; and I had the experience (very good performance, without any noise) in using an OLD model SAMSON VHF wireless microphone which is nearly the same as the product 3.

Product 3: SAMSON VHF wireless microphone
Transmitter : model VT3L, RF Power, 20mW;
Receiver: VR3TD Double antenna, Single Conversion Super
Heterodyne Microprocessor True Diversity
Sensitivity: <3 microvolt for 20dB SINAD, < 10 microvolt
for
50dB S/N

Thank you very much for your advise in advance!

Regards
Joshua Lo

1784. FREE radio classifieds

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 07:49:42 UTC
From: Jack <poster@gate.net>
Message-ID: <3AB85D16.E56900C@gate.net>
Source record: 53981

http:/www.graphicstouch.com

1785. Re: ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 11:19:50 UTC
From: "Darrell <kg4fbg>" <kg4fbg@onemain.com>
Message-ID: <Kl5u6.2011$ei1.4790715@nntp3.onemain.com>
Source record: 53987
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

If you have a K-Mart store in your area, try them.. I bought mine there for $2 each.. If I remember correctly, each slinky is equal to 65' of straight wire..
"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message news:3ab8ce7f.1235643@news.mindspring.com...
> To follow up on my own post, www.slinkytoys.com has the original metal
> slinky for $3.49. I imagine that shipping and handling are extra. Do
> a web search on "slinky antenna" and you will turn up a couple of
> dozen references.
>
> Russ - kf4wxd
>
> rcnixon@mindspring.com (Russell C. Nixon) wrote:
>
> >Sure, my daughter has a couple that I threaten to turn into antennae.
> >Try the larger toy stores or do a web search.
> >
> >Russ - kf4wxd
> >
> >"Brenda Ann" <brendaannd@uswest.net> wrote:
> >
> >>Can you still get metal Slinky's???????? I haven't seen anything but plastic
> >>ones for years.
> >>
> >>
> >
>

1786. Re: AVOID TRIPOD WEB SERVICES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 11:58:09 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AB89751.AFACB68D@bloomer.net>
Source record: 53982
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space

My dad always told me, "You get what you pay for." I guess since Tripod is free, you can't complain. I keep several pages on Tripod...never had a bit of trouble. I also keep every file on Tripod's site on my computer just in case there is ever a problem. Haven't had to use the backup plan yet and I've been with Tripod for about 3 years now. I guess it's a "sign" you should keep backup files of everything on your computer anyway. You HAVE been doing that haven't you? Ever "lost" anything on your computer at home?

--Scott N0EDV--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

Brian Short wrote:
>
> AVOID TRIPOD WEB SERVICES
>
> Last weekend, Tripod removed all of my web
> pages for "violating their acceptable use policies."
>
> I could not figure what I had done, but I'm not
> one to whine and I moved my pages to:
>
> http://www.qsl.net/k7on/
>
> Now, I receive the following:
>
> Date: Tue, 20 Mar 2001 04:38:43 -0500 (EST)
> From: membership@tripod.com
> X-Authentication-Warning: bos-uhaul1.tripod.com: web set sender to
> membership@tripod.com using -f
> To: k7on@earthlink.net
> subject: Your Tripod Membership
>
> Dear Tripod Member,
> We apologize for the removal of your site over the weekend. Due to some
> technical errors, we mistakenly removed several member sites and are in
> the process of restoring them. We did not single out you or your site,
> please accept our apologies, your site has now been restored.
>

> Sincerely,
> The Tripod Team
>
> --
> http://www.qsl.net/k7on/
> --

--

1787. Re: Sidetone thanks and ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 13:50:44 UTC
From: Tom Repstad <tr@zoo.uvm.edu>
Message-ID: <3AB8B1B4.5A5E7811@zoo.uvm.edu>
Source record: 53983

If you are using the 2N3053 as a driver transistor... you should be able to put the pot between it's base and ground and use that to vary the output level.

You can probably find some "simple audio amp" circuits on the web as an example.

--Tom
K1VG

TC Dufresne wrote:

> Thanks to all who helped with sidetone problem. Ended up using a 555 chip
> and a N3053 transistor. WOW!! Its really loud! Can I use a small variable
> resistor somewhere for volume control? I tried a 1K miniature pot from hot
> side of the speaker but it got real warm (the pot), and it didn't really
> help much. It was either way too quiet or too loud. Was my resistor too big?
> Ideas?
> Tom
> KC0GXX

1788. Eimac SK-640 Screen by-pass at VHF/UHF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 14:58:45 UTC
From: ccox@chopped-ham-filtre.uhc.com.invalid
Message-ID: <99afj5$9u0$1@pike.uhc.com>
Source record: 53984

I picked up an unused SK-640 yesterday. This is the Eimac "Air-Flow"
socket which has NO integral screen by-pass capacitor. Does
anyone have any proven effective methods to adding an external
by-pass allowing the socket to be used in a VHF and/or UHF
4CX250/350/400 valved amplifier?

--
Chris Cox, N0UK/G4JEC NIC Handle: CC345
UnitedHealthGroup, Inc., MN10-W116, UNIX Services & Consulting
6300 Olson Memorial Highway, Golden Valley, MN 55427
email: ccox@uhc.com (work) chrisc@chris.org (home)
A computer without MS Windows is like a dog without bricks
tied to its head.
LINUX - aka Microsoft Windows/NT - The Final Service Pack

1789. Re: ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 15:49:20 UTC
From: rcnixon@mindspring.com
Message-ID: <3ab8cd41.917620@news.mindspring.com>
Source record: 53985
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Sure, my daughter has a couple that I threaten to turn into antennae.
Try the larger toy stores or do a web search.

Russ - kf4wxd

"Brenda Ann" <brendaannd@uswest.net> wrote:

>Can you still get metal Slinky's???????? I haven't seen anything but plastic
>ones for years.
>
>

1790. Re: ADVICE ON ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 15:56:12 UTC
From: rcnixon@mindspring.com
Message-ID: <3ab8ce7f.1235643@news.mindspring.com>
Source record: 53986
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

To follow up on my own post, www.slinkytoys.com has the original metal slinky for $3.49. I imagine that shipping and handling are extra. Do a web search on "slinky antenna" and you will turn up a couple of dozen references.

Russ - kf4wxd

rcnixon@mindspring.com (Russell C. Nixon) wrote:

>Sure, my daughter has a couple that I threaten to turn into antennae.
>Try the larger toy stores or do a web search.
>
>Russ - kf4wxd
>
>"Brenda Ann" <brendaannd@uswest.net> wrote:
>
>>Can you still get metal Slinky's???????? I haven't seen anything but plastic
>>ones for years.
>>
>>
>

1791. Re: Radio Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 21:31:53 UTC
From: wmmutch@anise.ee.cornell.edu
Message-ID: <99b6k9$ea6$1@news01.cit.cornell.edu>
Source record: 53988

In article <3AB562B0.1A80302B@interbulletin.com>,
donotreply@interbulletin.bogus says...
>
>
>Greetings everyone.
>I am interested in building a radio receiver that can receive frequency
>between 43MHz and 46MHz
>
>1)Where can I find circuits on the web for such a receiver?
>
>2)Will a trimmer capacitor work for this receiver or do I need the
>kind of variable (tuning) capacitor that is used in an old radio?
>
Look for circuits for 6 meter ham band recievers and then lower the
operating frequency by adding capacitance to the tuned cirucits.

1792. Re: Variable Capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 21:35:00 UTC
From: wmmutch@anise.ee.cornell.edu
Message-ID: <99b6q4$ea6$2@news01.cit.cornell.edu>
Source record: 53989

In article <3AB5B0E5.2521EF65@interbulletin.com>,
donotreply@interbulletin.bogus says...
>
>
>Where can I purchase wide range variable capacitors online?
>Can anyone recommend some websites that sells them?

Oren Elliott Products, Inc Edgerton OH phone 419-298-2306

has a very interesting line of variable capacitors, both transmitting
and receiving.

>
>Thanks
>_____
>Submitted via WebNewsReader of http://www.interbulletin.com
>

1793. Re: Return loss bridge tradeoffs.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-21 23:55:27 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <GCe5Oh2jcz7mYKF+FsZgMXbZdbAI@wingate>
Source record: 53990
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.misc

On Tue, 20 Mar 2001 19:06:10 +0000 (UTC) Skipp <skipp@pilot.ucdavis.edu>
wrote:

>: I want to build some Return loss bridges for use with my home spectrum
>: analyzer. For use from ~DC-12GHz(dreaming) in various subbands, to test
>: homebrew equippment.
>
>Hi there,
>
>you would be dreaming to cover that large of a bandwidth in one box. most
>of the commercial and better projects limit their ranges to specific
>blocks of bandwidth.

Of course. I haven't any problem to build and use a few of them for each of
the amateur bands, although I wish will be wide enough to look at a couple
of them at a time. The HP one I had used with an scalar analyzer was 'only'
10MHz-26.5GHz if remember well.

(SNIP)

>I've got a few commercial and amateur versions here for my own use, the
>"swrsweep", hp, eagle and a few other oddballs work pretty well. I like
>the predictable nature/responce of the transformer units although they
>tend to have much more drastic problems near their uppper and lower
>frequency limits. I don't have much time to look, but I do have some
>circuit diagrams I could share with you if your patient and want to wait
>for me to dig them out.

I'm not in a hurry. Although probably schematics had missing the very
important constructive details that makes the difference. (and difficult to
duplicate). I appreciate your offer, and will be glad to take a look.
73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

1794. Re: Get help for selecting VHF wireless microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 00:46:24 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <Kwcu6.500$5w6.34671@e420r-sjo2.usenetserver.com>
Source record: 53991

"Joshua Lo" wrote . . .
> I am now want to source for another set of
> Wireless Microphone (VHF). Would you
> please refer to the following working condition
> and the product information to give me some
> comments and advises?

I would be interested in the responses from r.r.a.h, however the people who use these things everyday (and have first-hand user experience and opinions) are probably to be found on news:rec.arts.movies.production.sound

I'm not sure switching from UHF to VHF is a reasonable reaction to your problems with a specific UHF microphone. My Sony UHFs have never given me any problems.

RC

1795. Wanting to start net on HF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 01:34:08 UTC
From: daughert <daughert@chipsnet.com>
Message-ID: <3AB95690.9F1@chipsnet.com>
Source record: 53992
Cross-posted to: rec.radio.amateur.misc;,rec.radio.amateur;,rec.radio.amateur.policy;,rec.radio.amateur.homebrew

Hello i'm looking to start a net on HF called ENET or Experimenters net.
it will open to all those hams who aren't "appliance users" and are into
the experimenting part of ham radio. so what do you think?? do you think
it will go?? and what night should it be on and what band and time???

Todd
N9OGL

1796. Re: Wanting to start net on HF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 02:10:46 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <99bmva09g4@news2.newsguy.com>
Source record: 53994

Todd, I think you're facing an uphill battle, for a number of reasons.

First, the folks who do the most building/experimenting are likely using CW. While I personally love CW, it really isn't the best medium for casual conversation.

Secondly, I think most of the hard core builders operate very little. Many seem to get on the air only long enough to test their latest creation, then it's on to the next thing. These folks are especially unlikely to want to spend a building evening yakking.

Still, you might keep an eye on just how much traffic the Homebrewer's Sprint draws this weekend. Might be a clue as to the audience.

As far as band, there's no right answer. Builders seem to favor 40 (QRM) and 20 (fickle). But no matter which band you choose, you will leave out most, if not for propagation, then for rigs/antennas.

didleydadidah

"daughert" <daughert@chipsnet.com> wrote in message
news:3AB95690.9F1@chipsnet.com...
> Hello i'm looking to start a net on HF called ENET or Experimenters net.
> it will open to all those hams who aren't "appliance users" and are into
> the experimenting part of ham radio. so what do you think?? do you think
> it will go?? and what night should it be on and what band and time???
>
> Todd
> N9OGL

1797. Re: Germainium transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 02:21:26 UTC
From: Charlie <charlie@charlie.net>
Message-ID: <Gkdu6.2023$De3.664987@typhoon.ne.mediaone.net>
Source record: 53993

TK41C wrote in message <20010315163152.25547.00000432@ng-cr1.aol.com>...
>Does anyone know of a source for 2N398B transistors? I tried Surplus Sales
>which listed this item, but they were out of stock.
>
>Any leads would be greatly appreciated.
>
>Best,
>
>J. Ballard

1798. Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 05:45:26 UTC
From: hawaiiansunset@hawaii.rr.com
Message-ID: <3abae118.7831687@news-server.hawaii.rr.com>
Source record: 53995

I just fired up an amplifier I rebuilt with 2 3-500z tubes,
it seems to have a problem - one of the tubes glows slightly red in
the standby position and pulls about 120ma at the same time. When I
transmit I can read on my Bird about 1kw key down.
The other tube in the key down position seems to get somewhat redder
than the other one (the one that gets red and is obviously drawing
plate current). Swapping the tubes from one position to the other does
the same thing. The tube in the rear socket seems to be the one
drawing the 120ma plate current in standby.
I have checked some things but have come up empty.
Can anyone suggest any ideas as to what may be wrong??

Stan
AH6JR

1799. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 06:02:04 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AB9955C.4B3E5628@coqui.net>
Source record: 53996

AH6JR wrote:
>
> I just fired up an amplifier I rebuilt with 2 3-500z tubes,
> it seems to have a problem - one of the tubes glows slightly red in
> the standby position and pulls about 120ma at the same time. When I
> transmit I can read on my Bird about 1kw key down.
> The other tube in the key down position seems to get somewhat redder
> than the other one (the one that gets red and is obviously drawing
> plate current). Swapping the tubes from one position to the other does
> the same thing. The tube in the rear socket seems to be the one
> drawing the 120ma plate current in standby.
> I have checked some things but have come up empty.
> Can anyone suggest any ideas as to what may be wrong??
>
> Stan
> AH6JR

Is this grounded-grid? If so, I'd be suspect of the filament
choke. Another thing that comes to mind is some im-balance(sp) of
the filament voltage or its return, ie bypassing. Another thought
that comes to mind may be some remote sort of parasitic
oscillation affecting one tube by virtue of the wiring
differences.
I'm sure we'd appreciate to know about your findings.
--WX4A
Vieques, PR

1800. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 06:46:10 UTC
From: hawaiiansunset@hawaii.rr.com
Message-ID: <3abaeec4.11332673@news-server.hawaii.rr.com>
Source record: 53847

On Thu, 22 Mar 2001 02:02:04 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:

>AH6JR wrote:
>>
>> I just fired up an amplifier I rebuilt with 2 3-500z tubes,
>> it seems to have a problem - one of the tubes glows slightly red in
>> the standby position and pulls about 120ma at the same time. When I
>> transmit I can read on my Bird about 1kw key down.
>> The other tube in the key down position seems to get somewhat redder
>> than the other one (the one that gets red and is obviously drawing
>> plate current). Swapping the tubes from one position to the other does
>> the same thing. The tube in the rear socket seems to be the one
>> drawing the 120ma plate current in standby.
>> I have checked some things but have come up empty.
>> Can anyone suggest any ideas as to what may be wrong??
>>
>> Stan
>> AH6JR
>
>Is this grounded-grid? If so, I'd be suspect of the filament
>choke. Another thing that comes to mind is some im-balance(sp) of
>the filament voltage or its return, ie bypassing. Another thought
>that comes to mind may be some remote sort of parasitic
>oscillation affecting one tube by virtue of the wiring
>differences.
>I'm sure we'd appreciate to know about your findings.
>--WX4A
>Vieques, PR
>

Yes it is grounded grid - I did find the problem -
I had put some added circuitry in it - per Richard Measures
I found a defective resistor the resistor is a 30 Ohm 1/2 watt in
parallel with a 1800pf cap.
This resistor is on both sockets what it does is act as a fuse
protecting the grid from excessive current. And also help to equalize
the signal condition currents in two unmatched 3-500Z's.
The R/C parallel network puts the grid at rf ground.
I missed it because the resistor had cracked and I didnt see it.
What I failed to do was measure that one with my meter.
Some days you win some days you lose.

Stan
AH6JR

1801. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 08:18:19 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <fziu6.25149$tk.2370221@afrodite.telenet-ops.be>
Source record: 53848

>You can build a perfectly useable HF
> receiver with nothing more than a 602 and an audio amplifier. For
learning
> purposes, it's a great little part.

WB8RCR is right: with the 602/612 you kan make a single conversion receiver, add some coils (filter) - diodes - resistors - capacitors (detector) and you have a AM receiver that is a copy of the block schematic diagram. This was a practical test in the lab back in school...

Just download the datasheets from one of the manufacturer's websites, there you find all info you'll need.

PS: don't compare the specs of this with hi-end receivers hi...

73 de Franki ON4CLN
http://www.qsl.net/on4cln/

1802. Stress and depression

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 09:26:18 UTC
From: japwak1@yahoo.com
Message-ID: <EE09ECC.2BB0DDC2.bb75d1387882cc834852c9cab67479de@yahoo.com>
Source record: 53939

Hi

Stress affects us all at sometime or another-I suffered for months with the out of work, family to support life is a bitch routine. Last month someone recommended a book to me called High Anxiety. It really is stuffed full of useful information, much of it webbased all of it good down to earth help. It also covers phobias and depression.
You can get more info from

mailto: highanxiety@getresponse.com

If it is relevent have a look.

Regards

Philip Wakefield

1803. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 12:06:28 UTC
From: 2w8ji@akorn.net
Message-ID: <3ab9e69e.135492792@news.accessunited.com>
Source record: 53849

On Thu, 22 Mar 2001 06:46:10 GMT, hawaiiansunset@hawaii.rr.com (AH6JR) wrote:

>Yes it is grounded grid - I did find the problem -
>I had put some added circuitry in it - per Richard Measures
>I found a defective resistor the resistor is a 30 Ohm 1/2 watt in
>parallel with a 1800pf cap.
>This resistor is on both sockets what it does is act as a fuse
>protecting the grid from excessive current.

Conventional resistors are next to worthless in fuse applications, especially this one. That's why we have circuit breaker panels and fuse panels not resistor boxes in our houses and cars.

Even fuses, which are designed to fuse circuits, require more time time to blow than the grid takes to fail. They mainly prevent fires. The saving grace is the 3-500Z has a very tough grid that rarely catches fire.

If you want to protect for excessive grid current, you need an electronic overload.

The resistor (and the rest of that black-magic) is just "hand-waving". For example, grid current runs about 100 mA per tube. That's 3 volts drop on peaks (time averaged by the capacitor over the RF cycle) out of maybe 60 volts or more of peak grid-to-filament RF voltage swing while the tube is in conduction. That will hardly offset any tube emission variations.

73 Tom

1804. Need manual for Icom IC 730

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 12:42:43 UTC
From: Ron Wicker <ronwick@flash.net>
Message-ID: <6rmu6.833$pD6.275807270@newssvr16.news.prodigy.com>
Source record: 53850
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.shortwave,rec.radio.swap

I need a service and operation manual for the IC 730 transceiver. Let me know what you have and how much.
Ron, AA5NI.......

1805. FA Vacuum Relay Assembly, SPDT, N Connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 13:32:46 UTC
From: John Klewer <n6ax@pacbell.net>
Message-ID: <3AB9FEFE.78CDD212@pacbell.net>
Source record: 53851
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Very unusual SPDT relay...dual vacuum relays, 24 VDC coils, includes mating connector in new condition. See the photographs. With type N connectors.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1222419965

1806. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 16:49:05 UTC
From: hawaiiansunset@hawaii.rr.com
Message-ID: <3abb7e4f.5877745@news-server.hawaii.rr.com>
Source record: 53852

On Thu, 22 Mar 2001 12:06:28 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>On Thu, 22 Mar 2001 06:46:10 GMT, hawaiiansunset@hawaii.rr.com (AH6JR)
>wrote:
>
>>Yes it is grounded grid - I did find the problem -
>>I had put some added circuitry in it - per Richard Measures
>>I found a defective resistor the resistor is a 30 Ohm 1/2 watt in
>>parallel with a 1800pf cap.
>>This resistor is on both sockets what it does is act as a fuse
>>protecting the grid from excessive current.
>
>Conventional resistors are next to worthless in fuse applications,
>especially this one. That's why we have circuit breaker panels and
>fuse panels not resistor boxes in our houses and cars.
>
>Even fuses, which are designed to fuse circuits, require more time
>time to blow than the grid takes to fail. They mainly prevent fires.
>The saving grace is the 3-500Z has a very tough grid that rarely
>catches fire.
>
>If you want to protect for excessive grid current, you need an
>electronic overload.
>
>The resistor (and the rest of that black-magic) is just "hand-waving".
>For example, grid current runs about 100 mA per tube. That's 3 volts
>drop on peaks (time averaged by the capacitor over the RF cycle) out
>of maybe 60 volts or more of peak grid-to-filament RF voltage swing
>while the tube is in conduction. That will hardly offset any tube
>emission variations.
>
>73 Tom

Tom you might want to take this discussion to Richard Measures.
This little network came from him.

Stan
AH6JR

1807. NEED: Vol/Sq knobs-Azden 5000

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 17:04:02 UTC
From: dxradio@k4uga.tsars.uga.edu
Message-ID: <99dba2$8cd$2@cronkite.cc.uga.edu>
Source record: 53853

The faithful old Azden 5000 got dropped during the move
to a new house. I need the Volume and Squelch knobs
that broke. Anyone have a dead Azden 5000 carcass on hand that
might be able to help me? Have not been able to find anyone
who repairs/sells new parts for it.

Thanks,
Bill

1808. Re: Stress and depression

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 17:43:30 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC807C2DBF1@www.premiersi.com>
Source record: 53854

Loved the movie, havn't read the book.

<japwak1@yahoo.com> wrote in message
news:EE09ECC.2BB0DDC2.bb75d1387882cc834852c9cab67479de@yahoo.com...
> Hi
>
> Stress affects us all at sometime or another-I suffered for months with
the out of work, family to support life is a bitch routine. Last month
someone recommended a book to me called High Anxiety. It really is stuffed
full of useful information, much of it webbased all of it good down to earth
help. It also covers phobias and depression.
> You can get more info from
>
> mailto: highanxiety@getresponse.com
>
> If it is relevent have a look.
>
> Regards
>
> Philip Wakefield
>

1809. FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 18:03:31 UTC
From: Ash <ash@gravitywell.org>
Message-ID: <3ABA3E71.E4AE8A08@gravitywell.org>
Source record: 53855
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Hi,
at the moment I'm using a 0.01-1300mhz (Icom PCR1000) scanner hooked up
to the IF output of my Icom R-8500, but it feels like a waste of a decent scanner
to ONLY use it set to 10.7mhz FM 50khz filter.
I only use it for decoding data such as wefax, so I'd like to substitute the pcr1000
with a simple fm radio for 10.7mhz and 35-50khz bandwith.
Anyone got any schematics for a simple radio suited for this purpose or got any
other suggestions?

//Greg.

1810. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 18:20:02 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9bkgih.qva.QSB@animas.frontier.net>
Source record: 53856
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Thu, 22 Mar 2001 18:03:31 GMT, Ash scribbled:
>Hi,
>at the moment I'm using a 0.01-1300mhz (Icom PCR1000) scanner hooked up
>to the IF output of my Icom R-8500, but it feels like a waste of a decent scanner
>to ONLY use it set to 10.7mhz FM 50khz filter.
>I only use it for decoding data such as wefax, so I'd like to substitute the pcr1000
>with a simple fm radio for 10.7mhz and 35-50khz bandwith.
>Anyone got any schematics for a simple radio suited for this purpose or got any
>other suggestions?

Aren't most broadcast FM receivers simply 10.7 mcs. receivers
with a tunable 88-108 mcs. converter at the front end?

Just thinkin' outside the box here....

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

1811. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 19:00:10 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.15245c262773c04098969b@news.earthlink.net>
Source record: 53857
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

```
> Aren't most broadcast FM receivers simply 10.7 mcs. receivers
> with a tunable 88-108 mcs. converter at the front end?

Perhaps, but the bandwidth is much more than 50kHz.

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--
```

1812. Re: Wanting to start net on HF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 19:05:33 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <udid99.48r.ln@localhost.localdomain>
Source record: 53860
Cross-posted to: rec.radio.amateur.misc;,rec.radio.amateur;,rec.radio.amateur.policy;,rec.radio.amateur.homebrew

daughert wrote:

> Hello i'm looking to start a net on HF called ENET or Experimenters net.
> it will open to all those hams who aren't "appliance users" <snip>

Followup set to r.r.a.homebrew

You will need the help of a few others to get things started. You
will have to use bands that provide reliable propagation. I
would suggest 40M during daylight hours, 80M in the late
afternoon or evening or 160M late at night.

For UK and west European amateurs, there is a good homebrew
net on 3.727MHz SSB. Most but not all of the regulars are
running homebrew rigs.

Some people will say that you probably won't find enough
homebrewers to keep a net going. I'm a bit more optimistic,
there seems to be resurgence of interest in homebrewing
recently.

If you can't find any homebrewers in N9 land, turn your
beam towards EI. I'm on 28.985MHz SSB, most Sundays
at 15:00, 16:00 or 17:00 UTC.

Good Luck.

Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1813. Re: Stress and depression

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 19:08:47 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <vjid99.48r.ln@localhost.localdomain>
Source record: 53861

It is so stressful when your new solid state PA keeps
oscillating. The other thing that stresses me out is
reading SPAM so EFF OFF!

Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

1814. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 21:00:16 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <99dpe601di8@news1.newsguy.com>
Source record: 53858
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

So why not take an old and/or cheap FM radio, whack off the front end, and replace it with a 10.7 MHz crystal or ceramic resonator. You might have to screw up the Q a little to get it that wide, but it shouldn't be too tough. Just what sort of shape factor are you looking for? If you don't need the skirts to be too steep, shouldn't be so hard to come up with an LC filter to get it down to 35-50 KHz.

Of course, I'm thinking WEFAX signals shouldn't be quite that wide, so maybe you could go narrower. It certainly is simple enough to do.

didleydadidah

"Brian Short" <k7on@earthlink.net> wrote in message
news:MPG.15245c262773c04098969b@news.earthlink.net...
>
> > Aren't most broadcast FM receivers simply 10.7 mcs. receivers
> > with a tunable 88-108 mcs. converter at the front end?
>
> Perhaps, but the bandwidth is much more than 50kHz.
>
> --
> mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
> --

1815. RCA 931-A 72-52 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 22:07:24 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <99dt0a$k2m$1@news.inet.tele.dk>
Source record: 53859
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Hi all,
I have this RCA 931-A 72-52 tube, but I cannot find any links, or info on.
Can Anyone direct me to some sitez or give me some data on it eventually
scan a datasheet for me. Thank You,
Adry
P.S.: It's supposed to be a 'decathron' class tube, som sort of a counting
tube or what

1816. Re: Mods TS130S Warc??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 22:57:38 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA8362.10CA7323@erols.com>
Source record: 53862

Get out your operating manual. Of you don't have one, beg, buy, or steal one. The complete instructions are in there. It only involves removing a single jumper wire. You can do it without taking the radio out of its case!

73

1817. Re: finding inductance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:02:55 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA849F.5D9E48F8@erols.com>
Source record: 53863

Theosus,

Inductance measurements are difficult to do. You can purchase an L/C meter from AADE which will do it over a limited range. Perhaps the best way to do it is to connect the inductance in parallel with a known capacitor and "grid dip" the whole mess. The inductance can be calculated this way. The technique is only an approximation because it depends on the precision of your capacitor! But it will give you close information. Accurate inductance values are not often needed anyway. that is why trimmer capacitors were invented!

73

1818. Re: cw id circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:04:46 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA850E.36CA2777@erols.com>
Source record: 53864

Gary,

Look in almost any issue of 73 or QST (I think) around 1975 to 1980 and
you will find them.

73

1819. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:06:25 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA8571.37EAAF80@erols.com>
Source record: 53865

Brian,

Read them as 5p6 = 56pf, 7p5 as 75 pf. Purchasing a copy of the RSGB Handbook will also help!

73

73

1820. Re: RCA 931-A 72-52 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:09:29 UTC
From: j.m.franke@larc.nasa.gov
Message-ID: <j.m.franke-2203011809290001@franke.larc.nasa.gov>
Source record: 53867
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

In article <99dt0a$k2m$1@news.inet.tele.dk>, "Adrian Shephard"
<jadernyj@podvodnik.cz> wrote:

> Hi all,
> I have this RCA 931-A 72-52 tube, but I cannot find any links, or info on.
> Can Anyone direct me to some sitez or give me some data on it eventually
> scan a datasheet for me. Thank You,
> Adry
> P.S.: It's supposed to be a 'decathron' class tube, som sort of a counting
> tube or what

It is an eleven pin multistage photomultier tube. It has a photocathode
and multiple stages of dynodes for amplification.

Start looking at:

http://www.wps.com/archives/tube-datasheets/Datasheets/RCA-CRPD-105A/6.JPG

John

1821. Re: Changing crystals (to another freq) safe?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:11:30 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA86A2.415A2DB6@erols.com>
Source record: 53866
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

There is more to crystal frequency than just the number printed on the crystal can. First, are both radios using the same "fundamental" frequencies? If they are not, changing one will leave you dangerously off frequency and may damage the radio. Second,. will the 161 ,Hz radio require realignment to work properly at 144 mHz? That is a long way to shift frequency! I would recommend you take the radio you want to recrystal to a real repair shop and have it done there!

73

1822. Re: Toko Inductor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:16:45 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA87DD.8A9A28B3@erols.com>
Source record: 53868

Sam,

The BKANK nomenclature is uniquely George's. He has been using it for at least 5 years and I have never found a US equivalent! I would suggest looking in the Digi-Key catalog under variable inductors and going from there! You can match the inductance values and Q's pretty well. Other ideas? Send George an email, he's a very friendly guy!

73

1823. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-22 23:26:17 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3ABA8A19.39406939@erols.com>
Source record: 53869

Josh,

Mixers ar the most important part of a radio. Properly designed they can eliminate spurious signals. Badly designed they will let the spurious signals abound!

The NE602 is an easy mixer to work with. It is unfortunately no longer in production so finding some may be difficult. It has been replaced by the SA602, made by Signetics. These may also be difficult to find in through hole mount types. Also look at Radio Shack for any of the above and or the SA612 mixer. You may luck out.

Then read up on mixers and the mixing process in the Radio Amateur's Handbook. Don't have one? They are almost the bible of easy to understand radio explanations.

Mixers take two frequencies and add and subtract them. The reason you cant see them on a scope is you have no input frequency selectivity. If both frequencies are within the scope's frequency range you will see a mish-mash of both traces! Use a receiver that covers both frequencies. Say you mixed 4 mHz and 6 mHz. You would have a sum product at 1- mHz and a difference product at 2 mHz, along with the original 4 and 6 mHz signals! YOu may also have higher frequency products as well.

A trip through the ARRL Handbook and a pad of paper will start you on your way!

73

1824. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 00:14:43 UTC
From: 2w8ji@akorn.net
Message-ID: <3aba9478.180004791@news.accessunited.com>
Source record: 53870

On Thu, 22 Mar 2001 16:49:05 GMT, hawaiiansunset@hawaii.rr.com (AH6JR)
wrote:

>Tom you might want to take this discussion to Richard Measures.
>This little network came from him.
>
>Stan
>AH6JR

Only people trying to understand how things actually work are worth
talking to.

73 Tom

1825. FS / FT Heathkit ultramatic keyer SA5010

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 04:13:48 UTC
From: k5bdz@aol.com
Message-ID: <20010322231348.13275.00000938@ng-fi1.aol.com>
Source record: 53871

For Trade - or sell
Heathkit ultramatic keyer model SA 5010, including Heath "wall wart" power supply - both handles and all in apparently good shape - very little use...with manual. (I bought it over 10 years ago and it's been sitting in a drawer ever since.) Tag on bottom says it was serviced by Heath 3-30-82 in Benton Harbor Mich.

Want some QRP stuff in trade - to include maybe a transceiver in any condition, from kit to unfinished kit to fully built (prefer SSB xcvr but CW also OK) or what have you.
Parts I have plenty of so don't need them.

Will Sell - Offers? Please reply direct.

Bill K5BDZ
K5BDZ@aol.com

1826. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 05:20:11 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10103222356060.14475-100000@Gloria.CAM.ORG>
Source record: 53872
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Thu, 22 Mar 2001, Ash wrote:

> Hi,
> at the moment I'm using a 0.01-1300mhz (Icom PCR1000) scanner hooked up
> to the IF output of my Icom R-8500, but it feels like a waste of a decent scanner
> to ONLY use it set to 10.7mhz FM 50khz filter.
> I only use it for decoding data such as wefax, so I'd like to substitute the pcr1000
> with a simple fm radio for 10.7mhz and 35-50khz bandwith.
> Anyone got any schematics for a simple radio suited for this purpose or got any
> other suggestions?
>
> //Greg.
>

The simplest solution would be to extract the IF strip from an existing narrow-band FM receiver. Scanners, some cordless phones, 49MHz superhet walkie talkies, two-way radio receivers, and cellphones, will have FM IF strips intended for narrow band use. Consumer items are likely to have a 10.7MHz IF (though some of the cordless phones that I've looked at go from 49MHz directly to 455KHz), cell phones may skip 10.7MHz, and I've seen plenty of oddball IFs in two-way radio receivers.

But in any of these, you'll get the circuitry or even a module that takes in 10.7MHz at one end and gives you audio at the other. You get the IC and some filters, and since many convert to 455Khz, you'll also get the crystal to do the conversion. Many of the devices do the whole thing in one IC, like the Motorola MC3359.

They are probably better choices than converting the IF strip from an FM broadcast receiver. You'll get squelch, and a discriminator intended for narrow deviation.

Of course, it doesn't solve your filter problem in this particular case. The consumer items I've looked at use a 3-pin ceramic filter at 10.7MHz, though I haven't tracked down the bandwidth. I assume it isn't narrow, intended more for image rejection, but one could hope that it might be narrower than those used in broadcast receivers.

You could try to dig up a wideband 10.7MHz filter; there was a time when 30KHz was common deviation. Or maybe someone still manufacturers one that isn't too costly. I suppose then you'd bypass the 455KHz filter, put an IF transformer to get rid of unwanted output from the mixer stage.

You could stay with the existing 10.7MHz filter, but then dig up a wider 455KHz filter. Hopefully something nice and small, but

again one could dig in an old two-way radio for it's filter.

Or just get by with an IF transformer instead of the 455Khz filter,
or if you need something better, go with few coupled transformers.

There was an article in 73 magazine some years back about widening
a scanner for satellite reception. I forget the exact details,
but he basically did something like bypass the 455Khz ceramic
filter.

ON a whole different path, in North America television audio
is an FM subcarrier, and the frequency is 4.5MHz. I forget the
amount of deviation, but it is less than used in FM broadcast.
If the bandwidth isn't too much more than needed, it might
work out okay. Put a mixer ahead of it to convert from 10.7MHz,
and pop the sound module out of a tv set. I've even seen some
tv sound modules with 4.5Mhz ceramic filters.

Michael VE2BVW

1827. Re: Toko Inductor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 07:31:41 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <O$780XCdvvu6EADf@ifwtech.plus.net>
Source record: 53874

Bruce Muscolino wrote:
>
>
>Sam,
>
>The BKANK nomenclature is uniquely George's.

The BKANK series are genuine TOKO numbers, stamped on the can. They are not alternative numbers for something else, and they have their own listings in full the TOKO catalog.

>He has been using it for
>at least 5 years and I have never found a US equivalent!

All that means is, no-one in the USA imports those particular TOKO parts.

> I would
>suggest looking in the Digi-Key catalog under variable inductors and
>going from there! You can match the inductance values and Q's pretty
>well. Other ideas?

To help find a near-equivalent that is imported into the USA, the British importer's full TOKO catalog is at www.bec.co.uk
BEC would also sell to you direct.

>Send George an email, he's a very friendly guy!

He certainly is, but you can probably handle this one yourself.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1828. FS: Pair of Eimac 3-500Z's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 07:32:49 UTC
From: foxblaine@aol.com
Message-ID: <20010323023249.27177.00000812@ng-ch1.aol.com>
Source record: 53873

Greetings...

I took a pair of Eimac 3-500Z's in partial trade for a rig I had.
Previous owner reports full power output from tubes with very low hours. I
have no way to adequately check them. Visually, they look good, with no sign
of internal gassing. In fact, they look beautiful! If interested I can take a
couple of digital pics and send them to you. Looking for best offer for the
pair above $250, and shipping will be via USPS Priority Mail. They will be
packaged VERY carefully and insured and guaranteed against breakage.
Unfortunately, that is the only guarantee I can offer. Payment via PayPal.com,
as I have obligations I have to pay via Paypal for purchases I have made and
need the money there. Make me an adequate offer and I'll get 'em in tomorrow's
mail! They are currently of no use to me, and I could use the money elsewhere.
Will take offers thru Midnight 03/23/01 CST. Highest offer gets 'em pending
payment via PayPal.com! I have a nearly impeccable track record here on the
NewsGroups, as well as the Ham classified sites and eBay under screen names:
N9LXX, blainefox, and fox7498!

73, es gud luck~~~

R. Blaine Fox (N9LXX)
Beloit, WI

1829. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 07:58:16 UTC
From: hawaiiansunset@hawaii.rr.com
Message-ID: <3abc52f2.12867455@news-server.hawaii.rr.com>
Source record: 53875

On Fri, 23 Mar 2001 00:14:43 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>On Thu, 22 Mar 2001 16:49:05 GMT, hawaiiansunset@hawaii.rr.com (AH6JR)
>wrote:
>
>>Tom you might want to take this discussion to Richard Measures.
>>This little network came from him.
>>
>>Stan
>>AH6JR
>
>Only people trying to understand how things actually work are worth
>talking to.
>
>73 Tom

When I worked for one of the large telecoms we had some equipment
with some little devices called fusistors. Transistors that operated
as fuses to protect sensitive equipment. I guess you'll never see
these in a fuse box in your house.

Stan
AH6JR

1830. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 08:57:50 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <99f3ah$120$1@news8.svr.pol.co.uk>
Source record: 53876

I just bought the last 602's off a dealer in the UK, and he is now selling 612's - he didn't say that the 612's were coming to an end, should they should be OK to get.

I was intending to build a 40m CW transmitter driven from the VFO of my old Yaesu FRDX400 (tunes 5.4 - 4.9MHz) thinking that the 602 was just the job. I'm planning on 10W out maximum. Is the 602 a good choice?

Chas

"WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote in message news:997m6q02mkh@news1.newsguy.com...
> OK, Bill talked about the output, let me talk about the chip.
>
> The NE/SA 602/612 is a good part, and it's not. Like so many things, it all
> depends.
>
> Recently, the 602 has been hard to get, but you can get them. They are
> cheap, easy to use, and very sensitive. For most HF applications you can
> take your antenna through a bandpass filter and straight into the 602 with
> no amplification. You can simply attach a crystal or LC network to the 602
> and use it's internal oscillator. You can build a perfectly useable HF
> receiver with nothing more than a 602 and an audio amplifier. For learning
> purposes, it's a great little part.
>
> You will see NE602, SA602 and SA612 parts. For practical purposes, they are
> all the same.
>
> Basically, there are 2 kinds of mixers in common use, ring diode and Gilbert
> cell. The Gilbert cell mixers are more complicated internally but easier to
> apply. The only other Gilbert cell mixer I know of is a 1496 which is a lot
> messier to use than the 602.
>
> Ring diode mixers are a lot more expensive than the 602, although you can
> build one from 4 diodes and a couple of ferrite cores. The problem with a
> diode mixer is that you generally need to provide more amplification going
> into the mixer, which results in more power consumption. Most of the QRP
> rigs that use 602's are after the low power consumption because people

often
> run these radios off batteries.
>
> The big downside of the 602 is that it suffers horribly from IMD.
Depending
> on your application this may not be much of a problem, and you can reduce
> the problem with a good front end filter. For experimentation it's really
> not much of an issue. Some very fine radios use the 602. Check out the
> schematics (online) for the SW-40+, the Norcal SMK-1, and the Elecraft K1
> for some examples.
>
> hope this helps
> didleydadidah
>
>
> "Josh DeWinter" <dewinter@wsunix.wsu.edu> wrote in message
> news:997f2o$doo5$1@murrow.murrow.it.wsu.edu...
>
> > some schematics I have seen, and noticed a mixer, the NE602, which is
used
> > several times in the design of radios by the Wilderness radio company.
Is
> > this unit a good one to get ahold of to toy with for learning purposes?
> And
>
>
>

1831. WTD: Schematic for FTDX400/401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 09:06:10 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <99f3q4tub1@news5.svr.pol.co.uk>
Source record: 53877

I'm in need of a copy of the schematic so that I can understand what mixer frequencies /stages were used to match to the FRDX400 VFO output for transceive operation.

Chas

1832. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 11:25:46 UTC
From: k3ky@erols.spamnocom
Message-ID: <3abb31ac.187768545@news.erols.com>
Source record: 53878

Er- Isn't 5p6 a 5.6pF unit? And likewise 7p5 a 7.5pf?
That is the components labeling convention that I am
familiar with. I would expect a 56pF unit to be labeled
56p. Help me out, guys- who has it right here?
Maybe they do it different in the EU.
73, David K3KY

On Thu, 22 Mar 2001 18:06:25 -0500, Bruce Muscolino <w6toy@erols.com>
wrote:

>
>
>Brian,
>
>Read them as 5p6 = 56pf, 7p5 as 75 pf. Purchasing a copy of the RSGB
>Handbook will also help!
>
>73
>
>73

1833. Re: WTD: Schematic for FTDX400/401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 12:13:30 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3ABB3DEA.A5F23CD3@powerup.com.au>
Source record: 53879

Try:

http://krasnodar.online.ru/hamradio/sch.htm

I thought I saw it there.

Cheers.
Chas wrote:
>
> I'm in need of a copy of the schematic so that I can understand what mixer
> frequencies /stages were used to match to the FRDX400 VFO output for
> transceive operation.
>
> Chas

--
****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

1834. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 13:09:30 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <DFoWoJBKs0u6EARR@ifwtech.plus.net>
Source record: 53880

K3KY wrote:
>Er- Isn't 5p6 a 5.6pF unit? And likewise 7p5 a 7.5pf?
>That is the components labeling convention that I am
>familiar with. I would expect a 56pF unit to be labeled
>56p. Help me out, guys- who has it right here?

You do.

>Maybe they do it different in the EU.

On the contrary, this system come out of Europe - many US readers have never seen it.

>>
>>Brian,
>>
>>Read them as 5p6 = 56pf, 7p5 as 75 pf.

That is WRONG!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1835. good low distortion DC output mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 14:45:08 UTC
From: Marc Battyani <Marc.Battyani@fractalconcept.com>
Message-ID: <99fonc$6lp$1@reader1.fr.uu.net>
Source record: 53881

I'm looking for a low distortion, low noise active mixer with DC compatible
output (lo from 1kHz to 15MHz)
So far I use AD831 devices but they are old and bulky.
Are there new ones that are as good or better in a smaller form factor ?

Thanks

Marc

1836. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 14:50:54 UTC
From: 2w8ji@akorn.net
Message-ID: <3abb5cdd.231314093@news.accessunited.com>
Source record: 53882

On Fri, 23 Mar 2001 07:58:16 GMT, hawaiiansunset@hawaii.rr.com (AH6JR)
wrote:

>When I worked for one of the large telecoms we had some equipment
>with some little devices called fusistors. Transistors that operated
>as fuses to protect sensitive equipment. I guess you'll never see
>these in a fuse box in your house.
>
>Stan
>AH6JR

Fusistors are fused resistors, not transistors. Transistors are
semiconductors, and when they fail they normally fail shorted.
We want a conductor in a fuse, so it fails open, not a semi-conductor.

Fusistors are slow operating-time fuses. They are for extended
overloads for long periods of times, and ignore transients. They also
drop voltage (since they have noticable resistance). That's why we
don't see them in common applications where fuses are required.

Using a resistor as a fuse to protect a control grid is a waste of
time. Conventional fast-blow fuses are too slow to protect grids,
resistors would be a terrible choice.

Also, you NEVER want the grid of a tube to float. There are two major
problems caused by that.

First, assume the tube has a gas-related arc (very common in power
grid tubes used in PA's). The arc is normally from the anode to the
grid. If the grid is allowed to rise to the anode supply rail, the
transient simply dumps to the cathode. Anything connected to the
cathode circuit, including your expensive radio, can be damaged.

If the grid is firmly clamped to ground, it severes as a barrier to
prevent dumping full anode voltage to the cathode during a fault.

Second, if the resistor opens the tube may have enough leakage from
the anode to the grid to forward bias the tube. This is common in
large power grid triode tubes operated at high voltage.

73 Tom

1837. Re: Cap help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 14:59:45 UTC
From: 2w8ji@akorn.net
Message-ID: <3abb63f6.233131467@news.accessunited.com>
Source record: 53883

On Thu, 22 Mar 2001 18:06:25 -0500, Bruce Muscolino <w6toy@erols.com>
wrote:

>
>
>Brian,
>
>Read them as 5p6 = 56pf, 7p5 as 75 pf. Purchasing a copy of the RSGB
>Handbook will also help!
>
>73

It would help everyone, especially since:

5p6 is 5.6 pF

7p5 is 7.5 pF

73 Tom

1838. Re: FS: Pair of Eimac 3-500Z's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 15:14:13 UTC
From: 2w8ji@akorn.net
Message-ID: <3abb6710.233925297@news.accessunited.com>
Source record: 53884

On 23 Mar 2001 07:32:49 GMT, foxblaine@aol.com (R. Blaine Fox) wrote:

>Greetings...
>
> I took a pair of Eimac 3-500Z's in partial trade for a rig I had.
>Previous owner reports full power output from tubes with very low hours. I
>have no way to adequately check them. Visually, they look good, with no sign
>of internal gassing.

You can not look at a tube, and tell it has no internal gas. You can
not tell if the tube is good.

I would think a responsable person would check the tube, before
selling it for money with and offering no warranty. Unless it was sold
for next to nothing.

73 Tom

1839. preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 15:23:15 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABB6A62.E97DE522@toast.net>
Source record: 53885

One time, I made a preselector for hf, using information from arrl literature, toroids, a dual ganged variable capacitor, and a bandswitch. It occurs to me that it would be fun make one that would tune electronically, controlled by a computer. What are good types of varactor diodes, and what tuning range could be expected from them?

john

1840. vfo wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 15:54:00 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3abb719b$0$62143$2c3e98f8@news.voyager.net>
Source record: 53886

i am looking for a ha6 vfo to use with my collection of xtal controled boatanchors but would be interested in others as well. i can also work with paypal for payment if necessary
tks ken w8ob

1841. Re: Wanting to start net on HF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 16:54:52 UTC
From: Adam Adkins <km5nNoSpam@earthlink.net>
Message-ID: <MPG.15253c15734418d5989684@news.earthlink.net>
Source record: 53887

[This followup was posted to rec.radio.amateur.homebrew and a copy was sent to the cited author.]

In article <99bmva09g4@news2.newsguy.com>, wb8rcr_NOSPAM@qsl.net says...

> Still, you might keep an eye on just how much traffic the Homebrewer's
> Sprint draws this weekend. Might be a clue as to the audience.

Homebrewer's Sprint? Sounds interesting, any place to find more information?

Thanks!

73,

Adam, KM5N

1842. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 16:55:18 UTC
From: hawaiiansunset@hawaii.rr.com
Message-ID: <3abcc9e5.4307007@news-server.hawaii.rr.com>
Source record: 53888

On Fri, 23 Mar 2001 14:50:54 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>On Fri, 23 Mar 2001 07:58:16 GMT, hawaiiansunset@hawaii.rr.com (AH6JR)
>wrote:
>
>>When I worked for one of the large telecoms we had some equipment
>>with some little devices called fusistors. Transistors that operated
>>as fuses to protect sensitive equipment. I guess you'll never see
>>these in a fuse box in your house.
>>
>>Stan
>>AH6JR
>
>Fusistors are fused resistors, not transistors. Transistors are
>semiconductors, and when they fail they normally fail shorted.
>We want a conductor in a fuse, so it fails open, not a semi-conductor.
>
>
Well believe it or not thats what we were told they were.
In fact the packaging was that of a to-5 device.
3 leads only use a certain 2.

>Fusistors are slow operating-time fuses. They are for extended
>overloads for long periods of times, and ignore transients. They also
>drop voltage (since they have noticable resistance). That's why we
>don't see them in common applications where fuses are required.
>
>Using a resistor as a fuse to protect a control grid is a waste of
>time. Conventional fast-blow fuses are too slow to protect grids,
>resistors would be a terrible choice.

The resistor acts as a fuse to protect the grid from excessive
current. This resistor has a cap in parallel with it. The bypass C
protects the resistor from RF-voltage. The grid is RF grounded through
this network.
>
>Also, you NEVER want the grid of a tube to float. There are two major
>problems caused by that.
>
>First, assume the tube has a gas-related arc (very common in power
>grid tubes used in PA's). The arc is normally from the anode to the
>grid. If the grid is allowed to rise to the anode supply rail, the
>transient simply dumps to the cathode. Anything connected to the
>cathode circuit, including your expensive radio, can be damaged.
>

>If the grid is firmly clamped to ground, it severes as a barrier to
>prevent dumping full anode voltage to the cathode during a fault.
>
>Second, if the resistor opens the tube may have enough leakage from
>the anode to the grid to forward bias the tube. This is common in
>large power grid triode tubes operated at high voltage.
>
>73 Tom

You have excellent points here Tom, but as I said maybe you need
to talk to Richard Measures.

Stan
AH6JR

1843. radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 17:00:45 UTC
From: aduffy@sprint.ca
Message-ID: <3ABB813D.2FBAB5A7@sprint.ca>
Source record: 53889

Does anyone have an idea of the effect of using copper strips instead of

the commonly used copper pipe to construct a loop antenna for 80m? ie
the effect on bandwidth etc. The 2 strips I have are 4.5" wide (there
is also safety edges on them) and 8' long for the main loop. This would
basically be just under the equivalent to a 1.5" dia pipe slit and
flattened. But you would have 2 radiating surfaces exposed as opposed to

1.

The reason I'm asking so I can modify a nice design I've come across to
compensate for the difference if any (smaller circumference etc).

Also would it be better to induction feed the loop using the same flat
material (if I'm correct in my assumption on how it works). Or to direct

connect as I've seen in other plans (with some form of matching setup).

Also I was wondering if it was necessary to mount the "tuning capacitor"

inside the loop or can it be mounted outside without changing any
properties of the loop (I don't know if there is any interaction of the
capacitor and the antenna or not)

And finally any ideas on controlling the cordless screwdriver to reduce
it's rpm without using gear reduction (if possible). I already have an
idea to limit rotation to a half rev but don't want the thing to rotate
in half a sec or less! :-)

Thanks in advance!

Tony
VA3ATD
(B +5wpm)

1844. Re: WTD: Schematic for FTDX400/401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 17:38:41 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <99g1r5$1gv$1@newsg4.svr.pol.co.uk>
Source record: 53890

Great lead thanks -

Chas
<mkelly@powerup.com.au> wrote in message
news:3ABB3DEA.A5F23CD3@powerup.com.au...
> Try:
>
> http://krasnodar.online.ru/hamradio/sch.htm
>
>
> I thought I saw it there.
>
> Cheers.
> Chas wrote:
> >
> > I'm in need of a copy of the schematic so that I can understand what
mixer
> > frequencies /stages were used to match to the FRDX400 VFO output for
> > transceive operation.
> >
> > Chas
>
> --
> ***
> * Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
> * 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
> * ph/fax Intl+ 61 7 3379 3307 *
> ***

1845. Re: RCA 931-A 72-52 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 17:52:57 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <99g2e5$6kq$1@news.inet.tele.dk>
Source record: 53891
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Thanks very much I found the info needed there; I also wish to thank all
those of you that replied directly to my email.
"John M. Franke" <j.m.franke@larc.nasa.gov> wrote in message
news:j.m.franke-2203011809290001@franke.larc.nasa.gov...
> In article <99dt0a$k2m$1@news.inet.tele.dk>, "Adrian Shephard"
> <jadernyj@podvodnik.cz> wrote:
>
> > Hi all,
> > I have this RCA 931-A 72-52 tube, but I cannot find any links, or info
on.
> > Can Anyone direct me to some sitez or give me some data on it eventually
> > scan a datasheet for me. Thank You,
> > Adry
> > P.S.: It's supposed to be a 'decathron' class tube, som sort of a
counting
> > tube or what
>
> It is an eleven pin multistage photomultier tube. It has a photocathode
> and multiple stages of dynodes for amplification.
>
> Start looking at:
>
> http://www.wps.com/archives/tube-datasheets/Datasheets/RCA-CRPD-105A/6.JPG
>
> John

1846. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 17:56:44 UTC
From: <>
Message-ID: <3ABB8E5C.2432DC3B@res.raytheon.com>
Source record: 53892

the varacter I've used had tuning voltage range from about 6 - 40 vdc.

John O'Flaherty wrote:

> One time, I made a preselector for hf, using information from arrl
> literature, toroids, a dual ganged variable capacitor, and a bandswitch.
> It occurs to me that it would be fun make one that would tune
> electronically, controlled by a computer. What are good types of
> varactor diodes, and what tuning range could be expected from them?
>
> john

1847. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 20:18:40 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABBAFA0.B576EC20@toast.net>
Source record: 53893

@res.raytheon.com wrote:

> the varacter I've used had tuning voltage range from about 6 - 40 vdc.
>
> John O'Flaherty wrote:
>
> > One time, I made a preselector for hf, using information from arrl
> > literature, toroids, a dual ganged variable capacitor, and a bandswitch.
> > It occurs to me that it would be fun make one that would tune
> > electronically, controlled by a computer. What are good types of
> > varactor diodes, and what tuning range could be expected from them?
> >
> > john

Do you remember its number, and what capacitances you got over that voltage
range?

john

1848. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-23 21:46:23 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3ABBC42F.2781E494@rupert.tds-az.lmco.com>
Source record: 53894

John O'Flaherty wrote:
>
> @res.raytheon.com wrote:
>
> > the varacter I've used had tuning voltage range from about 6 - 40 vdc.
> >
> > John O'Flaherty wrote:
> >
> > > One time, I made a preselector for hf, using information from arrl
> > > literature, toroids, a dual ganged variable capacitor, and a bandswitch.
> > > It occurs to me that it would be fun make one that would tune
> > > electronically, controlled by a computer. What are good types of
> > > varactor diodes, and what tuning range could be expected from them?
> > >
> > > john
>
> Do you remember its number, and what capacitances you got over that voltage
> range?
>
> john

Just a voltage range isn't going to tell you anything. Take a look at
"http://www.digikey.com". On page 279 of their catalog they have a
listing
of varactor diodes.

Lots of other catalog vendors carry varactor diodes. Just go to
http://www.yahoo.com and do a search on "variable capacitance diodes".
You will get a bunch of links to data, like this:

http://members.tripod.com/Malzev/comp/diode.htm

http://www.chipdocs.com/catalog/tree.html?ReR=E4&selid=42

http://zeus.cedcc.psu.edu/semi/vvcindex.html

Except for a few special devices, most of them are for small capacitance
ranges.

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my

employer.

1849. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 01:13:22 UTC
From: 2w8ji@akorn.net
Message-ID: <3abbf21f.269530001@news.accessunited.com>
Source record: 53895

On Fri, 23 Mar 2001 16:55:18 GMT, hawaiiansunset@hawaii.rr.com (AH6JR) wrote:

>Well believe it or not thats what we were told they were.
>In fact the packaging was that of a to-5 device.
>3 leads only use a certain 2.

I have fusable transistors too. The darned things protect my resistors every time I do something wrong!

>The resistor acts as a fuse to protect the grid from excessive
>current. This resistor has a cap in parallel with it. The bypass C
>protects the resistor from RF-voltage. The grid is RF grounded through
>this network.

I understand that's what the claim is. I'm not trying to argue, it's just that resistors make poor fuses in any application that is time-critical.

>You have excellent points here Tom, but as I said maybe you need
>to talk to Richard Measures.

It only helps to talk to someone who is interested in how things actually work, like you. Electronic protection devices are much faster and more reliable than fuses, and they are especially better than resistors.

I assume you did install an energy absorbing resistor in the high voltage lead, between the filter capacitors and the RF choke? That's what really helps, of you have a HV fault in the tubes.

73 Tom

1850. Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 02:02:25 UTC
From: Jason C <cana3716@cs.uidaho.edu>
Message-ID: <3ABC0031.20C3E678@cs.uidaho.edu>
Source record: 53897

What tools and techniques are used to cut rectangular holes in project cases?

Thanks,
Jason

1851. Re: WTD: Schematic for FTDX400/401

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 02:15:46 UTC
From: la8ak@online.no
Message-ID: <3abc032d.107749039@news.online.no>
Source record: 53896

see
http://bama.sbc.edu/

On Fri, 23 Mar 2001 17:38:41 -0000, "Chas"
<chas@multiscan.junglelink.co.uk> wrote:

>Great lead thanks -
>
>Chas
><mkelly@powerup.com.au> wrote in message
>news:3ABB3DEA.A5F23CD3@powerup.com.au...
>> Try:
>>
>> http://krasnodar.online.ru/hamradio/sch.htm
>>
>>
>> I thought I saw it there.
>>
>> Cheers.
>> Chas wrote:
>> >
>> > I'm in need of a copy of the schematic so that I can understand what
>mixer
>> > frequencies /stages were used to match to the FRDX400 VFO output for
>> > transceive operation.
>> >
>> > Chas
>>
>> --
>> ***
>> * Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
>> * 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
>> * ph/fax Intl+ 61 7 3379 3307 *
>> ***
>
>

1852. Re: Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 03:09:07 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <HbUu6.22654$3i4.3004902@e3500-chi1.usenetserver.com>
Source record: 53898

"Jason C" wrote ...
> What tools and techniques are used to cut rectangular holes in project
> cases?

I use my Jet drill/milling machine (which I got at a surplus tag sale for
$250)

But before that, I used metal nibbler tools, or a series of drilled holes
smoothed with a bastard metal file.

RC

1853. Re: Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 03:45:41 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <99h59avfi1@slb1.atl.mindspring.net>
Source record: 53899

I've used a "brute force" method by marking the rectangle ans then using a dremel drill with a grinding wheel on the end of it to grind through the metal and then out to the shape I wanted.

I had to be careful to not snap the grinding disk, but it was a relatively painless way to get the cutout.

Jim Pennell
N6BIU

1854. Re: 23 cm superturnstile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 05:03:51 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <XUVu6.10108$QA3.345767@typhoon.mw.mediaone.net>
Source record: 53900

"J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM> wrote in message
news:99492mjfd1@wanadoo.fr...
> I have seen descriptions of the Alford slot antenna which has a medium
gain
> and would be suitable,

Before you use one you should read the information at the following URL:

http://www.qsl.net/kd2bd/superturnstile.html

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

1855. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 07:41:39 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <00RCW5Az+Ev6EAd$@ifwtech.plus.net>
Source record: 53901

Tom W8JI wrote:
>
>>You have excellent points here Tom, but as I said maybe you need
>>to talk to Richard Measures.
>
>It only helps to talk to someone who is interested in how things
>actually work, like you.

This debate is alive and well in the AMPS reflector. Every few weeks, it comes out of its cave for a little exercise, and enjoys a major workout every six months or so.

Seriously, if you have an amp problem, the place to ask is AMPS - info at www.contesting.com

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

1856. Anyone built an MFJ CUB?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 09:38:59 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <99hq3p$k02$1@news5.svr.pol.co.uk>
Source record: 53902

I've just built an MJB CUB for 15m. I'd like to swap notes on the experience!

Chas

1857. AM BROADCAST BAND TUNER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 10:55:52 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <99huio$2k5$1@bob.news.rcn.net>
Source record: 53903

would it be practical/possible to build a tuner for the am bcb for receiver experimentation?

1858. GROUND TUNER FOT THE AM BCB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 11:49:46 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <99i1nqcup1@bob.news.rcn.net>
Source record: 53904

error made; my request should have been in reference to an artificial
ground tuner

1859. Re: Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 13:39:49 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <Fs1v6.418530$w35.66415792@news1.rdc1.nj.home.com>
Source record: 53905

Do make sure you wear safety glasses with the latter method.

Every once in a while square and rectangular Greenlee punches come up on
EBay.

I use a nibbling tool and file.

"Jim Pennell" <me-nobody@killspam.com> wrote in message
news:99h59avfi1@slb1.atl.mindspring.net...
> I've used a "brute force" method by marking the rectangle ans then
using
> a dremel drill with a grinding wheel on the end of it to grind through the
> metal and then out to the shape I wanted.
>
> I had to be careful to not snap the grinding disk, but it was a
> relatively painless way to get the cutout.
>
>
> Jim Pennell
> N6BIU
>
>
>

1860. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 13:45:23 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <Tx1v6.94801$W05.18265349@news1.rdc1.mi.home.com>
Source record: 53906

"K7MEM" <jda@rupert.tds-az.lmco.com> wrote in message
news:3ABBC42F.2781E494@rupert.tds-az.lmco.com...
> Just a voltage range isn't going to tell you anything. Take a look at
> "http://www.digikey.com". On page 279 of their catalog they have a
> listing
> of varactor diodes.

Digikey is a great place for stuff, but they are pretty weak on RF stuff. I think a peek at the catalog will show that what varactors they do have tend to be surface mount.

Dan's (http://www.fix.net/dans.html/) does usually have the varactors that are useful for HF, mostly in TO-92. You will find the MV2115, MVAM109 (which I see Dan's doesn't have right now), MV209 are pretty popular. Sadly, Dan's only takes snail mail orders which means you wait a long time for the mule train to make the round trip.

Quite often a few part numbers are available from Radio Shack online (http://www.radioshack.com). For small dollar value orders, rs is often a good bet beause their shipping is attractive and their prices tend to be not too bad, either. However, they have the worst web site on the planet, so finding things can be a real chore. When you order from rs always check the 10 and 100 quantity prices. Sometimes there can be some very pleasant surprises. A while back I got some MV2115's there for around 50 cents if I recall, by ordering 10 instead of the 3 or whatever I had intended.

RF Parts (http://www.rfparts.com) also generally has varactors. I've never ordered from them so I can't speak to their service. They seem to be a little pricey.

Hope this helps

didleydadidah

1861. Re: Wanting to start net on HF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 13:45:24 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <Ux1v6.94802$W05.18265155@news1.rdc1.mi.home.com>
Source record: 53907

"Adam Adkins" <km5nNoSpam@earthlink.net> wrote in message
news:MPG.15253c15734418d5989684@news.earthlink.net...
> Homebrewer's Sprint? Sounds interesting, any place to find more
> information?

See http://www.njqrp.org/data/qrphomebrewersprint.html for information on
this sprint - tomorrow evening.

didleydadidah

1862. FS: Yaesu FC700 Antenna Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 14:34:58 UTC
From: k5bdz@aol.com
Message-ID: <20010324093458.20283.00000989@ng-mq1.aol.com>
Source record: 53908

FS: Yaesu FC700 antenna tuner. Excellent condition.
Bandswitched 3.5 MHz through 29 MHz (includes all WARC bands)
Builtin wattmeter with 150 watt & 15 watt scales, built in dummy load,
lighted meter
small compact size
$150.00 plus$8.00 Shipping U.S

Please reply direct to K5BDZ@aol.com

Bill K5BDZ

Although not my web page, a good idea of what the tuner looks like can be found
at:
for picture of tuner, see: http://www.pins.no/la3tq/fc700.htm
for inside pix and schematic, see: http://www.pins.no/la3tq/fc700-2.htm

1863. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 14:46:23 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <99ic05029h1@news2.newsguy.com>
Source record: 53909

A couple of comments on the 602/612.

The following is my third hand understanding of what is going on here. It's largely based on second hand comments, rumor, and innuendo, so it may not be accurate. But it does fit...

The NE602 production was bought by Phillips some years back. Phillips uses the SA numbers instead of NE. The NE602 is no longer available, but the SA602 is, and it's the same part.

The SA612 is essentially the same part as the SA602, except that the SA602 gets some tests which the SA612 does not. The 612 has the same specs, but they are by design rather than by test. The price reflects this ... 2.25 vs. 2.95 at radioshack.com.

The big fire in the southwest (Arizona was it?) last year knocked out the Phillips plant that made these things, and they were already in short supply. Since the part is mostly used in cell phones, the surface mount versions were produced first and in larger quantity when the plant went back in service, so SM versions are now widely available. The DIP version was virtually impossible to find a few months ago, but now it's becoming available sporadically, but more and more often as supply catches up.

The 602/612 is a dandy mixer, and the only real choice if your objective is low power. The part suffers badly from intermod, so if receiver performance is a more important design point than power consumption, passive mixers are a better choice. A well-designed 602 receiver can be a heck of a rig, tho, so don't discard it as a second-rate part. Just be sure to take care with LO levels and front end filtering.

With respect to Chas' VFO problem ... if you have a few volts out of your VFO, a ring diode mixer might be a better choice. You can make one up with 4 1N4148's and a couple of FT37-43's. For a receiver, schottky diodes might be a better choice. The problem is that in a receiver you need to add some amplification before you go into the mixer, which adds complexity, cost, and power consumption. Nothing wrong with a 602 in a transmitter, and there the IM generally isn't a problem. But depending on your junk box, building from scratch might be better, since you probably already have enough level, and power consumption is a little less of an issue anyway. MiniCircuits has some really high performance mixers like the TFM-2, but they are pricey. The gold-plated receiver solution, however, is likely to have a MiniCircuits mixer in it. Just don't expect to run it off batteries!

didleydadidah

"Chas" <chas@multiscan.junglelink.co.uk> wrote in message news:99f3ah$120$1@news8.svr.pol.co.uk...

> Is the 602 a good choice?

1864. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 17:45:32 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <035v6.59976$Ok4.4933501@news1.rdc1.ct.home.com>
Source record: 53910

"Tom W8JI" <2w8ji@akorn.net> wrote in message
news:3abb5cdd.231314093@news.accessunited.com...
> Using a resistor as a fuse to protect a control grid is a waste of
> time. Conventional fast-blow fuses are too slow to protect grids,
> resistors would be a terrible choice.
>
I've seen low-wattage carbon film resistors used as "fuses" in repeater controllers (phone line) and in computer modems. They seem to do the job--failing open on a high transient. I've also seen the results of having someone replace the resistors with a piece of wire on a CAT1000 controller because they got sick of having to replace resistors two or three times during lightning seasons. They weren't so lucky the next time.

Could it be the time constants (low thermal mass) for low-value and low wattage film resistors make them suitable for some applications where transients are a problem? There were other devices beyond the resistors that limited the peak voltages in the two devices I mentioned.

Pete

1865. Re: Radio Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 17:47:22 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3ABCDDAA.376082A3@telocity.com>
Source record: 53818

peter wrote:

> Greetings everyone.
> I am interested in building a radio receiver that can receive frequency
> between 43MHz and 46MHz
>
> 1)Where can I find circuits on the web for such a receiver?
>
> 2)Will a trimmer capacitor work for this receiver or do I need the
> kind of variable (tuning) capacitor that is used in an old radio?
>
> Thanks
>
> _____
> Submitted via WebNewsReader of http://www.interbulletin.com

You might also consider tuning with a varicap diode. Such a diode changes capacitance with a change of
reverse voltage across the diode. Such a radio could be tuned remotely
with a multi turn pot.

1866. Info on Micro-TO Message II

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 17:53:04 UTC
From: N3WJA/Ed <n3wja@arrl.net>
Message-ID: <l65v6.121$qT2.32377@news.abs.net>
Source record: 53911

I have become heir to a wired circuit board for a Micro-TO Message II
circuit board. It is fully wired, but I know nothing about it. I ASSUME that
it is a programmable keyer of some sort. I would like to find a copy of any
info on assembly, instruction manual etc., that someone might have. I am
willing to pay copy and mail expense if necessary.
The circuit board is marked "Micro-TO Message II" on one end. "Copyright
1977 C. Opal" is on the diagonal opposite corner.
I also have a package that came with it that is marked as the upgrade kit
for it, ICs still in new package and some loose resistors.
If anyone has any information on this, please e-mail me at n3wja@arrl.net .
Thanks in advance for any info. 73 de N3WJA Ed

1867. Re: Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 18:51:07 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9bpr4q.mrr.QSB@animas.frontier.net>
Source record: 53912

On Fri, 23 Mar 2001 19:09:07 -0800, Richard Crowley scribbled:
>"Jason C" wrote ...
>> What tools and techniques are used to cut rectangular holes in project
>> cases?
>
>But before that, I used metal nibbler tools, or a series of drilled holes
>smoothed with a bastard metal file.

Yep. A Greenlee round knock-out punch to (near) size, and
then a nibbler to shape.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

1868. Surplus 10 GHz Gunnplexer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 19:52:15 UTC
From: nelson@louisacomm.net
Message-ID: <3abcfad3.17709208@news.louisacomm.net>
Source record: 53913

Two 10 GHz gunnplexers. I bought these a few years ago and never got around to finding time to do anything with them.

I have JPGs of the unit I can send.

$ 25.00 each
$ 50.00 for the pair including shipping to the lower 48.

Randy, WB0VHB

1869. Re: Re: Re: AD9854 DDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 20:25:29 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <Zo7v6.15621$K54.1151555@news02.optonline.net>
Source record: 53915

Hi,

(I do seem to have plain text rather than HTML on ...)

I've used the National LMX2301 and LMX2306 parts. With the 2301 you only get to 160 MHz, but you do not have a prescaler. Sometimes the fixed divide in the prescale will keep you from getting the highest comparison frequency.

Both parts are fairly cheap and easy to set up with a simple PIC loader.

Bob Camp

"John Mortlock" <jmort@global.freeserve.co.uk> wrote in message news:997c68$ve7$1@newsg2.svr.pol.co.uk...
> >Bob Camp wrote in message ...
> >
> > Here's what I would do:
> >
> >2) Depending on crystal frequency come out of the DDS at about 1/5th to
> 1/6th of the crystal frequency. Run >the DDS output through a simple
> bandpass filter, Run the output of the filter into a PLL chip. The National
> >Semiconductor parts seem to work well.
>
>
> Do you have any part numbers for the National PLL chips ?
>
>
>
>

1870. Re: What is a good general purpose mixer? (And other newbie questions)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 20:27:45 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <99j04ccfh1@news5.svr.pol.co.uk>
Source record: 53914

I have some 602's and no ring mixer parts - so looks like I'm off to the
races with the 602!

Many thanks for the advice

Chas

"WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote in message
news:99ic05029h1@news2.newsguy.com...
> A couple of comments on the 602/612.
>
> The following is my third hand understanding of what is going on here.
It's
> largely based on second hand comments, rumor, and innuendo, so it may not
be
> accurate. But it does fit...
>
> The NE602 production was bought by Phillips some years back. Phillips
uses
> the SA numbers instead of NE. The NE602 is no longer available, but the
> SA602 is, and it's the same part.
>
> The SA612 is essentially the same part as the SA602, except that the SA602
> gets some tests which the SA612 does not. The 612 has the same specs, but
> they are by design rather than by test. The price reflects this ... 2.25
> vs. 2.95 at radioshack.com.
>
> The big fire in the southwest (Arizona was it?) last year knocked out the
> Phillips plant that made these things, and they were already in short
> supply. Since the part is mostly used in cell phones, the surface mount
> versions were produced first and in larger quantity when the plant went
back
> in service, so SM versions are now widely available. The DIP version was
> virtually impossible to find a few months ago, but now it's becoming
> available sporadically, but more and more often as supply catches up.
>
> The 602/612 is a dandy mixer, and the only real choice if your objective
is
> low power. The part suffers badly from intermod, so if receiver
performance
> is a more important design point than power consumption, passive mixers
are
> a better choice. A well-designed 602 receiver can be a heck of a rig,
tho,
> so don't discard it as a second-rate part. Just be sure to take care with

> LO levels and front end filtering.
>
> With respect to Chas' VFO problem ... if you have a few volts out of your
> VFO, a ring diode mixer might be a better choice. You can make one up
with
> 4 1N4148's and a couple of FT37-43's. For a receiver, schottky diodes
might
> be a better choice. The problem is that in a receiver you need to add
some
> amplification before you go into the mixer, which adds complexity, cost,
and
> power consumption. Nothing wrong with a 602 in a transmitter, and there
the
> IM generally isn't a problem. But depending on your junk box, building
from
> scratch might be better, since you probably already have enough level, and
> power consumption is a little less of an issue anyway. MiniCircuits has
> some really high performance mixers like the TFM-2, but they are pricey.
> The gold-plated receiver solution, however, is likely to have a
MiniCircuits
> mixer in it. Just don't expect to run it off batteries!
>
> didleydadidah
>
> "Chas" <chas@multiscan.junglelink.co.uk> wrote in message
> news:99f3ah$120$1@news8.svr.pol.co.uk...
> > Is the 602 a good choice?
>
>
>

1871. Re: AD9854 DDS - HTML

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-24 20:30:44 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <Ut7v6.15705$K54.1158155@news02.optonline.net>
Source record: 53916

Hi John,

Weird stuff ....

The mailer here is set to plain text and seems to send in plain text.
No idea how the nasty HTML got in there.

I'll have to watch it and see if I can figure out what it's doing.

Thanks!

Bob

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:3AB6D963.6C51@pop.removethistomailme.net...
> Bob Camp wrote:
> ><snip>
>
> Interesting discussion!
>
> [obnoxious_netcop]
>
> Sure would be nice if you guys would quit using HTML, though. It's
> making your posts take up dozens of K apiece, for no reason.
>
> [/obnoxious_netcop]
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

1872. TOP HAT

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 02:57:04 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <99jmmf$m1b$1@neptunium.btinternet.com>
Source record: 53917

NEW PROGRAM TOPHAT1.exe

TOP CAPACITANCE LOADING OF SHORT VERTICAL ANTENNAS

Loaded by any number, zero upwards, of uniformly-spaced radial rods or wires, of specified length and diameter, circled by a ring of wire. With only one radial you have an iverted-L. By entering a large number of wires the hat will have the same capacitance as a disk of close-mesh chicken wire.

Enter antenna height and diameter, frequency. Guidance provided on estimating ground loss resistance. A coil is always needed either at the antenna base or incorporated in an L-match. Coil Q is asked for.

The performance of a short top-loaded antenna is generally several dB better than a coil-loaded antenna of the same height with the coil fitted 2/3rds of the way up the antenna. With a largish top hat the antenna current is sufficiently uniform vs height for there to be little or no advantage gained by inserting a coil in the antenna. It can then be incorporated in the L-match or an automatic ATU and the antenna can be operated multi-band. With coil loading multiband working is not possible except with screwdriver-type antennas.

The superiority of capacitance loading is due to the smaller inductance needed to maintain resonance. If the coil has the same overall dimensions, and hence approximately the same Q, the coil loss resistance will be reduced for no increase in loss in the hat.

Sweep the principal input parameters over wide ranges using adjacent up/down keys on the keyboard while observing corresponding changes in radiating efficiency. The improvement in dB is calculated due to the hat compared with no hat.

Download TOPHAT1, 44 kilobytes, in a few seconds from website below.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

1873. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 14:35:37 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ABE063E.79435A09@netscape.net>
Source record: 53918
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Michael Black wrote:
>
> On Thu, 22 Mar 2001, Ash wrote:
>
> > Hi,
> > at the moment I'm using a 0.01-1300mhz (Icom PCR1000) scanner hooked up
> > to the IF output of my Icom R-8500, but it feels like a waste of a decent scanner
> > to ONLY use it set to 10.7mhz FM 50khz filter.
> > I only use it for decoding data such as wefax, so I'd like to substitute the pcr1000
> > with a simple fm radio for 10.7mhz and 35-50khz bandwith.
> > Anyone got any schematics for a simple radio suited for this purpose or got any
> > other suggestions?
> >
> > //Greg.
> >
> The simplest solution would be to extract the IF strip from an existing
> narrow-band FM receiver. Scanners, some cordless phones, 49MHz superhet
> walkie talkies, two-way radio receivers, and cellphones, will have FM IF
> strips intended for narrow band use. Consumer items are likely to
> have a 10.7MHz IF (though some of the cordless phones that I've looked
> at go from 49MHz directly to 455KHz), cell phones may skip 10.7MHz,
> and I've seen plenty of oddball IFs in two-way radio receivers.
>
> But in any of these, you'll get the circuitry or even a module
> that takes in 10.7MHz at one end and gives you audio at the other.
> You get the IC and some filters, and since many convert to 455Khz,
> you'll also get the crystal to do the conversion. Many of the
> devices do the whole thing in one IC, like the Motorola MC3359.
>
> They are probably better choices than converting the IF strip
> from an FM broadcast receiver. You'll get squelch, and a discriminator
> intended for narrow deviation.
>
> Of course, it doesn't solve your filter problem in this particular
> case. The consumer items I've looked at use a 3-pin ceramic filter
> at 10.7MHz, though I haven't tracked down the bandwidth. I assume
> it isn't narrow, intended more for image rejection, but one could
> hope that it might be narrower than those used in broadcast receivers.
>
> You could try to dig up a wideband 10.7MHz filter; there was a time
> when 30KHz was common deviation. Or maybe someone still manufacturers
> one that isn't too costly. I suppose then you'd bypass the 455KHz
> filter, put an IF transformer to get rid of unwanted output from

> the mixer stage.

30 kHz deviation was dropped somewhere around the mid 60's. I was seeing new radios wit 15 kHz while I was in high school, and I graduated in 1970. Also, most of the wideband stuff I've seen used a lower IF frequency.

>
> You could stay with the existing 10.7MHz filter, but then dig up
> a wider 455KHz filter. Hopefully something nice and small, but
> again one could dig in an old two-way radio for it's filter.
>
> Or just get by with an IF transformer instead of the 455Khz filter,
> or if you need something better, go with few coupled transformers.
>
> There was an article in 73 magazine some years back about widening
> a scanner for satellite reception. I forget the exact details,
> but he basically did something like bypass the 455Khz ceramic
> filter.
>
> ON a whole different path, in North America television audio
> is an FM subcarrier, and the frequency is 4.5MHz. I forget the
> amount of deviation, but it is less than used in FM broadcast.
> If the bandwidth isn't too much more than needed, it might
> work out okay. Put a mixer ahead of it to convert from 10.7MHz,
> and pop the sound module out of a tv set. I've even seen some
> tv sound modules with 4.5Mhz ceramic filters.
>
> Michael VE2BVW

TV uses the same deviation as FM radio. I've worked on the transmitters at three tv stations, and took care of the equipment in a CATV headend. all used the same modulation.

You could add a couple more stages of 10.7, and the extra transformers will narrow the signal a little. I've build outboard amps and a few got so narrow I had to add a resistor across the transformer windings to lower t Q to regain some bandwidth, at the cost of some gain, but I had an extra 10 dB to burn, so it worked out well. You might get by with a tuned trap on each side of the passband to reduce the bandwidth, but watch out for excessive phase shift.

The biggest problem with excessive bandwidth is lower recovered signal level, if there is no interfering signal in the passband, a couple Db of gain will take care of the problem.

1874. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 15:37:55 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABE10D2.8B356FD@toast.net>
Source record: 53921

xpyttl wrote:

> "K7MEM" <jda@rupert.tds-az.lmco.com> wrote in message
> news:3ABBC42F.2781E494@rupert.tds-az.lmco.com...
> > Just a voltage range isn't going to tell you anything. Take a look at
> > "http://www.digikey.com". On page 279 of their catalog they have a
> > listing
> > of varactor diodes.
>
> Digikey is a great place for stuff, but they are pretty weak on RF stuff. I
> think a peek at the catalog will show that what varactors they do have tend
> to be surface mount.
>
> Dan's (http://www.fix.net/dans.html/) does usually have the varactors that
> are useful for HF, mostly in TO-92. You will find the MV2115, MVAM109
> (which I see Dan's doesn't have right now), MV209 are pretty popular.
> Sadly, Dan's only takes snail mail orders which means you wait a long time
> for the mule train to make the round trip.
>
> Quite often a few part numbers are available from Radio Shack online
> (http://www.radioshack.com). For small dollar value orders, rs is often a
> good bet beause their shipping is attractive and their prices tend to be not
> too bad, either. However, they have the worst web site on the planet, so
> finding things can be a real chore. When you order from rs always check the
> 10 and 100 quantity prices. Sometimes there can be some very pleasant
> surprises. A while back I got some MV2115's there for around 50 cents if I
> recall, by ordering 10 instead of the 3 or whatever I had intended.
>
> RF Parts (http://www.rfparts.com) also generally has varactors. I've never
> ordered from them so I can't speak to their service. They seem to be a
> little pricey.

Thanks, Martin and xpyttl, for the suggestions and links.

john

1875. Re: radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 15:48:33 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABE1351.5D8FC55B@toast.net>
Source record: 53923

aduffy@sprint.ca wrote:

> {snipped}
>
> And finally any ideas on controlling the cordless screwdriver to reduce
> it's rpm without using gear reduction (if possible). I already have an
> idea to limit rotation to a half rev but don't want the thing to rotate
> in half a sec or less! :-)

One way to run a dc motor at low speed without loss of torque is to use a low duty cycle drive signal, at full voltage. It shouldn't be of so high a frequency that the motor just averages it, or so low that the pulsations are troublesome, so that you get pretty smooth motion with full torque. Maybe 5 or 10 pulses per second, and then the motor will be variable from very low speed to full speed as the duty cycle goes from a minimum value to 100%. A simple way to reduce the speed would be to operate the thing on half-wave rectified ac of appropriate voltage, which would give you a 50% duty cycle with no more trouble than the diode. If that was slow enough, you wouldn't need to do anything else.

john

1876. Re: FS: Pair of Eimac 3-500Z's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 15:53:11 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABE1467.DC9040FE@toast.net>
Source record: 53924

Tom W8JI wrote:

> On 23 Mar 2001 07:32:49 GMT, foxblaine@aol.com (R. Blaine Fox) wrote:
>
> >Greetings...
> >
> > I took a pair of Eimac 3-500Z's in partial trade for a rig I had.
> >Previous owner reports full power output from tubes with very low hours. I
> >have no way to adequately check them. Visually, they look good, with no sign
> >of internal gassing.
>
> You can not look at a tube, and tell it has no internal gas. You can
> not tell if the tube is good.
>
> I would think a responsable person would check the tube, before
> selling it for money with and offering no warranty. Unless it was sold
> for next to nothing.
>
> 73 Tom

I'm not familiar with transmitting tubes, but I remember that receiving tubes used to have a silvery getter that would turn white if vacuum were lost. Don't these transmitting tubes have something similar, or can they be just somewhat gassy without losing vacuum?

john

1877. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 15:57:20 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3ABE1560.C19AA0D3@dialpoint.net>
Source record: 53919
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Looks like you are not from around here..hihi. I do not know the TV and FM band standards in the VE land but in the US there is a big differance in the TV and FM deviation. I think ther TV uses 25 khz for the audio and the vidio is AM . The FM stations use 200 khz for the deviation. Bad thing about the standards are there are several differant ones depending on where you are at.

> >
> > Michael VE2BVW
>
> TV uses the same deviation as FM radio. I've worked on the transmitters
> at three tv stations, and took care of the equipment in a CATV headend.
> all used the same modulation.
>
> You could add a couple more stages of 10.7, and the extra transformers
> will narrow the signal a little. I've build outboard amps and a few got
> so narrow I had to add a resistor across the transformer windings to
> lower t Q to regain some bandwidth, at the cost of some gain, but I had
> an extra 10 dB to burn, so it worked out well. You might get by with a
> tuned trap on each side of the passband to reduce the bandwidth, but
> watch out for excessive phase shift.
>
> The biggest problem with excessive bandwidth is lower recovered
> signal level, if there is no interfering signal in the passband, a
> couple Db of gain will take care of the problem.

1878. Battery pack help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 16:20:52 UTC
From: Clinton <cpeebles@_nospam_telus.net>
Message-ID: <EVov6.58172$Lm2.6256845@news0.telusplanet.net>
Source record: 53920

I have an ICOM BP-131 battery pack that has some bad cells. Inside, there is a component # T 80BR3U2 between two of the cells. Is this a capacitor? Can anyone tell me what it is?

Clinton Peebles VE7KNL
Salmo, B.C. Canada
Remove _nospam_ to reply
E-Mail: cpeebles@telus.net

1879. Re: Battery pack help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 16:48:12 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <kkpv6.2161$551.226998@news-west.usenetserver.com>
Source record: 53922

"Clinton" wrote...
> I have an ICOM BP-131 battery pack that has
> some bad cells. Inside, there is a component
> # T 80BR3U2 between two of the cells. Is this
> a capacitor? Can anyone tell me what it is?

If by "between" you mean "in series with", then it is unlikely to be a capacitor(!) More likely a fuse or fuse-like protective device.

I was very pleased with the service from http://www.primecell.com/ Excellent work, fast and inexpensive. Couldn't ask for a better combination! I have no connection with them except as a satisfied, paying customer.

RC

1880. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 17:07:30 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9bs9kf.r99.w9wi@linux1.localdomain>
Source record: 53925
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sun, 25 Mar 2001 14:35:37 GMT, Michael A. Terrell
<michaelaterrell@netscape.net> wrote:
>TV uses the same deviation as FM radio. I've worked on the transmitters
>at three tv stations, and took care of the equipment in a CATV headend.
>all used the same modulation.

Actually at least in the U.S., it doesn't. The peak deviation for TV audio
is 25KHz; for FM radio it's 75KHz. Pretty much a moot point as both figures
are much greater than would fit in a 30KHz-bandwidth filter.

(the quoted "200KHz" deviation for FM is actually the width of the assigned
channel)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1881. Re: Battery pack help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 17:23:25 UTC
From: Clinton <cpeebles@_nospam_telus.net>
Message-ID: <hQpv6.58186$Lm2.6274905@news0.telusplanet.net>
Source record: 53927

Your right Richard, it can't be a capacitor.. what was I thinkin... hihi I
got replacement cells from A-Electronics, and will put the little white part
back in and see what happens..
Thanks & 73

--

Clinton Peebles VE7KNL
Salmo, B.C. Canada
Remove _nospam_ to reply
E-Mail: cpeebles@telus.net

"Richard Crowley" <rcrowley7@xprt.net> wrote in message
news:kkpv6.2161$551.226998@news-west.usenetserver.com...
> "Clinton" wrote...
> > I have an ICOM BP-131 battery pack that has
> > some bad cells. Inside, there is a component
> > # T 80BR3U2 between two of the cells. Is this
> > a capacitor? Can anyone tell me what it is?
>
> If by "between" you mean "in series with", then it is unlikely to be a
> capacitor(!) More likely a fuse or fuse-like protective device.
>
> I was very pleased with the service from http://www.primecell.com/
Excellent
> work, fast and inexpensive. Couldn't ask for a better combination! I have
> no connection with them except as a satisfied, paying customer.
>
> RC
>
>
>

1882. Re: FS: Pair of Eimac 3-500Z's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 17:33:01 UTC
From: 2w8ji@akorn.net
Message-ID: <3abe28be.414606790@news.accessunited.com>
Source record: 53926

On Sun, 25 Mar 2001 10:53:11 -0500, John O'Flaherty
<oflahert@toast.net> wrote:

>
>I'm not familiar with transmitting tubes, but I remember that receiving tubes used
>to have a silvery getter that would turn white if vacuum were lost. Don't these
>transmitting tubes have something similar, or can they be just somewhat gassy
>without losing vacuum?
>
>john

No. Transmitting tubes have the gettering agent coated on the anode
(in 3-500Z's).

But considering a receiving tube, even if the gettering material that
deposits on the envelope (the "silver coating you see) is NOT white,
it still doesn't mean the tube is good.

It wouldn't be advisable to purchase any tube without a warranty ,
especially a 3-500Z. The exception would be if you got the tube for
next to nothing.

Virtually all of the common failures are not visible when looking at
tubes. Because the tube "looks new" doesn't mean it is good. A
significant percentage of brand-new 3-500Z's are defective, or fail in
a short period from manufacturing defects.

An entire batch of 100 3-500Z's I received from Eimac right before
they closed glass tube manufacturing were defective!!!! Probably
because the employees knew they were getting laid off.

73 Tom

1883. Re: Battery pack help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 17:42:50 UTC
From: Rick Riverman <rbriver@home.com>
Message-ID: <u6qv6.622792$U46.18922247@news1.sttls1.wa.home.com>
Source record: 53928

Clinton,

It's a thermal protector. They are mandatory, not for charging, but for safety as a protection device in case the battery gets shorted. When you short out a nicad/nimh battery, they unload all the current they can through the short. If the shorting conductor is solid metal such as a coin, the heat generated within the battery can instantly reach temperatures high enough to cause spontaneous combustion of anything around it that will burn. That's why they tell you never to short the things out. The thermal cutout is sandwiched between the cells to easily sense the heat and open if it gets above a rated temperature. You can get away with not replacing it, but don't ever let that battery get shorted!

Hope this helps,
Rick

Roderick Riverman <><
W7RBR
Aloha, OR
Please reply to rbriver@home.com

"Clinton" <cpeebles@_nospam_telus.net> wrote in message
news:EVov6.58172$Lm2.6256845@news0.telusplanet.net...
> I have an ICOM BP-131 battery pack that has some bad cells. Inside,
there
> is a component # T 80BR3U2 between two of the cells. Is this a capacitor?
> Can anyone tell me what it is?
>
> ---
> Clinton Peebles VE7KNL
> Salmo, B.C. Canada
> Remove _nospam_ to reply
> E-Mail: cpeebles@telus.net
>
>
>

1884. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 18:03:26 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <fgasbt010lg3357fecffsa9km16odncgnq@4ax.com>
Source record: 53929
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sun, 25 Mar 2001 14:35:37 GMT, "Michael A. Terrell"
<michaelaterrell@netscape.net> wrote:

>TV uses the same deviation as FM radio. I've worked on the transmitters
>at three tv stations, and took care of the equipment in a CATV headend.
>all used the same modulation.

That is quite strange, since as far as I know, the 75 kHz deviation is used for FM radio all over the world. With stereo, the baseband bandwidth is 30 Hz to 53 kHz, which in addition to the deviation determines the required IF bandwidth. However, the audio deviation for TV sound is 50 kHz in Europe and apparently 25 kHz in the USA. The mono baseband bandwidth is only 15 kHz, thus the emission is much narrower than in FM broadcast radio.

Looking at various 2 or 3 pin 10.7 MHz ceramic filters from Toko and Murata, their -3dB bandwidth starts from 110 kHz, the 180 kHz filter is intended for mono, while the 230 .. 280 kHz filters are intended for stereo. The Murata 5.5 MHz subcarrier filter (Western Europe) has a 150 kHz bandwidth, while the 6.0 MHz subcarrier filter has 160 kHz bandwidth (UK). I guess that the corresponding filters for the US 4.5 MHz subcarrier frequency would be even narrower.

Paul OH3LWR

1885. Re: Battery pack help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 20:42:43 UTC
From: Clinton <cpeebles@_nospam_telus.net>
Message-ID: <7Lsv6.59443$Lm2.6354683@news0.telusplanet.net>
Source record: 53930

Thanks. I put it back in with the new cells. Good to know it's there
though.. If I ever short the battery out I know where to look :)

--

Clinton Peebles VE7KNL
Salmo, B.C. Canada
Remove _nospam_ to reply
E-Mail: cpeebles@telus.net

"Rick Riverman" <rbriver@home.com> wrote in message
news:u6qv6.622792$U46.18922247@news1.sttls1.wa.home.com...
> Clinton,
>
> It's a thermal protector. They are mandatory, not for charging, but for
> safety as a protection device in case the battery gets shorted. When you
> short out a nicad/nimh battery, they unload all the current they can
through
> the short. If the shorting conductor is solid metal such as a coin, the
> heat generated within the battery can instantly reach temperatures high
> enough to cause spontaneous combustion of anything around it that will
burn.
> That's why they tell you never to short the things out. The thermal
cutout
> is sandwiched between the cells to easily sense the heat and open if it
gets
> above a rated temperature. You can get away with not replacing it, but
> don't ever let that battery get shorted!
>
> Hope this helps,
> Rick
>
> Roderick Riverman <><
> W7RBR
> Aloha, OR
> Please reply to rbriver@home.com
>
>
> "Clinton" <cpeebles@_nospam_telus.net> wrote in message
> news:EVov6.58172$Lm2.6256845@news0.telusplanet.net...
> > I have an ICOM BP-131 battery pack that has some bad cells. Inside,
> there
> > is a component # T 80BR3U2 between two of the cells. Is this a
capacitor?
> > Can anyone tell me what it is?

> >
> > ---
> > Clinton Peebles VE7KNL
> > Salmo, B.C. Canada
> > Remove _nospam_ to reply
> > E-Mail: cpeebles@telus.net
> >
> >
> >
>
>

1886. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 21:22:58 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9bsojg.rq4.w9wi@linux1.localdomain>
Source record: 53931
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sun, 25 Mar 2001 21:03:26 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>Looking at various 2 or 3 pin 10.7 MHz ceramic filters from Toko and
>Murata, their -3dB bandwidth starts from 110 kHz, the 180 kHz filter
>is intended for mono, while the 230 .. 280 kHz filters are intended
>for stereo. The Murata 5.5 MHz subcarrier filter (Western Europe) has
>a 150 kHz bandwidth, while the 6.0 MHz subcarrier filter has 160 kHz
>bandwidth (UK). I guess that the corresponding filters for the US 4.5
>MHz subcarrier frequency would be even narrower.

The stereo sound system for TV in the USA is similar to that used for FM.
(we don't have NICAM) It provides one subcarrier at 31.5KHz (twice
horizontal sweep) for L-R and a second at (I forget, I think it's around
78KHz) for a second audio program, intended for second-language translation.

While I'm not sure what bandwidth *is* used for stereo TV IF filters, I
suspect it's actually *wider* than that used for FM stereo, because of that
subcarrier intended for public use.

(incidentially, I have 110KHz Toko filters in the narrow position of my FM
tuner. It does wonders for DXing.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1887. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 21:33:00 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <XF0FsLAMQmv6EwLX@g3ohx.demon.co.uk>
Source record: 53932
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

In article <fgasbt010lg3357fecffsa9km16odncgnq@4ax.com>, Paul Keinanen
<keinanen@sci.fi> writes
>On Sun, 25 Mar 2001 14:35:37 GMT, "Michael A. Terrell"
><michaelaterrell@netscape.net> wrote:
>
>
>>TV uses the same deviation as FM radio. I've worked on the transmitters
>>at three tv stations, and took care of the equipment in a CATV headend.
>>all used the same modulation.
>
>That is quite strange, since as far as I know, the 75 kHz deviation is
>used for FM radio all over the world. With stereo, the baseband
>bandwidth is 30 Hz to 53 kHz, which in addition to the deviation
>determines the required IF bandwidth. However, the audio deviation for
>TV sound is 50 kHz in Europe and apparently 25 kHz in the USA. The
>mono baseband bandwidth is only 15 kHz, thus the emission is much
>narrower than in FM broadcast radio.
>
>Looking at various 2 or 3 pin 10.7 MHz ceramic filters from Toko and
>Murata, their -3dB bandwidth starts from 110 kHz, the 180 kHz filter
>is intended for mono, while the 230 .. 280 kHz filters are intended
>for stereo. The Murata 5.5 MHz subcarrier filter (Western Europe) has
>a 150 kHz bandwidth, while the 6.0 MHz subcarrier filter has 160 kHz
>bandwidth (UK). I guess that the corresponding filters for the US 4.5
>MHz subcarrier frequency would be even narrower.
>
>Paul OH3LWR
>

Paul is absolutely correct about the TV and FM deviation standards.
FM radio - 75kHz universal.
TV PAL - 50kHz.
TV NTSC - 25kHz.
Ian.

1888. WTB: Power Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 21:54:21 UTC
From: Michael Wachur <KA1YY@EROLS.COM>
Message-ID: <99lpdu$16u$1@bob.news.rcn.net>
Source record: 53933

Hi,

Looking for an older power transformer with the following specs:

Primary: 120V

Secondary:
275v-0-275v @ 90ma (B+)
6.3v (filament)
5.0v (filament)

The HV secondary winding is approximate and I can use something from
250v-0-250v to 350-0-350. One from an old 50's TV chassis would be great.
Let me know what you have, condition, and price.

Thanks,
Michael
K3OR
Clarksville, MD

1889. DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 22:16:19 UTC
From: Richard O'Dale <odale@msn.com>
Message-ID: <69rsbtgieharj6gp9ut5qoqdholf4f45va@4ax.com>
Source record: 53934

I'm looking for a nice PLL chip.. But it seems like nobody, Motorola, or National makes any in DIP form anymore.

Everything is SOIC or stranger.. Is there any easy way to use SOICs on a PCB or are their DIPs somewhere?

1890. FS / FT: Famous HRO Dial w/variable caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-25 23:23:44 UTC
From: k5bdz@aol.com
Message-ID: <20010325182344.20307.00001381@ng-mq1.aol.com>
Source record: 53935

For Sale for $110 shipped ground to U.S. or trade for QRP SSB xcvr kit:

A National HRO dial, including gear reduction system and two variable capacitors (right angle drive for each).
The HRO dial comes complete with black knob about 2 1/2 in dia, with a skirt that has 5 slots through whick is visable numbers that change as you turn the know CW or CCW revealing 0, 10, 100, 250, 450, etc through 500 at the end of its range. (Newer hams may remember the similar Kenwood TS-820 dial read-out).
The skirt appears to have been gray colored (or possibly even bronze) at one time. The dial is attached to the gearing mechanisum behind, with two (yup, two) appearantly identical variables right angle driven out left and right. Both caps mesh / unmesh together. Would guess capacitance approx 300 pF each.
ALSO I have the matching metal arc'ed spacer for its brother arc'ed marker that goes on the panel behind the dial skirt for read-out, with arc numbering 0, .1, .2, etc up to 1.
The main dial skirt appears someone tried to clean it. Appears minor surface scratching but no gouges or deep scratches seen. Should buff out very smooth in all likelihood.

I'll ship it properly wrapped and cushioned.

Bill K5BDZ Please reply direct to K5BDZ@aol.com

1891. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 02:12:02 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <r89tbtgjjulvai52oao9akb2hku4ouma2e@4ax.com>
Source record: 53936
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

"Michael A. Terrell" <michaelaterrell@netscape.net>
shared these priceless pearls of wisdom:

->
->TV uses the same deviation as FM radio. I've worked on the transmitters
->at three tv stations, and took care of the equipment in a CATV headend.
->all used the same modulation.

That doesn't happen to be the truth. FM radio uses 75 kHz. deviation and TV
uses 25 kHz. deviation.

You must have been the guy that "adjusted" the TV modulation to let the
commercials drive us out of the room.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1892. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 05:40:08 UTC
From: steveq@bigtime.tip.csiro.au
Message-ID: <99mkno$78m$1@bigtime.tip.csiro.au>
Source record: 53938

In answer to the question, S9 is generally taken to be 50 uV in 50 ohms, and each S unit represents an increase/decrease of 6 dB. The problem is that no two receivers are the same!

Dr Ulrich Rohde in "Key components of Modern Receiver Design - Part 1 (QST May 1994) suggests " - that we redesign our signal meters along the lines of those used by our professional collegues, calibrating them from -20dBuV (0.1 uV in 50 ohms) to +100dBuV (100mV in 50 ohms) - ". This implies that the receiver has a very wide range AGC that is well characterised to give meaningful meter readings. Perhaps this is why non-professional equipment doesn't do this.

Steve Quigg

In article <984615203.15918.0.nnrp-12.9e98acde@news.demon.co.uk>,
Martin John Hallsworth <Martin@g1gyc.demon.co.uk_NOSPAM_FOR_ME_> wrote:
>Hello all
>this is probably a question that is asked many times and probably
>has about the same number of different answers !!
>
>But here goes ....
>
>In mV emf at the aerial (antenna) socket what is the recognised
>standard for an "S9" signal indication ?
>
>Also I am given to believe that each S unit approximately equates
>to an increase or decrease in signal by 6db (ie doubling or halving
>the emf voltage) at the aerial socket is this correct ?
>
>Any comments or corrections ?
>
>
>Many thanks Martin
>~~~~~~
>Each of us is given a bag of tools, shapeless mind and a book of Rules
>~~~~~~
>Remove :-
>_NOSPAM_FOR_ME_
>from return address to reply or click this link
>
>mailto:martin@g1gyc.demon.co.uk
>~~~~~~
>
>
>

1893. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 06:09:53 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <3hltbtsomvsm1tvor588uanuvp8dknd5mi@4ax.com>
Source record: 53937
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sun, 25 Mar 2001 21:22:58 GMT, w9wi@linux1.localdomain () wrote:

>The stereo sound system for TV in the USA is similar to that used for FM.
>(we don't have NICAM) It provides one subcarrier at 31.5KHz (twice
>horizontal sweep) for L-R and a second at (I forget, I think it's around
>78KHz) for a second audio program, intended for second-language translation.

>While I'm not sure what bandwidth *is* used for stereo TV IF filters, I
>suspect it's actually *wider* than that used for FM stereo, because of that
>subcarrier intended for public use.

So it appears as if your TV stereo signal is quite similar to the FM broadcast signal. Since both systems must be compatible with old receivers, the stereo deviation must be about the same as the mono deviation and thus, the demodulated mono signal is slightly weaker and the mono audio SNR is 1 .. 2 dB worse when the stereo is switched on.

Thus your TV audio deviation must still be about 25 kHz and the FM broadcast deviation 75 kHz. You might have a second language subcarrier on a high subcarrier frequency, but isn't the SCA transmission still in use on some FM broadcasts? With similar baseband bandwidths, but quite different deviation, I do not see, how these both signals could have similar bandwidth.

It should be noted, that the Carson's rule should not be applied with such a low modulation index and complex baseband signal. Looking at the Bessel functions for a modulation index of 0.3 (US TV audio), the second set of sidebands are very weak compared to the situation for the modulation index around 1.0 (FM broadcast). Thus, I would guess that quite satisfactory TV audio reception (with second language present) should be possible with 160 .. 180 kHz IF bandwidth (only first order sidebands), while broadcast FM might require 300 kHz with SCA present, assuming two sets of sidebands (although 220 kHz might be sufficient, if the SCA deviation is so low that the second pair of sidebands are weak enough).

Paul OH3LWR

1894. Re: Signal level for S9 on signal meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 11:54:24 UTC
From: 2w8ji@akorn.net
Message-ID: <3abf2b90.480874573@news.accessunited.com>
Source record: 53940

On Mon, 26 Mar 2001 05:40:08 GMT, steveq@bigtime.tip.csiro.au wrote:

>In answer to the question, S9 is generally taken to be 50 uV in 50 ohms, and
>each S unit represents an increase/decrease of 6 dB. The problem is that no
>two receivers are the same!

The problem is highlighted in your response, where you say "generally
taken". S-9 has no formal definition, except "extremely strong
signal". As far as S-meters go, it is whatever someone makes it.

As a matter of fact, the ARRL Handbook gives different suggestions for
S-9 on different frequency ranges.

Each S unit does NOT represent a change of 6 dB. As a matter of fact,
most receivers try to use 5 dB or less per S unit. 6dB per S unit is a
suggestion that never was widely accepted.

>Dr Ulrich Rohde in "Key components of Modern Receiver Design - Part 1 (QST
>May 1994) suggests " - that we redesign our signal meters along the lines of
>those used by our professional collegues, calibrating them from -20dBuV
>(0.1 uV in 50 ohms) to +100dBuV (100mV in 50 ohms) - ". This implies that the
>receiver has a very wide range AGC that is well characterised to give
>meaningful meter readings. Perhaps this is why non-professional equipment
>doesn't do this.
It also implies we don't use S units.

73 Tom

1895. COMPUTER/CASSETTE RECORDER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 13:00:12 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <99nek0$i9n$1@bob.news.rcn.net>
Source record: 53941

should i use a stereo or monaural y connector to record from a computer to a monaural cassette recorder?

1896. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 13:20:46 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <OmHv6.429989$w35.67679057@news1.rdc1.nj.home.com>
Source record: 53942

Jameco has "carriers" for DIP sockets.

I actually think it's time to go SMD, now if only someone could tell me how
to get the critters to stand still!

Jack ex WA8PZL

"Richard O'Dale" <odale@msn.com> wrote in message
news:69rsbtgieharj6gp9ut5qoqdholf4f45va@4ax.com...
> I'm looking for a nice PLL chip.. But it seems like nobody, Motorola,
> or National makes any in DIP form anymore.
>
>
> Everything is SOIC or stranger.. Is there any easy way to use SOICs on
> a PCB or are their DIPs somewhere?
>
>

1897. QRP for under $20!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 14:24:39 UTC
From: ARS--KC8BCR@webtv.net
Message-ID: <11877-3ABF5127-19@storefull-133.iap.bryant.webtv.net>
Source record: 53943
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I have a bunch of "Peanut Whistle Two" 40 meter QRP CW transmitters in stock and ready to go. These are assembled. Not a kit. So they might also appeal to the disabled/elderly hams who can no longer "roll their own". For a photo and more info, please visit: http://qth.com/dwm

73, Bill - WA8MEA @ Jackson Co., MI QRP Club Station: KC8BCR

1898. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 15:26:35 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9buo3c.tm7.w9wi@linux1.localdomain>
Source record: 53944
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Mon, 26 Mar 2001 09:09:53 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>Thus your TV audio deviation must still be about 25 kHz and the FM
>broadcast deviation 75 kHz. You might have a second language
>subcarrier on a high subcarrier frequency, but isn't the SCA
>transmission still in use on some FM broadcasts? With similar baseband
>bandwidths, but quite different deviation, I do not see, how these
>both signals could have similar bandwidth.

The signal bandwidths are different (with FM having more) but FM subcarriers
(of course except for the 38KHz L-R) are not meant for reception by the
general public. So it's acceptable for a typical FM receiver to use a
narrow filter that doesn't pass the SCA. The special FM receivers that
are intended to receive the 67 and 92KHz subcarriers *do* require a wider
filter.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1899. Re: radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 19:02:36 UTC
From: aduffy@sprint.ca
Message-ID: <3ABF924B.D57AFDAA@sprint.ca>
Source record: 53945

Thanks John!

I would have never though of doing something like that. Any ideas where I could locate a circuit diagram for this supply?

Using a couple of batteries and a ammeter I discovered without a load on the output shaft, the screwdriver draws about 800mA. I am able to reduce the rpm with lower voltage, but it looses most of it's torque and the little 3V power supply I picked up at the surplus store warms up after about 10 min (it's only rated at 240mA, although during use it wouldn't have much of a duty cycle). Now under load of the capacitor it may prove to be useless all together.

73,

Tony
VA3-ATD
B +5wpm

John O'Flaherty wrote:

> aduffy@sprint.ca wrote:
>
> > {snipped}
> >
> > And finally any ideas on controlling the cordless screwdriver to reduce
> > it's rpm without using gear reduction (if possible). I already have an
> > idea to limit rotation to a half rev but don't want the thing to rotate
> > in half a sec or less! :-)
>
> One way to run a dc motor at low speed without loss of torque is to use a
> low duty cycle drive signal, at full voltage. It shouldn't be of so high a
> frequency that the motor just averages it, or so low that the pulsations are
> troublesome, so that you get pretty smooth motion with full torque. Maybe 5
> or 10 pulses per second, and then the motor will be variable from very low
> speed to full speed as the duty cycle goes from a minimum value to 100%.
> A simple way to reduce the speed would be to operate the thing on half-wave
> rectified ac of appropriate voltage, which would give you a 50% duty cycle
> with no more trouble than the diode. If that was slow enough, you wouldn't
> need to do anything else.
>
> john

1900. Re: COMPUTER/CASSETTE RECORDER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 19:21:26 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3abf96d2_4@corp.newsfeeds.com>
Source record: 53946

It seems the best would be to use a mono connector. If you are recording a stereo source and use a stereo cable you are likely to only get half of what you are trying to record.
marvin rosen <n3bqa@starpower.net> wrote in message news:99nek0$i9n$1@bob.news.rcn.net...
> should i use a stereo or monaural y connector to record from a computer to
> a monaural cassette recorder?
>
>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

1901. Re: AM BROADCAST BAND TUNER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 20:19:01 UTC
From: Bill Walker <bwalker@earth1.net>
Message-ID: <tbv8p72ui1og8d@corp.supernews.com>
Source record: 53797

See www.earth1.net/~bwalker/elec.html

"marvin rosen" <n3bqa@starpower.net> wrote in message
news:99huio$2k5$1@bob.news.rcn.net...
> would it be practical/possible to build a tuner for the am bcb for
receiver
> experimentation?
>
>

1902. Re: radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 21:14:37 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ABFB13D.B25893B0@toast.net>
Source record: 53800

aduffy@sprint.ca wrote:

> Thanks John!
>
> I would have never though of doing something like that. Any ideas where I could
> locate a circuit diagram for this supply?
>
> Using a couple of batteries and a ammeter I discovered without a load on the
> output shaft, the screwdriver draws about 800mA. I am able to reduce the rpm
> with lower voltage, but it looses most of it's torque and the little 3V power
> supply I picked up at the surplus store warms up after about 10 min (it's only
> rated at 240mA, although during use it wouldn't have much of a duty cycle). Now
> under load of the capacitor it may prove to be useless all together.
>
> 73,
>
> Tony
> VA3-ATD
> B +5wpm
>
> John O'Flaherty wrote:
>
> > aduffy@sprint.ca wrote:
> >
> > > {snipped}
> > >
> > > And finally any ideas on controlling the cordless screwdriver to reduce
> > > it's rpm without using gear reduction (if possible). I already have an
> > > idea to limit rotation to a half rev but don't want the thing to rotate
> > > in half a sec or less! :-)
> >
> > One way to run a dc motor at low speed without loss of torque is to use a
> > low duty cycle drive signal, at full voltage. It shouldn't be of so high a
> > frequency that the motor just averages it, or so low that the pulsations are
> > troublesome, so that you get pretty smooth motion with full torque. Maybe 5
> > or 10 pulses per second, and then the motor will be variable from very low
> > speed to full speed as the duty cycle goes from a minimum value to 100%.
> > A simple way to reduce the speed would be to operate the thing on half-wave
> > rectified ac of appropriate voltage, which would give you a 50% duty cycle
> > with no more trouble than the diode. If that was slow enough, you wouldn't
> > need to do anything else.
> >
> > john

Tony,
Unfortunately, I don't have a circuit at hand. You could try the half-wave rectified ac at full voltage first, to see what speed reduction you would get. Beyond that, you would need a duty cycle controller and an amplifier or driver. For the amplifier, I think there are a lot of vmos fets that could handle more than an amp, and that could be driven very easily from logic. Maybe you could use a cmos 555 timer with a variable resistor to produce the variable duty cycle. It's been years since I've done any of this kind of thing, so it wouldn't surprise me if you could get a chip to do it all in one package, but I'm at a loss for a reference. Maybe somebody else in the group has an idea?

john

1903. Where can I find Motorola pager schematics to use for design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 21:48:36 UTC
From: Josh DeWinter <dewinter@wsunix.wsu.edu>
Message-ID: <99od3m$6ej4$1@murrow.murrow.it.wsu.edu>
Source record: 53798

Hi.
I am looking at an old pager I bought recently, a Motorola BPR 2000. Its an older 80's - early 90's audio pager. It really fascinates me that this thing runs so well off of only a single AA battery, but yet there are models of this same unit that can operate anywhere from 30 to 900 MHz. I would like to see how the heck they do it, so as to model a circuit of my own from this design. If anyone knows where I could get a schematic for this or any of the Motorola pagers, I'd be grateful.
I'm thinking this may still be proprietary, and hence secret, but occasionally I will find older user manuals that included schematics. (Who knows why they did, but they did). Radio Shack was famous for this with alot of their RF equipment.

Thanks for your help.

-Josh DeWinter
Pullman, WA

1904. re: Famous HRO Dial

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 22:17:52 UTC
From: k5bdz@aol.com
Message-ID: <20010326171752.28129.00001344@ng-mi1.aol.com>
Source record: 53799

The HRO Dial, famous and memorable, is spoken for.
Thanks for all the interest
Bill K5BDZ

1905. Solder joints, flux activity, dated flux etc/

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 23:06:20 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3abfc957.10117617@news.usfamily.net>
Source record: 53801
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.antiques.radio+phono

Hi,

Have you been soldering for years and now are getting cold solder joints? Are you aware that flux has a limited lifetime? Did you buy that 1 Lb of solder at a flea marked for next to nothing and find that it doesn't solder well?

Flux has a limited life. This includes the rosin flux in the core of your solder. You can still utilize that solder with an external application of flux. Kester sells a "tin" of flux, SP 44. This is a paste and seems to be mildly active. I have also tried flux from several other manufactures and have found out that a very active rosin flux is needed when repairing old solder joints with old solder.

The most active flux that I have found is sold by Radio Shack. It is a paste flux in a squeeze tube. Works great and will help you to produce those beautiful shiny joints again.

Does anyone know who makes this flux for Radio Sack and how it can be purchased direct? I would like to buy this flux in another container. It is difficult to squeeze this stuff out without making a mess.

Regards,

Bob

1906. Re: Air Variable Capacitor Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 23:10:17 UTC
From: Winfield Hill <hill@rowland.org>
Message-ID: <3ABFCC59.DB7A1168@rowland.org>
Source record: 53802
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design

Ralph Mowery wrote:
>
> How about a rule of thumb voltage/spacing from the ARRL Handbook?
> This is for a transmitter plate tank capacitor.
>
> Spacing (in) Peak Voltage
>
> .015 1000
> .03 2000
> .07 3000
> .125 4500
> .15 6000
> .25 9000
> .35 11000
> .50 13000

Best reason I can think of for using vacuum variable caps.
Thanks,
- Win

Winfield Hill
Rowland Institute for Science
100 Edwin Land Blvd
Cambridge, MA 02142

1907. Re: Solder joints, flux activity, dated flux etc/

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-26 23:21:19 UTC
From: Jim <jspaz@i-55.com>
Message-ID: <3ABFCEEF.45CF3054@i-55.com>
Source record: 53803
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.antiques.radio+phono

I am using some solder that is almost 20 years old. Still works
fine and makes good looking joints. I do use 63 / 37 solder
rather than the normal 60 / 40 type. I find that it has always
made better looking joints and does less damage to the circuit
boards.

Jim

Bob wrote:
>
> Hi,
>
> Have you been soldering for years and now are getting cold solder
> joints? Are you aware that flux has a limited lifetime? Did you buy
> that 1 Lb of solder at a flea marked for next to nothing and find that
> it doesn't solder well?
>
> Flux has a limited life. This includes the rosin flux in the core of
> your solder. You can still utilize that solder with an external
> application of flux. Kester sells a "tin" of flux, SP 44. This is a
> paste and seems to be mildly active. I have also tried flux from
> several other manufactures and have found out that a very active rosin
> flux is needed when repairing old solder joints with old solder.
>
> The most active flux that I have found is sold by Radio Shack. It is
> a paste flux in a squeeze tube. Works great and will help you to
> produce those beautiful shiny joints again.
>
> Does anyone know who makes this flux for Radio Sack and how it can be
> purchased direct? I would like to buy this flux in another container.
> It is difficult to squeeze this stuff out without making a mess.
>
> Regards,
>
> Bob

1908. Re: Solder joints, flux activity, dated flux etc/

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 00:11:04 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <sUQv6.1883$hU1.442949@news4.aus1.giganews.com>
Source record: 53804
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.antiques.radio+phono

Most paste flux is acid based and shouldn't be used for electronics.

I have been using flux core solder that is very old and it's just fine. I have some paste flux too but the only think I use that for is 'tinning' the iron tip and any kind of non-electronic work such as outdoor metal, etc. And when I do that, I use 50-50 tin-lead rather than 63-37 or 60-40. It's stronger although does require higher temperatures for a good joint. But I don't use a regular soldering iron - I use a propane torch with solder tip for such stuff.

73, Bob K6DDX

1909. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 01:01:34 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ABFEA86.E6CD63ED@netscape.net>
Source record: 53805
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Ralph Mowery wrote:
>
> Looks like you are not from around here..hihi. I do not know the TV and
> FM band standards in the VE land but in the US there is a big differance
> in the TV and FM deviation. I think ther TV uses 25 khz for the audio
> and the vidio is AM . The FM stations use 200 khz for the deviation.
> Bad thing about the standards are there are several differant ones
> depending on where you are at.
>
> > >
> > > Michael VE2BVW
> >
> > TV uses the same deviation as FM radio. I've worked on the transmitters
> > at three tv stations, and took care of the equipment in a CATV headend.
> > all used the same modulation.
> >
> > You could add a couple more stages of 10.7, and the extra transformers
> > will narrow the signal a little. I've build outboard amps and a few got
> > so narrow I had to add a resistor across the transformer windings to
> > lower t Q to regain some bandwidth, at the cost of some gain, but I had
> > an extra 10 dB to burn, so it worked out well. You might get by with a
> > tuned trap on each side of the passband to reduce the bandwidth, but
> > watch out for excessive phase shift.
> >
> > The biggest problem with excessive bandwidth is lower recovered
> > signal level, if there is no interfering signal in the passband, a
> > couple Db of gain will take care of the problem.

FM channel spacing is 200 Khz, but the deviation is +/- 75khz. TV uses
25 khz for the mono channel, but the transmitters are made to handle a
second channel, and use double the horizontal deflection rate to
multiplex the two channels. That is 15,734 hz X 2, or 31,468 hz, and the
second channel is above it. Look at the Harris site, their transmitters
go well beyond +/- 100 khz deviation with low distortion and phase noise
in the recovered audio.

TV video is vestigial sideband, not AM. The full upper sideband is
transmitted, along with the carrier left, and a small part of the lower
sideband.

1910. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 01:04:15 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ABFEB27.E94BD7B9@netscape.net>
Source record: 53806
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Jim Weir wrote:
>
> "Michael A. Terrell" <michaelaterrell@netscape.net>
> shared these priceless pearls of wisdom:
>
> ->
> ->TV uses the same deviation as FM radio. I've worked on the transmitters
> ->at three tv stations, and took care of the equipment in a CATV headend.
> ->all used the same modulation.
>
> That doesn't happen to be the truth. FM radio uses 75 kHz. deviation and TV
> uses 25 kHz. deviation.
>
> You must have been the guy that "adjusted" the TV modulation to let the
> commercials drive us out of the room.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

Not me, the TV stations I worked at didn't sell advertising. One was a
military station, and the other two were Christian stations. One of them
was a 5 Mw ERP plant.

1911. SB-220 Brand New Front Panel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 01:53:31 UTC
From: RB <K9RB.Rog@telocity.com>
Message-ID: <xoSv6.933$Kq.271476@newsrump.sjc.telocity.net>
Source record: 53819

2 days left!
Freshen up your SB-220.
Probably the only one left in captivity!
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1223446434

1912. Re: Where can I find Motorola pager schematics to use for design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 03:54:31 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AC00EF7.B93A4BC4@nettally.com>
Source record: 53808

You might find some data on low power paging receiver chips on Motorola's semiconductor website. Did you know that the receiver in that BPR 2000 is off most of the time? It turns on long enough to look for a preamble code from the paging transmitter. If the preamble code is heard, it wakes up and listens for its own message. Otherwise it goes to sleep for a while. If you monitor the local oscillator circuit with your scanner, you will hear it cycle. I think Motorola got in a patent dispute over this years ago. I used to hear my neighbors beepers (when I lived in the city) local oscillators turning on and off. (pretty wierd!)

Josh DeWinter wrote:

> Hi.
> I am looking at an old pager I bought recently, a Motorola BPR 2000. Its
> an older 80's - early 90's audio pager. It really fascinates me that this
> thing runs so well off of only a single AA battery, but yet there are models
> of this same unit that can operate anywhere from 30 to 900 MHz. I would
> like to see how the heck they do it, so as to model a circuit of my own from
> this design. If anyone knows where I could get a schematic for this or any
> of the Motorola pagers, I'd be grateful.
> I'm thinking this may still be proprietary, and hence secret, but
> occasionally I will find older user manuals that included schematics. (Who
> knows why they did, but they did). Radio Shack was famous for this with
> alot of their RF equipment.
>
> Thanks for your help.
>
> -Josh DeWinter
> Pullman, WA

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

1913. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 03:55:03 UTC
From: Des Bromilow <des.bromilow@citec.com.auV2>
Message-ID: <3AC00F17.F57AE35C@citec.com.auV2>
Source record: 53807

best I can offer is this little tip.

get a cheap DIP socket, and a fine soldering iron, and some wire wrap
wire.

simply "extend" the legs of the SMT to the sockets on the DIP then
adhere the SMT into the centre of the socket with some glue.

Des

Richard O'Dale wrote:
>
> I'm looking for a nice PLL chip.. But it seems like nobody, Motorola,
> or National makes any in DIP form anymore.
>
> Everything is SOIC or stranger.. Is there any easy way to use SOICs on
> a PCB or are their DIPs somewhere?

--
Des Bromilow
Queensland Rocketry Association
Brisbane
Australia
"Inner Child" be darned... I'm having WAY too much fun rediscovering
my "Inner Teenager"!!! dyb 11/2/99
Email addresses: des.bromilow@citec.com.auV2 and
desbromilow@primus.com.auV2
remove the German anti-spam device before replying.

1914. Re: Surplus 10 GHz Gunnplexer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 05:45:16 UTC
From: Bart Rowlett <bart@wb6hqk.ampr.org>
Message-ID: <3AC028EC.26E0EB12@wb6hqk.ampr.org>
Source record: 53809

Hi Randy,

nelson@louisacomm.net wrote:
>
> Two 10 GHz gunnplexers. I bought these a few years ago and never got
> around to finding time to do anything with them.
>
> I have JPGs of the unit I can send.
>
> $ 25.00 each
> $ 50.00 for the pair including shipping to the lower 48.
>
> Randy, WB0VHB

Are they still available? Do you have a part number?

Will you take a personal check? No problem if you hold it for a week or
so to let it clear.

Thanks,

bart
wb6hqk

1915. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 11:01:59 UTC
From: John / NS1Z <ns1z@arrl.net>
Message-ID: <3ac0766f_1@news.cybertours.com>
Source record: 53810
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Isn't vestigial sideband AM, as is SSB, CW etc? Is there someting beyond AM and FM.

Michael A. Terrell <michaelaterrell@netscape.net> wrote in message news:3ABFEA86.E6CD63ED@netscape.net...
> Ralph Mowery wrote:
> TV video is vestigial sideband, not AM. The full upper sideband is
> transmitted, along with the carrier left, and a small part of the lower
> sideband.

1916. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 11:32:51 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c0up8.2d4.w9wi@linux1.localdomain>
Source record: 53811
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Tue, 27 Mar 2001 11:01:59 -0000, John / NS1Z <ns1z@arrl.net> wrote:
>Isn't vestigial sideband AM, as is SSB, CW etc? Is there someting beyond AM
>and FM.

Yes. It is generally accomplished by straight AM modulation followed by a filter to roll off the lower sideband. (in older transmitters, a HUGE stack of piping was used to chop it right before the antenna. More recently, modulation and filtering are done at low level & a bunch of linear amplifiers used.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1917. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 13:01:26 UTC
From: Ruud Poeze <radiocaroline@wxs.nl>
Message-ID: <3AC08F26.97EAE0DC@wxs.nl>
Source record: 53812
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain schreef:
>
> On Tue, 27 Mar 2001 11:01:59 -0000, John / NS1Z <ns1z@arrl.net> wrote:
> >Isn't vestigial sideband AM, as is SSB, CW etc? Is there someting beyond AM
> >and FM.
>
> Yes. It is generally accomplished by straight AM modulation followed by a
> filter to roll off the lower sideband. (in older transmitters, a HUGE stack
> of piping was used to chop it right before the antenna. More recently,
> modulation and filtering are done at low level & a bunch of linear
> amplifiers used.)
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
> Due to excessive spam, messages from uu.net are deleted unread.

Vestigal Sideband AM is used by all terrestrial BC TV transmitters for
their video / vision signal.
Still wonder why they dont do it for AM radio, and use the free coming
bandwith for extra audiospectrum.

Ruud

1918. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 14:37:54 UTC
From: Hans Summers <HansSummers@HotMail.Com>
Message-ID: <99q8li$26gn7$1@ID-61331.news.dfncis.de>
Source record: 53813

"Des Bromilow" <des.bromilow@citec.com.auV2> wrote in message
news:3AC00F17.F57AE35C@citec.com.auV2...
> best I can offer is this little tip.
>
> get a cheap DIP socket, and a fine soldering iron, and some wire wrap
> wire.
>
> simply "extend" the legs of the SMT to the sockets on the DIP then
> adhere the SMT into the centre of the socket with some glue.

Like here http://www.hanssummers.com/computers/newz80/intro.htm#Chipset (but
I'm not sure I would say "simply"!)

>
> Des

Hans Summers
http://www.HansSummers.Com

1919. Re: Cutting rectangular holes in project cases

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 15:50:37 UTC
From: conal@drunkenbard.com
Message-ID: <3ac0b655.92039646@news.newsreader.com>
Source record: 53814

On Fri, 23 Mar 2001 19:02:25 -0700, Jason C <cana3716@cs.uidaho.edu>
wrote:

>What tools and techniques are used to cut rectangular holes in project
>cases?

I've seen some luck in similar situations using a dremel with either
the router attachment, or the router-like cutting guide. Both are
available at WalMart, Lowes, and Home Depot in this area. The drill
bit style cutting bit seems to give a pretty smooth edge.

Conal Fitzgerald
conal@drunkenbard.com
http://www.drunkenbard.com

1920. Curve Tracer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 17:36:19 UTC
From: Tom Gootee <tomg@fullnet.com>
Message-ID: <01c0b6e4$64357e80$01eaa8c0@hp.gootee>
Source record: 53815

Everyone:

I now have a low-cost, "plans-only" version (e-mailable), and a new lower-priced kit version, of my Curve Tracer. Check them out, at:

http://www.fullnet.com/u/tomg/gooteect.htm

I also have lots of good used Tektronix and HP and other test equipment for sale, very reasonably, at:

http://www.fullnet.com/u/tomg/gooteesu.htm

Thanks for looking.

Tom

tomg@fullnet.com

1921. Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 18:26:38 UTC
From: troglodite@aol.com
Message-ID: <20010327132638.22126.00001937@ng-fc1.aol.com>
Source record: 53816

Greetings,

I am in the process of designing and putting together a CW transmitter similar to one I built in 1956. Though this is a vacuum-tube project, I am giving serious thought to incorporating a frequency synthesizer due to the cost of crystals these days. I'll be operating on 3.5, 7, and 14mhz, all convenient multiples. (sort of) Since I'll have to switch the driver and final coils, I could also reserve a deck of the bandswitch for programming the synthesizer output to the correct frequency range. The main frequency control would be a rotary encoder and digital display of exact frequency. I could probably pick some specific increment like 10Khz/step, or possibly make this settable.

Anyone have any idea of suitable IC's for this purpose, or perhaps even an available circuit board? Some of the Motorola chips look like they might work, but I'm not so sure how "clean" the built in oscillators would be. Anyone been down this road? Thanks in advance.

1922. Kenw. TS450 low output on 160M

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 19:39:29 UTC
From: mark <mfvernooij@wanadoo.nl>
Message-ID: <3ac0eca2$0$16183@reader5>
Source record: 53817

My Kenwood TS-450sat seems to have a problem on 160M. It's only gives 6 or 7 watts output on 160 meters. Power on all other bands is +/- 100watts. I bought this radio 2 years ago and never checked the power on 160M since i do not have any low band antennas. The radio was modified for receiving and transmitting full hf coverage at the time i bought it. I thinks there's something wrong with this modification. Some countries do have +/- 10 watt maximum power limit on 160M. Maybe the mod isn't done the right way (wrong rectifiers removed). I suspect the radio is in a special modus now, i know you can get a 50 watt on 28MHz limit if you cut the wrong rectifiers.

Is the problem really caused by a wrong modification or is it a defect in the radio?

tnx, Mark.

1923. About 170 equipment listings added, FS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 21:09:46 UTC
From: Tom Gootee <tomg@fullnet.com>
Message-ID: <01c0b702$35d457a0$01eaa8c0@hp.gootee>
Source record: 53820

Just added (3/27/01): About 170 more items of used test equipment for sale,
at:

http://www.fullnet.com/u/tomg/gooteesu.htm

Includes Tektronix, HP, Fluke, Wavetek, and many others. Thanks for
looking.

Tom

1924. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 21:17:06 UTC
From: nomail@rob.knoware.nl
Message-ID: <slrn9c20qi.o14.nomail@linux.pe1chl.ampr.org>
Source record: 53821
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Ruud Poeze <radiocaroline@wxs.nl> wrote:

>w9wi@linux1.localdomain schreef:
>>
>> On Tue, 27 Mar 2001 11:01:59 -0000, John / NS1Z <ns1z@arrl.net> wrote:
>> >Isn't vestigial sideband AM, as is SSB, CW etc? Is there someting beyond AM
>> >and FM.
>>
>> Yes. It is generally accomplished by straight AM modulation followed by a
>> filter to roll off the lower sideband. (in older transmitters, a HUGE stack
>> of piping was used to chop it right before the antenna. More recently,
>> modulation and filtering are done at low level & a bunch of linear
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>> Doug Smith W9WI
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>> Due to excessive spam, messages from uu.net are deleted unread.

>Vestigal Sideband AM is used by all terrestrial BC TV transmitters for
>their video / vision signal.
>Still wonder why they dont do it for AM radio, and use the free coming
>bandwith for extra audiospectrum.

Because when they want to make a change that requires investment in
transmitting equipment and likely incompatability with many existing
receivers, it is better to make a leap forward instead of a small
incremental change.

Experiments are now done with digital radio on shortwave. That seems like
a better followup for AM than VSB.

Same holds for TV of course... the old VSB standard with added color
subcarrier is still used and was never replaced by all the new inventions
like D2-MAC and HDTV, even when these provided a superior picture.
And this has proven to be fortunate because now that they have waited
until digital technology has become practical, better solutions are
possible. Even with digital technology, experiments have shown that
some modulation schemes are better than others, and early adopters have
become victims of that.

Even in these days, where services that require dedicated equipment that
is useless without the service provider appear and disappear within 5
or 10 years, it seems worthwile to think a little more before changing
a standard like radio or TV broadcast.

Rob
--
+---------------------------------+-------------------------------------+
| Rob Janssen pe1chl@amsat.org | WWW: http://www.knoware.nl/users/rob |
| AMPRnet: rob@pe1chl.ampr.org | AX.25 BBS: PE1CHL@PI8WNO.#UTR.NLD.EU |
+---------------------------------+-------------------------------------+

1925. Multiplexing Power with Video

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-27 21:48:17 UTC
From: Richard Gurske <rfgurske@ix.netcom.com>
Message-ID: <99sml8jcr1@slb6.atl.mindspring.net>
Source record: 53831

I have a CCD TV camera with two connectors, one for video out and one for power in. I would like to combine the power and the video into one coaxial cable. I know that this can be done but don't have the component requirements. Could anyone supply me with the necessary information? FWIW the power requirement for the camera is 300 MA due to the IR LEDS built into the camera housing.

Thanks

Dick

1926. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 02:56:56 UTC
From: " H. P. Friedrichs" <pfriedr@NOSPAMmindspring.com>
Message-ID: <3AC152F8.9B27787D@NOSPAMmindspring.com>
Source record: 53822

About six months ago I needed to breadboard a circuit which used chips that were only available in soic. I found a company that mades tiny circuit boards with dip legs, in whatever leg configuration you want (6, 8, 14, 16, pins, etc). You simply take your soic chip, solder it to the top of the adapter, and presto...it's now a dip.
Go check Newark or Digikey. I bought it from one of them. Hope that helps.

Pete

Des Bromilow wrote:

> best I can offer is this little tip.
>
> get a cheap DIP socket, and a fine soldering iron, and some wire wrap
> wire.
>
> simply "extend" the legs of the SMT to the sockets on the DIP then
> adhere the SMT into the centre of the socket with some glue.
>
> Des
>
> Richard O'Dale wrote:
> >
> > I'm looking for a nice PLL chip.. But it seems like nobody, Motorola,
> > or National makes any in DIP form anymore.
> >
> > Everything is SOIC or stranger.. Is there any easy way to use SOICs on
> > a PCB or are their DIPs somewhere?
>
> --
> Des Bromilow
> Queensland Rocketry Association
> Brisbane
> Australia
> "Inner Child" be darned... I'm having WAY too much fun rediscovering
> my "Inner Teenager"!!! dyb 11/2/99
> Email addresses: des.bromilow@citec.com.auV2 and
> desbromilow@primus.com.auV2
> remove the German anti-spam device before replying.

1927. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 02:58:07 UTC
From: " H. P. Friedrichs" <pfriedr@NOSPAMmindspring.com>
Message-ID: <3AC1533F.5090E5CF@NOSPAMmindspring.com>
Source record: 53823

About six months ago I needed to breadboard a circuit which used chips that were only available in soic. I found a company that mades tiny circuit boards with dip legs, in whatever leg configuration you want (6, 8, 14, 16, pins, etc). You simply take your soic chip, solder it to the top of the adapter, and presto...it's now a dip.
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> Email addresses: des.bromilow@citec.com.auV2 and
> desbromilow@primus.com.auV2
> remove the German anti-spam device before replying.

1928. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 03:00:23 UTC
From: " H. P. Friedrichs" <pfriedr@NOSPAMmindspring.com>
Message-ID: <3AC153C7.4455E4B3@NOSPAMmindspring.com>
Source record: 53824

I've used the "solder little wires to a dip header" approach. It works, but it's *extremely* tedious. I wouldn't advise doing it unless you absolutely have to. I presume you have good eyes and/or a decent magnifying glass.

About six months ago I needed to breadboard a circuit which used chips that were only available in soic. I found a company that mades tiny circuit boards with dip legs, in whatever leg configuration you want (6, 8, 14, 16, pins, etc). You simply take your soic chip, solder it to the top of the adapter, and presto...it's now a dip.
Go check Newark or Digikey. I bought it from one of them. Hope that helps.

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> my "Inner Teenager"!!! dyb 11/2/99
> Email addresses: des.bromilow@citec.com.auV2 and
> desbromilow@primus.com.auV2
> remove the German anti-spam device before replying.

1929. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 03:41:28 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <I3dw6.49881$K54.5878087@news02.optonline.net>
Source record: 53825

Hi,

If you do the transmitter with tubes and crystals you have a piece of history. If you do it with tubes and a modern synthesizer you have a novel piece of gear. Depends on what you are really trying to do.

Compared to the price of the vacuum tubes in the transmitter I'd say that the price of the crystals has gone down since 1964 (you have a couple of years on me ....).

The traditional surplus houses have pretty much gone into other lines so that source of crystals is not what it once was. If you hunt around though I think you will find crystals pretty cheap out there.

If you hit the hamfests you can still find ft-243's at the same $2 to $4 that they have been more or less forever.

The last time I got into selling modern crystals they went for < $5 each and they sure didn't sell very fast. I have seen others trying to sell modern parts and not having much more luck than I did. I'd at least hit a local hamfest and make a couple of guys some offers.

Just a thought.....

Bob
KB8TQ

"Troglodite" <troglodite@aol.com> wrote in message
news:20010327132638.22126.00001937@ng-fc1.aol.com...
> Greetings,
>
> I am in the process of designing and putting together a CW
transmitter similar
> to one I built in 1956. Though this is a vacuum-tube project, I am
giving
> serious thought to incorporating a frequency synthesizer due to the
cost of
> crystals these days. I'll be operating on 3.5, 7, and 14mhz, all
convenient
> multiples. (sort of) Since I'll have to switch the driver and final
coils, I
> could also reserve a deck of the bandswitch for programming the
synthesizer
> output to the correct frequency range. The main frequency control
would be a
> rotary encoder and digital display of exact frequency. I could
probably pick

> some specific increment like 10Khz/step, or possibly make this
settable.
>
> Anyone have any idea of suitable IC's for this purpose, or perhaps
even an
> available circuit board? Some of the Motorola chips look like they
might work,
> but I'm not so sure how "clean" the built in oscillators would be.
Anyone been
> down this road? Thanks in advance.

1930. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 03:57:19 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3AC1611E.DAA8FDBA@nettally.com>
Source record: 53827

I would think the reason that DIP's are no longer available, is that the newer packages have less inductance (and capacitance) and are more suitable for UHF applications.

" H. P. Friedrichs" wrote:

> About six months ago I needed to breadboard a circuit which used chips that
> were only available in soic. I found a company that mades tiny circuit
> boards with dip legs, in whatever leg configuration you want (6, 8, 14, 16,
> pins, etc). You simply take your soic chip, solder it to the top of the
> adapter, and presto...it's now a dip.
> Go check Newark or Digikey. I bought it from one of them. Hope that helps.
>
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>
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> > remove the German anti-spam device before replying.

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

1931. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 04:03:14 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10103272255580.7306-100000@Gloria.CAM.ORG>
Source record: 53826

On Wed, 28 Mar 2001, Bob Camp wrote:

> Hi,
>
> If you do the transmitter with tubes and crystals you have a piece of
> history. If you do it with tubes and a modern synthesizer you have a
> novel piece of gear. Depends on what you are really trying to do.
>
When I read the original post, my thought was that he should build
a crystal transmitter, and then build an external synthesizer. This
was a fairly standard scheme in the old days, except the external
unit was a VFO (which usually worked ond fixed range, and was multiplied
to frequency in the transmitter).

Putting things in two boxes has some advantages. You can get
the transmitter working with a crystal or two, while you work
on the synthesizer (or work towards your General license!). You
get the synthesizer away from the heat in the transmitter. It might
be easier to shield the synthesizer in a separate box (keeping the RF
out of the synthesizer may be a concern otherwise), and a smaller
box may make for better mechanical stability.

Of course, all of this applied back when the VFOs were in external
boxes, too.

And having a crystal controlled transmitter means that someone
could easily build a VFO as well as a synthesizer, for the ultimate
in boasting.

Michael VE2BVW

1932. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 08:36:38 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ac1a1ec.7174741@news.cantech.net.au>
Source record: 53828

On Tue, 27 Mar 2001 22:57:19 -0500, Joe Leikhim
<jleikhim@nettally.com> wrote:

>I would think the reason that DIP's are no longer available, is that the newer
>packages have less inductance (and capacitance) and are more suitable for UHF
>applications.
These are sound and logical reasons, but it's not engineering
considerations that have seen the demise of DIL chips. It's the simple
economics of pick'n'place with holes.

1933. WTB: Power Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 10:38:28 UTC
From: DBrogan@aol.com
Message-ID: <2f.12f4e3c0.27f31918@aol.com>
Source record: 53829

Have an old Knight Signal Generator (dumpster special), looking for a replacement power transformer, 120V Primary, 40-0-40, 6.3 secondary.Regards

Dennis
KG4IGH

1934. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 11:48:59 UTC
From: j.m.franke@larc.nasa.gov
Message-ID: <j.m.franke-2803010648590001@franke.larc.nasa.gov>
Source record: 53830
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

> >Vestigal Sideband AM is used by all terrestrial BC TV transmitters for
> >their video / vision signal.
> >Still wonder why they dont do it for AM radio, and use the free coming
> >bandwith for extra audiospectrum.
>

They do, tune in CHU on 3.330 MHz first select upper and then lower sideband, one is missing and the signal still sounds good on an AM detector. Other shortwave broadcasters do the same.

John

1935. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 15:32:26 UTC
From: troglodite@aol.com
Message-ID: <20010328103226.22187.00002321@ng-fc1.aol.com>
Source record: 53832

>If you do the transmitter with tubes and crystals you have a piece of
>history. If you do it with tubes and a modern synthesizer you have a
>novel piece of gear. Depends on what you are really trying to do.

Bob,

Thanks for your reply. The intent was to build is as a "classic" design, with a front panel socket for the traditional FT-243 crystal. The synthesizer would be external and plug into the back. Tube linup is 5763 oscillator, 2E26 driver, 4-65 final. Probably will use SS diodes for the power supply, though the original used 866A's, but I do recall they generated some hash on 80M.

Anyway, the intent is to get back into CW, and also to recreate the rig I built many years ago - in somewhat updated form. I'm already running an all vacuum-tube station using a Hallicrafters SX-117 and Heath HX-10 transmitter. I've also restored several other pieces of old tube gear, including a Hallicrafters SX-28, which is what gave me the itch to get back into the hobby, and the incentive to finally get my General. Now I just want to build something from scratch again.

Doug Moore KB9TMY (Formerly K6HWY)

1936. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 15:34:25 UTC
From: troglodite@aol.com
Message-ID: <20010328103425.22187.00002323@ng-fc1.aol.com>
Source record: 53833

>When I read the original post, my thought was that he should build
>a crystal transmitter, and then build an external synthesizer.

You got it right Mike. Thanks for your response and see my other post on the same subject.

Doug Moore KB9TMY (Formerly K6HWY)

1937. RF Power Meter problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 16:11:48 UTC
From: la8ak@online.no
Message-ID: <3ac20bfc.503088696@news.online.no>
Source record: 53834

tried some different RF power meter circuits using two instruments,
but the instrument for reflected power still has some minimum
deflection, seems impossible to null it down to zero. Is this normal?

One meter has a resistive RF-divider from one RF-connector, the other
uses capacitive divider - 1-20pF trimmer in series with 100pF - to
ground. The probe is built into the small Eddystone 7134 die-cast box

Is it just the problem I have to live with or is a better circuit
recommended?

73
Jan-Martin
LA8AK

1938. Re: Multiplexing Power with Video

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 16:25:43 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AC21087.794BDF32@rupert.tds-az.lmco.com>
Source record: 53835

Richard Gurske wrote:
>
> I have a CCD TV camera with two connectors, one for video out and one for
> power in. I would like to combine the power and the video into one coaxial
> cable. I know that this can be done but don't have the component
> requirements. Could anyone supply me with the necessary information? FWIW
> the power requirement for the camera is 300 MA due to the IR LEDS built into
> the camera housing.
>
> Thanks
>
> Dick

The idea behind this is to insert a DC blocking capacitor at each
end of the transmission line. Then apply the DC AFTER the capacitor
on the input end and take it off BEFORE the capacitor on the output
end. A crude ascii diagram is below. You will need a fixed width
font, like courier, to view it properly.

```
|| COAX CENTER ||
VIDEO ------||------------------------------||------ VIDEO
|| | | ||
| |
DC PLUS ---------- ----------- DC PLUS

DC MINUS COAX SHIELD DC MINUS
AND VIDEO ------------------------------------------ AND VIDEO
GROUND GROUND
```

The capacitors keep the DC voltage from causing problems on
either end of the transmission line. This is a common thing
to do for say, controlling a remote antenna relay. To the RF,
a capacitor of 0.1 uF would look like a short and allow it
to pass to the output. The DC voltage sees the capacitors a
open circuits and blocks.

However, what you need to remember is that the capacitor value
also sets the low frequency limit. With RF there is not much
of a problem because it is usually well above the frequency
where roll-off starts. Baseband video, on the other hand, may
be a little bit of a problem. A composite base band video signal
contains some very low frequencies and might require some
fairly large capacitors to prevent them from being attenuated.

It's not very likely, but, your camera setup may use a DC bias
on the video that would be eliminated by such a setup. In that

case, this kind of setup couldn't be used at all.

But, it's simple enough to give it a try. I would start with capacitors around 10 uF and work my way up. If it seems to be loosing sync or seems unstable, increase the capacitor size.

Martin, K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore my responses may not be as timely as you, or I, would like them to be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

1939. FS: Fun SWL/Ham gadgets for disabled/elderly....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 16:55:03 UTC
From: ARS--KC8BCR@webtv.net
Message-ID: <23140-3AC21767-7@storefull-134.iap.bryant.webtv.net>
Source record: 53836
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

```
...or anyone else who just likes the joy of playing around with little
electronic projects. NOT KITS! Fully assembled. BUT.... at kit prices!
For photos and further details, please visit: http://qth.com/dwm

73, Bill - WA8MEA @ Jackson Co. QRP Club Station: KC8BCR
```

1940. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 17:31:08 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <0q74ct4g2ipt7tr4grbh5jl95glo41h65s@4ax.com>
Source record: 53837
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

"Michael A. Terrell" <michaelaterrell@netscape.net>
shared these priceless pearls of wisdom:

->
->TV video is vestigial sideband, not AM. The full upper sideband is
->transmitted, along with the carrier left, and a small part of the lower
->sideband.

Mr. Terrell, you are beginning to have less and less credibility with me. First the FM and TV audio deviations are equal, and now the video is not AM.

The video IS AM. It is single sideband full carrier AM, but it is still AM. Look at the designations for SSB and TV. They both start with the letter A, which is the AM designation (as opposed to F or P). Last I looked TV single sideband video was A5, or did I miss something?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1941. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 17:35:07 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <q384cto20gm39gpfor41bs2ojdkvb62vkj@4ax.com>
Source record: 53838

Joe Leikhim <jleikhim@nettally.com>
shared these priceless pearls of wisdom:

->I would think the reason that DIP's are no longer available, is that the newer
->packages have less inductance (and capacitance) and are more suitable for UHF
->applications.

Nope. The old DIP machinery was breaking down, and the market today is cheap
and small cellphones and computers. Why reinvest a $mil in old technology when
it is less than 20% of today's market?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1942. Re: SB-220 Brand New Front Panel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 17:38:20 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <99t7icida2@woodrow.ucdavis.edu>
Source record: 53757

No, it's not the only one... I bought one at ham flea market for $2 some years ago and have just left it on my garage wall to look at. I don't plan on selling it unless the current $76 dollar ebay bid yours is at goes much higher. Then it's become a very expensive hunk of metal... Imagine what my unbuilt SB-1000 amplifier will sell for once I get it out of the closet (someday).

My god, for that kind of hype money, I'll make up a templete and start punching out new face plates.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: RB <K9RB.Rog@telocity.com> wrote:
: 2 days left!
: Freshen up your SB-220.
: Probably the only one left in captivity!
: http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1223446434

1943. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 17:43:23 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c48s4.8ev.w9wi@linux1.localdomain>
Source record: 53839
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Wed, 28 Mar 2001 09:31:08 -0800, Jim Weir <jim@rst-engr.com> wrote:
>The video IS AM. It is single sideband full carrier AM, but it is still AM.
>Look at the designations for SSB and TV. They both start with the letter A,
>which is the AM designation (as opposed to F or P). Last I looked TV single
>sideband video was A5, or did I miss something?

To be perfectly honest, it's *not* single sideband. (but it is full carrier
AM) A significant part of the lower sideband is transmitted - the lower
frequency components including the synchronizing signals. Don't have
standard in front of me but I want to say the LSB is rolled off above
750KHz.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1944. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 18:25:44 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <99tab8$i60$1@ausnews.austin.ibm.com>
Source record: 53840
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

In <0q74ct4g2ipt7tr4grbh5jl95glo41h65s@4ax.com>, Jim Weir <jim@rst-engr.com> writes:
>"Michael A. Terrell" <michaelaterrell@netscape.net>
>shared these priceless pearls of wisdom:
>
>->
>->TV video is vestigial sideband, not AM. The full upper sideband is
>->transmitted, along with the carrier left, and a small part of the lower
>->sideband.
>
>Mr. Terrell, you are beginning to have less and less credibility with me. First
>the FM and TV audio deviations are equal, and now the video is not AM.
>
>The video IS AM. It is single sideband full carrier AM, but it is still AM.
>Look at the designations for SSB and TV. They both start with the letter A,
>which is the AM designation (as opposed to F or P). Last I looked TV single
>sideband video was A5, or did I miss something?
>
>Jim
>Jim Weir, VP Eng. RST Eng. WX6RST
>A&P, CFI, and other good alphabet soup

No, Mr. Terrell is correct. It is not single sideband. It is not full AM. It's vestigial sideband AM. All of the upper sideband, the carrier, and part (but, only part) of the lower sideband is transmitted. Thus, it would be technically incorrect to call it single sideband since parts of both sidebands are transmitted. It would be incorrect to call it AM unless you specifically specified that it was vestigial sideband AM, since the term AM by itself is usually understood to be double sideband with the full carrier.

Dave

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

1945. Re: Multiplexing Power with Video

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 19:17:58 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AC238E6.15FB7483@rupert.tds-az.lmco.com>
Source record: 53843

K7MEM wrote:
>
> Richard Gurske wrote:
> >
> > I have a CCD TV camera with two connectors, one for video out
> > and one for power in. I would like to combine the power and
> > the video into one coaxial cable. I know that this can be
> > done but don't have the component requirements. Could anyone
> > supply me with the necessary information? FWIW
> > the power requirement for the camera is 300 MA due to the
> > IR LEDS built into the camera housing.
> >
> > Thanks
> >
> > Dick
>
> The idea behind this is to insert a DC blocking capacitor at each
> end of the transmission line. Then apply the DC AFTER the capacitor
> on the input end and take it off BEFORE the capacitor on the output
> end. A crude ascii diagram is below. You will need a fixed width
> font, like courier, to view it properly.
>
> || COAX CENTER ||
> VIDEO ------||--------------------------------||------ VIDEO
> || | | ||
> | |
> DC PLUS ---------- ----------- DC PLUS
>
> DC MINUS COAX SHIELD DC MINUS
> AND VIDEO --- AND VIDEO
> GROUND GROUND
>
> The capacitors keep the DC voltage from causing problems on
> either end of the transmission line. This is a common thing
> to do for say, controlling a remote antenna relay. To the RF,
> a capacitor of 0.1 uF would look like a short and allow it
> to pass to the output. The DC voltage sees the capacitors a
> open circuits and blocks.
>
> However, what you need to remember is that the capacitor value
> also sets the low frequency limit. With RF there is not much
> of a problem because it is usually well above the frequency
> where roll-off starts. Baseband video, on the other hand, may
> be a little bit of a problem. A composite base band video signal

> contains some very low frequencies and might require some
> fairly large capacitors to prevent them from being attenuated.
>
> It's not very likely, but, your camera setup may use a DC bias
> on the video that would be eliminated by such a setup. In that
> case, this kind of setup couldn't be used at all.
>
> But, it's simple enough to give it a try. I would start with
> capacitors around 10 uF and work my way up. If it seems to be
> loosing sync or seems unstable, increase the capacitor size.

Oops, I forgot about one thing. There needs to be chokes on
the power supply leads.

```
|| COAX CENTER ||
VIDEO ------||------------------------------||------ VIDEO
|| | | ||
| |
DC PLUS ---OOOOO-- --00000---- DC PLUS

DC MINUS COAX SHIELD DC MINUS
AND VIDEO ------------------------------------------ AND VIDEO
GROUND GROUND
```

Where --00000-- is a choke

The chokes keep the low impedance of the power supply from
shorting out the video on the coax. For a system with RF,
instead of baseband video, simple RF chokes are used. For
this one some pretty high valued chokes may be necessary.
Their value may be so big that there would be to big of
a voltage drop to be pratical.

Like I said before, doing this with base band video may be
a problem. Maybe someone else has a better idea.

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

1946. TRANCEIVER schematics wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 19:46:13 UTC
From: Francois van Loon <fvloon@iae.nl>
Message-ID: <99tenpcdb1@news.IAEhv.nl>
Source record: 53841

Hello,

I hope that one of you cazn help me.

I want to build 2 tranceivers at a frequentie
between 10 and 100 Mhz.
Higher frequencies are also good but wel.... just asking for something.
Does anyone of you know where to find
a complete schematic, icluding the antenna
etcetera etcetera.

I would like to have tho modulator and demodulator schematics too
because of datatransmission in a desolate area!

Greetings and bye bye

Please mail me back at fvloon@iae.nl

Francois

1947. Re: Don&#65533;t Read (test)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 20:17:36 UTC
From: la8ak@online.no
Message-ID: <3ac246da.518161389@news.online.no>
Source record: 53842

On Tue, 27 Mar 2001 14:11:51 +0200, "nemo" <nemo@no.net> wrote:

>Test
>
>
test

1948. Re: RF Power Meter problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 22:14:40 UTC
From: 2w8ji@akorn.net
Message-ID: <3ac2610e.691208046@news.accessunited.com>
Source record: 53844

On Wed, 28 Mar 2001 16:11:48 GMT, la8ak@online.no (J M Noeding) wrote:

>tried some different RF power meter circuits using two instruments,
>but the instrument for reflected power still has some minimum
>deflection, seems impossible to null it down to zero. Is this normal?
>
>One meter has a resistive RF-divider from one RF-connector, the other
>uses capacitive divider - 1-20pF trimmer in series with 100pF - to
>ground. The probe is built into the small Eddystone 7134 die-cast box
>
>Is it just the problem I have to live with or is a better circuit
>recommended?
>
>73
>Jan-Martin
>LA8AK

Assuming you have a resistive load, it sounds like you either have a RF ground loop problem, layout problem, or poor/improper component in your meter.

RF layouts are very tricky at times.

Did you copy ot from an article somewhere?

73 Tom

1949. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 22:38:14 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac266f9.67165766@news.aepnet.com>
Source record: 53845

On Thu, 22 Mar 2001 16:49:05 GMT, hawaiiansunset@hawaii.rr.com (AH6JR) wrote:

[snip]
>
>Tom you might want to take this discussion to Richard Measures.
>This little network came from him.

Yeah Tom. You should ask RIch Measures, he'll set you straight. Heh Heh.

A little Nichrome here a little Nichrome there...cosmic ray problems are a thing
of the past.

Wes

1950. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 23:15:32 UTC
From: berd_kalamunda@techemail.com
Message-ID: <3ac26f11.3693266@news.m.iinet.net.au>
Source record: 53846

My "busy" friend VK6SQ does this sort of thing but at much higher
frequencies, 2 meters and above. He does not get on the air much as he
is a "home grown" HAM. His email address is <umove@smartchat.net.au>.

Regards,

On 27 Mar 2001 18:26:38 GMT, troglodite@aol.com (Troglodite) wrote:

>Greetings,
>
>I am in the process of designing and putting together a CW transmitter similar
>to one I built in 1956. Though this is a vacuum-tube project, I am giving
>serious thought to incorporating a frequency synthesizer due to the cost of
>crystals these days. I'll be operating on 3.5, 7, and 14mhz, all convenient
>multiples. (sort of) Since I'll have to switch the driver and final coils, I
>could also reserve a deck of the bandswitch for programming the synthesizer
>output to the correct frequency range. The main frequency control would be a
>rotary encoder and digital display of exact frequency. I could probably pick
>some specific increment like 10Khz/step, or possibly make this settable.
>
>Anyone have any idea of suitable IC's for this purpose, or perhaps even an
>available circuit board? Some of the Motorola chips look like they might work,
>but I'm not so sure how "clean" the built in oscillators would be. Anyone been
>down this road? Thanks in advance.

--Rolie Baldock. email: <berd_kalamunda@techemail.com>

1951. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-28 23:38:22 UTC
From: wb0poz@prodigy.net
Message-ID: <99tsid$5ac0$1@newssvr06-en0.news.prodigy.com>
Source record: 53747

There was an article in a 1963 QST about build9ing a tube-based synthesizer. As a matter of fact, I have the exact unit pictured in the story - purchased at a hamfest for $5. It's a crystal/mixing synthesizer that uses about 15 xtals to generate 5.0-5.5 in 10 kc steps, and a VXO for interpolation between the steps. It's pretty simple, uses 3 or4 tubes, and mostly CB xtals.

73 John

Troglodite <troglodite@aol.com> wrote in message news:20010327132638.22126.00001937@ng-fc1.aol.com...
> Greetings,
>
> I am in the process of designing and putting together a CW transmitter similar
> to one I built in 1956. Though this is a vacuum-tube project, I am giving
> serious thought to incorporating a frequency synthesizer due to the cost of
> crystals these days. I'll be operating on 3.5, 7, and 14mhz, all convenient
> multiples. (sort of) Since I'll have to switch the driver and final coils, I
> could also reserve a deck of the bandswitch for programming the synthesizer
> output to the correct frequency range. The main frequency control would be a
> rotary encoder and digital display of exact frequency. I could probably pick
> some specific increment like 10Khz/step, or possibly make this settable.
>
> Anyone have any idea of suitable IC's for this purpose, or perhaps even an
> available circuit board? Some of the Motorola chips look like they might work,
> but I'm not so sure how "clean" the built in oscillators would be. Anyone been
> down this road? Thanks in advance.

1952. Re: Help with 3-500Z amp problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 00:36:25 UTC
From: 2w8ji@akorn.net
Message-ID: <3ac2811f.699418846@news.accessunited.com>
Source record: 53748

On Sat, 24 Mar 2001 17:45:32 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>Could it be the time constants (low thermal mass) for low-value and low
>wattage film resistors make them suitable for some applications where
>transients are a problem? There were other devices beyond the resistors
>that limited the peak voltages in the two devices I mentioned.
>
>Pete

Hi Pete,

I already outlined the reasons why they are a bad idea in applications
like protecting control grids.

Lightning damage is a catastropic failure, not a fuse issue.

It would be foolish to use jumper wires for lightning surge limiting,
and equally foolish to use resistors or fuses for over-current
protection on grids.

In the case of lightning, film resistors might be OK in some
applications because the surge current is many thousands of times the
operating current. In a grid, it is an entirely different problem. The
overload that damages the grid can only be twice the normal current,
and in that case even a normal fast-blow fuse won't work. A resistor
would be nothing short of idiotic.

73 Tom

1953. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 01:14:36 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <7035ct4v2stu6kvnit9eook8vti6mo8tqj@4ax.com>
Source record: 53749
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain ()
shared these priceless pearls of wisdom:

->
->To be perfectly honest, it's *not* single sideband. (but it is full carrier
->AM)

A thousand pardons. I should have been more specific. Most folks would look at a TV signal with 95% of the energy in one sideband and call it SSB. And I'm sure you know the historical reason why the vestigial sideband is still transmitted although it really conveys no useful information?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1954. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 01:17:18 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <q435ctc4gs23lh777d38sgbpn4no3pf33e@4ax.com>
Source record: 53750
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

glass2@glass2.lexington.ibm.com
shared these priceless pearls of wisdom:

It would be incorrect to call it AM unless
->you specifically specified that it was vestigial sideband AM, since the
->term AM by itself is usually understood to be double sideband with the full
->carrier.

No less an authority than the ITT "Reference Data For Radio Engineers" page 18
disagrees with you. Television is a form of AM and is listed along with A3 and
A3j in the AM section.

YOU may understand that AM is understood to be DSB/C but that's not the way most
of us in the industry see it.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

1955. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 03:53:58 UTC
From: Jimbo the Clown <james@xicom.com.au>
Message-ID: <3ac2b1be@news.adfa.edu.au>
Source record: 53751

Doug!

I've just finished a direct conversion HF receiver project, which had at its heart a DDS (Direct Digital Synthesiser) for the LO. DDS's are GREAT! I'm resisting the urge to do the hard sell... :-)

Let me whet your appetite...

Analog Devices (www.analog.com) have a product line-up, the more affordable being:

Maximum Fout = 12.5MHz (Clock = 25MHz)

AD9832 <- Used in my design
AD9831

Maximum Fout = 25MHz (Clock = 50MHz)

AD9835
AD9830
AD7008

They have other devices that permit the generation of frequencies up to 150MHz, but the above are probably of more interest to you.
OK. So what do they do?

Simply load in a 'frequency control word' of 32 bits, and it will generate an output sinusoid (at ~ -3dBm into 50 ohms) according to:

Fout = Fclock * Frequency word / 2^32.

This way, you can change the output frequency in millihertz steps from DC - Fclock/2.... :-)
Unlike a PLL, there is no loop stability or lock time issues (the frequency is changed in a fixed period of time (~10 clock cycles)), and no VCO requirements, as the chip outputs an analog voltage that only needs some low pass filtering....

The noise floor is typically -70dBc, with all other spurs being kept below -40dBc (ample purity for most amateur applications).

In my design, I used a Microchip 16F84 PIC processor (~A$10) to scan a keyboard, and when a new frequency was keyed in, send the new frequency control word to the DDS. The PIC also simultaneously updated a 4 x 7 segment display to keep me informed as to the current output frequency. I can send a copy of the schematic to you if you would like, as I imagine it will be relatively straightforward to adapt it to your needs...

Go look at Analog Devices wesite!
(They also give out free samples too... it worked for me!)

Cheers,
James VK2XQF :-)

1956. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 04:11:58 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c5dmp.9um.w9wi@linux1.localdomain>
Source record: 53752
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Wed, 28 Mar 2001 17:14:36 -0800, Jim Weir <jim@rst-engr.com> wrote:
>A thousand pardons. I should have been more specific. Most folks would look at
>a TV signal with 95% of the energy in one sideband and call it SSB. And I'm
>sure you know the historical reason why the vestigial sideband is still
>transmitted although it really conveys no useful information?

Yep. It's sure *close* to SSB but not quite the same thing.

I don't know why they use the VSB but I would venture several guesses:

- Too hard to completely strip the LSB without causing excessive phase
distortions in the lower parts of the USB

- Too hard to completely strip the LSB without the filter's cutoff frequency
drifting across the carrier & causing overmodulation

- Desirable to have extra energy at the lower frequencies which both contain
the synchronizing information and provide the most visible part of the
picture

Some of this keeping in mind that the VSB system was chosen in 1941,
abilities we think are commonplace today weren't 60 years ago.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1957. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 07:32:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <8en5ctsedqjo77dc50tqp07s4ar7fpf7u0@4ax.com>
Source record: 53753
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Wed, 28 Mar 2001 17:17:18 -0800, Jim Weir <jim@rst-engr.com> wrote:

>No less an authority than the ITT "Reference Data For Radio Engineers" page 18
>disagrees with you. Television is a form of AM and is listed along with A3 and
>A3j in the AM section.

This manual must be from some old dark century :-), since I have not seen those notations for years. The CCIR/ITU-R notation has been used for quite a few years, which divide the various modulations in three broad groups, amplitude modulation, angle modulation and pulse modulation. The amplitude modulation group contains the modulations starting with A, B, C, H, J and R (RR 270) and containing some of the commonest modulations e.g. A3E "AM", J3E "SSB" and C3F "TV". The angle modulation group contains such modulations as F3E "FM" and G3E phase modulation.

Paul OH3LWR

1958. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 07:44:10 UTC
From: nomail@rob.knoware.nl
Message-ID: <slrn9c5pua.a2q.nomail@linux.pe1chl.ampr.org>
Source record: 53754
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain <w9wi@linux1.localdomain> wrote:
>I don't know why they use the VSB but I would venture several guesses:

>- Too hard to completely strip the LSB without causing excessive phase
>distortions in the lower parts of the USB

>- Too hard to completely strip the LSB without the filter's cutoff frequency
>drifting across the carrier & causing overmodulation

>- Desirable to have extra energy at the lower frequencies which both contain
>the synchronizing information and provide the most visible part of the
>picture

>Some of this keeping in mind that the VSB system was chosen in 1941,
>abilities we think are commonplace today weren't 60 years ago.

It isn't as much the problem at the transmit side, but the possibilities to
construct a simple demodulator in the TV set in every home that influenced
this decision.

A PLL to recover the carrier and a (pair of) DBM(s) to demodulate were not
exactly practical in those days.

Today it could have been done differently, of course. But migrating to
another standard is difficult. It always has to be considered that many
consider their ten year old TV set "a big investment that should work well
into the future".

Rob
--
+--------------------------------+--------------------------------------+
| Rob Janssen pe1chl@amsat.org | WWW: http://www.knoware.nl/users/rob |
| AMPRnet: rob@pe1chl.ampr.org | AX.25 BBS: PE1CHL@PI8WNO.#UTR.NLD.EU |
+--------------------------------+--------------------------------------+

1959. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 09:27:53 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <vpt5ct88o7b88j65l11vuo3b7aqimlf9al@4ax.com>
Source record: 53755
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On 29 Mar 2001 07:44:10 GMT, nomail@rob.knoware.nl (Rob Janssen)
wrote:

>>Some of this keeping in mind that the VSB system was chosen in 1941,
>>abilities we think are commonplace today weren't 60 years ago.

>A PLL to recover the carrier and a (pair of) DBM(s) to demodulate were not
>exactly practical in those days.

It is interesting to note that while PAL receivers in 1960's used
balanced demodulators to extract the R-Y and B-Y information, ordinary
envelope detection was used to convert the 30+ MHz IF to baseband.
Apparently due to the large amount of intermodulation in a simple
diode detector, the IF signal went through a frequency selective
diplexer, splitting the luma and chroma signal to different paths. The
luma path was demodulated with a diode detector to baseband video,
while the chroma path was mixed down with a diode mixer to 4.43 MHz.

As far as I know, the availability of DBM detector ICs driven by a
bandpass and hard limited carrier made the old approach redundant and
the 4.43 Mhz chroma subcarrier and 5.5 MHz sound subcarrier could be
taken after the DBM video demodulator.

So I guess that a single sideband reduced carrier TV standard (R3F)
would have been practical starting about mid 1970's when ICs with
sufficient gain and phase stability became available.

Paul

1960. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 09:44:32 UTC
From: Tony Sayer <tony@bancom_nilspamus_.co.uk>
Message-ID: <rOOZtQAAQww6EwV5@bancom.co.uk>
Source record: 53756
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

In article <slrn9c5pua.a2q.nomail@linux.pe1chl.ampr.org>, Rob Janssen
<nomail@rob.knoware.nl> dictates
>w9wi@linux1.localdomain <w9wi@linux1.localdomain> wrote:
>>I don't know why they use the VSB but I would venture several guesses:
>
>>- Too hard to completely strip the LSB without causing excessive phase
>>distortions in the lower parts of the USB
>
>>- Too hard to completely strip the LSB without the filter's cutoff frequency
>>drifting across the carrier & causing overmodulation
>
>>- Desirable to have extra energy at the lower frequencies which both contain
>>the synchronizing information and provide the most visible part of the
>>picture
>
>>Some of this keeping in mind that the VSB system was chosen in 1941,
>>abilities we think are commonplace today weren't 60 years ago.
>
>It isn't as much the problem at the transmit side, but the possibilities to
>construct a simple demodulator in the TV set in every home that influenced
>this decision.
>
>A PLL to recover the carrier and a (pair of) DBM(s) to demodulate were not
>exactly practical in those days.
>
>Today it could have been done differently, of course. But migrating to
>another standard is difficult. It always has to be considered that many
>consider their ten year old TV set "a big investment that should work well
>into the future".
>
>Rob

Did not the vestigial sideband come about due to something to do with
the original Channel One VHF Tx at Crystal Palace being DSB and there
wasn't going to be enough bandwidth in the rest of Band One for the
remaining channels?..

Seem to remember reading something about this in Practical TV in appx
1967 or thereabouts!...
--
Tony Sayer

Bancom Communications Ltd U.K. Tel +44 1223 566577 Fax +44 1223 566588

P.O. Box 280, Cambridge, England, CB2 2DY E-Mail tony@bancom.co.uk

TL447-553 52* 10.57'N 0* 6.96 E

1961. ** FLEA at MIT ** Sunday April 15th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 12:58:14 UTC
From: w1gsl@mit.edu
Message-ID: <3ac33166$0$4945$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 53758
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Subject: ** FLEA at MIT ** The THIRD SUNDAY of Each Month APRIL thru OCTOBER in Cambridge MA

Spring has sprung...
and it is less than a month till the seasons first FLEA at MIT..

*** GREAT NEWS We again have full use of the garage for sellers !!!

Summary: Buy Sell SWAP Ham Radio Electronics Computers 9AM - 2PM

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday April 15th 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20.00 or the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Seller Discount

A sellers discount season pass is available which
offers a 33% discount. See the registration form
below for full seller info.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all
sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 397082 MIT Br Cambridge MA 02139-7082 617 258 3754
****

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Season Pass $99 First Space - includes $70 for Cambridge Vendor Licenses
$70 additional spaces

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admitted after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~7:15AM
** You may not sell. **
$15 per person at the gate.
$70 Season Early Bird Buyer

cut and return
****
FLEA at MIT 2001 Advance Space Application

____ 1st Season Pass @ $99 _____ Additional Season Spaces @ $70

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

____ Season Early Bird Buyer @ $70 ** NB You may not sell. **

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

.....
Flea at MIT 2001
RECEIPT fill in only your name ->

Received $ from .....

For .....

By ..... Stamp

Enclose SASE for return by mail.

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 397082 MIT Br Cambridge MA 02139-7082 617 258 3754
****

1962. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 13:25:08 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c6e43.au6.w9wi@linux1.localdomain>
Source record: 53759
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On 29 Mar 2001 07:44:10 GMT, Rob Janssen <nomail@rob.knoware.nl> wrote:
>It isn't as much the problem at the transmit side, but the possibilities to
>construct a simple demodulator in the TV set in every home that influenced
>this decision.

Yes, that should have been point 4... They were having enough trouble
building a BFO stable enough to reinject carrier for SSB voice transmission
at 14MHz; a receiver stable enough to deliver usable video at 60MHz would
have been out of the question...

>Today it could have been done differently, of course. But migrating to
>another standard is difficult. It always has to be considered that many
>consider their ten year old TV set "a big investment that should work well
>into the future".

Something we're running into again here in the States, with analog TV
transmissions theoretically ending in five years. Nobody believes it will
actually happen.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1963. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 13:28:00 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c6e9f.au6.w9wi@linux1.localdomain>
Source record: 53760
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Thu, 29 Mar 2001 12:27:53 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>It is interesting to note that while PAL receivers in 1960's used
>balanced demodulators to extract the R-Y and B-Y information, ordinary
>envelope detection was used to convert the 30+ MHz IF to baseband.
>Apparently due to the large amount of intermodulation in a simple
>diode detector, the IF signal went through a frequency selective
>diplexer, splitting the luma and chroma signal to different paths. The
>luma path was demodulated with a diode detector to baseband video,
>while the chroma path was mixed down with a diode mixer to 4.43 MHz.

Interesting.

NTSC sets - all of them that I've seen diagrams of - have extracted the
chroma signal at baseband after the diode detector.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1964. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 13:30:24 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c6ee0.au6.w9wi@linux1.localdomain>
Source record: 53761
Cross-posted to: rec.radio.amateur.homebrew,alt.radio.uk

On Thu, 29 Mar 2001 10:44:32 +0100, Tony Sayer
<tony@bancom_nilspamus_.co.uk> wrote:

>Did not the vestigial sideband come about due to something to do with
>the original Channel One VHF Tx at Crystal Palace being DSB and there
>wasn't going to be enough bandwidth in the rest of Band One for the
>remaining channels?..

I did understand that the Crystal Palace transmitter was DSB - didn't that
cause some problems for receiver design? (having to consider that a set
would have to receive both DSB and VSB signals from other transmitters?)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1965. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 14:45:52 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <1pf6ct0ejj4tl1i6h9hegljnil04rjjog8@4ax.com>
Source record: 53762
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Thu, 29 Mar 2001 13:25:08 GMT, w9wi@linux1.localdomain () wrote:

>Yes, that should have been point 4... They were having enough trouble
>building a BFO stable enough to reinject carrier for SSB voice transmission
>at 14MHz; a receiver stable enough to deliver usable video at 60MHz would
>have been out of the question...

While SSB voice transmission can tolerate several Hertz frequency
error and SSB music transmission maybe a Hertz or two, with no need
for phase locking, since the ear is not very sensitive to phase,
demodulating a complex waveform, such as the video waveform, requires
that the carrier is inserted with exactly the right phase. A 180
degree phase error would produce a reverse video signal :-).

Maintaining an accurate phase across the whole network was previously
a big problem, a good evidence was the hue problems in early NTSC
transmissions.

Paul

1966. Re: RF Power Meter problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 16:24:41 UTC
From: la8ak@online.no
Message-ID: <3ac266c4.526332075@news.online.no>
Source record: 53763

On Wed, 28 Mar 2001 22:14:40 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:

>On Wed, 28 Mar 2001 16:11:48 GMT, la8ak@online.no (J M Noeding) wrote:
>
>>tried some different RF power meter circuits using two instruments,
>>but the instrument for reflected power still has some minimum
>>deflection, seems impossible to null it down to zero. Is this normal?
>>
>>One meter has a resistive RF-divider from one RF-connector, the other
>>uses capacitive divider - 1-20pF trimmer in series with 100pF - to
>>ground. The probe is built into the small Eddystone 7134 die-cast box
>>
>>Is it just the problem I have to live with or is a better circuit
>>recommended?
>>
>>73
>>Jan-Martin
>>LA8AK
>
>Assuming you have a resistive load, it sounds like you either have a
>RF ground loop problem, layout problem, or poor/improper component in
>your meter.
>
>RF layouts are very tricky at times.
>
>Did you copy ot from an article somewhere?
>
>73 Tom

the dummy has better than 25dB reflection loss below 1200MHz measured
by Rohde & Schwartz so it should be ok on 80m, it measures 50 ohm

73
Jan-Martin

1967. Re: RF Power Meter problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 17:12:40 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac36cb7.7542958@news.aepnet.com>
Source record: 53764

On Thu, 29 Mar 2001 16:24:41 GMT, la8ak@online.no (J M Noeding) wrote:

>On Wed, 28 Mar 2001 22:14:40 GMT, 2w8ji@akorn.net (Tom W8JI) wrote:
>
>>On Wed, 28 Mar 2001 16:11:48 GMT, la8ak@online.no (J M Noeding) wrote:
>>
>>>tried some different RF power meter circuits using two instruments,
>>>but the instrument for reflected power still has some minimum
>>>deflection, seems impossible to null it down to zero. Is this normal?
>>>
>>>One meter has a resistive RF-divider from one RF-connector, the other
>>>uses capacitive divider - 1-20pF trimmer in series with 100pF - to
>>>ground. The probe is built into the small Eddystone 7134 die-cast box
>>>
>>>Is it just the problem I have to live with or is a better circuit
>>>recommended?
>>>
>>>73
>>>Jan-Martin
>>>LA8AK
>>
>>Assuming you have a resistive load, it sounds like you either have a
>>RF ground loop problem, layout problem, or poor/improper component in
>>your meter.
>>
>>RF layouts are very tricky at times.
>>
>>Did you copy ot from an article somewhere?
>>
>>73 Tom
>
>the dummy has better than 25dB reflection loss below 1200MHz measured
>by Rohde & Schwartz so it should be ok on 80m, it measures 50 ohm
>
>73
>Jan-Martin

25 dB return loss = 1.11 SWR. That is not zero. Maybe your circuit is telling
the truth??

Wes Stewart N7WS

1968. Re: Suitable IC's for frequency synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 18:15:23 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <IXKw6.1520$e04.4971@nntpserver.swip.net>
Source record: 53765

http://sm0vpo.8m.com/left.htm#syn

1969. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 19:16:32 UTC
From: nomail@rob.knoware.nl
Message-ID: <slrn9c72gg.a2q.nomail@linux.pe1chl.ampr.org>
Source record: 53766
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain <w9wi@linux1.localdomain> wrote:
>On Thu, 29 Mar 2001 12:27:53 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>>It is interesting to note that while PAL receivers in 1960's used
>>balanced demodulators to extract the R-Y and B-Y information, ordinary
>>envelope detection was used to convert the 30+ MHz IF to baseband.
>>Apparently due to the large amount of intermodulation in a simple
>>diode detector, the IF signal went through a frequency selective
>>diplexer, splitting the luma and chroma signal to different paths. The
>>luma path was demodulated with a diode detector to baseband video,
>>while the chroma path was mixed down with a diode mixer to 4.43 MHz.

>Interesting.

>NTSC sets - all of them that I've seen diagrams of - have extracted the
>chroma signal at baseband after the diode detector.

Me too... what *is* being done frequently is to use a separate filter
and demod for the sound.
In those sets, the sound subcarrier is not taken from the video demod,
but a separate saw filter (with two response frequencies, one at the
video carrier IF frequency and one at the audio carrier IF frequency)
is used, followed by a nonlinear element (call it a detector or mixer
whatever you like) that produces the intercarrier sound frquency that
is then FM demodulated.

One could ask "why not simply use an FM IF strip at the audio carrier
IF frequency?". Good question. Because it would mean the whole receiver
would have to be on-frequency within about 20 KHz. With the intercarrier
system it can be off frequency by maybe half a MHz without influence
on the sound. So the set can be tuned for best video response.

Rob
--
+--------------------------------+--------------------------------------+
| Rob Janssen pe1chl@amsat.org | WWW: http://www.knoware.nl/users/rob |
| AMPRnet: rob@pe1chl.ampr.org | AX.25 BBS: PE1CHL@PI8WNO.#UTR.NLD.EU |
+--------------------------------+--------------------------------------+

1970. Re: SB-220 Brand New Front Panel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 20:13:24 UTC
From: "Dennis W. Ostrowski" <dwostrowski@lucent.com>
Message-ID: <3AC39764.DA05FBFD@lucent.com>
Source record: 53767

Skipp wrote:
>
> No, it's not the only one... I bought one at ham flea market for $2 some
> years ago and have just left it on my garage wall to look at. I don't plan
> on selling it unless the current $76 dollar ebay bid yours is at goes
> much higher. Then it's become a very expensive hunk of metal... Imagine
> what my unbuilt SB-1000 amplifier will sell for once I get it out of the
> closet (someday).
>
> My god, for that kind of hype money, I'll make up a templete and
> start punching out new face plates.
>
> cheers
> skipp@pilot.ucdavis.edu
> http://sonic.ucdavis.edu

I still have a case of brand new (OEM) front panel meters with the lights and sockets,etc.. for the SB220.

They are still in the original heath packaging with the original parts numbers on them.

I may also have the air variables and the tapped colis..

What are they worth these days?

Dennis O.

1971. Re: RF Power Meter problems

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-29 23:10:53 UTC
From: la8ak@online.no
Message-ID: <3ac3b3ff.611651798@news.online.no>
Source record: 53768

On Thu, 29 Mar 2001 17:12:40 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

>
>25 dB return loss = 1.11 SWR. That is not zero. Maybe your circuit is telling
>the truth??
>
this is quite unpleasant thread - you may not be aware that 80metre
band is 3500-4000kHz (or do you still say kilocycles?) while the 23cm
band is around 1296000kHz (1.296 kilomegacycles), quite a difference -
even in America!

I tried several dummies including one which is claimed to work up to
10GHz also one made by Bird

1972. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 00:15:51 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c7k88.d5i.w9wi@linux1.localdomain>
Source record: 53769
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On 29 Mar 2001 19:16:32 GMT, Rob Janssen <nomail@rob.knoware.nl> wrote:
>Me too... what *is* being done frequently is to use a separate filter
>and demod for the sound.

Interesting again. I've not seen any sets with that circuit here, though I will admit to not having seen any very recent diagrams. They do the same thing they do with the chroma; run a tap off to a 4.5MHz IF amp from somewhere after the video detector.

>One could ask "why not simply use an FM IF strip at the audio carrier
>IF frequency?". Good question. Because it would mean the whole receiver
>would have to be on-frequency within about 20 KHz. With the intercarrier
>system it can be off frequency by maybe half a MHz without influence
>on the sound. So the set can be tuned for best video response.

The very first sets sold in the U.S. had a split-sound circuit, with a completely separate IF chain for the audio. For the very reasons you cite, that system didn't last very long - it seemed to be gone by the late 1940s. One line of Sony TVs brought it back as an option in the late 1970s. (the TV had a switch, you could select split sound or intercarrier) The two monitoring demodulators we have at the TV station I work for also have split/intercarrier switches. Personally I can never tell the difference. (I suppose if we weren't careful to keep incidential phase modulation of the video carrier under control, it would be easier to tell...)

These days things are a lot more stable, I'll bet you could get away with split sound. Except that there are a few *stations* here in the States that have a VERY hard time keeping their transmitters on frequency. (some have been measured by DXers at as far as 70KHz off channel...)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1973. Airbike Tandem and Single in California

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 01:36:35 UTC
From: jparker@fix.net
Message-ID: <3ac3e2dd.19529041@news.fix.net>
Source record: 53785

I am looking for single and tandem airbikes in California.

I would really like to see one before jumping in.

Contact me at: jparker@fix.net or 805 239 1850

thanks,,,Jerry...

1974. Re: Where can I find Motorola pager schematics to use for design?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 03:53:06 UTC
From: David Bengtson <dbengtson@pobox.com>
Message-ID: <3hv7ct4892vjsqd63l6gtock1as9jf25n7@4ax.com>
Source record: 53770

What specifically are you trying to build? For the BPR 2000, there is
likely a custom back end IC at 455 kHz, but the rest of it is probably
bipolar discretes. Much of the low power consumption is acheived by
having the receiver asleep all the time. Schematics are likely
available through Motorola service. Search through the Mot web page
for pager and service and you might get a link.

Dave

On Mon, 26 Mar 2001 22:54:31 -0500, Joe Leikhim
<jleikhim@nettally.com> wrote:

>You might find some data on low power paging receiver chips on Motorola's
>semiconductor website. Did you know that the receiver in that BPR 2000 is off
>most of the time? It turns on long enough to look for a preamble code from the
>paging transmitter. If the preamble code is heard, it wakes up and listens for
>its own message. Otherwise it goes to sleep for a while. If you monitor the
>local oscillator circuit with your scanner, you will hear it cycle. I think
>Motorola got in a patent dispute over this years ago. I used to hear my
>neighbors beepers (when I lived in the city) local oscillators turning on and
>off. (pretty wierd!)
>
>Josh DeWinter wrote:
>
>> Hi.
>> I am looking at an old pager I bought recently, a Motorola BPR 2000. Its
>> an older 80's - early 90's audio pager. It really fascinates me that this
>> thing runs so well off of only a single AA battery, but yet there are models
>> of this same unit that can operate anywhere from 30 to 900 MHz. I would
>> like to see how the heck they do it, so as to model a circuit of my own from
>> this design. If anyone knows where I could get a schematic for this or any
>> of the Motorola pagers, I'd be grateful.
>> I'm thinking this may still be proprietary, and hence secret, but
>> occasionally I will find older user manuals that included schematics. (Who
>> knows why they did, but they did). Radio Shack was famous for this with
>> alot of their RF equipment.
>>
>> Thanks for your help.
>>
>> -Josh DeWinter
>> Pullman, WA

1975. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 04:30:27 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <c718ct430bsnfficonckv2gu2hg02sqqn8@4ax.com>
Source record: 53771
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Fri, 30 Mar 2001 00:15:51 GMT, w9wi@linux1.localdomain () wrote:

>The very first sets sold in the U.S. had a split-sound circuit, with a
>completely separate IF chain for the audio. For the very reasons you cite,
>that system didn't last very long - it seemed to be gone by the late 1940s.

The problem with intercarrier sound is that the presence of the video carrier is required in the mixdown process. This becomes quite obvious, when a simple video envelope detector is used.

The video carrier can be missing, if the signal is overmodulated or due to receiver misalignment when the peak white (typically in subtitles) drops the video carrier to 0 %. In this situation, the 3.5/5.5./6.0/5.5 MHz audio subcarrier is not generated, causing a severe audio interference.

>Except that there are a few *stations* here in the States that
>have a VERY hard time keeping their transmitters on frequency. (some have
>been measured by DXers at as far as 70KHz off channel...)

At least in Band I VHF transmitters in Europe, the transmitters are not exactly on the nominal channel frequency, but spread out by some submultiples of the horizontal sync rate (it was previously in steps of fh/12, but I think the step has changed) to avoid some interference problems between stations. In this way, it is possible to guess which station is heard, when waiting for a Band I opening.

Are you sure that this 70 kHz is not some kind of similar deliberate offset ?

Paul

1976. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 04:49:59 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9c84a8.elf.w9wi@linux1.localdomain>
Source record: 53772
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Fri, 30 Mar 2001 07:30:27 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>The problem with intercarrier sound is that the presence of the video
>carrier is required in the mixdown process. This becomes quite
>obvious, when a simple video envelope detector is used.
>
>The video carrier can be missing, if the signal is overmodulated or
>due to receiver misalignment when the peak white (typically in
>subtitles) drops the video carrier to 0 %. In this situation, the
>3.5/5.5./6.0/5.5 MHz audio subcarrier is not generated, causing a
>severe audio interference.

Yep. Basically the audio carrier disappears briefly 15,734.234 times a
second, and somewhat less briefly 60 times a second. (in the USA. Make
that 15,625 and 50 for Europe.)

I work at a TV station, but I still have a very hard time convincing my
colleagues that it's a VERY bad thing to allow the peak whites to exceed 120
IRE units. (the level that would result in negative visual power output if
it was *possible* to have negative power!)

>>Except that there are a few *stations* here in the States that
>>have a VERY hard time keeping their transmitters on frequency. (some have
>>been measured by DXers at as far as 70KHz off channel...)
>
>At least in Band I VHF transmitters in Europe, the transmitters are
>not exactly on the nominal channel frequency, but spread out by some
>submultiples of the horizontal sync rate (it was previously in steps
>of fh/12, but I think the step has changed) to avoid some interference
>problems between stations. In this way, it is possible to guess which
>station is heard, when waiting for a Band I opening.
>
>Are you sure that this 70 kHz is not some kind of similar deliberate
>offset ?

Yes.

The offset situation is much simpler in North America. There are only four
possible offsets: (these apply to all TV bands)

Minus: station is (exactly) 10KHz below the nominal frequency.
Zero: station is on the nominal frequency.
Plus: station is (exactly) 10KHz above the nominal frequency.
None: station is assigned to the nominal frequency but has a much
looser frequency tolerance. Depending on the channel, it could be
50KHz or more either side of the nominal frequency.

In the USA, "no" offset is assigned *only* to low-power stations. These stations hold a different type of license that can be easily discerned in government records. Such licenses used to be issued only to low-power relay transmitters. Since about 1985, they can now be issued also to stations that originate programming. But their power is still limited to 3KW ERP at VHF, 150KW at UHF. (until about 18 months ago, that limit was 100 watts transmitter output at VHF, 1KW transmitter output at UHF, and even today very few "low power" stations exceed those limits.)

Being 70KHz off the nominal frequency is most definitely *not* permitted for a 3000KW station in North America.

(unfortunately, that does make it much harder to tell what you're seeing during a Band I opening!)

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1977. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 07:58:22 UTC
From: nomail@rob.knoware.nl
Message-ID: <slrn9c8f4u.a2q.nomail@linux.pe1chl.ampr.org>
Source record: 53773
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain <w9wi@linux1.localdomain> wrote:
>On Fri, 30 Mar 2001 07:30:27 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>>The problem with intercarrier sound is that the presence of the video
>>carrier is required in the mixdown process. This becomes quite
>>obvious, when a simple video envelope detector is used.

>>The video carrier can be missing, if the signal is overmodulated or
>>due to receiver misalignment when the peak white (typically in
>>subtitles) drops the video carrier to 0 %. In this situation, the
>>3.5/5.5./6.0/5.5 MHz audio subcarrier is not generated, causing a
>>severe audio interference.

>Yep. Basically the audio carrier disappears briefly 15,734.234 times a
>second, and somewhat less briefly 60 times a second. (in the USA. Make
>that 15,625 and 50 for Europe.)

That would be true in SECAM (but they use AM sound, Intercarrier is not
possible, and a separate IF is used.
In NTSC and PAL (at least in the normalized forms), the video modulation
is negative and the sync pulses (which I think you are referring to) are
sent at the maximal power, not the minimal.

>>Are you sure that this 70 kHz is not some kind of similar deliberate
>>offset ?

>Being 70KHz off the nominal frequency is most definitely *not* permitted for a
>3000KW station in North America.

What I find confusing is that the whole station is 70 KHz off-frequency but
the intercarrier distance is apparently correct. I thought that large TV
transmitters had separate chains and finals for vision and sound, with a
combiner to send both signals to a single antenna.

But maybe that has changed... is there no severe problem with intermod?
("weak" but still quite loud sound carrier appearing at the other side of
the vision carrier)

Rob
--
+--------------------------------+--------------------------------------+
| Rob Janssen pe1chl@amsat.org | WWW: http://www.knoware.nl/users/rob |
| AMPRnet: rob@pe1chl.ampr.org | AX.25 BBS: PE1CHL@PI8WNO.#UTR.NLD.EU |
+--------------------------------+--------------------------------------+

1978. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 08:06:05 UTC
From: nomail@rob.knoware.nl
Message-ID: <slrn9c8fjd.a2q.nomail@linux.pe1chl.ampr.org>
Source record: 53774
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

w9wi@linux1.localdomain <w9wi@linux1.localdomain> wrote:
>On 29 Mar 2001 19:16:32 GMT, Rob Janssen <nomail@rob.knoware.nl> wrote:
>>Me too... what *is* being done frequently is to use a separate filter
>>and demod for the sound.

>Interesting again. I've not seen any sets with that circuit here, though I
>will admit to not having seen any very recent diagrams. They do the same
>thing they do with the chroma; run a tap off to a 4.5MHz IF amp from
>somewhere after the video detector.

It is done in any decent (not low-budget) PAL TV and certainly in the
stereo sets. Our stereo system (I think not used in many other countries
than Germany and the Netherlands) uses two separate sound carriers, on
5.5 MHz and 5.74 MHz. The first one has the L+R signal (for compatability
reasons), the second is L-R or (very) sometimes "second language".

Apparently there is too much interference from the vision content and
color subcarrier (which is at 4.43 MHz) when all this is passed through
a single filter.

Other countries use NICAM, a system where the second carrier is modulated
with digitally encoded stereo sound. I don't know if they use the second
IF filter, may not be necessary for a digital system.

>These days things are a lot more stable, I'll bet you could get away with
>split sound. Except that there are a few *stations* here in the States that
>have a VERY hard time keeping their transmitters on frequency. (some have
>been measured by DXers at as far as 70KHz off channel...)

Often the traditional (state-owned) TV stations here have very good
stability of both the transmit frequency and the different frequencies
involved in the transmission itself (sync, color subcarrier etc). This
can for some stations (wellknown is ZDF and to a lesser extent BBC) even
be used as a frequency reference.

However, now most stations here are commercial and the quality of the
transmission is the very last thing they care about.

Rob
--
+--------------------------------+--------------------------------------+
| Rob Janssen pe1chl@amsat.org | WWW: http://www.knoware.nl/users/rob |
| AMPRnet: rob@pe1chl.ampr.org | AX.25 BBS: PE1CHL@PI8WNO.#UTR.NLD.EU |
+--------------------------------+--------------------------------------+

1979. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 09:17:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AC44F35.DDC5DCEF@eznec.com>
Source record: 53775
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

". . .I read a number of recently [1933] published papers, one of which was authored by Waldemar Poch and David Epstein, both in the RCA Research Department. This latter paper was a study of television receiver circuitry which was aimed at improving the 'resolution' or detail in a television picture and it prompted me to consider a method of transmitter operation which would double the detail in the horizontal direction of a television picture with no sacrifice in other picture qualities. The system concept was extremely simple but the execution required the design and construction of a device which I later called a 'vestigial sideband filter'. . ."

". . .The [prototype] assembly was forty feet in length and about ten feet wide. . ."

"Shortly after, a highly respected engineer from another company published a mathematical treatise which proved conclusively, by a batch of convoluted equations, that vestigial-sideband operation was not possible."

"On January 19, 1939, the Television Standards Committee of the Radio Manufacturers Association voted to recommend vestigial-sideband operation to the Federal Communications Commission. The vote would have been unanimous had the highly-placed RCA representative been brighter or better coached. It was slightly embarrassing to learn that he had unwittingly cast the negative vote. As a result of this expression of confidence by industry representatives, the system was included in the FCC Standards from the beginning of black-and-white television broadcasting in the United States. Consequently all television stations in the United States are now using vestigial-sideband transmission and the system is used throughout the world in all other countries where television broadcasting exists."

"RCA filed a patent application in my name on August 31, 1938, and United States Patent 2,214,041 issued on September 10, 1940."

- From "And Part of Which I Was - Recollections of a Research Engineer", by George H. Brown (1979, revised 1982)

Roy Lewallen, W7EL

Tony Sayer wrote:
>
> Did not the vestigial sideband come about due to something to do with
> the original Channel One VHF Tx at Crystal Palace being DSB and there
> wasn't going to be enough bandwidth in the rest of Band One for the

> remaining channels?..
>
> Seem to remember reading something about this in Practical TV in appx
> 1967 or thereabouts!...
> --
> Tony Sayer
>
> Bancom Communications Ltd U.K. Tel +44 1223 566577 Fax +44 1223 566588
>
> P.O. Box 280, Cambridge, England, CB2 2DY E-Mail tony@bancom.co.uk
>
> TL447-553 52* 10.57'N 0* 6.96 E

1980. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 10:08:09 UTC
From: Tony Sayer <tony@bancom_nilspamus_.co.uk>
Message-ID: <RrtHUIAJsFx6EwJL@bancom.co.uk>
Source record: 53776
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

In article <3AC44F35.DDC5DCEF@eznec.com>, Roy Lewallen <w7el@eznec.com>
dictates
>". . .I read a number of recently [1933] published papers, one of which
>was authored by Waldemar Poch and David Epstein, both in the RCA
>Research Department. This latter paper was a study of television
>receiver circuitry which was aimed at improving the 'resolution' or
>detail in a television picture and it prompted me to consider a method
>of transmitter operation which would double the detail in the horizontal
>direction of a television picture with no sacrifice in other picture
>qualities. The system concept was extremely simple but the execution
>required the design and construction of a device which I later called a
>'vestigial sideband filter'. . ."
>
>". . .The [prototype] assembly was forty feet in length and about ten
>feet wide. . ."
>
>"Shortly after, a highly respected engineer from another company
>published a mathematical treatise which proved conclusively, by a batch
>of convoluted equations, that vestigial-sideband operation was not
>possible."
>
>"On January 19, 1939, the Television Standards Committee of the Radio
>Manufacturers Association voted to recommend vestigial-sideband
>operation to the Federal Communications Commission. The vote would have
>been unanimous had the highly-placed RCA representative been brighter or
>better coached. It was slightly embarrassing to learn that he had
>unwittingly cast the negative vote. As a result of this expression of
>confidence by industry representatives, the system was included in the
>FCC Standards from the beginning of black-and-white television
>broadcasting in the United States. Consequently all television stations
>in the United States are now using vestigial-sideband transmission and
>the system is used throughout the world in all other countries where
>television broadcasting exists."
>
>"RCA filed a patent application in my name on August 31, 1938, and
>United States Patent 2,214,041 issued on September 10, 1940."
>
> - From "And Part of Which I Was - Recollections of a Research
>Engineer", by George H. Brown (1979, revised 1982)
>
>Roy Lewallen, W7EL
>
>Tony Sayer wrote:

>>
>> Did not the vestigial sideband come about due to something to do with
>> the original Channel One VHF Tx at Crystal Palace being DSB and there
>> wasn't going to be enough bandwidth in the rest of Band One for the
>> remaining channels?..
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>> Seem to remember reading something about this in Practical TV in appx
>> 1967 or thereabouts!...
>> --
>> Tony Sayer
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>> Bancom Communications Ltd U.K. Tel +44 1223 566577 Fax +44 1223 566588
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>> P.O. Box 280, Cambridge, England, CB2 2DY E-Mail tony@bancom.co.uk
>>
>> TL447-553 52* 10.57'N 0* 6.96 E

Hello Roy of EZNEC fame!. Pity this thread wasn't on uk.tech.broadcast..

Any lurkers from said group here?...
--
Tony Sayer

Bancom Communications Ltd U.K. Tel +44 1223 566577 Fax +44 1223 566588

P.O. Box 280, Cambridge, England, CB2 2DY E-Mail tony@bancom.co.uk

TL447-553 52* 10.57'N 0* 6.96 E

1981. s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 12:56:24 UTC
From: cmoss37@crosswinds.net
Message-ID: <1is8cto7vqklo215pva36uad5k3f8qeaan@4ax.com>
Source record: 53777

Hi.

Does anyone out there know how to convert a 'Magnitude and Phase
Angle' to R+jX at ?

I plot the S11 curve ok on a smith chart but the calculations i have
only work with R+jX so i need to convert an s-parameter into R+jX

Anyone know the formula at all ?

Best Regards ... Clive

1982. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 14:55:48 UTC
From: Ham <h@a.m>
Message-ID: <3AC49E74.1652F3B3@a.m>
Source record: 53778

Simple conversion of polar to rectangular coordinates. 11th grade trigonometry.

Easiest to do with a calculator that will do the conversion automatically or if you insist:

Where M = Magnitude
0 = Phase Angle

R = M cos 0
X = M sin 0

cmoss37@crosswinds.net wrote:

> Hi.
>
> Does anyone out there know how to convert a 'Magnitude and Phase
> Angle' to R+jX at ?
>
> I plot the S11 curve ok on a smith chart but the calculations i have
> only work with R+jX so i need to convert an s-parameter into R+jX
>
> Anyone know the formula at all ?
>
> Best Regards ... Clive

1983. Re: How to solder to aluminum

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 16:41:58 UTC
From: Chas <chas@multiscan.junglelink.co.uk>
Message-ID: <9a2d0iass1@newsg2.svr.pol.co.uk>
Source record: 53779

3 -in - 1 worked for me.

Chas

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message
news:3AAD8F80.EDFF9C4D@ix.netcom.com...
> Tried the motoroil trick, didn't work. Maybe I used the wrong
> stuff. You mean car engine motor oil, 10W30, right?
>
> Robert Casey wrote:
>
> > See web page
> > http://www.geocities.com/wa2ise/radios/repair.htm
> > Secret is to keep air away from freshly scraped aluminum.
> > A puddle of molten solder will do this.
>

1984. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 17:02:01 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac4bc00.6903524@news.aepnet.com>
Source record: 53780

On Fri, 30 Mar 2001 06:55:48 -0800, Ham <h@a.m> wrote:

>Simple conversion of polar to rectangular coordinates. 11th grade
>trigonometry.

You overlooked something; s-parameters are normalized reflection coefficients and "simply" changing them from mag-phase to real-imaginary form doesn't give R + jX.

S-parameters are usually (but not always) specified in a 50 ohm system. If this is the case then s11 is the reflection coefficient (Gamma) of the load Z referenced to 50 ohm.

The impedance can be found by first converting Gamma to the Re-Im form as below then using:

Z = - 50 * (Gamma +1) / (Gamma - 1)

remembering that Gamma is complex. This is best done with a calculator that handles complex numbers.

N7WS

>
>Easiest to do with a calculator that will do the conversion
>automatically or if you insist:
>
>Where M = Magnitude
>0 = Phase Angle
>
>R = M cos 0
>X = M sin 0
>
>
>
>cmoss37@crosswinds.net wrote:
>
>> Hi.
>>
>> Does anyone out there know how to convert a 'Magnitude and Phase
>> Angle' to R+jX at ?
>>
>> I plot the S11 curve ok on a smith chart but the calculations i have
>> only work with R+jX so i need to convert an s-parameter into R+jX
>>
>> Anyone know the formula at all ?
>>

>> Best Regards ... Clive
>

1985. AM antena tuner or a notch filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 20:12:07 UTC
From: Timothy Kellogg <tkellogg@wkyt.com>
Message-ID: <9a2ov7$5s4$1@nd.eastky.net>
Source record: 53783

I work at a Broadcast TV station Ch 27 (548 - 554 Mhz) and our mast also is home to 92.9 FM, Sprint & Verison cell phones, 2.4 Mhz mobile TV units, Pager service, etc. Needless to say the AM radio at my workbench is bathed in EM. I would like to listen to AM talk radio while at work but there is too much interference. I wanted some opinions as how to rectify the situation. I was first thinking of building a Notch filter tuned to our stations broadcast frequency but then thought that with all the other signals running around here that an Am band pass filter might be better (and perhaps wrapping the radio in aluminum foil to shield the IF from being overloaded). Just placing a diode across a multimeter (with the leads) gets me around 700 mv sitting on my bench. Any suggestions would be appreciated.

1986. WTB:SX-146 RCVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 20:32:54 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <W36x6.1427$rk4.136076@bgtnsc04-news.ops.worldnet.att.net>
Source record: 53781

Looking for Halli SX-146 to go with my HT-47 transmitter. Advice condition and price. WS0E

1987. Re: Free carbon comp resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 20:48:39 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3AC4F128.47C92A50@goodnet.com>
Source record: 53782

Do mean the whole pound of resistors? If so, I can give you a definite yes. I'm the president of my high school club and our brand-new members
are dying to start building. How can we work this out? Is the offer still good? I live in Phoenix, AZ. Please contact me as soon as possible at kd7fik@arrl.net
73 DE Ross, AC7JO

K7ITM wrote:
>
> Free resistors? Yes. What's the catch? Well, I've been hanging onto all the
> old carbon comp resistors I scrapped out of stuff, got in grab bags, and so
> forth for many years. A couple days ago, I went through them and measured
> them. I found that many of them are now higher in value than their color code.
> I tossed all the out-of-tolerance ones into a box, and have about a pound of
> those. That's quite a few resistors--in the hundreds! Any that were grossly
> out of tolerance or obviously "noisy", I tossed in the trash. The culls are
> all 1 watt and above (so far...haven't started on the 1/2W ones yet), and cover
> from below 10 ohms to a megohm or so. They are marked 5%, 10% and 20%.
> Typically, the 5% ones are within 10%, for example. Many of them have never
> been used, but most are "removed from equipment."
>
> Anyone interested? $5 to defray postage & my trip to the post office (or pick
> up in the Everett, WA, area).
>
> Cheers,
> Tom
> k7itm@aol.com

1988. Marine band circuit wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-30 23:32:11 UTC
From: jim <jjj@ring.com>
Message-ID: <9a37divgi1@slb7.atl.mindspring.net>
Source record: 53784

Looking for a circuit.
Marine band VHF receiver ~150-170 MHZ. (25kHz increments)
Wish list...
No transmitter, selectivity w/ attenuator, rotary control, antenna jack

Zero budget (student).

Please bear with me, I am a total novice.

-- Jim

1989. Dentron MLA2500 QST Article needed (QST May 96)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 01:57:08 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <3ac53611@flexnet239.uunt.net>
Source record: 53786
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I am looking for the qst or a copy of the article in QST, May 1996 on pages
45-48
on modifying the Dentron MLA2500 to use a 4CX800 tube. I am trying to
decide on the way to go with the MLA2500. Of course a pair of drop-in
3cx400A7's would be fine, but I haven't found any for a decent price.
I will gladly pay for the magazine or a copy of the article.

Doug, N4IJ

1990. Re: AM antena tuner or a notch filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 04:17:31 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ac559ea.2140724@news.cantech.net.au>
Source record: 53788

Clearly the interference is coming from a "cast of thousands" so
notching is impractical. A couple of low-pass sections well shielded
may work BUT you will need a radio with an external ant input AND no
internal (i.e. ferrite rod or similar) ant.

HTH

Peter

On Fri, 30 Mar 2001 15:12:07 -0500, "Timothy Kellogg"
<tkellogg@wkyt.com> wrote:

>I work at a Broadcast TV station Ch 27 (548 - 554 Mhz) and our mast also is
>home to 92.9 FM, Sprint & Verison cell phones, 2.4 Mhz mobile TV units,
>Pager service, etc. Needless to say the AM radio at my workbench is bathed
>in EM. I would like to listen to AM talk radio while at work but there is
>too much interference. I wanted some opinions as how to rectify the
>situation. I was first thinking of building a Notch filter tuned to our
>stations broadcast frequency but then thought that with all the other
>signals running around here that an Am band pass filter might be better (and
>perhaps wrapping the radio in aluminum foil to shield the IF from being
>overloaded). Just placing a diode across a multimeter (with the leads) gets
>me around 700 mv sitting on my bench. Any suggestions would be appreciated.
>
>

1991. Re: Sidetone for Hmbrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 05:36:16 UTC
From: Christopher An <christopher_an@sympatico.ca>
Message-ID: <3AC56D95.A5602166@sympatico.ca>
Source record: 53789

741 should generate nice sine wave side tone. You may have something
wrong in the circuit or something really minor. 555 is working good,
but it generates square wave and it sounds quite rough on my ear,
however, is the simplest one.
Chris VA3UT

TC Dufresne wrote:

> Anyone have any ideas for simple sidetone for a homebrew?
> Tried and failed using a 741 op amp :(
> Dunno what I did wrong.
> Any other ideas?
> Tom
> KC0GXX

1992. Re: Dentron MLA2500 QST Article needed (QST May 96)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 05:56:51 UTC
From: Murray Neece <RadioRanch@qth.com>
Message-ID: <3AC571A3.B1280928@qth.com>
Source record: 53787
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap
Body handling: Binary attachment payload not displayed: RadioRanch.vcf

Hi Doug, go to......www.svetlana.com.....and they have the article in thier archives available right there....if you dont find it,let me know, Ill email you a copy....i think I "saved it"somewhere...73 murray

PS I have not done the mods to one yet because I keep finding good tubes...and im using an MLA now that will do 1800 really easy...I keep it at 1100 or 600 and figure it to last forever...73 Murray

Douglas Snowden wrote:

> I am looking for the qst or a copy of the article in QST, May 1996 on pages
> 45-48
> on modifying the Dentron MLA2500 to use a 4CX800 tube. I am trying to
> decide on the way to go with the MLA2500. Of course a pair of drop-in
> 3cx400A7's would be fine, but I haven't found any for a decent price.
> I will gladly pay for the magazine or a copy of the article.
>
> Doug, N4IJ

[One or more binary attachments are retained only in the source text.]

1993. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 09:01:28 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <132bct4bmi7ifn9octhcpqpvrre9aemdtf@4ax.com>
Source record: 53790
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Fri, 30 Mar 2001 04:49:59 GMT, w9wi@linux1.localdomain () wrote:

>Yep. Basically the audio carrier disappears briefly 15,734.234 times a
>second, and somewhat less briefly 60 times a second. (in the USA. Make
>that 15,625 and 50 for Europe.)

IIRC, this may have been the case with the obsolete British 405 line
or the obsolete 819 line French system and with the current System L
used e.g. in France with positive video modulation.

All other systems use negative modulation and the synch pulses
corresponds to 100 % transmitter power. Thus, the carrier is _not_
interrupted during each line, otherwise,the intercarrier sound would
not work.

Paul

1994. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 09:48:17 UTC
From: cmoss37@crosswinds.net
Message-ID: <319bctc6s88cd6faq7h3363b4lq89bgj17@4ax.com>
Source record: 53791

Hi.

Thanks all for replying to my question.

>You overlooked something; s-parameters are normalized reflection >coefficients
>and "simply" changing them from mag-phase to real-imaginary form >doesn't give R
>+ jX.
>
>S-parameters are usually (but not always) specified in a 50 ohm >system. If this
>is the case then s11 is the reflection coefficient (Gamma) of the load >Z
>referenced to 50 ohm.
>
>The impedance can be found by first converting Gamma to the Re-Im form >as below
>then using:
>
>Z = - 50 * (Gamma +1) / (Gamma - 1)
>
>remembering that Gamma is complex. This is best done with a >calculator that
>handles complex numbers.

Yes assume it's referenced to 50R (Although i'd liked to know how to
reference it to other impedances).

The trouble is i'm in the learning stages and am no mathematician
unfortunately, so it would be really helpful if an example could be
shown at all ?

Heres some valid values ...

Mag Ang R jX

0.261 88.0 44.4 24.8
0.736 0.29 91.0 -141.0
0.943 2.0 1368.6 671.9

Now, there's obviously a divide in the formula as some very large R
values can be arrived at ...

Example using above 1st line of values (cos and sin work in radians)
...

R = Mag * cos(Ang * pi / 180)
jX = Mag * sin(Ang * pi / 180)

0.00911 = 0.261 * cos(88 * pi / 180)
0.26084 = 0.261 * sin(88 * pi / 180)

Now this is where i'm 'completely' lost :(....

>Z = - 50 * (Gamma + 1) / (Gamma - 1)

R and jX are 2 difference numbers, i guess this means it's a 'complex' number ????

I wonder where do i put the R value and where do i put the jX value ?

Thank you for any help with this ... Best Regards ... Clive

1995. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 10:50:23 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9cbdq3.2ub.w9wi@linux1.localdomain>
Source record: 53792
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sat, 31 Mar 2001 12:01:28 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>>Yep. Basically the audio carrier disappears briefly 15,734.234 times a
>>second, and somewhat less briefly 60 times a second. (in the USA. Make
>>that 15,625 and 50 for Europe.)
>
>IIRC, this may have been the case with the obsolete British 405 line
>or the obsolete 819 line French system and with the current System L
>used e.g. in France with positive video modulation.
>
>All other systems use negative modulation and the synch pulses
>corresponds to 100 % transmitter power. Thus, the carrier is _not_
>interrupted during each line, otherwise,the intercarrier sound would
>not work.

Yes, poorly worded on my part. Actually, the carrier is interrupted *more
than once* on each line (when the video is overmodulated), depending on the
video waveform. If one transmitted a solid white field of excessive
amplitude, the carrier would usually be gone, and would *reappear* 15,625
times a second. (and somewhat longer 50 times a second during vertical
sync) Obviously, such an extreme case is very rare.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

1996. Regen reciever

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 11:27:28 UTC
From: Ramakrishnan M <rkrishnan@ti.com>
Message-ID: <3AC5BF20.939DE6D1@ti.com>
Source record: 53793

Hello
I just wanted to build the regen reciever published in Sept 2000. The article says, the PCB is available from FAR electronics. But I am in India, and it's costly to ship the PCB to India(I don't know whether FAR will ship it to india at all) Has somebody got a simple PCB design for the reciever?

--
Ramakrishnan M

1997. Re: Marine band circuit wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 12:58:45 UTC
From: Ben Stoop <bstoopXXX@worldonline.nl>
Message-ID: <9a4kdj$2c7$1@nereid.worldonline.nl>
Source record: 53795

jim wrote in message <9a37divgi1@slb7.atl.mindspring.net>...
>Looking for a circuit.
>Marine band VHF receiver ~150-170 MHZ. (25kHz increments)
>Wish list...
>No transmitter, selectivity w/ attenuator, rotary control, antenna jack
>
>Zero budget (student).
You could have a look at Steve's 2m receiver and try to adapt to marine
band.
Info to be found on:
http://www.sonic.net/~shageman/2_article.html

Ben.

1998. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 13:02:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <04gbct4nifp6fd0kq686g5h9rc5v4ceta3@4ax.com>
Source record: 53794
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sat, 31 Mar 2001 10:50:23 GMT, w9wi@linux1.localdomain () wrote:

>On Sat, 31 Mar 2001 12:01:28 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>>>Yep. Basically the audio carrier disappears briefly 15,734.234 times a
>>>second, and somewhat less briefly 60 times a second. (in the USA. Make
>>>that 15,625 and 50 for Europe.)

<clip>

>Yes, poorly worded on my part. Actually, the carrier is interrupted *more
>than once* on each line (when the video is overmodulated), depending on the
>video waveform.

This is a sign of gross incompetence, if such is allowed to happen. If
this goes on for a longer time, IMHO, the broadcasting authorities
should do something to such stations.

>If one transmitted a solid white field of excessive
>amplitude, the carrier would usually be gone, and would *reappear* 15,625
>times a second.

I have never observed this for large solid white fields, but over
here, it sometimes appears with white subtitles.

However, it is often possible to reduce this interference by changing
the channel fine tuning or reorienting the antenna. This would
suggest, that the interference is not necessary due to the transmitter
carrier power going to zero during subtitles, but rather some transfer
or reception problem, e.g. a multipath notch close to the carrier
frequency attenuating the video carrier, possibly into the noise floor
during peak white.

Paul

1999. Re: Marine band circuit wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 13:30:41 UTC
From: jim <jjj@ring.com>
Message-ID: <9a4oe2$470$1@slb6.atl.mindspring.net>
Source record: 53697

Thanks, I happened to have found that article this morning. May work. still looking for that perfect receiver.
--Jim

"Ben Stoop" <bstoopXXX@worldonline.nl> wrote in message news:9a4kdj$2c7$1@nereid.worldonline.nl...
>
> jim wrote in message <9a37divgi1@slb7.atl.mindspring.net>...
> >Looking for a circuit.
> >Marine band VHF receiver ~150-170 MHZ. (25kHz increments)
> >Wish list...
> >No transmitter, selectivity w/ attenuator, rotary control, antenna jack
> >
> >Zero budget (student).
> You could have a look at Steve's 2m receiver and try to adapt to marine
> band.
> Info to be found on:
> http://www.sonic.net/~shageman/2_article.html
>
> Ben.
>
>

2000. Re: Airbike Tandem and Single in California

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 13:48:47 UTC
From: brokebob@aol.com
Message-ID: <20010331084847.20780.00001876@ng-fy1.aol.com>
Source record: 53796

what is an airbike?

2001. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 14:14:55 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9cbplr.383.w9wi@linux1.localdomain>
Source record: 53698
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Sat, 31 Mar 2001 16:02:38 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>This is a sign of gross incompetence, if such is allowed to happen. If
>this goes on for a longer time, IMHO, the broadcasting authorities
>should do something to such stations.

Absolutely. Actually, I've never seen that (a zero-carrier white field)
done on the air. With properly adjusted clipping amplifiers in the circuit,
it *can't* happen.

>I have never observed this for large solid white fields, but over
>here, it sometimes appears with white subtitles.

Yes, that's also the common situation here in the States. The subtitles are
small enough that they can be hard to see on the oscilloscope. Another case
where I sometimes see it is during live remote broadcasts (especially at
sporting events) where unexpectedly bright lights appear in the frame.

>However, it is often possible to reduce this interference by changing
>the channel fine tuning or reorienting the antenna. This would
>suggest, that the interference is not necessary due to the transmitter
>carrier power going to zero during subtitles, but rather some transfer
>or reception problem, e.g. a multipath notch close to the carrier
>frequency attenuating the video carrier, possibly into the noise floor
>during peak white.

I've seen it happen both ways. The latter one (where the station's
transmission is fine but multipath or improper tuning causes it) is far more
common.

We have also seen the phenomonon in the States where a highly-directional MW
station's antenna is more directional at the carrier than at the sidebands,
resulting in a badly overmodulated signal if you don't live in the lobe of
maximum radiation. (while the signal is perfect for those who live within
that lobe)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

2002. Re: Airbike Tandem and Single in California

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 15:10:06 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AC5F34E.9106D7CE@bloomer.net>
Source record: 53699

The Airbike I'm familiar with is a small 2 seat experimental airplane with an uncovered fuselage (body)...just steel tubing down to the tail surfaces. Why it would be mentioned in this newsgroup is beyond me!

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2003. Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 15:35:39 UTC
From: nx7u@primenet.com
Message-ID: <3ac5f8c9.60795480@news.primenet.com>
Source record: 53700
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Continually updated with HF/VHF/Satellite etc.., mobile operating
info/equipment/pix/etc.
Plus, I just put a new counter on the page and I want to see it work
<g>

2004. Re: Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 16:00:37 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AC5FF25.16009B45@IEEE.org>
Source record: 53702
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Scott Townley wrote:
>
> Continually updated with HF/VHF/Satellite etc.., mobile operating
> info/equipment/pix/etc.
> Plus, I just put a new counter on the page and I want to see it work
> <g>

How's the counter gonna work if you don't post the URL? :-)
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2005. Re: Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 16:03:01 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.1530102a891914799896a6@news.earthlink.net>
Source record: 53701
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

This is wonderful (well?), but where is the URL?

In article <3ac5f8c9.60795480@news.primenet.com>, nx7u@primenet.com
says...
> Continually updated with HF/VHF/Satellite etc.., mobile operating
> info/equipment/pix/etc.
> Plus, I just put a new counter on the page and I want to see it work
> <g>
>
>

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--

2006. Buy QRP tx for 18 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 17:28:47 UTC
From: Eliseo <ik6bak@libero.it>
Message-ID: <9a545b$59j$1@news.netpeople.it>
Source record: 53703

I'm looking for a reliable QRP 3 watts TX for 18 MHz band.
Also home brewed or kit.
I already have the xtal.
Any suggestion will be welcommed.
Payment in advance.
Thanks.

ik6bak@qsl.net

2007. HS club needs MRX-40 PCB layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 18:25:11 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3AC62106.D8EB0A70@goodnet.com>
Source record: 53704

I am the president of my high school club, and we want to build the MRX-40 receiver that came out in September 1997 QST. Does anyone know where
we can get the layout OTHER than by snailmailing to Newington? Thanks ES 72 DE AC7JO

2008. Re: Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 20:46:50 UTC
From: nx7u@primenet.com
Message-ID: <3ac64225.79578987@news.primenet.com>
Source record: 53705
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Silly me
http://www.primenet.com/~nx7u/mobile/home_mobile.html

On Sat, 31 Mar 2001 15:35:39 GMT, nx7u@primenet.com (Scott Townley)
wrote:

>Continually updated with HF/VHF/Satellite etc.., mobile operating
>info/equipment/pix/etc.
>Plus, I just put a new counter on the page and I want to see it work
><g>
>

2009. Re: HS club needs MRX-40 PCB layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 20:48:59 UTC
From: "Philip L. Carter" <pcarter@gcfn.org>
Message-ID: <3AC642BB.8A27F26A@gcfn.org>
Source record: 53706

The MRX40 receiver was produced Steve Bornstein, K8IDN the president of our Columbus QRP Club. Did you want the Gerber files or artwork files? We have a meeting next Saturday, and I can ask him then if he doesn't show up on the reflector here before that. I don't believe he would have any problems with giving out the layout of the board.

Phil WD8QWR, CQRP #3

2010. Re: Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 22:11:51 UTC
From: poissondanlo@aol.com
Message-ID: <20010331171151.19742.00001694@ng-cb1.aol.com>
Source record: 53707

Hello
I found this :
http://www.primenet.com/~nx7u/
try this and enjoy
73's
Serge /F5JTM
heureusement que les franï¿½ais sont lï¿½ !

2011. Re: HS club needs MRX-40 PCB layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-03-31 23:52:14 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3AC66DAF.41AEC2A4@goodnet.com>
Source record: 53708

I don't understand. What are Gerber files and what are antwork files? If it's not inconvenient, I would take them both. How do I open them?
Thank you very much for your reply and for your assistence.
72/73 DE Ross, AC7JO

"Philip L. Carter" wrote:
>
> The MRX40 receiver was produced Steve Bornstein, K8IDN the president of
> our Columbus QRP Club. Did you want the Gerber files or artwork files?
> We have a meeting next Saturday, and I can ask him then if he doesn't
> show up on the reflector here before that. I don't believe he would
> have any problems with giving out the layout of the board.
>
> Phil WD8QWR, CQRP #3

2012. Re: preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 00:15:12 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AC673B6.590B@pop.removethistomailme.net>
Source record: 53709

John O'Flaherty wrote:
>

EBay is the best place to buy varactors, IMHO. Many people (including Dan of Small Parts renown) sell them in lots of 50-100 for reasonable prices ($10-$20 or so).

Regardless of the diode type, you generally want to use parallel combinations of back-to-back varactor diodes to achieve the desired capacitance range and Q. It pays to have several dozen on hand.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2013. CW in your car?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 00:54:48 UTC
From: "Kevin B. Haywood" <haywoodkb@delphi.com>
Message-ID: <3AC67C58.80071CD3@delphi.com>
Source record: 53710

I have noticed that my Honda sends an H when I leave the keys in the ignition.
Do Toyotas send T when you leave the lights on?
Does a Chevrolet send -.-. when the door is ajar?
Maybe a ham works at the auto factory.

2014. Want to Buy Dishnetwork Satellite Recievers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 01:16:28 UTC
From: REDBONE <redbone1@swbell.net>
Message-ID: <3AC6816C.43B1A2E6@swbell.net>
Source record: 53712

Want to Buy Dishnetwork Satellite Recievers

I want to buy Dishnetwork recievers.....I need the following models:

Dishnetwork model# 1000
Dishnetwork model# 3000
Dishnetwrok model# 2800
Dishnetwork model# 2700

I will buy these units with or without the access cards. Serious inquiries...please send the asking price that includes shipping from your address. I will pay COD charges also.

Please reply to:

redbone1@swbell.net
redbone1_99@yahoo.com
yellowman75@hotmail.com
redbone1_99_2000@yahoo.com

2015. Want to Buy Dishnetwork Satellite Recievers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 01:17:15 UTC
From: REDBONE <redbone1@swbell.net>
Message-ID: <3AC6819B.35347E1@swbell.net>
Source record: 53713

Want to Buy Dishnetwork Satellite Recievers

I want to buy Dishnetwork recievers.....I need the following models:

Dishnetwork model# 1000
Dishnetwork model# 3000
Dishnetwrok model# 2800
Dishnetwork model# 2700

I will buy these units with or without the access cards. Serious inquiries...please send the asking price that includes shipping from your address. I will pay COD charges also.

Please reply to:

redbone1@swbell.net
redbone1_99@yahoo.com
yellowman75@hotmail.com
redbone1_99_2000@yahoo.com

2016. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 01:26:33 UTC
From: ham <fw@exec.com>
Message-ID: <3AC68429.FDB25357@exec.com>
Source record: 53711

hello

2017. Re: Dentron MLA2500 QST Article needed (QST May 96)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 03:18:30 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9a66m6fdd0@208.207.71.172>
Source record: 53714
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Murray Neece wrote:
>
> Hi Doug, go to......www.svetlana.com.....and they have the article in thier
> archives available right there....if you dont find it,let me know, Ill email
> you a copy....i think I "saved it"somewhere...73 murray
>
> PS I have not done the mods to one yet because I keep finding good tubes...and
> im using an MLA now that will do 1800 really easy...I keep it at 1100 or 600
> and figure it to last forever...73 Murray

The secret to keeping a MLA2500 alive and in good health is to make
sure your antenna stays in good condition and doesn't suddenly go
defective and unload the amp while it's on the air, and always monitor
the grid current while operating. Anytime you see grid current indicated
on the meter, STOP using the amp and investigate to see what went wrong.
Keeping the grids healthy is probably the most important single thing
you can do to keep the tubes in good shape. Those fragile grids won't
stand but a very few watts dissipation. Any visibile grid current while
operating on the air is too much, whatever the book says. When loaded
right (easily done) mine shows zero grid current at full output.
Mine 2500 still has the original tubes and they are still at full
output. I used it twice this week in a morning 75 meter group because of
rotten conditions. (I usually don't need an amp there.)

Dick Wï¿½EX

2018. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 04:24:31 UTC
From: Dante'@inferno.net
Message-ID: <9a6ahvnvn1@news.uky.edu>
Source record: 53715
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

In article <3ABA3E71.E4AE8A08@gravitywell.org>, ash@gravitywell.org says...
>
>Hi,
>at the moment I'm using a 0.01-1300mhz (Icom PCR1000) scanner hooked up
>to the IF output of my Icom R-8500, but it feels like a waste of a decent
scanner
>to ONLY use it set to 10.7mhz FM 50khz filter.
>I only use it for decoding data such as wefax, so I'd like to substitute the
pcr1000
>with a simple fm radio for 10.7mhz and 35-50khz bandwith.
>Anyone got any schematics for a simple radio suited for this purpose or got
any
>other suggestions?
>
>//Greg.
>
Do some serious scrounging for any of the older Hi-VHF Sennheiser "Wireless Microphone" receivers. A freind at a TV station gave several of us some older ones they were trashing 10 years ago. Several guys moded them with new crystasl (and on guy desinged and built a PLL synth" to operate at 136.nn. And several others just used the IF strip after the front end with Pro2004 scanners acting at the front end. Added a 10.7MHz IF tap and it worked like a champ. They ought to be farily common as they where very popular at TV station, but have bben replaced by (mostly) SOny/Azden/etc UHF versions.
I do not have a model number as I tossed the case after stripping the IF. Was about 55KHz wide, perfect for NOAA APT.
I now use a PCR1000, but still have the outboard IF "just in case".

2019. Re: CW in your car?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 04:28:32 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9cdbq8.18u.w9wi@linux1.localdomain>
Source record: 53716

On Sat, 31 Mar 2001 19:54:48 -0500, Kevin B. Haywood <haywoodkb@delphi.com>
wrote:

>I have noticed that my Honda sends an H when I leave the keys in the
>ignition.
>Do Toyotas send T when you leave the lights on?
>Does a Chevrolet send -.-. when the door is ajar?
>Maybe a ham works at the auto factory.

A line of uninterruptable power supplies used Morse to signify error
conditions. They put a sticker with the appropriate codes on top, but if
you knew the code you didn't need the sticker.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

2020. test msg - ignore

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 11:04:51 UTC
From: dj@hotmail.com
Message-ID: <3AC6FD43.453A32A7@hotmail.com>
Source record: 53717

```
test - ignore
```

2021. 2m Yagi antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 12:48:50 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <986129332.50864@athnrd02.forthnet.gr>
Source record: 53718

I want to build the TONA (F9FT i think) antenna or another yagi antena for 2 m band from 3 to 9 elements. Can someone help me? I want the schematic with the measures. Please send me by mail sv2bxc@x.treme.gr or spkintz@the.forthnet.gr Many 73's and good DX.

www.sv2bxc.77th.com

2022. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 18:07:43 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <986148490.329568@athnrd02.forthnet.gr>
Source record: 53719

```
test
```

2023. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 18:08:53 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <986148533.783808@athnrd02.forthnet.gr>
Source record: 53720

just testing

2024. tcxo ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 22:18:12 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tcfdpo5llso276@corp.supernews.com>
Source record: 53722

recently i won a bid on ebay for a 100mHz txco with efc..
the seller didn't have much info other than pinouts..
the seller said that it needed 24vdc, and thought it was manufactured by Greenray..
i hooked it up and it works but i have a few questions..
i brought it up on a variable dc supply..
there was a linear relationship between input voltage and current draw until it flattened at about17 ma..
the knee was about 17 vdc..
plotting the p-p output, it flatened at 6.5 vac 100mHz..
this knee is at about 12.5vdc...
the question is: can the operating voltage of this unit be determined from this info without any doubt??..
the unit has no markings, it's about 2" by 2" and 1" thick..
solder sealed bathtub with 5 pins..
any facts or opinions appreciated..
tnx
hank wd5jfr

2025. Re: CHECK THIS OUT 2691

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-01 23:04:44 UTC
From: Dana <dana@randomc.com>
Message-ID: <Pine.GSO.4.10.10104011904280.9974-100000@cluster2>
Source record: 53721
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

We don't really care about that, so go away.

On Mon, 26 Mar 2001 jcztti@serve.com wrote:

> Date: Mon, 26 Mar 2001 18:46:06 GMT
> From: jcztti@serve.com
> Newsgroups: rec.radio.amateur.homebrew, rec.radio.amateur.misc,
> rec.radio.amateur.policy
> Subject: CHECK THIS OUT 2691
>
> Did you know its a crime to surf certain sites!!
>
> Did you know its a crime to download certain pics, programs, text,etc.
>
> The Law IS clamping down, cover your tracks, be safe rather than sorry...
> CHECK OUT THIS TOP PROGRAM!!!!!
> http://www.evidence-eliminator.com/go.shtml?A654845
>
> SAFE SURFING.....................
> ixwgljqgdnorpzohbidiuikzwfspnjomyxixuhsggwjkugipeliihnwkxlzocesfbugfmmhewyjwbrucdhnktbpk
jsmgtsvhiht
>
>
>

2026. Re: CHECK THIS OUT 2691

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 00:05:54 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9cfgj2.553.QSB@animas.frontier.net>
Source record: 53723

Cross posted list trimmed.

On Sun, 1 Apr 2001 19:04:44 -0400, Dana scribbled:
>We don't really care about that, so go away.
>
>On Mon, 26 Mar 2001 jcztti@serve.com wrote:
>
>> Date: Mon, 26 Mar 2001 18:46:06 GMT
>> From: jcztti@serve.com
>> Newsgroups: rec.radio.amateur.homebrew, rec.radio.amateur.misc,
>> rec.radio.amateur.policy
>> Subject: CHECK THIS OUT 2691

So, you thought it important to post a reply to a piece of spam
that will *never* be read by the spammer, and you felt it necessary
to keep the crossposted list intact while doing it?

Ergo: "We don't really care about that, so go away."

2027. "4x3x5" bandpass filter for Mode J desense ROCKS!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 00:41:56 UTC
From: nx7u@primenet.com
Message-ID: <3ac7c856.39731171@news.primenet.com>
Source record: 53724
Cross-posted to: rec.radio.amateur.space,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Just got done testing my "4x3x5" 436MHz bandpass filter (1999 ARRL
Handbook p. 23.39, and numerous others in the past).
Boy it rocks, insertion loss 0.1dB and 3dB bandpass 8.5 MHz.
Rejection at 146MHz > 70dB, all as measured on my GR1710 vector
network analyzer.
No special construction, no silver plating.

Just the ticket for you FO-20/29 ops!

PS the hardest material to obtain is the 3" dia. copper pipe. I can
help if you're interested...
73,
Scott NX7U (soon to be reinstalling the mobile Mode J station)

2028. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 00:44:01 UTC
From: Jimbo the Clown <james@xicom.com.au>
Message-ID: <3ac7cb3a@news.adfa.edu.au>
Source record: 53725

Clive...

The ARRL handbook has a much better overview of complex numbers, but in a nutshell, a complex number is a number that has both a 'real' and 'imaginary' component. In electronics, the real component is RESISTANCE, and the imaginary component REACTANCE.

This a complex number of the form R+jX specifies the resistive and reactive components. (j = sqrt(-1) ... don't try this on a calculator... that's why it's called an 'imaginary number'... wierd, eh? ;-)

However, the a+jb format doesn't always convey impedance information, it is also known as the 'rectangular' format of a complex number. The 'polar' format of a complex number is the magnitude/angle type of specification. Hence the conversion of your data that you were performing, ie

> Mag Ang R jX
> ----------
> 0.261 88.0 44.4 24.8
> 0.736 0.29 91.0 -141.0
> 0.943 2.0 1368.6 671.9
>
> Example using above 1st line of values (cos and sin work in radians)
>
> R = Mag * cos(Ang * pi / 180)
> jX = Mag * sin(Ang * pi / 180)
>
> 0.00911 = 0.261 * cos(88 * pi / 180)
> 0.26084 = 0.261 * sin(88 * pi / 180)

...was essentially correct, except that you are not calculating the impedance values R and X (more on that in a moment), but rather performing a polar->rectangular conversion. You have converted 0.261 ang 88.0 (polar) to 0.00911+j0.265084 (rectangular). This is not a waste of time, you need this for the next step....

"So, how the hell do I determine the impedances?" you ask... read on!

S11 is the input reflection coefficient of a network (or more commonly, the 'thing' you are studying). As Wes said, S11 is typically measured in a 50 ohm system. What this means in practice, is that we squirt a signal from a 50R signal generator into the device under test (DUT), and measure the magnitude and phase of the signal (if any) that is reflected back from the input port of the DUT. If the input impedance of the DUT was exactly 50R, then no signal would be reflected (all would be absorbed), and S11 would thus equal 0+j0.

If all of the signal was reflected (in phase), then S11 (also called gamma) = 1+j0. (or mag 1 ang 0 in polar speak)
If the signal was completely reflected out of phase, then S11 = -1+j0. (mag 1 ang 180)
If the signal was completely reflected 90 degrees out of phase, then S11 = 0+j1. (mag 1 ang 90)

...see how the polar representation gives you some insight as to what happens when a wave is incident on your DUT?

Transmission line theory gives us the following useful formula:

Zl = Zo[(1+gamma)/(1-gamma)]

Zo is the nominal test (system) impedance, as Wes said, 50R. Gamma is your friendly S11 value.

Now, plugging the numbers in to the equation is easy if you have a calculator capable of complex numbers, but tedious if not. Here's the tedious way....

From your polar->rectangular conversion, gamma = 0.00911+j0.26084.

Therefore, 1+gamma = 1.00911+j0.26084, and
1-gamma = 0.99089-j0.26084

There are several ways to proceed from here, but the easiest is to convert these back to polar format:

mag = sqrt(real^2 + complex^2)
ang = tan-1(complex / real)

For 1+gamma:
mag = 1.0423
ang = 14.4929 (degrees)

For 1-gamma:
mag = 1.0246
ang = -14.7479 (degrees)

Now (1+gamma)/(1-gamma) looks like: (1.0433 ang 14.7185) / (1.0257 ang 14.9771)

Divide the magnitudes and subtract the angles thus:

(1+gamma)/(1-gamma) = 1.0173 ang 29.2408

Convert this back to rectangular form (we're getting close!)...

1.0173 ang 29.2408 -> a+jb

a = 1.0173 * cos 29.2408
b = 1.0173 * sin 29.2408

ie 1.0173 ang 29.2408 = 0.8876 + j0.4969

THIS IS (1+gamma)/(1-gamma) ! Now all we have to do it multiply this number by the characteristic impedance (Zo), to give us:

Zl = 50 * (0.8876 + j0.4969)

(You asked about recalculating for a different characteristic impedance...? Simply change the 50 to whatever you want...)

Therefore Zl = 44.4 +j 24.8 ohms! (Voila! Just what we meant to arrive at!)

There you go! That's how you convert S11 data -> impedance information! :-)

Hope this helps,
James.
VK2XQF.

2029. WTB: Eimac model HR-6 Plate Connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 01:12:49 UTC
From: Ron H <123456@mediaone.net>
Message-ID: <lmQx6.8131$V6.392192@typhoon.mn.mediaone.net>
Source record: 53726
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.components

Wanted to Buy!!! TWO ea. of the Eimac Plate connectors for the 4-400 tube.

Thanks
Ron H.

DO NOT REPLY---- send mail to RNHARSH at mediaone.net (put it together
right of course)

2030. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 02:56:41 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9a8ppa$ed6$1@dipsy.missouri.edu>
Source record: 53727

I'm reading this series of posts with interest. I've made several attempts to study two-port analysis in semi-great depth, but have always run aground when it came to converting the theoretical arguements into realistic applications. So far, everyone who's replied seems to have a practical grasp on at least one of the scattering parameters (S11). I am wondering if any of those who have responded to Clive's original post have had any formal study (i.e. actually sat down and learned the theoretical arguements behind s-params) with the s-parameters, and two-port network analysis (in particular)? If so, or even if you've just got a good grasp of both the theoretical and practical aspects of the analysis methods, are there any texts in particular that you could/would recommend? Like I said, I've got a pretty good idea of the theoretical mumbo-jumbo, but I'd like to see some nice applications of this stuff in the real world now.

Regards,
Pete
ki0eg

Ham <h@a.m> wrote in message news:3AC49E74.1652F3B3@a.m...
> Simple conversion of polar to rectangular coordinates. 11th grade
> trigonometry.
>
> Easiest to do with a calculator that will do the conversion
> automatically or if you insist:
>
> Where M = Magnitude
> 0 = Phase Angle
>
> R = M cos 0
> X = M sin 0
>
>
>
> cmoss37@crosswinds.net wrote:
>
> > Hi.
> >
> > Does anyone out there know how to convert a 'Magnitude and Phase
> > Angle' to R+jX at ?
> >
> > I plot the S11 curve ok on a smith chart but the calculations i have
> > only work with R+jX so i need to convert an s-parameter into R+jX
> >
> > Anyone know the formula at all ?
> >

> > Best Regards ... Clive
>

2031. FA: Sony SW-55 Shortwave Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 03:08:29 UTC
From: Stevie <NOSPaM@iglou.com>
Message-ID: <3ac7ed38_2@news.iglou.com>
Source record: 53728
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.shortwave,rec.radio.swap

Mint Condition... Nice!

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1226994984

Thanks for looking.

2032. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 06:02:09 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac80bdd.223989519@news.aepnet.com>
Source record: 53729

On Sun, 1 Apr 2001 21:56:41 -0500, "Bojangle Chicken"
<bojanglechicken@yahoo.com> wrote:

>I'm reading this series of posts with interest. I've made several attempts
>to study two-port analysis in semi-great depth, but have always run aground
>when it came to converting the theoretical arguements into realistic
>applications. So far, everyone who's replied seems to have a practical
>grasp on at least one of the scattering parameters (S11). I am wondering if
>any of those who have responded to Clive's original post have had any formal
>study (i.e. actually sat down and learned the theoretical arguements behind
>s-params) with the s-parameters, and two-port network analysis (in
>particular)? If so, or even if you've just got a good grasp of both the
>theoretical and practical aspects of the analysis methods, are there any
>texts in particular that you could/would recommend? Like I said, I've got a
>pretty good idea of the theoretical mumbo-jumbo, but I'd like to see some
>nice applications of this stuff in the real world now.
>
>Regards,
>Pete
>ki0eg
>

I would recommend the free info at:

http://www.tm.agilent.com/data/static/eng/tmo/Notes/interactive/an-95-1/

There is also some interactive stuff there.

H-P, before they split off the unpronouncable "Agilent", also published AN-95,
"S-Parameters... Circuit Analysis and Design" and AN-154, "S-Parameter Design."

These are long out-of-print but you might find them in a good technical library.

Motorola published AN-215A that doesn't speak of s-parameters but does discuss
amplifier design using y-parameters. See:

http://merchant.hibbertco.com/servlet/MtrlDeactServlet?page=5&s=&part=AN-215A

but hurry, it looks like this site is going away.

You can find a free cad program (Serenade) at:

http://www.ansoft.com/about/academics/sersv/index.cfm

There were some download problems at this site but maybe they've been fixed. If
not, email them and they might send it on CD.

This is a crippled version of a multi K$ program, that isn't just about s-parameters but can use them in circuit design.

I don't know what "real world" applications you are looking for but I can tell you that s-parameters are used every day to design and measure real circuits.

Have fun.

Wes Stewart N7WS

2033. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 06:46:42 UTC
From: Jimbo the Clown <james@xicom.com.au>
Message-ID: <3ac8203a@news.adfa.edu.au>
Source record: 53730

Hi Pete!

The best blend of theory and practice I have found is in:

Chris Bowick, "RF Circuit Design", published by H.W. Sams, Indianapolis,
1982.
ISBN: 0-7506-9946-9

It covers LC circuits, HF transistor models, amplifier design, filters
etc... a nice theoretical accompaniment to the ARRL handbook to explain
how a lot of the seeming leaps of faith are arrived at.

Cheers,
James VK2XQF :-)

2034. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 09:12:42 UTC
From: cmoss37@crosswinds.net
Message-ID: <b3ggct0na7hv502tqpnj6g0hofdjg5djg3@4ax.com>
Source record: 53731

Hi James.

Brilliant !!!

That's great. You ort to be a teacher if your not already one you know James.

I have borrowed a calculator of a friend that does deal with complex numbers (r and i) and sure enough, the formula from Wes works just fine.

Then what i really needed to do was to write a delphi routine to do the same so i needed to know exactly how to do it without having the built-in ability of dealing with complex numbers (which delphi does'nt have) ... ie, how to do it the tedious way :)

Things certainly seem to look easier once you find out how to go about it.

I agree Pete, it's certainly interesting.

>However, the a+jb format doesn't always convey impedance information, it is
>also known as the 'rectangular' format of a complex number. The 'polar'
>format of a complex number is the magnitude/angle type of specification.

When people refer to Rp and Xp i guess this means there referring to the 'polar' format (magnitude and phase) then ?

Also, if i assumed the exact same formula's apply to the S22 param's (output matching) would i be correct i wonder (i strongly suspect so) ?

I do have one question at present, James shows ...

Zl = Zo [(1 + gamma) / (1 - gamma)]

as the formula but Wes shows ...

Zl = -Zo [(gamma + 1) / (gamma - 1)]

I assume the above 2 formula's are fine, as the result is the same ... Wes flips the sign of the nominal impedance to recover the correct resultant sign so no problem there i guess.

Right, i'm off to try out my new found knowledge :)

Thanks again James, Wes, Pete and Bob ... it's 'very' much appreciated, it's got me onto the next stage (working out the stability factor (K)) :))

Regards to all ... Clive

2035. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 10:08:28 UTC
From: cmoss37@crosswinds.net
Message-ID: <fijgct82knv5ckhuj0lu77ractsjo2nd5i@4ax.com>
Source record: 53732

Hi James.

>Zl = 50 * (0.8876 + j0.4969)
>
>(You asked about recalculating for a different characteristic impedance...?
>Simply change the 50 to whatever you want...)
>
>Therefore Zl = 44.4 +j 24.8 ohms! (Voila! Just what we meant to arrive
>at!)

I have another question ... what if the characteristic impedance is
not purely resistive (another complex impedance R+jX), would it become
...

Zl = (R + jX) * (0.8876 + j0.4969)

I wonder (which i now know how to do if that is the case) ?

Regards ... Clive

2036. Re: 2m Yagi antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 12:23:34 UTC
From: f4ckv@radioamateur.org
Message-ID: <ab_x6.355$CN7.1507474@nnrp4.proxad.net>
Source record: 53733

I can help you for 9 elements f9ft TONNA . But I suggest that it's
better gain to bilt DJ9BV or DL6WU with longer boom than F9FT , so better
gain. If you are still interesting in F9FT 9el. please let me know on :
f4ckv@radioamateur.org

73 from f4chv (jn16)

Spyros SV2BXC wrote:

> I want to build the TONA (F9FT i think) antenna or another yagi antena for 2
> m band from 3 to 9 elements. Can someone help me? I want the schematic with
> the measures. Please send me by mail sv2bxc@x.treme.gr or
> spkintz@the.forthnet.gr Many 73's and good DX.

> www.sv2bxc.77th.com

2037. Linear amp switching

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 13:07:45 UTC
From: Alex Turner <aturner13@triad.rr.com>
Message-ID: <BQ_x6.244512$Z8.53364594@typhoon.southeast.rr.com>
Source record: 53734

I have built a small solid state amp to boost my QRP signals. Is it better to have separate relays to switch the input and output and provide better isolation or is one ok?

73
Alex N4BYJ

2038. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 14:53:45 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac88e69.257414498@news.aepnet.com>
Source record: 53735

On Mon, 02 Apr 2001 10:08:28 GMT, cmoss37@crosswinds.net wrote:

>
>Hi James.
>
>>Zl = 50 * (0.8876 + j0.4969)
>>
>>(You asked about recalculating for a different characteristic impedance...?
>>Simply change the 50 to whatever you want...)
>>
>>Therefore Zl = 44.4 +j 24.8 ohms! (Voila! Just what we meant to arrive
>>at!)
>
>I have another question ... what if the characteristic impedance is
>not purely resistive (another complex impedance R+jX), would it become
>...
>
> Zl = (R + jX) * (0.8876 + j0.4969)
>
>I wonder (which i now know how to do if that is the case) ?
>
>Regards ... Clive

As James said in his excellent post, just multiply by the characteristic impedance of the reference system.

S-parameters are derived from measurements that are normalized to the system impedance. Usually, they are measured using network analyzers that are very nearly perfect (mathematically anyway) 50 ohm sources and loads. This being the case, the results are usually normalized to 50 +j0.

This doesn't have to be however. For instance, if you want to normalize a load Z to the characteristic impedance of real (physical) transmission line then you use the complex line impedance. A real line always has some loss and this makes the line Z complex. Normally, this is not accounted for, but for precise work it is wise to consider the effect.

Wes Stewart N7WS
>

2039. car radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 15:01:43 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <9aa4c1$eg6$1@bob.news.rcn.net>
Source record: 53736

why were loop sticks used over variable capacitors to tune a car radio?

2040. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 15:02:25 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac89283.258464167@news.aepnet.com>
Source record: 53737

On Mon, 02 Apr 2001 09:12:42 GMT, cmoss37@crosswinds.net wrote:

[snip]
>
>When people refer to Rp and Xp i guess this means there referring to
>the 'polar' format (magnitude and phase) then ?

Careful here. Rp and Xp are usually used to express an impedance (really should
be an admittance) in parallel equivalent form; eg. 50 ohm *in parallel with*
100 ohm of capacitive reactance.
>
>
>Also, if i assumed the exact same formula's apply to the S22 param's
>(output matching) would i be correct i wonder (i strongly suspect so)
>?

Yes.

Wes Stewart N7WS

2041. Re: Linear amp switching

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 15:05:09 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ac89490.258989302@news.aepnet.com>
Source record: 53738

On Mon, 02 Apr 2001 13:07:45 GMT, "Alex Turner" <aturner13@triad.rr.com> wrote:

>I have built a small solid state amp to boost my QRP signals. Is it better
>to have separate relays to switch the input and output and provide better
>isolation or is one ok?
>
>73
> Alex N4BYJ

One should be just fine. As long as the amplifier isn't doing funny things
while disconnected, high isolation isn't an issue. If it is doing funny things,
eg, oscillating then you have another problem.

Wes Stewart N7WS
>
>

2042. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 16:29:48 UTC
From: cmoss37@crosswinds.net
Message-ID: <77ahct04mqncj84ose54jh562t52u9jquu@4ax.com>
Source record: 53739

Hi Wes.

>>When people refer to Rp and Xp i guess this means there referring to
>>the 'polar' format (magnitude and phase) then ?
>
>Careful here. Rp and Xp are usually used to express an impedance (really should
>be an admittance) in parallel equivalent form; eg. 50 ohm *in parallel with*
>100 ohm of capacitive reactance.

ah right, ok then.

>>Also, if i assumed the exact same formula's apply to the S22 param's
>>(output matching) would i be correct i wonder (i strongly suspect so)
>>?
>
>Yes.

Great.

Clive

2043. Re: car radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 18:47:07 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9aahapbn1@slb1.atl.mindspring.net>
Source record: 53740

More stable and quiter than rubbing contacts.. Sparks W4EAS

2044. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 20:08:58 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3AC8DC5A.D84D292A@primeline.net>
Source record: 53741
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

But as far as MW AM transmissiond go, don't see it any time soon,
as long as the radios out there tune 9/10 Khz steps.

"John M. Franke" wrote:
>
> > >Vestigal Sideband AM is used by all terrestrial BC TV transmitters for
> > >their video / vision signal.
> > >Still wonder why they dont do it for AM radio, and use the free coming
> > >bandwith for extra audiospectrum.
> >
>
> They do, tune in CHU on 3.330 MHz first select upper and then lower
> sideband, one is missing and the signal still sounds good on an AM
> detector. Other shortwave broadcasters do the same.
>
> John

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2045. Capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 20:35:22 UTC
From: Mike Barrett <zootv@mgfairfax.rr.com>
Message-ID: <3AC8E1BC.7D12FDAF@mgfairfax.rr.com>
Source record: 53743
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi, I'm replacing the electolytic capacitors in my Hallicrafters SR-160. Is it ok to use capacitors with the same capacitance but different voltage rating? Specifically, can I replace a 30uf 300v with a 30uf 400v? Thanks to all who answered my previous question about this radio,
Mike

2046. Re: Want to Buy Dishnetwork Satellite Recievers: Caution!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 20:45:56 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3AC8E504.A9F09CDD@primeline.net>
Source record: 53742

Due to REDBONE's posts in the satellite TV forums are of the pirate
nature,
please use caution in selling to this individual, as what you may sell
hm may
be used to perpetuate satellite TV piracy.

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

REDBONE wrote:
>
> Want to Buy Dishnetwork Satellite Recievers
>
> I want to buy Dishnetwork recievers.....I need the following models:
>
> Dishnetwork model# 1000
> Dishnetwork model# 3000
> Dishnetwrok model# 2800
> Dishnetwork model# 2700
>
> I will buy these units with or without the access cards. Serious
> inquiries...please send the asking price that includes shipping from
> your address. I will pay COD charges also.
>
> Please reply to:
>
> redbone1@swbell.net
> redbone1_99@yahoo.com
> yellowman75@hotmail.com
> redbone1_99_2000@yahoo.com

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2047. 40 Meter Announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 20:51:19 UTC
From: Joe <joe@me.com>
Message-ID: <3AC8E647.3CAD8D05@me.com>
Source record: 53648
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

RELIEF FOR HAMS IN SIGHT
Amateurs gain reprieve from long-time clash with broadcasters

-from the Arizona State Union-Tribune, April 1, 2001

WASHINGTON, D.C.- Ask any Arizonan amateur radio operator what the most pressing problem on his frequencies is, and he will likely tell you it is the serious interference from shortwave broadcast stations in the 40 meter band that has grown progressively worse over the last two decades.

Yesterday, international broadcasters announced their intent to vacate the hams' frequencies in favor of another portion of the radio spectrum, bringing clear frequencies to hams for the first time in over forty-five years, the Bush administration reported.

Since the early- to mid-sixties, hams have had to endure increasing shortwave activity fueled by the Cold War, tensions between Cuba and the West, and the rise of governments in the Third World anxious to use radio to spread propaganda. Protected by international law, national broadcasters, religious programmers, and others have enjoyed virtually unlimited access to frequencies, cheap worldwide coverage, and operation at almost any power level they desired, creating an "elbow to elbow" situation for which no resolution was seen, given the squatters' stance taken by all parties involved.

Now, a major bloc of broadcasters has unilaterally proposed moving off of 40 meters onto a frequency band much less utilized now that it has been recently vacated by the military. The new band had been under the control of the United States Department of Defense since 1950, but has lied in fallow for years with the steady rise in the use of satellites for military communications. Broadcasters finalized an agreement with the Department to assume administration of the frequencies over the weekend.

The announcement came at a meeting of the International Federation of Shortwave Broadcasters (Fï¿½dï¿½ration Internationale de Stations de Onde Courte) in Geneva in late January. Of the 75 member countries of the organization, 61 have operations in the 40 meter band, meaning that the move away from 40 meters will constitute a mass exodus of signals which have hampered amateur radio stations for years. Ham radio operators stand to gain the most from the surprise announcement, but millions of shortwave listeners-- hobbyists with special receivers that can pick up the shortwave stations-- are also rejoicing at the prospect of clearer frequencies and more enjoyable reception.

The vote in favor of the move was 72 to 2, the two lone dissenting votes coming from Cuba and Iraq. Libyan representatives abstained from the voting.

"When you talk about surprise in the context of world policy, you imply that something has been discussed for a long, long time with what seemed like no possible solution, and that the solution was not foreseen by anybody, anywhere, at any time in the next five years. This is definitely an astonishing surprise," declared Warren Kruger, a diplomat and regulatory commissioner with the State Department in Brussels who was involved in recent restructuring of shortwave allocations for the European Union. He said that prior to the announcement, the best scenario envisioned by US and European policymakers was the remote possibility of the question of 40 meter broadcast interference appearing on the agenda for the World Radiocommunication Conference (WRC) in 2003. "Even then, it was doubtful whether the issue would have made it past the committees onto the general floor. It just wasn't seen as pressing enough in the face of other, stickier matters," he said.

Under the proposed move, shortwave stations from the 61 nations would vacate the 7100-7300 kilohertz band between now and the end of 2006. The majority would move to a band between 7325 and 7490 kilohertz, with some others scattering to several frequencies above and below that band. According to Kruger, the major consideration was the acquisition of frequencies with characteristics similar to the 40 meter band in terms of range and time of day when the best reception was possible. Evidently, the new frequency band is satisfactory to the stations involved on all accounts.

Other officials blindsided by the shotgun announcement were from both the Federal Communications Commission (FCC) and the national association for amateur radio in the US, the American Radio Relay League (ARRL). LaVonne Burke, head of the FCC field office near Quantico, Virginia, expressed shock and confusion over the Geneva statement. "We didn't even have representatives there, thinking that there wouldn't be any significant movement coming out of Geneva. All of our attention was fixed on 2003, frankly." In Newington, Connecticut, an ARRL spokesman struck a skeptical tone. "We need to be very cautious in our response to this unilateral agreement," he said. "What effect will it really have? Does it leave us more or less susceptible to other actions aimed at reducing our frequency allocations? All these questions remain unanswered and our vigilance cannot diminish at this time just because a group of broadcasters decide to up and move off a frequency."

Hailing the agreement as "monumental, a gift from heaven," well-known Arizona ham Clyde "Skip" Butler declared the dawn of a 21st century era for ham radio. "We never thought we would see this day. It is the answer to our dreams and I can't tell you how exciting and how promising this is to us. It's like being told you've just won the lottery." Another Flagstaff-area amateur who identified himself as "John L.", explained what this meant to him. "My buddies and I have met on 40 meters every night for the last eighteen years, and every single one of those nights,

it has been a struggle to find a clear spot to set up our transmitters. If it wasn't the howling of Radio Moscow, it was the splatter from one of those darned religious stations that completely wiped out the band. We've hoped for years that the ARRL could somehow kick them out and give us some relief. Man, I can't tell you how nice it will be without having to worry about [the broadcasters] anymore. I can't wait."

Amazingly, not all amateurs are welcoming the less-cluttered future of 40 meters with open arms. In Ohio, a demonstration is planned at the Dayton ham convention in May, the largest in the country. Organized by a group of ham traditionalists, the demonstration will take the form of an 80-vehicle-long caravan which will parade through the city carrying signs and placards and protesting on a number of ham frequencies as they progress. An unidentified member of the protest stated, "Generations of hams have literally grown up with having to dodge interference on 40. It made us better operators, having to use operating saavy to survive in between Radio Moscow and Voice of Free China. This makes us look like wimps who have to be pandered to and who can't stand a little bit of rough going. Our mission is to fight for ham ingenuity and for the reputation of hams everywhere."

Other amateurs reserved their excitement for other reasons. In phone conversations with this reporter, several hams expressed concern that the elevation of amateur radio to exclusive use of the 40 meter band could endanger their hold on other, nearby frequencies that are being eyed by a number of other services who have a new-found, increased appetite for spectrum space for Internet and communication services. They said also that new hams entering the hobby through a streamlined FCC licensing process that has been generally viewed as easier and less demanding would not appreciate their frequency privileges without the added challenge of having to confront shortwave interference.

Within the next five years, whether it is good or bad for the hobby, it will undoubtedly be easier and more pleasant to tune the 40 meter band and converse with other radio aficionados. While some will enjoy the arrangement, others will bemoan the loss of yet another ham tradition. Whatever the outcome, hams will be left to craft a response to the sudden and very unexpected windfall.

2048. Re: Capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 21:11:18 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AC8EAF6.ADECAB2E@coqui.net>
Source record: 53744
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Mike Barrett wrote:
>
> Hi, I'm replacing the electolytic capacitors in my Hallicrafters
> SR-160. Is it ok to use capacitors with the same capacitance but
> different voltage rating? Specifically, can I replace a 30uf 300v with
> a 30uf 400v? Thanks to all who answered my previous question about this
> radio,
> Mike

Sure, just be sure to stay above the existing voltage rating.
--

Bill Meacham
Vieques, PR

2049. Re: Linear amp switching

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 21:20:19 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AC8ED13.5A267D96@dialpoint.net>
Source record: 53647

If you can find one that is not too lossey at the frequency one is
fine. The inpedance and gain is usually low enough that you do not have
to worry.

Alex Turner wrote:
>
> I have built a small solid state amp to boost my QRP signals. Is it better
> to have separate relays to switch the input and output and provide better
> isolation or is one ok?
>
> 73
> Alex N4BYJ

2050. Re: Capacitor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 21:53:51 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <hw6y6.76646$m04.2706684@e420r-atl1.usenetserver.com>
Source record: 53745
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

"Mike Barrett" <zootv@mgfairfax.rr.com> wrote in message
news:3AC8E1BC.7D12FDAF@mgfairfax.rr.com...

> Hi, I'm replacing the electolytic capacitors in my
> Hallicrafters SR-160. Is it ok to use capacitors with the
> same capacitance but different voltage rating?
> Specifically, can I replace a 30uf 300v with a 30uf 400v?

The dielectric in an aluminum electrolytic capacitor is the anodic oxide film. In the absence of a polarizing voltage, this oxide film gradually hydrolyzes, decreasing the voltage rating of the capacitor. The effect is not uniform across the capacitor foil, however, so the capacitance, which should increase if the decrease in film thickness were uniform, may actually change the total capacitance very little. This gradual hydrolysis is one factor behind electrolytic capacitor aging, another being the evaporation of the electrolyte. Thus capacitors that have been left unused for a while need to be reformed, the process where the oxide film repairs itself and regrows to the original thickness in the presence of the proer polarizing voltage.

When an electrolytic capacitor with a higher voltage rating than is needed is used in a lower voltage circuit, the result is that it gradually becomes rated at the lower voltage. It is typical to derate an aluminum electrolytic capacitor as much as 30 percent. But going much over this is wasting money and may cause a significant change in capacitance.

In this case, using a 400 volt electrolytic in a 300 volt circuit is fine. But I would not consider using a 400 volt capacitor in a 100 volt circuit.

73, Barry L. Ornitz WA4VZQ ornitzNOSPAM@usa.net

Remove NOSPAM before replying.

2051. Re: 2m Yagi antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 22:06:34 UTC
From: Schneider <js@sprintmail.com>
Message-ID: <3AC8F7F1.6C40B2F@sprintmail.com>
Source record: 53746

See VHF yagi on this page below
73's
Jeff

--
In God we trust,
All other we monitor.

http://www.homestead.com/KK5UFO/

2052. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 23:26:36 UTC
From: Jimbo the Clown <james@xicom.com.au>
Message-ID: <3ac90a8f@news.adfa.edu.au>
Source record: 53649

Clive,

Many thanks for the kind comments, pleased to be able to help! :-)

In answer to your question...

> ...what if the characteristic impedance is not purely resistive...

Hmm... I'm not sure about the practical implications (from a measurement perspective) of this scenario, but from a theoretical viewpoint you are correct, simply perform: Zl = (R + jX) * (0.8876 + j0.4969)

The good ol' complex calculator will help here, but the 'tedious' methods of complex multiplication are as follows:

Option 1.

- Convert the rectangular format to polar.
- Multiply the magnitudes, and add the angles to arrive at the answer (polar format).
- If you need to, convert the polar form back to rectangular.

One thing to be aware of: All of this polar<->rectangular conversion carries a penalty in terms of accumulating rounding errors, but these errors will never amount to anything of practical significance. (I just thought I'd mention it if you observe your calculator and delphi answers differing in the 5th decimal place... :-)

Option 2.

- Expanding the expression algebraically, we get:

Zl = [R * (0.8876 + j0.4969)] + [jX * (0.8876 + j0.4969)]
= 0.8876R + jR0.4969 + jX0.8876 +jjX0.4969

OK, here comes the wierd bit... :-)
j is defined as the sqrt(-1)... therefore, j * j must equal -1... applying this and collecting like terms...

Zl = 0.8876R + jR0.4969 + jX0.8876 - X0.4969
= (0.8876R - X0.4969) + j(R0.4969 + X0.8876)

Tada!
Option 1 is probably nicer... ;-)

Have fun, and keep Mr. Rollet's stability factor (K) > 1!

Cheers,
James.

P.S. Rp and Xp are usually the 'parallel equivalent' impedances of a network. i.e. A network consisting of a resistive and a reactive element in series (call them Rs and Xs) can also be modelled as a resistance Rp in parallel with a reactance Xp (via some formula buried here in a pile of paper somewhere...!)

2053. Re: car radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 23:34:14 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3AC90C76.81E15F17@telocity.com>
Source record: 53650

marvin rosen wrote:

> why were loop sticks used over variable capacitors to tune a car radio?

Auto radios were designed with different goals in mind. They are used in a dirty environment (out doors, in a dusty dirty setting, greatly varying temperture and humidity, etc). Any moving contact is a source of trouble (volume controls had to be sealed units, and even then prone to noise). Inductive tuning with sliding slugs is less trouble prone. Other considerations were that auto radios would be used in fringe areas as well as near strong stations. For the former reason it was customary to include at least one stage of RF amplification, where radios used in the home often had none. Because between cities there might be several stations close to the same frequency that could be received, more selectivity in the IF stages were required. So auto sets often had TWO if stages instead of the one used in home sets. Also a lower IF frequency was used, often 262 KHZ instead of the 455 KHZ commonly found in home sets. Late tube model car radios used a special set of tubes that could operate with only 13 volts on the plates. These radios didn't need a HV vibrator power supply. Since it would require many tubes in parallel to develop enough power to drive a speaker with only 13 volts on the plates, a power transistor was used for this purpose. (remember the DS501 doorknob transistor?) The driver tube was usually a power tetrode, using a 'space charge' grid. In this type of tube the first grid is connected to the B+ supply and the second grid is the control grid. This arangement increases emission without increasing heater current requirements.

Probably more than you wanted to know......

2054. Re: 40 Meter Announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-02 23:41:44 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3AC90E38.170C19C1@telocity.com>
Source record: 53651
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Sounded great, until I noticed the story date. Oh well.

> RELIEF FOR HAMS IN SIGHT
> Amateurs gain reprieve from long-time clash with broadcasters
>
> -from the Arizona State Union-Tribune, April 1, 2001
>
> WASHINGTON, D.C.- Ask any Arizonan amateur radio operator what the most
> pressing problem on his frequencies is, and he will likely tell you it
> is the serious interference from shortwave broadcast stations in the 40
> meter band that has grown progressively worse over the last two decades.
>
> Yesterday, international broadcasters announced their intent to vacate
> the hams' frequencies in favor of another portion of the radio spectrum,
> bringing clear frequencies to hams for the first time in over forty-five
> years, the Bush administration reported.
>
> Since the early- to mid-sixties, hams have had to endure increasing
> shortwave activity fueled by the Cold War, tensions between Cuba and the
> West, and the rise of governments in the Third World anxious to use
> radio to spread propaganda. Protected by international law, national
> broadcasters, religious programmers, and others have enjoyed virtually
> unlimited access to frequencies, cheap worldwide coverage, and operation
> at almost any power level they desired, creating an "elbow to elbow"
> situation for which no resolution was seen, given the squatters' stance
> taken by all parties involved.
>
> Now, a major bloc of broadcasters has unilaterally proposed moving off
> of 40 meters onto a frequency band much less utilized now that it has
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> control of the United States Department of Defense since 1950, but has
> lied in fallow for years with the steady rise in the use of satellites
> for military communications. Broadcasters finalized an agreement with
> the Department to assume administration of the frequencies over the
> weekend.
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> have hampered amateur radio stations for years. Ham radio operators
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>
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> Does it leave us more or less susceptible to other actions aimed at
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> group of broadcasters decide to up and move off a frequency."
>
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> for ham radio. "We never thought we would see this day. It is the answer
> to our dreams and I can't tell you how exciting and how promising this
> is to us. It's like being told you've just won the lottery." Another
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> If it wasn't the howling of Radio Moscow, it was the splatter from one
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> between Radio Moscow and Voice of Free China. This makes us look like
> wimps who have to be pandered to and who can't stand a little bit of
> rough going. Our mission is to fight for ham ingenuity and for the
> reputation of hams everywhere."
>
> Other amateurs reserved their excitement for other reasons. In phone
> conversations with this reporter, several hams expressed concern that
> the elevation of amateur radio to exclusive use of the 40 meter band
> could endanger their hold on other, nearby frequencies that are being
> eyed by a number of other services who have a new-found, increased
> appetite for spectrum space for Internet and communication services.
> They said also that new hams entering the hobby through a streamlined
> FCC licensing process that has been generally viewed as easier and less
> demanding would not appreciate their frequency privileges without the
> added challenge of having to confront shortwave interference.
>
> Within the next five years, whether it is good or bad for the hobby, it
> will undoubtedly be easier and more pleasant to tune the 40 meter band
> and converse with other radio aficionados. While some will enjoy the
> arrangement, others will bemoan the loss of yet another ham tradition.
> Whatever the outcome, hams will be left to craft a response to the
> sudden and very unexpected windfall.

2055. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 00:47:47 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3AC91DF2.8BC6345C@netscape.net>
Source record: 53652
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Jim Weir wrote:
>
> "Michael A. Terrell" <michaelaterrell@netscape.net>
> shared these priceless pearls of wisdom:
>
> ->
> ->TV video is vestigial sideband, not AM. The full upper sideband is
> ->transmitted, along with the carrier left, and a small part of the lower
> ->sideband.
>
> Mr. Terrell, you are beginning to have less and less credibility with me. First
> the FM and TV audio deviations are equal, and now the video is not AM.
>
> The video IS AM. It is single sideband full carrier AM, but it is still AM.
> Look at the designations for SSB and TV. They both start with the letter A,
> which is the AM designation (as opposed to F or P). Last I looked TV single
> sideband video was A5, or did I miss something?
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

Check ot the Harris broadcast website. The current transmitters are
built to handle 110 kHz bandwidth. mono or Stereo, SAP, and a lower
quality audio signal for the station's own use. Similar to SCA) Do a
search on BTSC audio and you'll see that the current tv's are not 25 Khz
audio. And I don't care what you call it, but the FCC called it
Vestigial sideband on all the documents and I consider them the
authority, not someone I've never met.

By the way, I no longer work on such narrow band equipment. The
company I work for builds receivers with 20 Mhz IF's, and NASA doesn't
launch without our equipment.

2056. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 01:33:30 UTC
From: V Panzica <vpanzica@optonline.net>
Message-ID: <KL9y6.96335$K54.13626372@news02.optonline.net>
Source record: 53653

If its an RF application for UHF or higher, then lead inductance can be a problem. For other apps with an SOIC get a good low wattage soldering iron and good magnifying lamp etc.

Believe some of the Radio mags had artcles on ising SOIC packages.

Haven't tried it yet myself, but hope to in the near future.

2057. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 01:57:16 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9abaei$3k6$1@slb3.atl.mindspring.net>
Source record: 53654
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

It is NOT single sideband! Edward A Slimak, Broadcast Consultant. Have a good day...

2058. Re: CW in your car?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 02:57:03 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3AC93BFF.3C62E81C@telocity.com>
Source record: 53655

Reminds me of a computer controller I was programming at Gould. This was an
8 port serial controller that could do EVERYTHING (async, bisync, sdlc, etc).
The hw designers put a single led on it to indicate status. But someone
wanted to know if the unit passed the self test, and if not what went wrong.
Guess how I multiplexed all that info on one led? (Why is that led blinking
in a crazy way?)

> On Sat, 31 Mar 2001 19:54:48 -0500, Kevin B. Haywood <haywoodkb@delphi.com>
> wrote:
>
> >I have noticed that my Honda sends an H when I leave the keys in the
> >ignition.
> >Do Toyotas send T when you leave the lights on?
> >Does a Chevrolet send -.-. when the door is ajar?
> >Maybe a ham works at the auto factory.
>
> A line of uninterruptable power supplies used Morse to signify error
> conditions. They put a sticker with the appropriate codes on top, but if
> you knew the code you didn't need the sticker.
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
> Due to excessive spam, messages from uu.net are deleted unread.

2059. Items for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 04:01:46 UTC
From: Jeff Weinberg W8CQ <w8cqjeff@tds.net>
Message-ID: <KWby6.873$BU6.1816881@ratbert.tds.net>
Source record: 53657
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Hi All,
I have the following equipment for sale:

1. Kenwood SP-31 speaker. Very Nice condition, a few marks here and there. Overall, a solid 8+. Price $55.00 + shipping.

2. Brand New Cardwell Air Variable Capacitor Model 154-16-1 30-240 pF @ 4500 VDC. Item is unused. Price $50.00 + shipping.

3. Unbuilt Dick Edwards Electronics Kit - Bench Power Suply. Adjustable voltage 1.3-30 V and adjustable current 0-1 A with current limiting. Kit is unbuilt and complete with all parts, cabinet and transformer. Price $50.00 + shipping.

4. Kintronic Laboratories Tank Coil. 27 uH at 10 RF Amps!! Well built, edge-wound inductor with silver tapping clamps - Built like a TANK. Price $75.00 + shipping (taps included).

Photos available upon request.

Regards,
Jeff Weinberg W8CQ
w8cq@arrl.net

2060. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 04:06:24 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3AC94C40.2DBAED90@visi.com>
Source record: 53658

Alex wrote:
>
> Hi all. I'm a college student who is completely new to amateur radio.
> I have checked out a couple of books to get me started, but I still
> have very little knowlege of the amateur radio world.

The W1FB series of homebrew books have a lot to offer. I think they
are ARRL publications.

Try:

http://www.arrl.org/catalog/?category=Circuit+Design&words=&SelectCategory.x=9&SelectCategory.y=10

If you have specific questions, I would be happy to "Elmer" off the
list

Bob L
wb0poq@visi.com

2061. beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 05:10:03 UTC
From: amarine@indiana.edu
Message-ID: <3ac95b0b.433538467@news.indiana.edu>
Source record: 53656

Hi all. I'm a college student who is completely new to amateur radio. I have checked out a couple of books to get me started, but I still have very little knowlege of the amateur radio world. I have a general knowlege of electronics and I was hoping to build my own simple receiver. My questions are, 1) is it possible? 2) what books would you recomend for beginners who know nothing about radio and are looking to get started? 3) are there any books or online resources that will help those who are looking to build their own simple shack? Any help would be appreciated.

Thanks

2062. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 08:31:28 UTC
From: cmoss37@crosswinds.net
Message-ID: <ra1jctgf7t66rhm1t78s0o46m2vrbjilpo@4ax.com>
Source record: 53659

Hi James.

>Many thanks for the kind comments, pleased to be able to help! :-)

Well deserved, i'm sure all would agree :)

I'll try your option 1, you certainly seem to have a good grasp of
things !

>One thing to be aware of: All of this polar<->rectangular conversion carries
>a penalty in terms of accumulating rounding errors, but these errors will
>never amount to anything of practical significance. (I just thought I'd
>mention it if you observe your calculator and delphi answers differing in
>the 5th decimal place... :-)

yes that did come to mind as soon as i saw the number of calculations
but the calculator has 10-digit resolution and delphi has somewhat
more so no problem at all there. Real components are usually only 1%
at best anyway.

>P.S. Rp and Xp are usually the 'parallel equivalent' impedances of a
>network. i.e. A network consisting of a resistive and a reactive element
>in series (call them Rs and Xs) can also be modelled as a resistance Rp in
>parallel with a reactance Xp (via some formula buried here in a pile of
>paper somewhere...!)

Well no need to go any further (for now :)) ... i have plenty to go on
now.

I download the Serenade program Wes mentioned, looks like a very nice
piece of cad software, especially after using Puff but i still like to
know how things are done mathematically.

Once again, thank you all for your great help, excellent !

Right, now to try things out on a real circuit.

Best Regards ... Clive

2063. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 09:47:31 UTC
From: Josh DeWinter <dewinter@wsunix.wsu.edu>
Message-ID: <9ac5q6$dhvn$1@murrow.murrow.it.wsu.edu>
Source record: 53660

Hi.
My name's Josh. I'm also a college student, new to amateur radio design, although I have been in the fielf and held a licesnse for some years now. I have always enjoyed radio, but never knew how to design it. I am just scraping the tip of the iceberg now when it comes to design analysis. As an electrical engineering student, I was disappointed to find only 2 classes here at WSU (Washington State) that dealt with RF, only 1 with design. I found that this is common, with true RF design being taught usually at a master's level.
So, I was frustrated, as usual, that I couldn't obtain the knowledge that I was after. Since I took on the exact same challenge you have of making a receiver only a few weeks ago, I have met several key people right here in this group who are true masters at radio design. Chances are any question you have will much more thouroughly and quickly be answered here at first than in a book. Of course, it isn't a substitute for a good book, but you know how books are sometimes dead ends when they just don't explain something well enough.

Here are some books that I have purchased recently that were recommended by some of the pros. All are TOP NOTCH, and worthy of notice.

-- Introduction to Radio Frequency Design by Wes Hayward, W7ZOI
[A little on the math intensive side. I wasn't ready for this quite yet, but its good to have for when I do want to challenge myself further. Comes with circuit analysis software.]
(www.amazon.com)

-- Solid State Design for the Radio Amateur, also by Wes Hayward
[I'm told a great book, full of practical circuits and not a ton of theory. I have not received it yet.]
(http://www.arrl.org/catalog/index.php3?category=Circuit+Design)

-- The Electronics of Radio, by David B. Rutledge
[Very cool book. The author is a Harvard professor who teaches the principles of basic electronics and radio, while using a popular low power transciever, the Wilderness NorCal 40A as a model for the principles discussed in the book. I didn't get the kit because I had just spent all my money on books. I talked to the manufacturer, who doesn't offer a student discount. So, maybe some day. This book also comes with circuit analysis software.]
(http://www.arrl.org/catalog/index.php3?category=Circuit+Design or
from the publisher:

http://www.cup.org/ObjectBuilder/ObjectBuilder.iwx?ProcessName=ProductPage&Merchant_Id=1&product_id=0-521-64645-6&origin=search&searchField=ALL&searchString=The%20Electronics%20of%20Radio)

-- RF Circuit Design by Chris Bowick
[Another book with lots of math formulas and smith charts. I have not studyed it in detail yet. I was told not to think of starting radio design without owning it, but warning: it is very intense.]
(www.amazon.com)

Well, I hope this helps. Let me know how it goes for you. I'm almost at the exact same place you are. Good luck.

-Josh DeWinter
KC7KJC

From the campus of Washington State University
Pullman, WA

2064. loopstick antennas

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 16:39:55 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <9acug5$4pt$1@bob.news.rcn.net>
Source record: 53661

does anyone know of a commercial source of loopstick antennas for the am broadcast band and/or is it feasable to make my own?

2065. Re: Metal Can - Body Capacitor Source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 16:43:09 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9acuit$g5m$1@woodrow.ucdavis.edu>
Source record: 53662
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

I have a very limited personal stock of NOS Metal can type caps for sale, not cheap at $17.50 each but they have all been tested and run up past their rated voltages with no problems. Small and larger size units, not a large amount left, but I have enough to help a batch of people.

I also have the original multi section NOS paper body type used in classic 5 tube am/fm radios for similar prices. I hand tested each cap when I purchased a closing wherehouse stock last month. Any cap sold will tested and operated at the full rated voltage plus before shipping.

Email me direct if your interested...

These are Original NOS Metal Can Sprague, Pyramid and Mallory brand/type caps in the slim and standard size packages.

cheers and thanks
skipp@pilot.ucdavis.edu

http://sonic.ucdavis.edu

: In rec.radio.amateur.boatanchors Mike Barrett
: <zootv@mgfairfax.rr.com> wrote:
: Hi, I'm replacing the electolytic capacitors in my Hallicrafters
: SR-160. Is it ok to use capacitors with the same capacitance but
: different voltage rating? Specifically, can I replace a 30uf 300v with
: a 30uf 400v? Thanks to all who answered my previous question about this
: radio,
: Mike

2066. >>>TUBES AVAILABLE<<<

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 16:52:51 UTC
From: rh3333@aol.com
Message-ID: <20010403125251.28097.00003729@ng-mi1.aol.com>
Source record: 53663

TUBES AVAILABLE

I currently have over 300,000 tubes in stock. Have a good selection of both new and used/tested tubes for audio, CB & HAM radio, TV, CRT use.
Sorry I do not have a Web Site nor a price list. Suggest that you Email or Fax me with the tubes that you are looking for along with the quantify of each needed. I will check my inventory and advise you of current availability and cost.
In addition, I also have a very good selection of tube testers, tube caddies and good used CB equipment. Please contact me regarding your needs.
Thank you for your consideration.

Richard Hale
THE TUBE MAN
902 Lothian Dr.
Tallahassee, FL. 32312
RH3333@aol.com-Email
850 386-2729-Phone
850 386-2560-Fax

2067. Another Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 17:43:56 UTC
From: Mike Barrett <zootv@mgfairfax.rr.com>
Message-ID: <3ACA0AD7.1E050C86@mgfairfax.rr.com>
Source record: 53664
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi, I opened the case and found that there is a can capacitor in there. Does anyone know where I can find a 3 lead 30 MFD 350v, 30 MFD 350v, 300 MFD 25v capacitor? Can I replace it with individual components? If I can, how would I connect the three new ones? There are three leads on the bottom of the can with a mark next to each lead the matches the mark next to the value on the case. Thanks again,
Mike

2068. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 18:00:40 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <843da9.1q5.ln@localhost.localdomain>
Source record: 53675

Alex wrote:

> Hi all. I'm a college student who is completely new to amateur radio.
> I have checked out a couple of books to get me started, but I still
> have very little knowlege of the amateur radio world. I have a
> general knowlege of electronics and I was hoping to build my own
> simple receiver. My questions are,

1) is it possible?

Yes definitely.

2) what books would you recomend

The 'ARRL Handbook' and 'Solid State Design for the Radio Amateur' both
from the ARRL.

3) are there any books or online resources

You will find some info and some links on my webpage (URL below).

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

2069. 1.2 Ghz SS meter ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 18:24:59 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3ACA157B.E13B9EB4@primeline.net>
Source record: 53665

Where, if any, could I find plans for a 1.2 Ghz Signal Strength meter?
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2070. Re: Another Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 19:35:25 UTC
From: k5dh@raytheon.com
Message-ID: <1Cpy6.97$qf5.3175@dfw-service2.ext.raytheon.com>
Source record: 53666
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

In article <3ACA0AD7.1E050C86@mgfairfax.rr.com>, zootv@mgfairfax.rr.com
says...
>
>
>Hi, I opened the case and found that there is a can capacitor in there.
>Does anyone know where I can find a 3 lead 30 MFD 350v, 30 MFD 350v, 300
>MFD 25v capacitor? Can I replace it with individual components? If I
>can, how would I connect the three new ones? There are three leads on
>the bottom of the can with a mark next to each lead the matches the mark
>next to the value on the case. Thanks again,
>Mike

Mike,

There are some sources of can caps, but they're getting very spendy.
Amateur Electronic Supply, RF Parts Company, Surplus Sales of Neb.,
and Fair Radio Sales all come to mind. The capacitance values are
not as critical as you might think, which will expand your horizons
somewhat. For example, you can probably do just fine with caps up
to 47 uF in place of your original 30 uF, and anything from 250 to
500 uF in place of the original 300 uF.

If you're not concerned with the equipment looking original inside,
then you can certainly use individual axial-lead caps in place of the
original can-type cap. This will almost surely be the cheaper route
as far as parts cost.

SAFETY WARNINGS concerning electrolytic caps:
1. Be sure that the voltage ratings on your replacement cap meet or
exceed the ratings of the original cap. Electrolytic caps can
explode violently if their voltage rating is exceeded.
2. Be sure to observe correct (+) and (-) polarity when you install
new caps. Electrolytic caps can explode violently if they are
connected backwards.

As for how to connect them, a look at the schematic will explain how
they're connected electrically. Can-type caps typically use the can
itself as a common ground for all sections, and the can is normally
connected to ground (screwed, riveted, or soldered to the chassis
itself in most cases). Some cans have a paper or plastic coating to
insulate the can, and may be mounted on an insulated footing to float
the can above the chassis. In these cases, the can is NOT ground, and
you'll have to observe that when you replace it. Match up the square,
triangle, and semicircle icons with the markings on the old can, then
connect your new caps as such. There are often some components mounted

off of the can cap's solder lugs (bleeder resistors, etc). In place of the cap terminals, you can use terminal strips. The "gotcha" is often a lack of space to mount individual caps under the chassis. In some cases, I've mounted them on pieces of perf board standing upright above the chassis in the space formerly occupied by the can cap. You may have to get "creative".

It's a shame we can't just walk down to the corner TV shop and buy any electroltytic cap right off the shelf like we used to...

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

2071. has anyone made a Rayovac charger run on 12 volts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 19:43:40 UTC
From: mcalhoun@ksu.edu
Message-ID: <9ad95c$dii@unix2.cc.ksu.edu>
Source record: 53667

I'd like to "cobble" the Rayovac PS3 battery charger (charges NiCd's, NiMh's, and Rayovac "Rechargeable Alkalines", of which I use a whole bunch) to operate on 12 volts instead of 120-volts AC so I can recharge my batteries while camping. Rayovac told me to NOT use a simple inverter because the transformer in the PS3 really wants a good sinewave.

Has anyone determined how to do this?

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2072. Re: DIP Based PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 19:44:09 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3ACA2808.C14893B1@midwestmicro-tek.com>
Source record: 53672

Don't know if this is what you want but Radio Shack carries the 74HCT4046
PLL in the dip package for $2.99.

Rick KC0GIX

Richard O'Dale wrote:

> I'm looking for a nice PLL chip.. But it seems like nobody, Motorola,
> or National makes any in DIP form anymore.
>
> Everything is SOIC or stranger.. Is there any easy way to use SOICs on
> a PCB or are their DIPs somewhere?

2073. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 19:56:57 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9ad9u7qpi1@dipsy.missouri.edu>
Source record: 53668

Thanks to Wes for the tip on Serenade. It beats the hell out of MicroSim's (and most definately Orcad's) version of PSpice. I like the versatility already. Take care.

Pete

Bojangle Chicken <bojanglechicken@yahoo.com> wrote in message news:9a8ppa$ed6$1@dipsy.missouri.edu...
> I'm reading this series of posts with interest. I've made several attempts
> to study two-port analysis in semi-great depth, but have always run aground
> when it came to converting the theoretical arguements into realistic
> applications. So far, everyone who's replied seems to have a practical
> grasp on at least one of the scattering parameters (S11). I am wondering if
> any of those who have responded to Clive's original post have had any formal
> study (i.e. actually sat down and learned the theoretical arguements behind
> s-params) with the s-parameters, and two-port network analysis (in
> particular)? If so, or even if you've just got a good grasp of both the
> theoretical and practical aspects of the analysis methods, are there any
> texts in particular that you could/would recommend? Like I said, I've got a
> pretty good idea of the theoretical mumbo-jumbo, but I'd like to see some
> nice applications of this stuff in the real world now.
>
> Regards,
> Pete
> ki0eg
>
> Ham <h@a.m> wrote in message news:3AC49E74.1652F3B3@a.m...
> > Simple conversion of polar to rectangular coordinates. 11th grade
> > trigonometry.
> >
> > Easiest to do with a calculator that will do the conversion
> > automatically or if you insist:
> >
> > Where M = Magnitude
> > 0 = Phase Angle
> >
> > R = M cos 0
> > X = M sin 0
> >

> >
> >
> > cmoss37@crosswinds.net wrote:
> >
> > > Hi.
> > >
> > > Does anyone out there know how to convert a 'Magnitude and Phase
> > > Angle' to R+jX at ?
> > >
> > > I plot the S11 curve ok on a smith chart but the calculations i have
> > > only work with R+jX so i need to convert an s-parameter into R+jX
> > >
> > > Anyone know the formula at all ?
> > >
> > > Best Regards ... Clive
> >
>
>

2074. Re: Dentron MLA2500 QST Article needed (QST May 96)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 20:19:51 UTC
From: Steve Noskowicz <sorry@junk.email.returned.com>
Message-ID: <3ACA3067.A8114B0B@junk.email.returned.com>
Source record: 53670
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

That link is still broken. It's at :
http://www.svetlana.com/docs/TechBulletins/TB.html
Number 19
I corresponded with George Daughters, the author, a while back, but I
don't remember if he offered to send me the article. I would like it
also.

Steve K9DCI

Murray Neece wrote:
>
> Hi Doug, go to......www.svetlana.com.....and they have the article in thier
> archives available right there....if you dont find it,let me know, Ill email
> you a copy....i think I "saved it"somewhere...73 murray
>

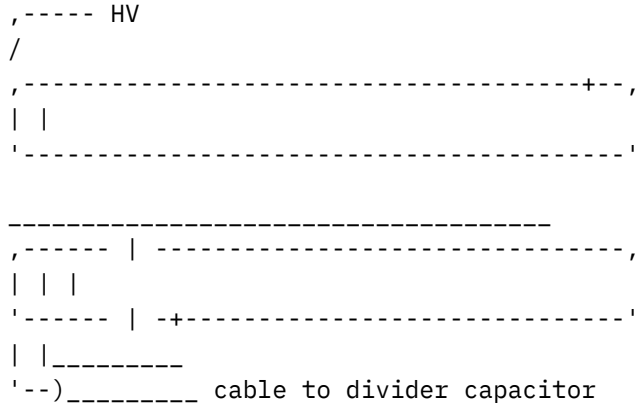
>
> www.qth.com/k5mdm <RadioRanch@qth.com>
> Owner
> Smokin J's RadioRanch
> HNIC
>
> www.qth.com/k5mdm
> Owner <RadioRanch@qth.com>
> Smokin J's RadioRanch HTML Mail
> HNIC
> 2636 Kermit Hwy. ;Odessa;Texas;79763;USA Fax: 915 580 9051
> Home: 915 580 9051
> Netscape Conference Address
> Join Us on 3.922 Sun nite 7:30 Central for the Continental Traders Net and on Sun Morning
7.245 at 10:00am central for Texas Traders net
> Additional Information:
> Last Name Neece
> First Name Murray
> Version 2.1

2075. neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 20:23:14 UTC
From: Winfield Hill <hill@rowland.org>
Message-ID: <3ACA3132.47D8DA79@rowland.org>
Source record: 53669
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Hello Gang,

My AoE coauthor, Paul Horowitz, is looking for an old
classic RF transmitter neutralizing capacitor - some
of you know what I mean, the ones with two plates
made from large discs, with one adjustable to set
the spacing. I had a nice one with 4" diameter discs,
but I modified it for a 20kV RF divider.



Yes, better done other ways, but that's another story.

If anyone has one he'd be willing to part with (for
a good price, natch) or knows where one might be had,
we'd really appreciate it. These caps are very good
pedagogically speaking, and one will make an excellent
addition to my friend's teacher's bag of show-and-tell
stuff for his students. They are virtually the ideal
textbook capacitor, the type one never sees in real
life these days!

Thanks,
- Win

Winfield Hill
Rowland Institute for Science
100 Edwin Land Blvd
Cambridge, MA 02142

2076. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 20:27:09 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3ACA321D.F2BC0930@midwestmicro-tek.com>
Source record: 53673

Hi Alex,

Here are some online resources that I hav found to be helpfull.

http://www.alphalink.com.au/~parkerp/project.htm
http://qrp.pops.net/info.htm
http://www.geocities.com/SiliconValley/3569/index.htm#use
http://ac6v.com/homebrew.htm
http://www.g3ycc.karoo.net/corner.htm
http://www.geocities.com/CapeCanaveral/Hall/8701/hamfiles.htm

this is just a start.

Alex wrote:

> Hi all. I'm a college student who is completely new to amateur radio.
> I have checked out a couple of books to get me started, but I still
> have very little knowlege of the amateur radio world. I have a
> general knowlege of electronics and I was hoping to build my own
> simple receiver. My questions are, 1) is it possible?

You bet in fact, here is a great regen project (also checkout the rest of
this guys page, it's great.)

http://www.electronics-tutorials.com/receivers/regen-radio-receiver.htm

> 2) what books
> would you recomend for beginners who know nothing about radio and are
> looking to get started?

goto

http://www.arrl.org

ARRL has a lot of great books

> 3) are there any books or online resources
> that will help those who are looking to build their own simple shack?
> Any help would be appreciated.
>
> Thanks

I was exactly where you are 1 1/2 years ago and these sites and a lot of
soldering have got me a shack with all tube based gear. I've got an
80m/40m 75watt HB transmitter based on a design from a a 1959 QST article
and a tube receiver based on a design I got from Harry's Home Brew web
page. plus half a dozen QRP tube transmitters and receivers based on
design that I got from various web pages. They all work great (after a lot

of trouble shooting). Good Luck

Rick KC0GIX

2077. Midland 7001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 20:28:38 UTC
From: Ambrogio <ambrogiorbl@tin.it>
Message-ID: <Wnqy6.14593$Oz4.386681@news2.tin.it>
Source record: 53671

buon giorno:
cerco schemi del MIDLAND 7001 e possibilmente il manuale.
Grazie:
Iw2fvo

AMBROGIO ambrogiorbl@tin.it

2078. Looking for 100 pin extender board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 21:29:25 UTC
From: Timothy Kellogg <tkellogg@wkyt.com>
Message-ID: <9adeve$2se$1@nd.eastky.net>
Source record: 53689

Looking for a 100 pin extender bord (or just a piece of perf board with the proper connector) These are probably the standard (old) 100 pin connector (S-100?) size. The pin out is 50 conections per side, the pins (contact points) are 1/8 inch wide, 7/16 long, with 1/16 inch spacing between the "pins". The width of the connector end is 5 1/8 inch with the contacts starting 1/16 inch from the sides. Across the width of the connnector (which by the way is just etched on the edge of the card) the distance.

2079. Re: s-param to R+jX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 21:30:52 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <JkDNylAMEky6EAz2@ifwtech.plus.net>
Source record: 53674

Bojangle Chicken wrote:
>Thanks to Wes for the tip on Serenade. It beats the hell out of
>MicroSim's (and most definately Orcad's) version of PSpice. I like the
>versatility already.

To be fair, Serenade is a different type of tool, mostly used for different jobs. You can't handle striplines as easily in SPICE, or get the same range of plottable input/output parameters, but on the other hand you can't do time-dependent transient analysis with Serenade (or rather, Harmonica). There is an area of overlap where either tool is usable, but in reality you need both.

The free downloadable student version of Serenade has now replaced ARRL Radio Designer (which is no longer available) and will do much more, including nonlinear analysis of harmonic generation and intermodulation. It includes circuit drawing and schematic capture - and at long last, device libraries - so there is no more messing about with ASCII netlists. Serenade is actually a combination of two different tools: Harmonica which is the circuit analysis program; and Symphony which is more oriented to system analysis at the block-diagram level.

A very good free SPICE implementation is SIMetrix, downloadable from www.newburytech.co.uk Newbury Technology are very happy for hams to download the program and use it. The drawing and schematic features are all smoothly implemented, and so are the output graphics, so you can work at the graphics level and don't need to see anything of the underlying SPICE netlists. The demo version is fully functional except for a size limit on circuit complexity, which I haven't found troublesome so far.

It looks like the software manufacturers are changing their policies and making the free demo versions much more powerful than before. This is very much to the benefit of us amateurs!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2080. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 21:44:02 UTC
From: Genome <genome@dial.pipex.com>
Message-ID: <3aca4493$0$12244$cc9e4d1f@news.dial.pipex.com>
Source record: 53676
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

"Winfield Hill" <hill@rowland.org> wrote in message
news:3ACA3132.47D8DA79@rowland.org...
> Hello Gang,
>
> My AoE coauthor, Paul Horowitz, is looking for an old
> classic RF transmitter neutralizing capacitor - some
> of you know what I mean, the ones with two plates
> made from large discs, with one adjustable to set
> the spacing. I had a nice one with 4" diameter discs,
> but I modified it for a 20kV RF divider.
> ,----- HV
> /
> ,--------------------------------------+--,
> | |
> '--------------------------------------'
>
>
> ___________________________________
> ,------ | -------------------------------,
> | | |
> '------ | -+-----------------------------'
> | |_________
> '--)_________ cable to divider capacitor
>
> Yes, better done other ways, but that's another story.
>
> If anyone has one he'd be willing to part with (for
> a good price, natch) or knows where one might be had,
> we'd really appreciate it. These caps are very good
> pedagogically speaking, and one will make an excellent
> addition to my friend's teacher's bag of show-and-tell
> stuff for his students. They are virtually the ideal
> textbook capacitor, the type one never sees in real
> life these days!
>
> Thanks,
> - Win
>
> Winfield Hill
> Rowland Institute for Science
> 100 Edwin Land Blvd
> Cambridge, MA 02142

The student should, by now, have enough experience and freinds with the rquired equipment to have one built for a couple of crates of Bud.

DNA

2081. Re: AM antena tuner or a notch filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 21:48:14 UTC
From: David Pearce <david.e.pearce@lmco.com>
Message-ID: <3ACA451E.9DACC684@lmco.com>
Source record: 53680

Timothy Kellogg wrote:
>
> I work at a Broadcast TV station Ch 27 (548 - 554 Mhz) and our mast also is
> home to 92.9 FM, Sprint & Verison cell phones, 2.4 Mhz mobile TV units,
> Pager service, etc. Needless to say the AM radio at my workbench is bathed
> in EM. I would like to listen to AM talk radio while at work but there is
> too much interference. I wanted some opinions as how to rectify the
> situation. I was first thinking of building a Notch filter tuned to our
> stations broadcast frequency but then thought that with all the other
> signals running around here that an Am band pass filter might be better (and
> perhaps wrapping the radio in aluminum foil to shield the IF from being
> overloaded). Just placing a diode across a multimeter (with the leads) gets
> me around 700 mv sitting on my bench. Any suggestions would be appreciated.

700 mv sitting on your bench? Maybe you should think about where you
work. But then again, I don't know enough about RF to know if this is
too much exposure.

2082. Re: loopstick antennas

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 21:52:17 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3ACA4611.BF6792B6@netdoor.com>
Source record: 53677

Hello,
Go to http://ac6v.com/ and do a little searching for antennas. If he
doesn't have it on his site it doesnt' exist!

73
Butch KF5DE

marvin rosen wrote:

> does anyone know of a commercial source of loopstick antennas for the am
> broadcast band and/or is it feasable to make my own?

2083. Re: Another Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 22:00:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <7Kry6.81594$Ok4.6627725@news1.rdc1.ct.home.com>
Source record: 53678
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

First, you have two choices regarding the old can capacitor: You can either leave it in place disconnected, or restuff new capacitors inside of the can replacing the old innards. If this is any sort of vintage BA set, having a gaping hole where the can is supposed to go is a cosmetic and restoration no-no.

You cannot parallel the new capacitors with the old ones, however. It is fairly simple to add a tie strip or two under chassis to provide mounting points for the new capacitors. Most modern caps will be a fraction of the size of the vintage cap in the set.

The smaller 300m/25v cap was probably across the audio tube cathode, and it is often just as easy to mount the new cathode bypass right at the audio tube socket. You will find other convenient common tie points under the chassis where the higher voltage caps could also be installed, no doubt.

Pete

"Mike Barrett" <zootv@mgfairfax.rr.com> wrote in message
news:3ACA0AD7.1E050C86@mgfairfax.rr.com...
>
> Hi, I opened the case and found that there is a can capacitor in there.
> Does anyone know where I can find a 3 lead 30 MFD 350v, 30 MFD 350v, 300
> MFD 25v capacitor? Can I replace it with individual components? If I
> can, how would I connect the three new ones? There are three leads on
> the bottom of the can with a mark next to each lead the matches the mark
> next to the value on the case. Thanks again,
> Mike
>

2084. Re: Fun SWL/Ham gadgets for disabled/elderly....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 22:31:22 UTC
From: Tek Neu Computer Services <tekneu@bellatlantic.net>
Message-ID: <_asy6.6341$jL4.937178@typhoon1.ba-dsg.net>
Source record: 53679
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

dealer
"Bill" <ARS--KC8BCR@webtv.net> wrote in message
news:23140-3AC21767-7@storefull-134.iap.bryant.webtv.net...
> ...or anyone else who just likes the joy of playing around with little
> electronic projects. NOT KITS! Fully assembled. BUT.... at kit prices!
> For photos and further details, please visit: http://qth.com/dwm
>
> 73, Bill - WA8MEA @ Jackson Co. QRP Club Station: KC8BCR
>

2085. Looking for a 100 pin extender board (whole message)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 22:56:03 UTC
From: Timothy Kellogg <tkellogg@wkyt.com>
Message-ID: <9adk1s$572$1@nd.eastky.net>
Source record: 53690

Sorry about the dual post - the first one got sent too soon.

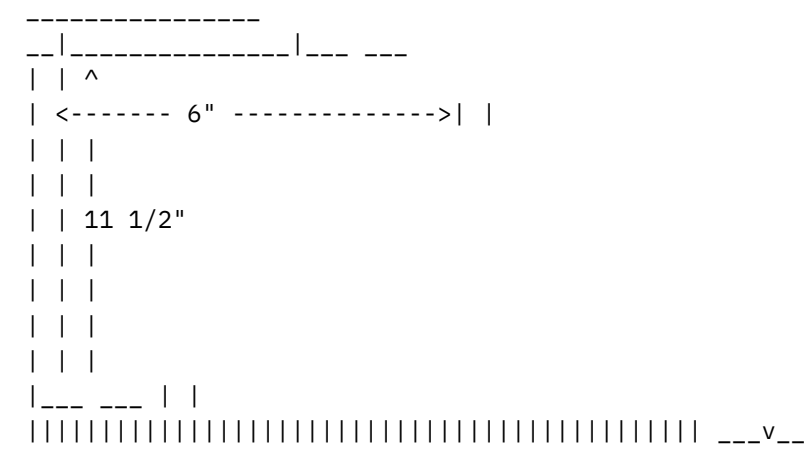
Looking for a 100 pin extender board (or just a piece of perf board with the proper connector) These are probably the standard (old) 100 pin connector
(S-100?) size. The pin out is 50 connections per side, the pins (contact points) are 1/8 inch wide, 7/16 long, with 1/16 inch spacing between the "pins". The width of the connector end is 5 1/8 inch with the contacts starting 1/16 inch from the sides. Across the width of the connector (which by the way, is just etched on the edge of the card) is 5".

The whole board is about 12" long and has a 50 pin female connector on the "top" so that the circuit card under test can be "extended" from the circuit and worked on/ tested while extended. (this means the pins on the bottom of the card are electrically connected to the similar pin on the top of the card)

I am using this to troubleshoot a Harris Facility Controller 9165 (part of a 9100 system). The company no longer supports this equipment - if you have anything like this or have any suggestions, please drop me a line.

I have an extension card that with the proper connections but the card is 7" wide and I'd rather not "trim" it to fit because as soon as I do I'm sure the equipment it goes to will break and then I'll be no better off.

Here is my attempt to diagram the board using ASCII (might look better in Courier font but don't quote me)



connector is
5 1/8 inch wide

The board is probably 1/16" thick

2086. Regency Polaris MT5500

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 23:21:24 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3ACA5B6E.59999FEE@earthlink.net>
Source record: 53681

Folks---

I recently acquired a Regency Polaris MT5500 raido. I was told the machine could do 137--153 MHz, or something like that. Does anyone happen to have a manual and/or schematic for this unit, or know where I can find one? The manual would be preferable, however a schematic would be a definite bonus.

Thanks,

Henry C. Gernhardt, III
KE4PIB

2087. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-03 23:26:03 UTC
From: sdeyoreo@hotmail.com
Message-ID: <3aca5bd1.7559236@news.direcpc.com>
Source record: 53682

Absolutly possible! And really not that hard. Get a copy of the ARRL handbook (check a library). Read it and you'll be in a whole new world!
On Tue, 03 Apr 2001 05:10:03 GMT, amarine@indiana.edu (Alex) wrote:

>Hi all. I'm a college student who is completely new to amateur radio.
>I have checked out a couple of books to get me started, but I still
>have very little knowlege of the amateur radio world. I have a
>general knowlege of electronics and I was hoping to build my own
>simple receiver. My questions are, 1) is it possible? 2) what books
>would you recomend for beginners who know nothing about radio and are
>looking to get started? 3) are there any books or online resources
>that will help those who are looking to build their own simple shack?
>Any help would be appreciated.
>
>Thanks

2088. Re: 40 Meter Announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 00:44:44 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3ACA6E7D.AB8112A8@goodnet.com>
Source record: 53683
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Who publishes the Arizona State Union-Tribune? I live in Phoenix, and I want it!

Kenneth Scharf wrote:
>
> Sounded great, until I noticed the story date. Oh well.
>
> > RELIEF FOR HAMS IN SIGHT
> > Amateurs gain reprieve from long-time clash with broadcasters
> >
> > -from the Arizona State Union-Tribune, April 1, 2001
> >
> > WASHINGTON, D.C.- Ask any Arizonan amateur radio operator what the most
> > pressing problem on his frequencies is, and he will likely tell you it
> > is the serious interference from shortwave broadcast stations in the 40
> > meter band that has grown progressively worse over the last two decades.
> >
> > Yesterday, international broadcasters announced their intent to vacate
> > the hams' frequencies in favor of another portion of the radio spectrum,
> > bringing clear frequencies to hams for the first time in over forty-five
> > years, the Bush administration reported.
> >
> > Since the early- to mid-sixties, hams have had to endure increasing
> > shortwave activity fueled by the Cold War, tensions between Cuba and the
> > West, and the rise of governments in the Third World anxious to use
> > radio to spread propaganda. Protected by international law, national
> > broadcasters, religious programmers, and others have enjoyed virtually
> > unlimited access to frequencies, cheap worldwide coverage, and operation
> > at almost any power level they desired, creating an "elbow to elbow"
> > situation for which no resolution was seen, given the squatters' stance
> > taken by all parties involved.
> >
> > Now, a major bloc of broadcasters has unilaterally proposed moving off
> > of 40 meters onto a frequency band much less utilized now that it has
> > been recently vacated by the military. The new band had been under the
> > control of the United States Department of Defense since 1950, but has
> > lied in fallow for years with the steady rise in the use of satellites
> > for military communications. Broadcasters finalized an agreement with
> > the Department to assume administration of the frequencies over the
> > weekend.
> >
> > The announcement came at a meeting of the International Federation of
> > Shortwave Broadcasters (F�d�ration Internationale de Stations de Onde
> > Courte) in Geneva in late January. Of the 75 member countries of the

> > organization, 61 have operations in the 40 meter band, meaning that the
> > move away from 40 meters will constitute a mass exodus of signals which
> > have hampered amateur radio stations for years. Ham radio operators
> > stand to gain the most from the surprise announcement, but millions of
> > shortwave listeners-- hobbyists with special receivers that can pick up
> > the shortwave stations-- are also rejoicing at the prospect of clearer
> > frequencies and more enjoyable reception.
> >
> > The vote in favor of the move was 72 to 2, the two lone dissenting votes
> > coming from Cuba and Iraq. Libyan representatives abstained from the
> > voting.
> >
> > "When you talk about surprise in the context of world policy, you imply
> > that something has been discussed for a long, long time with what seemed
> > like no possible solution, and that the solution was not foreseen by
> > anybody, anywhere, at any time in the next five years. This is
> > definitely an astonishing surprise," declared Warren Kruger, a diplomat
> > and regulatory commissioner with the State Department in Brussels who
> > was involved in recent restructuring of shortwave allocations for the
> > European Union. He said that prior to the announcement, the best
> > scenario envisioned by US and European policymakers was the remote
> > possibility of the question of 40 meter broadcast interference appearing
> > on the agenda for the World Radiocommunication Conference (WRC) in 2003.
> > "Even then, it was doubtful whether the issue would have made it past
> > the committees onto the general floor. It just wasn't seen as pressing
> > enough in the face of other, stickier matters," he said.
> >
> > Under the proposed move, shortwave stations from the 61 nations would
> > vacate the 7100-7300 kilohertz band between now and the end of 2006. The
> > majority would move to a band between 7325 and 7490 kilohertz, with some
> > others scattering to several frequencies above and below that band.
> > According to Kruger, the major consideration was the acquisition of
> > frequencies with characteristics similar to the 40 meter band in terms
> > of range and time of day when the best reception was possible.
> > Evidently, the new frequency band is satisfactory to the stations
> > involved on all accounts.
> >
> > Other officials blindsided by the shotgun announcement were from both
> > the Federal Communications Commission (FCC) and the national association
> > for amateur radio in the US, the American Radio Relay League (ARRL).
> > LaVonne Burke, head of the FCC field office near Quantico, Virginia,
> > expressed shock and confusion over the Geneva statement. "We didn't even
> > have representatives there, thinking that there wouldn't be any
> > significant movement coming out of Geneva. All of our attention was
> > fixed on 2003, frankly." In Newington, Connecticut, an ARRL spokesman
> > struck a skeptical tone. "We need to be very cautious in our response to
> > this unilateral agreement," he said. "What effect will it really have?
> > Does it leave us more or less susceptible to other actions aimed at
> > reducing our frequency allocations? All these questions remain

> > unanswered and our vigilance cannot diminish at this time just because a
> > group of broadcasters decide to up and move off a frequency."
> >
> > Hailing the agreement as "monumental, a gift from heaven," well-known
> > Arizona ham Clyde "Skip" Butler declared the dawn of a 21st century era
> > for ham radio. "We never thought we would see this day. It is the answer
> > to our dreams and I can't tell you how exciting and how promising this
> > is to us. It's like being told you've just won the lottery." Another
> > Flagstaff-area amateur who identified himself as "John L.", explained
> > what this meant to him. "My buddies and I have met on 40 meters every
> > night for the last eighteen years, and every single one of those nights,
> > it has been a struggle to find a clear spot to set up our transmitters.
> > If it wasn't the howling of Radio Moscow, it was the splatter from one
> > of those darned religious stations that completely wiped out the band.
> > We've hoped for years that the ARRL could somehow kick them out and give
> > us some relief. Man, I can't tell you how nice it will be without having
> > to worry about [the broadcasters] anymore. I can't wait."
> >
> > Amazingly, not all amateurs are welcoming the less-cluttered future of
> > 40 meters with open arms. In Ohio, a demonstration is planned at the
> > Dayton ham convention in May, the largest in the country. Organized by a
> > group of ham traditionalists, the demonstration will take the form of an
> > 80-vehicle-long caravan which will parade through the city carrying
> > signs and placards and protesting on a number of ham frequencies as they
> > progress. An unidentified member of the protest stated, "Generations of
> > hams have literally grown up with having to dodge interference on 40. It
> > made us better operators, having to use operating saavy to survive in
> > between Radio Moscow and Voice of Free China. This makes us look like
> > wimps who have to be pandered to and who can't stand a little bit of
> > rough going. Our mission is to fight for ham ingenuity and for the
> > reputation of hams everywhere."
> >
> > Other amateurs reserved their excitement for other reasons. In phone
> > conversations with this reporter, several hams expressed concern that
> > the elevation of amateur radio to exclusive use of the 40 meter band
> > could endanger their hold on other, nearby frequencies that are being
> > eyed by a number of other services who have a new-found, increased
> > appetite for spectrum space for Internet and communication services.
> > They said also that new hams entering the hobby through a streamlined
> > FCC licensing process that has been generally viewed as easier and less
> > demanding would not appreciate their frequency privileges without the
> > added challenge of having to confront shortwave interference.
> >
> > Within the next five years, whether it is good or bad for the hobby, it
> > will undoubtedly be easier and more pleasant to tune the 40 meter band
> > and converse with other radio aficionados. While some will enjoy the
> > arrangement, others will bemoan the loss of yet another ham tradition.
> > Whatever the outcome, hams will be left to craft a response to the
> > sudden and very unexpected windfall.

2089. Re: 40 Meter Announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 00:44:50 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3ACA6E82.358156B@goodnet.com>
Source record: 53684

Who publishes the Arizona State Union-Tribune? I live in Phoenix, and I want it!

Kenneth Scharf wrote:
>
> Sounded great, until I noticed the story date. Oh well.
>
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> >
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> > Since the early- to mid-sixties, hams have had to endure increasing
> > shortwave activity fueled by the Cold War, tensions between Cuba and the
> > West, and the rise of governments in the Third World anxious to use
> > radio to spread propaganda. Protected by international law, national
> > broadcasters, religious programmers, and others have enjoyed virtually
> > unlimited access to frequencies, cheap worldwide coverage, and operation
> > at almost any power level they desired, creating an "elbow to elbow"
> > situation for which no resolution was seen, given the squatters' stance
> > taken by all parties involved.
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> > been recently vacated by the military. The new band had been under the
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> > organization, 61 have operations in the 40 meter band, meaning that the
> > move away from 40 meters will constitute a mass exodus of signals which
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> > stand to gain the most from the surprise announcement, but millions of
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> > the shortwave stations-- are also rejoicing at the prospect of clearer
> > frequencies and more enjoyable reception.
> >
> > The vote in favor of the move was 72 to 2, the two lone dissenting votes
> > coming from Cuba and Iraq. Libyan representatives abstained from the
> > voting.
> >
> > "When you talk about surprise in the context of world policy, you imply
> > that something has been discussed for a long, long time with what seemed
> > like no possible solution, and that the solution was not foreseen by
> > anybody, anywhere, at any time in the next five years. This is
> > definitely an astonishing surprise," declared Warren Kruger, a diplomat
> > and regulatory commissioner with the State Department in Brussels who
> > was involved in recent restructuring of shortwave allocations for the
> > European Union. He said that prior to the announcement, the best
> > scenario envisioned by US and European policymakers was the remote
> > possibility of the question of 40 meter broadcast interference appearing
> > on the agenda for the World Radiocommunication Conference (WRC) in 2003.
> > "Even then, it was doubtful whether the issue would have made it past
> > the committees onto the general floor. It just wasn't seen as pressing
> > enough in the face of other, stickier matters," he said.
> >
> > Under the proposed move, shortwave stations from the 61 nations would
> > vacate the 7100-7300 kilohertz band between now and the end of 2006. The
> > majority would move to a band between 7325 and 7490 kilohertz, with some
> > others scattering to several frequencies above and below that band.
> > According to Kruger, the major consideration was the acquisition of
> > frequencies with characteristics similar to the 40 meter band in terms
> > of range and time of day when the best reception was possible.
> > Evidently, the new frequency band is satisfactory to the stations
> > involved on all accounts.
> >
> > Other officials blindsided by the shotgun announcement were from both
> > the Federal Communications Commission (FCC) and the national association
> > for amateur radio in the US, the American Radio Relay League (ARRL).
> > LaVonne Burke, head of the FCC field office near Quantico, Virginia,
> > expressed shock and confusion over the Geneva statement. "We didn't even
> > have representatives there, thinking that there wouldn't be any
> > significant movement coming out of Geneva. All of our attention was
> > fixed on 2003, frankly." In Newington, Connecticut, an ARRL spokesman
> > struck a skeptical tone. "We need to be very cautious in our response to
> > this unilateral agreement," he said. "What effect will it really have?
> > Does it leave us more or less susceptible to other actions aimed at
> > reducing our frequency allocations? All these questions remain

> > unanswered and our vigilance cannot diminish at this time just because a
> > group of broadcasters decide to up and move off a frequency."
> >
> > Hailing the agreement as "monumental, a gift from heaven," well-known
> > Arizona ham Clyde "Skip" Butler declared the dawn of a 21st century era
> > for ham radio. "We never thought we would see this day. It is the answer
> > to our dreams and I can't tell you how exciting and how promising this
> > is to us. It's like being told you've just won the lottery." Another
> > Flagstaff-area amateur who identified himself as "John L.", explained
> > what this meant to him. "My buddies and I have met on 40 meters every
> > night for the last eighteen years, and every single one of those nights,
> > it has been a struggle to find a clear spot to set up our transmitters.
> > If it wasn't the howling of Radio Moscow, it was the splatter from one
> > of those darned religious stations that completely wiped out the band.
> > We've hoped for years that the ARRL could somehow kick them out and give
> > us some relief. Man, I can't tell you how nice it will be without having
> > to worry about [the broadcasters] anymore. I can't wait."
> >
> > Amazingly, not all amateurs are welcoming the less-cluttered future of
> > 40 meters with open arms. In Ohio, a demonstration is planned at the
> > Dayton ham convention in May, the largest in the country. Organized by a
> > group of ham traditionalists, the demonstration will take the form of an
> > 80-vehicle-long caravan which will parade through the city carrying
> > signs and placards and protesting on a number of ham frequencies as they
> > progress. An unidentified member of the protest stated, "Generations of
> > hams have literally grown up with having to dodge interference on 40. It
> > made us better operators, having to use operating saavy to survive in
> > between Radio Moscow and Voice of Free China. This makes us look like
> > wimps who have to be pandered to and who can't stand a little bit of
> > rough going. Our mission is to fight for ham ingenuity and for the
> > reputation of hams everywhere."
> >
> > Other amateurs reserved their excitement for other reasons. In phone
> > conversations with this reporter, several hams expressed concern that
> > the elevation of amateur radio to exclusive use of the 40 meter band
> > could endanger their hold on other, nearby frequencies that are being
> > eyed by a number of other services who have a new-found, increased
> > appetite for spectrum space for Internet and communication services.
> > They said also that new hams entering the hobby through a streamlined
> > FCC licensing process that has been generally viewed as easier and less
> > demanding would not appreciate their frequency privileges without the
> > added challenge of having to confront shortwave interference.
> >
> > Within the next five years, whether it is good or bad for the hobby, it
> > will undoubtedly be easier and more pleasant to tune the 40 meter band
> > and converse with other radio aficionados. While some will enjoy the
> > arrangement, others will bemoan the loss of yet another ham tradition.
> > Whatever the outcome, hams will be left to craft a response to the
> > sudden and very unexpected windfall.

2090. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 01:02:20 UTC
From: MIKE SOUHRADA <wb9iog@revealed.net>
Message-ID: <3ACA729C.F3CAA0AC@revealed.net>
Source record: 53687
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Winfield Hill wrote:
>
> Hello Gang,
>
> My AoE coauthor, Paul Horowitz, is looking for an old
> classic RF transmitter neutralizing capacitor - some
> Winfield Hill
> Rowland Institute for Science
> 100 Edwin Land Blvd
> Cambridge, MA 02142

Have you found one yet? I have one of those monsters, must be
about 1/4" plates est diam 2-3" or so. Believe it was made by B&W
what are they worth. Stands pretty high also, fits' the look of the
times ie 813's.
Mike
Iowa

2091. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 01:02:59 UTC
From: MIKE SOUHRADA <wb9iog@revealed.net>
Message-ID: <3ACA72C3.EE89EBF1@revealed.net>
Source record: 53686
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Winfield Hill wrote:
>
> Hello Gang,
>
> My AoE coauthor, Paul Horowitz, is looking for an old
> classic RF transmitter neutralizing capacitor - some
> Winfield Hill
> Rowland Institute for Science
> 100 Edwin Land Blvd
> Cambridge, MA 02142

Have you found one yet? I have one of those monsters, must be
about 1/4" plates est diam 2-3" or so. Believe it was made by B&W
what are they worth. Stands pretty high also, fits' the look of the
times ie 813's. If interested let me know seems to me I found the
model number in an old ARRL manual ad in the back pages.
Mike
Iowa

2092. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 01:26:31 UTC
From: Win Hill <whill@mediaone.net>
Message-ID: <3ACA776E.72613D7B@mediaone.net>
Source record: 53685
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Genome wrote:
>
> "Winfield Hill" <hill@rowland.org> wrote
>> Hello Gang,
>>
>> My AoE coauthor, Paul Horowitz, is looking for an old
>> classic RF transmitter neutralizing capacitor - some
>> of you know what I mean, the ones with two plates
>> made from large discs, with one adjustable to set the
>> spacing. I had a nice one with 4" diameter discs...

> The student should, by now, have enough experience and
> friends with the required equipment to have one built
> for a couple of crates of Bud.
>
> DNA

Exactly, and indeed both Paul and I have had some very
nice air capacitors made in the machine shop, however
the original item, complete with the threaded ceramic
standoff, is very much to be preferred for a teaching
tool. Consider, the elegant engineering and earnest
craftsmanship of that early great old era can live on,
newly minted, by becoming ingrained into the new mind
of a young Harvard student, plus all the students from
other schools who come to Cambridge to take Physics 123
each summertime.

So someone, please, let's find one of those old beauties
for the cause. And for the Bud. Ribbit.

Thanks,
- Win

Winfield Hill
Rowland Institute for Science
100 Edwin Land Blvd
Cambridge, MA 02142-1297

2093. Re: 40 Meter Announcement

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 04:19:13 UTC
From: kelly@nospam.dvol.com
Message-ID: <3aca9ef0.159572217@news2.dvol.com>
Source record: 53688
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Mon, 02 Apr 2001 13:51:19 -0700, Joe <joe@me.com> wrote:

>
>RELIEF FOR HAMS IN SIGHT
>Amateurs gain reprieve from long-time clash with broadcasters
>
. . . .

>Whatever the outcome, hams will be left to craft a response to the
>sudden and very unexpected windfall.
>
Only in our dreams. Beautifully done and congratulations for the great
wordsmithing.
>
w3rv

2094. Will TRADE TUBES for EICO 667 Manual copy!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 06:33:13 UTC
From: john williams <ac6ts@n2.net>
Message-ID: <3ACAC029.68CA7011@n2.net>
Source record: 53691

Will TRADE TUBES for EICO 667 manual copy!
Am deseperate. Need Instructions for EICO 667 tube tester soon.
I will trade 10 or+ GOOD 6v6 addio output tubes. Good tested pulls in
boxes.
Tested in Superior TR-11 tester. Reason: I shipped my Eico 667 w/roll
chart,
extra data books etc. to a Man in NY. He can't figure out how to operate
it.
He thinks it is broken. I know it is not by his description. I can not
tell
him how to use it, unless it is infront of me. I need a partial manual
(instruction section),
to send him. I will be very generous in tube trade.
Please consider this offer. Even scanned image files of instructions
will do it for him.

Thanks for reading,
John Williams

--

---/--- John Williams ~ ~ ~ ~ AC6TS
---/--- 33ï¿½ 06ï¿½ 15ï¿½ N ï¿½117ï¿½ 03ï¿½ 36ï¿½ W
----/---- DM13KC 7.030Mhz 14.030Mhz CW
_____/_____ http://www.angelfire.com/ca2/home4biz/index.html

2095. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 07:48:02 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <40klctkicjb80f22vp5dldf0ald8i53sgo@4ax.com>
Source record: 53693
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

"Michael A. Terrell" <michaelaterrell@netscape.net>
shared these priceless pearls of wisdom:

->Check ot the Harris broadcast website.
...and I consider them the
->authority, not someone I've never met.

Certainly not the folks (ITT) that published "The Green Brain" bible long before you were ever born, sonny. And who updated it year after year until bought by Sams. Ever heard of or met them, sonny?

->
-> By the way, I no longer work on such narrow band equipment. The
->company I work for builds receivers with 20 Mhz IF's, and NASA doesn't
->launch without our equipment.

Nor mine, sonny, fifteen years after my patent expired they're still using the same principle I invented a very long time ago for communications. And if your company is building 20 MHz. IFs, you might just want to look into 21.4 MHz which is where most of the professionals work.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

2096. Re: Check Out: NX7U mobile multi-multi-mode station

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 09:55:56 UTC
From: Jim Rodenkirch <rodenkir@spawar.navy.mil>
Message-ID: <9aerehrtd1@newpoisson.nosc.mil>
Source record: 53694
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

A Ford! HURRAH!

Regards, Jim R., K9JWV - proud owner of a Ford F-250, replete with Power Stroke Diesel.

"Scott Townley" <nx7u@primenet.com> wrote in message news:3ac5f8c9.60795480@news.primenet.com...
> Continually updated with HF/VHF/Satellite etc.., mobile operating
> info/equipment/pix/etc.
> Plus, I just put a new counter on the page and I want to see it work
> <g>
>

2097. Re: Dentron MLA2500 QST Article needed (QST May 96)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 10:57:19 UTC
From: Bill Russell <willy@global2000.net>
Message-ID: <fdvlct0gl3skd41phef2v450f301rabm15@4ax.com>
Source record: 53695

I have a copy of the artical someplace. If you would like me to scan
it and send it to you....let me know.

Bill

On Fri, 30 Mar 2001 20:57:08 -0500, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>I am looking for the qst or a copy of the article in QST, May 1996 on pages
>45-48
>on modifying the Dentron MLA2500 to use a 4CX800 tube. I am trying to
>decide on the way to go with the MLA2500. Of course a pair of drop-in
>3cx400A7's would be fine, but I haven't found any for a decent price.
>I will gladly pay for the magazine or a copy of the article.
>
>Doug, N4IJ
>
>

2098. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 11:17:22 UTC
From: n2cqr@clix.pt
Message-ID: <3acb01b6.2678527@news.clix.pt>
Source record: 53692

Alex: Get lots of books -- don't just depend on one. Different authors will have different ways of explaining things -- if you get stuck with one, switch to another. You need to be building a small library.

You can build simple a simple receiver, but start out slow. I built a few simple transmitters before I took on a receiver project.

You'll see lots of designs for simple receivers that use IC chips. If I were you I'd look for designs using discrete transistors. I think you'll come away with a better educational experience.

Good luck. Hang in there. 73 Bill CU2JL N2CQR

On Tue, 03 Apr 2001 05:10:03 GMT, amarine@indiana.edu (Alex) wrote:

>Hi all. I'm a college student who is completely new to amateur radio.
>I have checked out a couple of books to get me started, but I still
>have very little knowlege of the amateur radio world. I have a
>general knowlege of electronics and I was hoping to build my own
>simple receiver. My questions are, 1) is it possible? 2) what books
>would you recomend for beginners who know nothing about radio and are
>looking to get started? 3) are there any books or online resources
>that will help those who are looking to build their own simple shack?
>Any help would be appreciated.
>
>Thanks

2099. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 11:34:35 UTC
From: DJ6JZ <DJ6JZ@compuserve.de>
Message-ID: <3acb0d24_2@news.arcor-ip.de>
Source record: 53696

Hi Alex,

of course it is possible to build your own receiver, and maybe you get
interested enough to pass the test for a amateur radio license later...

To get some hints, do a search for 'homebrew' at
http://www.radio-portal.org
in the category "Receivers".

Such a search also works for other categories, like "Antennas" or
"Transceivers", for example.

Best Regards,
Willi, DJ6JZ

Alex <amarine@indiana.edu> schrieb in im Newsbeitrag:
3ac95b0b.433538467@news.indiana.edu...
> Hi all. I'm a college student who is completely new to amateur radio.
> I have checked out a couple of books to get me started, but I still
> have very little knowlege of the amateur radio world. I have a
> general knowlege of electronics and I was hoping to build my own
> simple receiver. My questions are, 1) is it possible? 2) what books
> would you recomend for beginners who know nothing about radio and are
> looking to get started? 3) are there any books or online resources
> that will help those who are looking to build their own simple shack?
> Any help would be appreciated.
>
> Thanks

2100. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 14:12:56 UTC
From: Robert <romapa@earthlink.net>
Message-ID: <3ACB2C18.19FFF392@earthlink.net>
Source record: 53597
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Win Hill wrote:

> Consider, the elegant engineering and earnest
> craftsmanship of that early great old era can live on,
>

Oh puuuuuullllease!!! Does the thing stand on clawed feet and maybe a
little lion's head etc...

2101. HW-8 Main Tuning VFO Variable Cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 15:04:54 UTC
From: k4wwd@arrl.net
Message-ID: <9afd6m$al9$1@news.netmar.com>
Source record: 53600

This subject has already been out for a while. I am the proud new owner of
a
vintage HW-8 with the Main tuning capacitor plates "GONE"!!! I have come
across
some references to some homebrewers refitting/gluing the plates back in
place.
My plates are GONE. Does anyone out there know the original configuration of
the Heath cap as delivered from the factory? I have heard speculation that
it
was a 365 pF variable with every other plate removed. Correct? B.S. ??
Does anyone out there know a source of supply for this component? Anybody
out
there want to part with an extra variable cap? I am thinking of
"transplanting" some
plates from another capacitor, but I have never seen one intact. Perhaps one
of you out there could describe the number and spacing of the plates on the
rotor section for me? I just do not know what it is supposed to look like!

Thanks for all your help.......73, Bill -K4WWD

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http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

2102. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 15:47:36 UTC
From: conover@tiac.net
Message-ID: <9affmo$e3c@news-central.tiac.net>
Source record: 53598
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Robert (romapa@earthlink.net) wrote:
:
:
: Win Hill wrote:
:
: > Consider, the elegant engineering and earnest
: > craftsmanship of that early great old era can live on,
: >
:
: Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
: little lion's head etc...

Whatsamatta Psycho, you don't like products that have a useful life
of more than two or three years. Is that because your personal skill
set is incapable of producing an innovative product having a useful
service life of over one-hundred years, as many of those products
with the claw feet, artistic scrolls, and gold-leaf trim have?

If you prefer the quality of products manufactured today with a
useful service life of 3-years, incapapable of being cost effectively
repaired, then destined to being ground up for scrap, it is likely
because you yourself are personally incapable of designing or
manufacturing anything superior -- as those who have preceded you
(and me) clearly were.

Sadly, it appears the technology with which we are familiar can
be characterized as producing ONLY high-performance, low-quality,
short-lived, throw-away specialty items. Items of this type have
only a very limited value to the needs of our core infrastructure.

By contrast, that claw-footed punch press, bathtub, and decorative
turbine housing existed long before high-tech throwaway products, and
some are likely to remain in service long after many of today's "hot"
items are just a fading memory. This is because beyond the basic
utility of such low-tech items, the design skill and craftsmanship
that produced them far exceeded that of most of today's over-
specialized, high-tech design types who, without the help of
a computer, design handbook, and product catalog, are incapable
of designing very much of anything yet alone add decorative
flourishes as as an indication of the designer's pride in his
accomplishment.

Harry C.

2103. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 16:22:36 UTC
From: conover@tiac.net
Message-ID: <9afhoc$e3c@news-central.tiac.net>
Source record: 53599
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Win Hill (whill@mediaone.net) wrote:
:
: Exactly, and indeed both Paul and I have had some very
: nice air capacitors made in the machine shop, however
: the original item, complete with the threaded ceramic
: standoff, is very much to be preferred for a teaching
: tool. Consider, the elegant engineering and earnest
: craftsmanship of that early great old era can live on,
: newly minted, by becoming ingrained into the new mind
: of a young Harvard student, plus all the students from
: other schools who come to Cambridge to take Physics 123
: each summertime.
:
: So someone, please, let's find one of those old beauties
: for the cause. And for the Bud. Ribbit.
:
: Thanks,
: - Win

Hi Win,

I recall two firms making neutralizing capacitors.

James Millen in Malden, MA made the disk style units precisely as you describe. Unfortunely as you no doubt know, Millen has been out of business for some years, but if you prowl around surplus dealers in the Malden vicinity, you may be able to find one or two. The Millen part number for the 2" diameter disk neutralizing capacitor is No. 15011. (You might also want to have someone check the MIT ham radio flea market, since I recall one dealer there who regularly has transmitter type variable capacitors for sale.)

Another potential source would be E.F. Johnson Company in Waseca, Minnesota. (They MAY still be in business.) Johnson made the Type G neutralizing capacitor. By contrast with the Millen product, Type G consisted of two coaxial cylinders with a screw adjustment that determined the degree of penetration that the smaller cylinder made into the larger one.

National Radio (famious for their HRO series receivers) was also located in Malden and made a component line, and although they did produce a line of variable capacitors, I don't recall them offering any neutralizing capacitors.

Win, for whatever it's worth, neutralizing capacitors of the above type were generally associated with triode final amplifiers whose popularity declined rapidly shortly after WWII. As you know, triodes exhibit considerably higher plate-to-grid capacitance than do the tetrodes that rapidly replace them (at least in ham use). Becuase of the shielding effect of the screen grid, plate-to-control-grid capacitance, tetrode r.f. amplifiers required very little neutralization, hence the market for neutralizing capacitors just about completely died after a huge increase in the use of tetrode final amplifiers circa 1950 or so.

I received by first ham license while in middle-school (1952). My second rig used a donated Taylor 100TH triode, hence I at one time owned a Millen neutralizing capacitor. Sadly, that capacitor went with the rig at the time I disposed of it.

Good luck with your search.

Harry C.

p.s. Both the Millen and National products are depicted in the catalog sheets bound as part of the ARRL 1956 "Radio Amateur's Handbook."

2104. Re: beginner needs help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 18:28:11 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <r3pfa9.dl7.ln@localhost.localdomain>
Source record: 53604

Eamon Skelton wrote:

> You will find some info and some links on my webpage (URL below).

Humble apologies for my rather terse posting. Welcome to the
wonderful world of amateur radio.

73, Ed. EI9GQ. Cork, Ireland.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

2105. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 18:33:38 UTC
From: Jackson Harvey <harv0077@tc.umn.edu>
Message-ID: <3ACB6902.746EA122@tc.umn.edu>
Source record: 53601
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Harry H Conover wrote:

> Sadly, it appears the technology with which we are familiar can
> be characterized as producing ONLY high-performance, low-quality,
> short-lived, throw-away specialty items.

That is economically sound, for any technology that changes rapidly. As you mention, infrastructure technology changes less slowly, and should be built to last longer, but even that is changing relatively rapidly (on the order of decades rather than centuries).

Of course, some technologies change slowly, and these items should be built to last.

Jackson Harvey

2106. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 18:50:40 UTC
From: Jackson Harvey <harv0077@tc.umn.edu>
Message-ID: <3ACB6D00.5518C0C7@tc.umn.edu>
Source record: 53602
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Jackson Harvey wrote:

> As you
> mention, infrastructure technology changes less slowly

I meant more slowly, or less rapidly, of course.

Jackson Harvey

2107. Manual needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 20:13:22 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <986415202.245135@athnrd02.forthnet.gr>
Source record: 53605
Cross-posted to: alt.radio.pirate,rec.radio.amateur,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Does anyone have the ENGLISH manual of CTE LM 200 (i think...) semi-dublex phone interface (phone patch) ? Please msg me for help. Best 73s!

2108. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 20:43:25 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ACB879A.1B352497@netscape.net>
Source record: 53603
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

Jim Weir wrote:
>
> "Michael A. Terrell" <michaelaterrell@netscape.net>
> shared these priceless pearls of wisdom:
>
> ->Check ot the Harris broadcast website.
> ...and I consider them the
> ->authority, not someone I've never met.
>
> Certainly not the folks (ITT) that published "The Green Brain" bible long before
> you were ever born, sonny. And who updated it year after year until bought by
> Sams. Ever heard of or met them, sonny?
>
> ->
> -> By the way, I no longer work on such narrow band equipment. The
> ->company I work for builds receivers with 20 Mhz IF's, and NASA doesn't
> ->launch without our equipment.
>
> Nor mine, sonny, fifteen years after my patent expired they're still using the
> same principle I invented a very long time ago for communications. And if your
> company is building 20 MHz. IFs, you might just want to look into 21.4 MHz which
> is where most of the professionals work.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

We are not in the two way radio business. We build customized, modular
telemetry equipment. To the customers needs. Not what some old fart
thinks they can make the customer take. Whatever band, modulation type,
and other special needs they may have. We also design and build
complete tracking systems. NOAA uses a special system we built to track
their weather satellites. I could go on, but you'll still tell me I'm
wrong, so I'll save my time.

The IF's are at 70 Mhz, and up to 20 Mhz wide. It's in top of the line
telemetry equipment that you wouldn't understand. And in Telemetry you
use either 20, or 70 Mhz IF's so the signal can be recorded on wide band
logging equipment.

OUR CUSTOMERS WOULD LAUGH IF WE OFFERED RECEIVERS WITH A 21.4 Mhz IF!

They connect equipment to the IF outputs to do additional signal
processing with them.

You had a patent? Big deal. It's expired, but the company I work for has built top of the line equipment for 31 years. It's used all over the world, and one system is aboard the Space Station. I personally worked on a number of the modules. You try to insult my age and my education. I pity you. It must be a terrible burden to never be wrong.

Standards do get updated, and if you weren't so closed minded you might be able to learn that.

I'm sorry that I can't help you with your ignorance, or arrogance, Mr. weir, so good bye.

2109. home brew site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-04 23:14:58 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3acbaadf$1_2@newsa.ev1.net>
Source record: 53606

Stop in on my web site. I have a few homebrew projects on it.

www.qsl.net/kk5dr

73 de Matt KK5DR

2110. problems bldg 5wat qrp amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 00:25:32 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3acbb719.194959@netnews.worldnet.att.net>
Source record: 53607

I'm building W1FBs QRP 5 wat amplifier and have finished the board and am testing it but have big problem - I have used a fused 12V battary with a 2.5 amp fuse and a power supply also fused for 2.5 amps and am blowing the fuses (three times) each time I key and never get any power meter response. anybody got a clue. Sometimes you cant see the trees becouse of the woods--- thanks/

2111. Re: problems bldg 5wat qrp amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 00:54:33 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3ACBC249.3553A198@coqui.net>
Source record: 53608

geokf4ucc@yahoo.com wrote:
>
> I'm building W1FBs QRP 5 wat amplifier and have finished the board and
> am testing it but have big problem - I have used a fused 12V battary
> with a 2.5 amp fuse and a power supply also fused for 2.5 amps and
> am blowing the fuses (three times) each time I key and never get any
> power meter response. anybody got a clue. Sometimes you cant see the
> trees becouse of the woods--- thanks/

Could have been one of the many same circuits that gave me grief
in the past. What I've found from tinkering with SS amps is that
following 'the plan' is very important. A stand alone board may
not work until it is mounted in a box and properly matched and
that type of thing.
No doubt that it is taking off oscillating somewhere in the VHF
unknown and once you get it tamed by rough alignment, it may well
be ok, but equally as likely is that the transistor has already
self-destructed.
Something else that kept hitting me in the head like a hammer when
I was experimenting with these things was that the 99 cent surplus
transistors never behaved as well as the more-expensive name brand
ones.
Its "can't see the forest for the trees". Check the obvious
connections and make sure you haven't made a wiring error, or made
an unsuitable component substitution. Something indiscreet like a
20-50pf trimmer where you used a 10-100pf trimmer can open the
door to erratic operation.
Good luck,

Bill Meacham WX4A
Vieques, PR

2112. Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 02:35:12 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3acbd982_3@corp.newsfeeds.com>
Source record: 53610

I want to build a tuner that will cover 80-10meters. I want to be able to handle at least several hundred watts (I can only squeeze out about 40 now, but I have goals to meet). What all do I need? Capacitors, inductors, etc... it doesn't make a whole lot of sense to me... YET! I'm a work in progress!

JWheeler
kd5bcu

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2113. Can you recommend A signal gen board or kit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 02:47:20 UTC
From: 451ctds@pop3.concentric.net
Message-ID: <3ACBDCFF.816E8B02@pop3.concentric.net>
Source record: 53611

I bought a beautiful old General Radio Signal Generator, and on
learning it was AC / DC cut all the wires, and stripped all that unsafe
crap out.
Now I want to retrofit the old cabinet with modern electronics, can
anyone suggest a suitable module, board, or kit ?

2114. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 02:51:49 UTC
From: conover@tiac.net
Message-ID: <9agmk5$4ot@news-central.tiac.net>
Source record: 53612
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Rev Jim (donder@cmem.com) wrote:
:
: Harry H Conover wrote...
: > : > Consider, the elegant engineering and earnest
: > : > craftsmanship of that early great old era can live on,
: > : Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
: > : little lion's head etc...
: > Whatsamatta Psycho, you don't like products that have a useful life
: > of more than two or three years. Is that because your personal skill
: > set is incapable of producing an innovative product having a useful
: > service life of over one-hundred years, as many of those products
: > with the claw feet, artistic scrolls, and gold-leaf trim have?
:
: As I sit here with my 75A2 and Globe Chief 90 I feel sorry for all of you
: with the old stuff.

ROFL! Well said. At least when they break, you can fix them
with relative ease. Also, note the prices these items (75A2-75A4)
continue to command when auctioned on eBay.

My dream receiver is the 75A4, but I'll settle for an HRO-60.
Boat anchors both, but they perform their intended function well,
and will still be alive and ticking when the last ICOM and Kenwood
has long since bit the dust! ;-)

Until then, I suppose I'll just have to make my Hallicrafters
SX-71 and B&W 5100 make do for another 30 or 40 years!

Harry C.

2115. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 03:35:09 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3ACBE7ED.CE450BF5@coqui.net>
Source record: 53613

JWheeler wrote:
>
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40 now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu
>

Drag out an old ARRL handbook. A pair of tuning capacitors in the
150-300 range and a nice coil/switch or roller inductor is pretty
much all you need.
Alot depends on whether or not you're wanting to match random
wires or simply improving the match of a "close to 50-ohm"
antenna.
Not something you need to pay megabux for.
There's lots of options...once you jump in, you'll further
understand what you can or can't do with a given circuit. When I
first started, I had a penchant for trying to load any old window
screen or piece or wire as an antenna. A simple "L" network
allowed me to play. But if you are using a modern solid-state
rig, the matching requirements are a bit more rigid.
No solid answers here...experiment with what you can rig up and
take care not to blow ur finals or create a bunch of QRM in the
process.

Bill Meacham WX4A
Vieques, PR

2116. Re: Can you recommend A signal gen board or kit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 03:37:39 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3ACBE883.515D4796@coqui.net>
Source record: 53614

451ctds@pop3.concentric.net wrote:
>
> I bought a beautiful old General Radio Signal Generator, and on
> learning it was AC / DC cut all the wires, and stripped all that unsafe
> crap out.
> Now I want to retrofit the old cabinet with modern electronics, can
> anyone suggest a suitable module, board, or kit ?

Placing a coupla blocking caps on the in/out connectors, or
floating them, (if they weren't already) would have saved you a
lot of trouble.

Bill Meacham
Vieques, PR

2117. need a 8877 socket / chimney

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 03:49:54 UTC
From: kf4toh@aol.com
Message-ID: <20010404234954.14575.00001792@ng-ca1.aol.com>
Source record: 53615

looking for a 8877 socket and chimney

thanks

2118. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 04:00:44 UTC
From: conover@tiac.net
Message-ID: <9agqlc$4ot@news-central.tiac.net>
Source record: 53618
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Jackson Harvey (harv0077@tc.umn.edu) wrote:
: Harry H Conover wrote:
:
: > Sadly, it appears the technology with which we are familiar can
: > be characterized as producing ONLY high-performance, low-quality,
: > short-lived, throw-away specialty items.
:
: That is economically sound, for any technology that changes rapidly. As you
: mention, infrastructure technology changes less slowly, and should be built
: to last longer, but even that is changing relatively rapidly (on the order
: of decades rather than centuries).

On that point I have to take serious conceptual disagreement. It
is not economically sound when fuctionality requirements are outpaced
by the availability of new technology. New technology is not always
particularly useful, as we are currently seeing in the PC marketplace.

For example, except as toys and novelties, there are no broad-base
requirments for 1,000-MHz computers. In fact, a 200-MHz Pentium
Pro system provides vast overkill for most real computing and
communications requirements. Also, were it not for the gross
designed-in inefficiency of the software currently produced for
common business application, it would be difficult to justify
demand for even a 200-MHz machine.

Don't read me the wrong way, because 800-1,000 MHz systems are
wonderful for playing fast-paced, graphically intensive games,
but other than that only a negligibly small niche market in
science and engineering design requires performance at this
level. Still, for the vast majority of real applications (such
as word processors, spreadsheets, information retrivial, and
general purpose computing), things that would be seriously
impacted were the technology not available, is becomes difficult
to rationalize a need for much beyond 100-MHz system performance.

The same holds true for mass storage. Few people have real working
needs that require more than 1-2 Mbytes of storage (exluding space
taken up by today's heavily bloated application packages).

Getting back to economics, the problem is this. Given an economic
recession that severely impacts consumer spending on recreation and
luxury items, no market exists for the newest generation of
technology (computers). Couple this with a home computer market
that is alread saturated and it follows that this total market

will shrink to the level of replacement demand (not insignificant only because products of this gendre are produced so poorly that their useful service lifetime is limited.

Industry is a similar situation, although for entirely different reasons. That is, industry on the whole has few performance requirements that can justify the purchase of newer technology when the older products are perfectly adequate, except for useful service life and reliability issues. Here again, the market for new computers is limited to replacement units.

Hence, I don't believe it is valid to justify the short useful service life of high-tech computer products as making economic sense based on the rate of technological advancement. Also, I'm not sure that a careful analysis would support the economic sense of purchasing cheaply constructed, short lived products only to replace them with newer products when they fail, except during times of extreme and continuing affluence.

For what it's worth, I'm predicting that during the current economic shake-up, people are going to begin to place more focus on the steak rather than the sizzle that fueled the immediately past 2-3 years of boom times. Industry has already moved in the direction of regarding computers as commodity items, a view that is likely to overtake the entire market. As this tendency advances, the key discriminants between computers is going to become price and quality (equating to useful service life) rather than price and performance (as it has in the past).

The sizzle days were good to a lot of people, and the intensity of the sizzle allowed a great many shoddy products to be successfully marketed, partially the result of naive consumers. Computers were sold on the same footing as "Monster Speaker Cables", with all focus on the sizzle and none on the steak. In many cases, as it turned out, there was no steak!

Today, Intel and a majority of the PC houses have already felt the pinch and have begun belt-tightening. Expect it to continue for some time to come. Some of it, like demand for the Mood Ring and Hula-Hoop, will never return.

When things finally recover and stabilize, I'm predicting that the demand for computers and other high-tech products will have an entirely new slant, 5-year warranties will become the norm (the technology, were it to be properly implemented, can easily support this), and any demand for performance will be gated by actual need.

In other words, the PC marketplace will begin to take on an appearance very similar to that which has always existed in the industrial controller and computer marketplace. You may even begin to see the use of standardized qualification testing of computers, just

as the government already requires of many other products.
Now this would make economic sense and, at the same time, allow
workers in the field to once again make long-term personal
plans or hold a job with the same employer for more than 3-4
years!

Other than the fact that many of the folks who sold sizzle and bought
3-garage McMansions will predictably end up out in the street,
it should be a refreshing change.

Hey, maybe someone will even make a flat-panel monitor with Claw
Feet. That would be cool!

Harry C.

2119. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 04:02:50 UTC
From: Rev Jim <donder@cmem.com>
Message-ID: <9agjk7gan1@ins21.netins.net>
Source record: 53609
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Harry H Conover wrote...
> : > Consider, the elegant engineering and earnest
> : > craftsmanship of that early great old era can live on,
> : Oh puuuuuullllease!!! Does the thing stand on clawed feet and maybe a
> : little lion's head etc...
> Whatsamatta Psycho, you don't like products that have a useful life
> of more than two or three years. Is that because your personal skill
> set is incapable of producing an innovative product having a useful
> service life of over one-hundred years, as many of those products
> with the claw feet, artistic scrolls, and gold-leaf trim have?

As I sit here with my 75A2 and Globe Chief 90 I feel sorry for all of you
with the old stuff.

2120. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 04:04:11 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3ACBEE79.D4C88E1@att.net>
Source record: 53616

What complex impedance ranges at what frequencies do you want to convert
to, presumably, 50 ohms resistive?

That is the starting point for any tuner design.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

JWheeler wrote:
>
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40 now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu

2121. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 04:05:20 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3ACBEEBE.F53120BD@att.net>
Source record: 53617

What complex impedance ranges at what frequencies do you want to convert
to, presumably, 50 ohms resistive?

That is the starting point for any tuner design.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

JWheeler wrote:
>
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40 now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu

2122. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 05:36:05 UTC
From: Robert <romapa@earthlink.net>
Message-ID: <3ACC0469.E6DB5D90@earthlink.net>
Source record: 53619
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

> Harry H Conover wrote...
> > : > Consider, the elegant engineering and earnest
> > : > craftsmanship of that early great old era can live on,
> > : Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
> > : little lion's head etc...
> > Whatsamatta Psycho, you don't like products that have a useful life
> > of more than two or three years. Is that because your personal skill
> > set is incapable of producing an innovative product having a useful
> > service life of over one-hundred years, as many of those products
> > with the claw feet, artistic scrolls, and gold-leaf trim have?

You're talking about products from a time that can't be put far enough in the past fast enough. These products were manufactured by slave labor working 6/14 at poverty level wages. These people worked and lived with dismal and unhealthy conditions. The average lifespan - even in the US- barely broke into the 40's- and this into the early part of the 20th century. This stuff about "elegant engineering" and "earnest craftsmanship" is nearly a psychotic hallucination. I don't call using 10-100 times the material required engineering of any kind. So if we stick a manimal symbol on it- you would consider the 4000 pound cast iron 1/8th HP engine running on crude oil to power your car? I've seen your wretched New England mill towns- and thought I was in hell- these places stand as a monument to wicked manipulation of resource for personal gain- they killed people and nature with reckless abandon. Now take a look at that hysterical excuse of post and ask yourself who the real psycho is here.

BTW- most of that ornamentation that you consider indicative of the designer's pride was pure popular glitz of the time- looks like something created by an opium user with severe lead poisoning. The engineering profession was not held in high regard in those days- the last thing allowed would be individual expression of any kind- so you're wildly off the mark there, boyo.

2123. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 09:35:34 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <tcppdje1svhfb5@corp.supernews.com>
Source record: 53633

ARRL.ORG and order the antenna book or look on ebay

"JWheeler" <kd5bcu at sydcom dot net> wrote in message
news:3acbd982_3@corp.newsfeeds.com...
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40
now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
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> JWheeler
> kd5bcu
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2124. Kenwood TR-9130

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 09:52:36 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <EfXy6.6900$ii5.739989@afrodite.telenet-ops.be>
Source record: 53620

Fellow homebrewers...

Almost two years ago I bought my first rig, a Kenwood TR-9130 2m all mode TRX.
I used it intensely, almost every day for some hours. Although maybe not anymore "of this world", as it was build in 1983 I think, it did a great job. Until...

One day, the rig didn't start up properly, but after a couple of minutes it came through. The symptomes were flickering display, only start-up frequency available (145Mc), no response from dial-knob and the device seemed to reset itself almost every second. Well, those "couple of minutes" soon became half an hour, and in the end it remained in this "resetting mode".

Time to heat the solder iron and take the screwdriver (luckily I had the schematics included). I did some research and apparently, older Kenwod rigs seem to suffer from bad solder joints. So I re-soldered most of the through-platings. This helped, for about one week.
OK, part two: I changed ALL electrolytic capacitors, and re-soldered some extra through-platings, by inserting a thin piece of wire. I did it again!

In the mean time, I located the problem on the digital board, with the display-logic and the microcontroller. When I heat up this PCB with a heatgun, the TRX works just fine. When it cools down... you can guess... The RF and power parts of the rig are 100% ok...

Again one week later, same sh*t! Now I changed some voltage regulators, diodes for transistor-regulators, etc etc. Still no good! The only way to get this rig to work is constantly heating the digital board. I even removed the circuitry that pulls the reset-pin to ground in case of a brown-out (a resistor and a transistor), so there is no more outside connection to the reset-pin. Still: the damn' thing keeps resetting! Is the µC defective? But then why does it work when I heat it up?
I do not want to buy a new VHF rig, as my main interest is HF, but I had so much fun chasing DX on Es last year that I'd like to do it again.

Now, my question is: has anyone had similar problems with this rig? If so, what was the solution? Does anyone need a broken TR-9130 for spare-parts? Does anyone have spare parts from a broken TR-9130?

All input will be greatly appreciated!
73 de ON4CLN - Franki
http://www.qsl.net/on4cln

2125. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 09:53:14 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <bafha9.lb9.ln@localhost.localdomain>
Source record: 53629

"JWheeler" <kd5bcu at sydcom dot net> wrote:

> I want to build a tuner that will cover 80-10meters. <snip>

> What all do I need? Capacitors, inductors,

Try to find a pair of transmittimg type variable capacitors of
250pF or more. There are lots of published designs. The
best one for your situation will depend on the type of aerial
and feeder that you use. I use a simple T-Match - see my
web page for details (URL below).

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

2126. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 11:35:51 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3acc586b_1@corp.newsfeeds.com>
Source record: 53621

OH, yeah... 50 ohm feedline. What's next?

JWheeler
kd5bcu

JWheeler <kd5bcu at sydcom dot net> wrote in message
news:3acbd982_3@corp.newsfeeds.com...
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40
now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
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2127. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 12:08:17 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3acc6012_1@corp.newsfeeds.com>
Source record: 53622

OH, yeah... 50 ohm feedline, and if it is feasible, I'd like to only have one wire, but that would only be icing on the cake since I already have wires us for 10, 20, and 80. What's the next step?

JWheeler
kd5bcu

> JWheeler <kd5bcu at sydcom dot net> wrote in message
> news:3acbd982_3@corp.newsfeeds.com...
> > I want to build a tuner that will cover 80-10meters. I want to be able to
> > handle at least several hundred watts (I can only squeeze out about 40 now,
> > but I have goals to meet). What all do I need? Capacitors, inductors,
> > etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> > progress!
> >
> > JWheeler
> > kd5bcu
> >
> >
> >
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----
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> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2128. Genrad 1657 Digiital RLC Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 12:43:54 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <eMZy6.9254$IJ1.791314@bgtnsc05-news.ops.worldnet.att.net>
Source record: 53623

I know that this is not exactly the right newsgroup for this kind of post, but I think that it is the most pertinent one. I have a Genrad Model 1657 Digital RLC Bridge up on the selling block, with service manual. 215 dollars shipped, USA only.

Pete Gianakopoulos
Chicago, Il.

2129. Re: Kenwood TR-9130

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 13:30:28 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9copif.gq0.w9wi@linux1.localdomain>
Source record: 53624

On Thu, 05 Apr 2001 09:52:36 GMT, ON4CLN <on4cln@qsl.net> wrote:
>I even removed the circuitry that pulls the reset-pin to ground in case of
>a brown-out (a resistor and a transistor), so there is no more outside
>connection to the reset-pin. Still: the damn' thing keeps resetting! Is the
>ï¿½C defective? But then why does it work when I heat it up?

Allowing the reset pin (actually any pin) on a microcontroller to float,
completely disconnected, is often a bad thing. It depends on the specific
microcontroller, but there may not be any internal "pull-up" resistors to
ensure the pin goes to a predictable logic level. (or, the pull-up
resistors may pull it to the reset state, not the operating state)

This could possibly be the underlying problem as well; the symptoms you're
describing could well be caused by a floating reset pin. (among many other
possibilities...)

I think I would put that circuitry back, and make absolutely sure all the
connections are good. (even with good solder connections and feed-throughs,
I've seen an apparently good circuit board foil show an open circuit!
Probably a hairline crack at the next component pad.) Use an ohmmeter to
make sure everything actually goes where the schematic says it's supposed
to.

If that doesn't help, I would think about putting a voltmeter on that pin &
making sure it really does go to the level it should. Is there a capacitor
in that circuit? That might be a problem; maybe the CPU *isn't* getting
reset at power-up.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

2130. PREAMPLIFIER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 13:33:57 UTC
From: marvin rosen <n3bqa@starpower.net>
Message-ID: <9ahsbh$oc9$1@bob.news.rcn.net>
Source record: 53625

recommend a preamplifier for medium & shortwave use....i will be using loop antennas.

2131. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 13:39:07 UTC
From: conover@tiac.net
Message-ID: <9ahshr$sin@news-central.tiac.net>
Source record: 53626
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Robert (romapa@earthlink.net) wrote:
:
:
:
:
: > Harry H Conover wrote...
: > > : > Consider, the elegant engineering and earnest
: > > : > craftsmanship of that early great old era can live on,
: > > : Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
: > > : little lion's head etc...
: > > Whatsamatta Psycho, you don't like products that have a useful life
: > > of more than two or three years. Is that because your personal skill
: > > set is incapable of producing an innovative product having a useful
: > > service life of over one-hundred years, as many of those products
: > > with the claw feet, artistic scrolls, and gold-leaf trim have?
:
: You're talking about products from a time that can't be put far enough in the
: past fast enough. These products were manufactured by slave labor working 6/14
: at poverty level wages. These people worked and lived with dismal and
: unhealthy conditions. The average lifespan - even in the US- barely broke into
: the 40's- and this into the early part of the 20th century. This stuff about
: "elegant engineering" and "earnest craftsmanship" is nearly a psychotic
: hallucination. I don't call using 10-100 times the material required
: engineering of any kind. So if we stick a manimal symbol on it- you would
: consider the 4000 pound cast iron 1/8th HP engine running on crude oil to
: power your car? I've seen your wretched New England mill towns- and thought I
: was in hell- these places stand as a monument to wicked manipulation of
: resource for personal gain- they killed people and nature with reckless
: abandon. Now take a look at that hysterical excuse of post and ask yourself
: who the real psycho is here.

Actually, anyone but a psycho realizes it was those wretched New England
mill towns that brought the remarkable benefits of the Industrial
Revolution to America. Without these, most Americans would be limited
in both productivity and lifestyle to the fruits of their strenuous,
manual labor.

I'd call that a definite plus, but then I'm not a psycho.

: BTW- most of that ornamentation that you consider indicative of the designer's
: pride was pure popular glitz of the time- looks like something created by an
: opium user with severe lead poisoning. The engineering profession was not held
: in high regard in those days- the last thing allowed would be individual

: expression of any kind- so you're wildly off the mark there, boyo.

Not even a clue! ;-)

Indeed, the designers/craftsmen of that day had infinitely more creative freedom than do the narrow skill set armies of todays professionals who daily toil in the grand bland environment of their rat maze style working facilities. Indeed, the mental health hazards created by this environment rival the physical health problems created by the worst physical health working environments that existed at the turn of the century. In fact, when you total today's deaths due to stress related conditions including suicides, it rivals those due to direct physical causes at the turn of the century.

Why do you think it is that many of today's professionals are driven to pursue a "more simplified lifestyle" after spending as little as 10-years working within one of today's "ideal" organizations?

Harry C.

2132. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 15:34:37 UTC
From: Robert <romapa@earthlink.net>
Message-ID: <3ACC90B3.326B1694@earthlink.net>
Source record: 53627
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Harry H Conover wrote:

> Robert (romapa@earthlink.net) wrote:
> :
> :
> :
> :
> : > Harry H Conover wrote...
> : > > : > Consider, the elegant engineering and earnest
> : > > : > craftsmanship of that early great old era can live on,
> : > > : Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
> : > > : little lion's head etc...
> : > > Whatsamatta Psycho, you don't like products that have a useful life
> : > > of more than two or three years. Is that because your personal skill
> : > > set is incapable of producing an innovative product having a useful
> : > > service life of over one-hundred years, as many of those products
> : > > with the claw feet, artistic scrolls, and gold-leaf trim have?
> :
> : You're talking about products from a time that can't be put far enough in the
> : past fast enough. These products were manufactured by slave labor working 6/14
> : at poverty level wages. These people worked and lived with dismal and
> : unhealthy conditions. The average lifespan - even in the US- barely broke into
> : the 40's- and this into the early part of the 20th century. This stuff about
> : "elegant engineering" and "earnest craftsmanship" is nearly a psychotic
> : hallucination. I don't call using 10-100 times the material required
> : engineering of any kind. So if we stick a manimal symbol on it- you would
> : consider the 4000 pound cast iron 1/8th HP engine running on crude oil to
> : power your car? I've seen your wretched New England mill towns- and thought I
> : was in hell- these places stand as a monument to wicked manipulation of
> : resource for personal gain- they killed people and nature with reckless
> : abandon. Now take a look at that hysterical excuse of post and ask yourself
> : who the real psycho is here.
>
> Actually, anyone but a psycho realizes it was those wretched New England
> mill towns that brought the remarkable benefits of the Industrial
> Revolution to America. Without these, most Americans would be limited
> in both productivity and lifestyle to the fruits of their strenuous,
> manual labor.

Harry, I know New England, and the majority of those mill towns arose to create the textile industry as early as the early 18th century [early 1700's to you]. New England was ideal for this because of all those rivers which were good not only for water power but also for flushing waste products. The "iron age" of the industrial

revolution was supported by the huge iron deposits in the Great Lakes region and the industry built up in that area- namely Michigan. The Erie Canal, which was initiated by another *Clinton*, also known as "Clinton's ditch" at the time, governor of New York, was absolutely essential to making the connection between the iron ore, coal, and product transport. Note that we're not in New England- and actually New England underwent a population drain at about this time due to people moving to the midwest. For your information, Michigan was considered part of the Northwest frontier as late as the latter part of the 19th century. New England never had the scale of industry that was established in the midwest- and this is what you have in mind with your reference to industrial development and the "remarkable benefits of the Industrial Revolution..." in America. .

>
>
> I'd call that a definite plus, but then I'm not a psycho.

Maybe not- but you are not well versed in American history...

>
>
> : BTW- most of that ornamentation that you consider indicative of the designer's
> : pride was pure popular glitz of the time- looks like something created by an
> : opium user with severe lead poisoning. The engineering profession was not held
> : in high regard in those days- the last thing allowed would be individual
> : expression of any kind- so you're wildly off the mark there, boyo.
>
> Not even a clue! ;-)
>
> Indeed, the designers/craftsmen of that day had infinitely more creative
> freedom than do the narrow skill set armies of todays professionals
> who daily toil in the grand bland environment of their rat maze style
> working facilities. Indeed, the mental health hazards created by
> this environment rival the physical health problems created by the
> worst physical health working environments that existed at the turn
> of the century. In fact, when you total today's deaths due to
> stress related conditions including suicides, it rivals those due
> to direct physical causes at the turn of the century.

Oh- I just don't believe that!...You would have to supply documentation ...and learn something about normalization of statistical variables.

>
>
> Why do you think it is that many of today's professionals are driven
> to pursue a "more simplified lifestyle" after spending as little as
> 10-years working within one of today's "ideal" organizations?
>
> Harry C.

Because many of these people were not fit for the professions to begin with.

2133. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 17:17:05 UTC
From: la8ak@online.no
Message-ID: <3acba79c.27342395@news.online.no>
Source record: 53628
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

On Wed, 04 Apr 2001 20:43:25 GMT, "Michael A. Terrell"
<michaelaterrell@netscape.net> wrote:

>The IF's are at 70 Mhz, and up to 20 Mhz wide. It's in top of the line
>telemetry equipment that you wouldn't understand. And in Telemetry you
>use either 20, or 70 Mhz IF's so the signal can be recorded on wide band
>logging equipment.
>
>OUR CUSTOMERS WOULD LAUGH IF WE OFFERED RECEIVERS WITH A 21.4 Mhz IF!
>
Just curious, which IF bandwidth do you achieve around 20MHz?

JM

2134. Rotron Feather Fan WTB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 20:07:23 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3ACCD07B.2069B55B@iquest.net>
Source record: 53630

Looking for a couple of the FF113 round fans.

If you've got 'em please email a price and location.

thanks

Patrick

2135. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 20:31:02 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ACCD606.8E4C732D@toast.net>
Source record: 53631
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Harry H Conover wrote:

> Jackson Harvey (harv0077@tc.umn.edu) wrote:
> : Harry H Conover wrote:
> :
> : > Sadly, it appears the technology with which we are familiar can
> : > be characterized as producing ONLY high-performance, low-quality,
> : > short-lived, throw-away specialty items.
> :
> : That is economically sound, for any technology that changes rapidly. As you
> : mention, infrastructure technology changes less slowly, and should be built
> : to last longer, but even that is changing relatively rapidly (on the order
> : of decades rather than centuries).
>
> On that point I have to take serious conceptual disagreement. It
> is not economically sound when fuctionality requirements are outpaced
> by the availability of new technology. New technology is not always
> particularly useful, as we are currently seeing in the PC marketplace.
>
> For example, except as toys and novelties, there are no broad-base
> requirments for 1,000-MHz computers. In fact, a 200-MHz Pentium
> Pro system provides vast overkill for most real computing and
> communications requirements. Also, were it not for the gross
> designed-in inefficiency of the software currently produced for
> common business application, it would be difficult to justify
> demand for even a 200-MHz machine.
>
> Don't read me the wrong way, because 800-1,000 MHz systems are
> wonderful for playing fast-paced, graphically intensive games,
> but other than that only a negligibly small niche market in
> science and engineering design requires performance at this
> level. Still, for the vast majority of real applications (such
> as word processors, spreadsheets, information retrivial, and
> general purpose computing), things that would be seriously
> impacted were the technology not available, is becomes difficult
> to rationalize a need for much beyond 100-MHz system performance.
>

It has always been claimed that the leading edge of computing is unnecessary for ordinary applications, and it's always been true for a few months. The applications have always expanded to use the speed and memory capacity available. While it is true that with a great effort, much business software could be compressed by a large factor, the cheapening of hardware speed and capacity makes

that uneconomical. As to the need for higher speed graphics and floating point computation, imagine a computer that would produce a screen projection of a three-dimensional antenna radiation pattern in good quality graphics, where you could grab and stretch the antenna wire with the mouse and have the displayed pattern adjust immediately to show the effect of the adjustment? I think that would take more than present-day capability, but it would sure be handy, and I think it will be possible some day.

john

2136. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 20:42:19 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ACCD8F6.9340A91F@netscape.net>
Source record: 53632
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

J M Noeding wrote:
>
> On Wed, 04 Apr 2001 20:43:25 GMT, "Michael A. Terrell"
> <michaelaterrell@netscape.net> wrote:
>
> >The IF's are at 70 Mhz, and up to 20 Mhz wide. It's in top of the line
> >telemetry equipment that you wouldn't understand. And in Telemetry you
> >use either 20, or 70 Mhz IF's so the signal can be recorded on wide band
> >logging equipment.
> >
> >OUR CUSTOMERS WOULD LAUGH IF WE OFFERED RECEIVERS WITH A 21.4 Mhz IF!
> >
> Just curious, which IF bandwidth do you achieve around 20MHz?
>
> JM

I believe the max is either 4 or 6 Mhz. I rarely work with our narrow band equipment. I usually work with the new DSP based 70 Mhz equipment with up to 20 Mhz bandwidth, max. The analog models have eight selectable IF's, and some can have an external eight more in an accessory housing, as well as a Spectrum Display Unit to see the whole IF at a glance. I'll check on the 20 Mhz units to give you a better answer tomorrow at the plant.

2137. Re: neutralizing capacitor - two discs with adjustable spacing - some hope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 22:27:15 UTC
From: Dan Barlow <danbarlow@radix.net>
Message-ID: <3ACCF143.92F995F1@radix.net>
Source record: 53634
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Win Hill wrote:

> Exactly, and indeed both Paul and I have had some very
> nice air capacitors made in the machine shop, however
> the original item, complete with the threaded ceramic
> standoff, is very much to be preferred for a teaching
> tool. Consider, the elegant engineering and earnest
> craftsmanship of that early great old era can live on,
> newly minted, by becoming ingrained into the new mind
> of a young Harvard student, plus all the students from
> other schools who come to Cambridge to take Physics 123
> each summertime.
>
> So someone, please, let's find one of those old beauties
> for the cause. And for the Bud. Ribbit.

Please attempt to contact Dr. W. Thomas Joyner,
Elliot Professor of Physics and Astronomy
Office: Gilmer 009 Phone: (804) 223-6176
Hampden-Sydney College, Hampden-Syndey, VA, USA.
http://www.hsc.edu/
mailto:tjoyner@tiger.edu

When I was a student there, the attic of the science building
contained a beautiful set of such demonstrator equipment, some
of it hand created by a professor in the late 1800s. There
was a large glass disc, glass column-with-sphere-and-tube
transmission lines, and hand blown gas discharge tubes with
uranium glass. I regret I no longer remember if the specific
item you are looking for was there.

None of this equipment had been used recently and the College
may well be happy to place it on long term loan.
-Dan Barlow

P.S. I was taught from your book and found (and continue to find)
it an excellent work. Thanks very much!

2138. Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-05 23:30:42 UTC
From: "Stephen P. Johnson" <stephen.p.johnson@worldnet.att.net>
Message-ID: <Ce7z6.12293$RF1.819836@bgtnsc06-news.ops.worldnet.att.net>
Source record: 53635
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

I am trying to get my ICOM 706 Mk2 G ham radio running
in my new 2001 VW Passat. I am hearing a lot of digi-noise
and S9 birdies every 19.5 KHz through all of the HF
bands. All of the grunge is coming in through the
antenna, not the power leads. I spoke with VW corporate
and they told me to talk to my dealer. The dealer told me to go to Radio
Shack. The dealer said VW is not selling shop manuals for the
2001 Passat, so I don't have much to go on.

Wonder is anyone has tried operating a ham radio in a VW
Passat and knows how to deal with all the noise!

Steve Johnson, N2FT

2139. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 00:45:25 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3acd1195$1_1@newsa.ev1.net>
Source record: 53636

If you can use an MFJ SWR analyzer, it will save a lot of wear-n-tear on your rig, and not make a bunch of QRM, and you will get a good match, quicker.

JWheeler <kd5bcu at sydcom dot net> wrote in message news:3acbd982_3@corp.newsfeeds.com...
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40 now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2140. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 01:48:58 UTC
From: Spurious@StarBand.net
Message-ID: <Xns907ABFDB13F66Frog207Junocom@148.78.248.76>
Source record: 53637
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

>
>Wonder is anyone has tried operating a ham radio in a VW
>Passat and knows how to deal with all the noise!
>

Well, that's a generic problem. Lots of vehicles generate noise. Best
way to track it down is to start removing fuses from the fuse blocks, one
by one until the noise goes away. Once you have identified a particular
fuse circuit as the cause you can start troubleshooting the devices on that
circuit.

Ed

2141. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 07:27:12 UTC
From: Bill Sloman <bill.sloman@ieee.org>
Message-ID: <986542146.512720@SLIPstream>
Source record: 53638
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Harry H Conover <conover@tiac.net> wrote in message
news:9ahshr$sin@news-central.tiac.net...
> Robert (romapa@earthlink.net) wrote:

<snip>

> Indeed, the designers/craftsmen of that day had infinitely more
creative
> freedom than do the narrow skill set armies of todays professionals
> who daily toil in the grand bland environment of their rat maze
style
> working facilities. Indeed, the mental health hazards created by
> this environment rival the physical health problems created by the
> worst physical health working environments that existed at the turn
> of the century.

Since the expectation of life is now a whole lot longer than it was
then, this claim seems difficult to justify. The physical hazards of
bad food, unheated housing and work-shops, foul air and dirty
drinking water would seem to be much more lethal than today's mental
health hazards.

> In fact, when you total today's deaths due to
> stress related conditions including suicides, it rivals those due
> to direct physical causes at the turn of the century.

"Deaths due to direct physical causes" presumably does not include
those resulting from direct infection by tuberculosis, cholera or
typhus - a slightly idiosyncratic interpretation of "physical cause".

> Why do you think it is that many of today's professionals are driven
> to pursue a "more simplified lifestyle" after spending as little as
> 10-years working within one of today's "ideal" organizations?

They aren't "driven to pursue a 'more simplified lifestyle'" - they
are paid so much that they can save enough to make this a possible
choice. Your endlessly creative ancestors didn't have this sort of
disposable income, so they could not make this particular choice - it
was "root hog, or starve".

Bill Sloman, Nijmegen

2142. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 11:47:15 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9akac2$d1f$1@dipsy.missouri.edu>
Source record: 53639
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Wow! When did this newsgroup become one of semantics and philosophy? I subscribed to learn about design, help others with design, and simply have something enjoyable to read. All this junk about quality and craftsmanship is just a little troubling. And to think all this started over a professor's request for something not normally found...
Pete

Harry H Conover <conover@tiac.net> wrote in message news:9ahshr$sin@news-central.tiac.net...
> Robert (romapa@earthlink.net) wrote:
> :
> :
> :
> :
> : > Harry H Conover wrote...
> : > > : > Consider, the elegant engineering and earnest
> : > > : > craftsmanship of that early great old era can live on,
> : > > : Oh puuuuuullllllease!!! Does the thing stand on clawed feet and maybe a
> : > > : little lion's head etc...
> : > > Whatsamatta Psycho, you don't like products that have a useful life
> : > > of more than two or three years. Is that because your personal skill
> : > > set is incapable of producing an innovative product having a useful
> : > > service life of over one-hundred years, as many of those products
> : > > with the claw feet, artistic scrolls, and gold-leaf trim have?
> :
> : You're talking about products from a time that can't be put far enough in the
> : past fast enough. These products were manufactured by slave labor working 6/14
> : at poverty level wages. These people worked and lived with dismal and
> : unhealthy conditions. The average lifespan - even in the US- barely broke into
> : the 40's- and this into the early part of the 20th century. This stuff about
> : "elegant engineering" and "earnest craftsmanship" is nearly a psychotic
> : hallucination. I don't call using 10-100 times the material required
> : engineering of any kind. So if we stick a manimal symbol on it- you would
> : consider the 4000 pound cast iron 1/8th HP engine running on crude oil to
> : power your car? I've seen your wretched New England mill towns- and

thought I
> : was in hell- these places stand as a monument to wicked manipulation of
> : resource for personal gain- they killed people and nature with reckless
> : abandon. Now take a look at that hysterical excuse of post and ask
yourself
> : who the real psycho is here.
>
> Actually, anyone but a psycho realizes it was those wretched New England
> mill towns that brought the remarkable benefits of the Industrial
> Revolution to America. Without these, most Americans would be limited
> in both productivity and lifestyle to the fruits of their strenuous,
> manual labor.
>
> I'd call that a definite plus, but then I'm not a psycho.
>
> : BTW- most of that ornamentation that you consider indicative of the
designer's
> : pride was pure popular glitz of the time- looks like something created
by an
> : opium user with severe lead poisoning. The engineering profession was
not held
> : in high regard in those days- the last thing allowed would be individual
> : expression of any kind- so you're wildly off the mark there, boyo.
>
> Not even a clue! ;-)
>
> Indeed, the designers/craftsmen of that day had infinitely more creative
> freedom than do the narrow skill set armies of todays professionals
> who daily toil in the grand bland environment of their rat maze style
> working facilities. Indeed, the mental health hazards created by
> this environment rival the physical health problems created by the
> worst physical health working environments that existed at the turn
> of the century. In fact, when you total today's deaths due to
> stress related conditions including suicides, it rivals those due
> to direct physical causes at the turn of the century.
>
> Why do you think it is that many of today's professionals are driven
> to pursue a "more simplified lifestyle" after spending as little as
> 10-years working within one of today's "ideal" organizations?
>
>
> Harry C.
>
>

2143. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 13:52:59 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <3ACDCA3B.26DFCE0A@austininstruments.com>
Source record: 53640
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Bojangle Chicken wrote:
>
> Wow! When did this newsgroup become one of semantics and philosophy?

It nearly always has been, and if you hang around for a while you'll be
able to extrapolate backwards and see the big bang and determine when
the first philosophical and semantics posts occurred.

> I subscribed to learn about design, help others with design, and simply have
> something enjoyable to read.

So, if it's not enjoyable, go bye-bye.

> All this junk about quality and craftsmanship
> is just a little troubling.

Methinks I hear an off-topic opinion being proferred by a professed
non-supporter of off-topic posts. How curiously dichotomous!

>And to think all this started over a
> professor's request for something not normally found...

My, my, my... How out of the ordinary!

To email, please add "nospam" to the end of the subject text.

John Fields, Austin Instruments, Inc.
El Presidente Austin, Republic of Texas
"I speak for my company" http://www.austininstruments.com

2144. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 13:55:22 UTC
From: John Fields <jfields@austininstruments.com>
Message-ID: <3ACDCACA.66DA2EC0@austininstruments.com>
Source record: 53641
Cross-posted to:
sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.swap

Rev Jim wrote:

> As I sit here with my 75A2 and Globe Chief 90 I feel sorry for all of you
> with the old stuff.

Yeah, I'm thinking about trading in my Super Skyrider...

To email, please add "nospam" to the end of the subject text.

John Fields, Austin Instruments, Inc.
El Presidente Austin, Republic of Texas
"I speak for my company" http://www.austininstruments.com

2145. Do you enjoy doing calculations ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 14:33:31 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9akjvskmo1@uranium.btinternet.com>
Source record: 53642

New program RXZCALC.exe

PARALLEL & SERIES EQUIVALENT CIRCUITS
==========

For given frequency in MHz this calculating utility will tell you -

L uH which resonates with given C pF and vice-versa.
Reactances of L uH and C pF.

Z magnitude of R and L in series or in parallel.
Z magnitude of R and C in series or in parallel.
Angle of Z

R and L, and R and C, for given Z and angle, either series or
parallel connected.

The basic calculation is as follows - For given values of Rs and
Xs in series, the program calculates the equivalent values of Rp
and Xp in parallel, for a value of Z common to both circuits. Xs
and Xp can be entered either as ohms or in terms of L uH or C pF.
All input and output data is displayed on the screen as an
internally consistent group.

Input and output data is in a form which facilitates step-by-step
network analysis. For example it is easy to calculate the input
impedance of a Pi-L network for a given terminating impedance R+jX
and given L uH, C pF component values. It is necessary for the user
to know what he is doing and not get lost.

Best to begin with sketching a circuit diagram on paper showing
component values. Impedances at various points can then be recorded
to be used later to calculate currents and voltages from input
through to output terminals. Will provide a sound understanding of
how a particular network functions. No more arguments about which
configuration of antenna tuner has least loss.

Download RXZCALC in a few seconds from website below. Only 50
kilobytes. Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

2146. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 14:40:27 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3ACDD55B.34199C79@netdoor.com>
Source record: 53643

My God George! You will scare him away from an almost simple project before he gets started!! He asked for help and you offer nothing but "complex impedance ranges at wh....". An Elmer would not do this.

Butch Magee KF5DE

"George, W5YR" wrote:

> What complex impedance ranges at what frequencies do you want to convert
> to, presumably, 50 ohms resistive?
>
> That is the starting point for any tuner design.
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
> Amateur Radio W5YR, in the 55th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
> JWheeler wrote:
> >
> > I want to build a tuner that will cover 80-10meters. I want to be able to
> > handle at least several hundred watts (I can only squeeze out about 40 now,
> > but I have goals to meet). What all do I need? Capacitors, inductors,
> > etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> > progress!
> >
> > JWheeler
> > kd5bcu

2147. Re: problems bldg 5wat qrp amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 14:56:46 UTC
From: geokf4ucc@yahoo.com
Message-ID: <3acdd47e.1088818@netnews.worldnet.att.net>
Source record: 53644

On Wed, 04 Apr 2001 20:54:33 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:
Bill,

thanks for your reply -- have been going back to basics and found that
i have a short somewhere -- the whole board is grounded and my
continuety checker dings when one lead is on ground and the other on
any component on the board including the jacks - have checked for
bridges - have cut off jacks (maybe they were shorted) cleaned flux
and took the screw out of the to220 thinking it might be the short xx
short is still there - I guess next will be to replace the surplus
transister and if that doesnt do it then I suspect one or two of the
overlaping winding of the toroids - perhaps someof the wires are bare
-- there is only about twenty components to this little amp. any how
thanks for your reply
>geokf4ucc@yahoo.com wrote:
>>
>> I'm building W1FBs QRP 5 wat amplifier and have finished the board and
>> am testing it but have big problem - I have used a fused 12V battary
>> with a 2.5 amp fuse and a power supply also fused for 2.5 amps and
>> am blowing the fuses (three times) each time I key and never get any
>> power meter response. anybody got a clue. Sometimes you cant see the
>> trees becouse of the woods--- thanks/
>
>Could have been one of the many same circuits that gave me grief
>in the past. What I've found from tinkering with SS amps is that
>following 'the plan' is very important. A stand alone board may
>not work until it is mounted in a box and properly matched and
>that type of thing.
>No doubt that it is taking off oscillating somewhere in the VHF
>unknown and once you get it tamed by rough alignment, it may well
>be ok, but equally as likely is that the transistor has already
>self-destructed.
>Something else that kept hitting me in the head like a hammer when
>I was experimenting with these things was that the 99 cent surplus
>transistors never behaved as well as the more-expensive name brand
>ones.
>Its "can't see the forest for the trees". Check the obvious
>connections and make sure you haven't made a wiring error, or made
>an unsuitable component substitution. Something indiscreet like a
>20-50pf trimmer where you used a 10-100pf trimmer can open the
>door to erratic operation.
>Good luck,
>---

>Bill Meacham WX4A
>Vieques, PR
>

2148. Re: neutralizing capacitor - two discs with adjustable spacing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 15:02:02 UTC
From: c_moss@bigfoot.com
Message-ID: <n82rctk0edas7turiqlct5vk9g9cocts5d@4ax.com>
Source record: 53645

It's amazing what a 2-disc neutralizing capacitor can bring out in
people these days :)

2149. Re: Do you enjoy doing calculations ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 15:10:38 UTC
From: c_moss@bigfoot.com
Message-ID: <m4nrctcp2e93adop1594pihu01v0akhqmv@4ax.com>
Source record: 53547

```
>New program RXZCALC.exe
>
>PARALLEL & SERIES EQUIVALENT CIRCUITS
>====================================
>
>Download RXZCALC in a few seconds from website below. Only 50
>kilobytes. Not zipped up. Run immediately.

Done
```

2150. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 15:11:31 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9akma8$7rd$1@slb7.atl.mindspring.net>
Source record: 53646
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

Sounds like the computer on board is the problem.

Possibly some line filters and beads?

Dan/W4NTI

"Stephen P. Johnson" <stephen.p.johnson@worldnet.att.net> wrote in message
news:Ce7z6.12293$RF1.819836@bgtnsc06-news.ops.worldnet.att.net...
> I am trying to get my ICOM 706 Mk2 G ham radio running
> in my new 2001 VW Passat. I am hearing a lot of digi-noise
> and S9 birdies every 19.5 KHz through all of the HF
> bands. All of the grunge is coming in through the
> antenna, not the power leads. I spoke with VW corporate
> and they told me to talk to my dealer. The dealer told me to go to Radio
> Shack. The dealer said VW is not selling shop manuals for the
> 2001 Passat, so I don't have much to go on.
>
> Wonder is anyone has tried operating a ham radio in a VW
> Passat and knows how to deal with all the noise!
>
> Steve Johnson, N2FT
>
>

2151. Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 16:52:33 UTC
From: aduffy@sprint.ca
Message-ID: <3ACDF450.512C3887@sprint.ca>
Source record: 53548
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi All,

Any one have an idea what % I should adjust the diameter of the loop to compensate for the effects of using 4.5" copper strips in place of 3/4" copper pipe in the main loop? And would it be advisable to construct the drive loop of the same material

---
73, Tony

VA3ATD, London, ON

2152. Re: neutralizing capacitor - two discs with adjustable spacing - some hope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 17:54:11 UTC
From: zateslo@quartz.gly.fsu.edu
Message-ID: <9akvs3uhu1@quartz.gly.fsu.edu>
Source record: 53549
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Win Hill wrote:
> So someone, please, let's find one of those old beauties
> for the cause. And for the Bud. Ribbit.

If an old Millen neutralizing cap doesn't appear, maybe you could
actually buy a brand-new one: Unadilla, the balun people,
seem to own the Millen tooling and rights, and claim to offer
the products. The Website is http://www.unadilla.com .

A note on the Website says that the owners are ready to retire
and would like to sell the Unadilla and Millen businesses to
somebody who would like to keep them going. So here's
a chance for somebody who loves the old stuff to keep it
alive. Don't know how big the market is for neutralizing caps, or
829B sockets, or all that lovely "Designed for Application" stuff we
used to drool over in the Handbook catalog pages...

Ted Zateslo, W1XO

2153. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 18:14:53 UTC
From: atkes@imap1.asu.edu
Message-ID: <9al12t$630$1@news.asu.edu>
Source record: 53550
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

aduffy@sprint.ca wrote:
: Hi All,

: Any one have an idea what % I should adjust the diameter of the loop to
: compensate for the effects of using 4.5" copper strips in place of 3/4"
: copper pipe in the main loop? And would it be advisable to construct the
: drive loop of the same material

: ---
: 73, Tony

I have an applet at http://fermi.la.asu.edu/w9cf/equiv/ that will
calculate the approximate equivalent diameter of a rectangular cross
section conductor. It has links to the theory if you want to do the
calculation yourself. You will have to measure the thickness as well
as the width of the copper strip. You can then either model it with an
antenna modeling code or, if the loop is small, use the inductance
formula for the shape of your loop.

73 Kevin w9cf

2154. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 20:13:31 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3ACE2334.8D917B15@netscape.net>
Source record: 53551
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space,alt.radio.uk

"Michael A. Terrell" wrote:
>
> J M Noeding wrote:
> >
> > On Wed, 04 Apr 2001 20:43:25 GMT, "Michael A. Terrell"
> > <michaelaterrell@netscape.net> wrote:
> >
> > >The IF's are at 70 Mhz, and up to 20 Mhz wide. It's in top of the line
> > >telemetry equipment that you wouldn't understand. And in Telemetry you
> > >use either 20, or 70 Mhz IF's so the signal can be recorded on wide band
> > >logging equipment.
> > >
> > >OUR CUSTOMERS WOULD LAUGH IF WE OFFERED RECEIVERS WITH A 21.4 Mhz IF!
> > >
> > Just curious, which IF bandwidth do you achieve around 20MHz?
> >
> > JM
>
> I believe the max is either 4 or 6 Mhz. I rarely work with our narrow
> band equipment. I usually work with the new DSP based 70 Mhz equipment
> with up to 20 Mhz bandwidth, max. The analog models have eight
> selectable IF's, and some can have an external eight more in an
> accessory housing, as well as a Spectrum Display Unit to see the whole
> IF at a glance. I'll check on the 20 Mhz units to give you a better
> answer tomorrow at the plant.

I checked with one of the techs on the IF line, and was told we now have
20 Mhz wide IF's at 20 Mhz center freq, and 40 Mhz wide IF's at 70 Mhz
center freq. That's the -3 Db points, and with a low ripple in the
bandpass.

2155. Re: Do you enjoy doing calculations ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 21:03:28 UTC
From: c_moss@bigfoot.com
Message-ID: <g8nrcto2ff5nbkgqknt1ouchb0v4te1uto@4ax.com>
Source record: 53552

Hi Reg.

>Download RXZCALC in a few seconds from website below. Only 50
>kilobytes. Not zipped up. Run immediately.

Don't suppose the source code is available at all ?

Always like to see the formula's for something i'm presently stuck
with.

Regards ... Clive

2156. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-06 22:47:15 UTC
From: cjX@hth.com
Message-ID: <3ace37e0.8508238@news.sverige.net>
Source record: 53553
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

2157. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 00:16:12 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9alm4b$r2k$1@plutonium.btinternet.com>
Source record: 53554
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Dear Tony of London, Ontario.

There are two diameters of consequence - the main loop diameter and the diameter of conductor forming the main loop. Let's not confuse the two.

It does not make sense to adjust the main loop diameter to compensate for any changes in loop conductor diameter.

The larger the diameter of the main magloop the more efficient it will be. Efficiency increases very rapidly with loop diameter. For a loop of given diameter it also increases very rapidly, and at the same rate, with frequency.

Slightly increasing the diameter of the main loop will result in a slightly smaller tuning capacitor setting for the same frequency. Think of the loop as an inductance - a one turn coil.

But changing the diameter only of the loop conductor will have an insignificant effect on tuning capacitance.

The larger the diameter of the main loop conductor the lower the loss resistance. Doubling its diameter halves the power loss for the same current. So a larger diameter loop conductor results in a desirable improvement in radiatiating efficiency with a neglible change in the required tuning capacitance for the same frequency (which is of little consequence anyway).

Varying the overall diameter of the coupling loop only has the same effect as varying the inductance or capacitance in an ordinary antenna tuner. It is just a part of the impedance matching arrangements to a 50-ohm transmitter. The conductor diameter of the coupling loop need be no greater than the inner conductor of the coax cable which feeds it. Just looking at it is enough to convince anybody that the current in the coupling loop is the same as in the inner coaxial wire. The coupling loop can be constructed of a length of wire thick enough to be self-supporting. Only its length or overall diameter is of consequence. Then forget about it !

Download program MAGLOOP4. It will tell you everything electrically you need to know about magloops. It models tuned loops with circumferences up to 1/2-wavelength at which length the tuning capacitor falls to zero pF.

AT RF, THE EQUIVALENT DIAMETER OF A THIN STRIP OF COPPER IS HALF OF ITS WIDTH. Just enter that value in program MAGLOOP4. Download in a few seconds. Not zipped up. Run immediately. User friendly.

The program will show you the modest improvement in signal strength to be gained by using a 4.5 inch wide copper strip in place of a 3/4" copper pipe. The strip is equivalent to a 2" diameter pipe but will be much less mechanically stable than a pipe of that diameter.

Important:- unless the loop is kept well above ground to reduce ground-induced loss, the full benefit of changing from thin tube to wide strip will not be realised. Program MAGLOOP4 will also show you that.

'Tis a fact, a magloop is the most efficient of all antennas when it has to confined to a small space not too near the ground.

But no doubt you will gain more satisfaction by doing your own experiments.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****
Tony asked -
>
> Any one have an idea what % I should adjust the diameter of the loop to
> compensate for the effects of using 4.5" copper strips in place of 3/4"
> copper pipe in the main loop? And would it be advisable to construct the
> drive loop of the same material

2158. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 00:44:38 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3ACE62B4.F1216777@att.net>
Source record: 53555

An Elmer who wants his student to learn something would do exactly that.

He seemed focussed on what bands and how much power. Deciding on these is part of the solution but only part. Clearly, he didn't seem to understand what the tuner was going to do, so I was attempting in Socratic fashion to steer him towards the Handbook and the Antenna Book so at least become familiar with what the tuner is doing and to some extent, how.

How do you design a tuner without knowing the range of impedances that you are attempting to transform? As I told him privately, you can hook up some parts and see what it will do, or you can go about it from the other end.

I privately advised him to look at inexpensive low-power tuners to get started and be on the air while learning his way around the technical side.

For the record, a tuner may *appear* to be a simple project, based upon number of components, but how many emails do you read about tuner problems? Hardly simple, Butch . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Butch Magee wrote:
>
> My God George! You will scare him away from an almost simple project before he
> gets started!! He asked for help and you offer nothing but "complex impedance
> ranges at wh....". An Elmer would not do this.
>
> Butch Magee KF5DE
>
> "George, W5YR" wrote:
>
> > What complex impedance ranges at what frequencies do you want to convert
> > to, presumably, 50 ohms resistive?
> >
> > That is the starting point for any tuner design.

2159. Re: neutralizing capacitor - two discs with adjustable spacing - some hope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 00:45:59 UTC
From: "Watson A.Name" <NOSPAM@postoffice.pacbell.net>
Message-ID: <3ACE6347.9CF82B3C@postoffice.pacbell.net>
Source record: 53556
Cross-posted to: sci.electronics.design,sci.electronics.components,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Ted Zateslo wrote:
>
> Win Hill wrote:
> > So someone, please, let's find one of those old beauties
> > for the cause. And for the Bud. Ribbit.
>
> If an old Millen neutralizing cap doesn't appear, maybe you could
> actually buy a brand-new one: Unadilla, the balun people,
> seem to own the Millen tooling and rights, and claim to offer
> the products. The Website is http://www.unadilla.com .
>
> A note on the Website says that the owners are ready to retire
> and would like to sell the Unadilla and Millen businesses to
> somebody who would like to keep them going. So here's
> a chance for somebody who loves the old stuff to keep it
> alive. Don't know how big the market is for neutralizing caps, or
> 829B sockets, or all that lovely "Designed for Application" stuff we
> used to drool over in the Handbook catalog pages...
>
> Ted Zateslo, W1XO

I used a Millen GDO when I was a kid. I saw some coils for one
somewhere recently on the net. Whoever had them didn't know what they
were for.

--
@@@@@T@h@e@@i@n@t@e@r@n@e@t@@w@a@s@@c@o@o@l@@u@n@t@i@l@@@@@
My email address is whitelisted. *All* email sent to it
goes directly to the trash unless I put your email address
on my 'accepted' list. alondra101 <at> hotmail.com
@@@@@e@v@e@r@y@o@n@e@@f@o@u@n@d@@o@u@t@@a@b@o@u@t@@i@t@@@@@
Don't be ripped off by the big book dealers. Go to the URL
that will give you a choice and save you money(up to half).
http://www.everybookstore.com You'll be glad you did!

2160. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 00:51:34 UTC
From: Cortland Richmond <Cortland.Richmond@usa.alcatel.com>
Message-ID: <3ACE6496.7C3809B@usa.alcatel.com>
Source record: 53557
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Reg Edwards wrote:

> 'Tis a fact, a magloop is the most efficient of all antennas when it
> has to confined to a small space not too near the ground.

Johnson and Jasik (if I recall correctly) mention an efficient, small loop antenna formed of metal .02 wavelength across into a loop .02 wavelength in diameter. Resonance is achieved by turning the ends of the sheet so they are parallel to each other and act as a capacitor.

I haven't tried it, but it might be an interesting evening project. If I have remembered the dimensions properly, a ten meter loop could fit in a 8 inch cube. That's why I doubt my memory is correct; it sounds far too good to be true!

Cortland
ka5s

2161. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 01:07:02 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3ACE691A.59D6@pop.removethistomailme.net>
Source record: 53558

George, W5YR wrote:
>
>How do you design a tuner without knowing the range of
>impedances that you are attempting to transform?

Do what most people do, and throw a pair of baloney slicers and a big honking roller inductor at the problem?

Really, this stuff isn't rocket science. Unless you have an HP8505A in your shack, you probably don't have any idea of the range of complex impedances your antenna exhibits across the bands. Sure, he could use some coaching in the basics, but the answer to the practical questions he asked are likely to be the same regardless of how the numbers work out.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2162. How to build a Signal Generator?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 05:58:36 UTC
From: dlb <dlbarnhart@ixpres.com>
Message-ID: <3aceba8f_2@news.vic.com>
Source record: 53559

Could someone point me to a link/book with some basic schematics to build my own signal generator? I need to build a s.g. that will function at 455/600/1000/1600/&1650kc.

I need a signal generator to align a Gonset receiver I was just given.

Thanks
dlbarnhart
@ixpres.com

2163. WTB V70D Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 08:06:42 UTC
From: "Jeffrey J. May" <jeffreymay@worldnet.att.net>
Message-ID: <mUzz6.11550$IJ1.985239@bgtnsc05-news.ops.worldnet.att.net>
Source record: 53560

Need 2 for Globe King 400A..thanks..Jeff..W0XV

2164. Re: Do you enjoy doing calculations ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 12:05:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9an137evq1@neptunium.btinternet.com>
Source record: 53562

Hi Clive, if you read the few pages of notes which form part of the
program you will find all the arithmetic formulae used by the
program. They can also be found in any elementary book on AC
circuit theory. The program makes the job of using the formulae
less tedious than a pocket calculator. But you still have to know
what its all about.

So why would you *really* like to wade through the 50 kilobytes of
source code ?

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

<c_moss@bigfoot.com> wrote in message
news:g8nrcto2ff5nbkgqknt1ouchb0v4te1uto@4ax.com...
>
> Hi Reg.
>
> >Download RXZCALC in a few seconds from website below. Only 50
> >kilobytes. Not zipped up. Run immediately.
>
> Don't suppose the source code is available at all ?
>
> Always like to see the formula's for something i'm presently
stuck
> with.
>
> Regards ... Clive
>

2165. Re: How to build a Signal Generator?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 12:11:50 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3ACF0406.3CED0E7F@coqui.net>
Source record: 53561

dlb wrote:
>
> Could someone point me to a link/book with some basic schematics to build my
> own signal generator? I need to build a s.g. that will function at
> 455/600/1000/1600/&1650kc.
>
> I need a signal generator to align a Gonset receiver I was just given.
>
> Thanks
> dlbarnhart
> @ixpres.com

I'm all for homebrewing, but if you want to save some time and
money, old sig gens can be had for $10-20 on ebay or at flea
markets.

Bill Meacham WX4A
Vieques, PR

2166. FS RCA 1625 TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 13:26:19 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3ACF157B.F6DC2F80@bellsouth.net>
Source record: 53563
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

I have 9- 1625 tubes all test good full output.

email with b/o
chris ni4l

2167. Re: FS RCA 1625 TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 15:11:17 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <sdbuct4go8pdgot5tc02rhv2ucd60klh96@4ax.com>
Source record: 53565
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

fox <cfox007@bellsouth.net>
shared these priceless pearls of wisdom:

->I have 9- 1625 tubes all test good full output.
->
->email with b/o

b/o? Anybody on here got b/o? Not me, I took my shower this morning.

Why play games? Tell us what you want for them and if we think they are worth it, we'll call you. If you don't get any answers, drop it down next week.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

2168. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 16:05:59 UTC
From: DJ6JZ <DJ6JZ@compuserve.de>
Message-ID: <3acf470e_2@news.arcor-ip.de>
Source record: 53564

Give http://www.radio-portal.org a try.
Click on "Starter's Info" and choose one of the 34 radio related categories,
to find FAQs, Starter's Guides and Explanations.

Regards,
Willi

JWheeler <kd5bcu at sydcom dot net> schrieb in im Newsbeitrag:
3acbd982_3@corp.newsfeeds.com...
> I want to build a tuner that will cover 80-10meters. I want to be able to
> handle at least several hundred watts (I can only squeeze out about 40
now,
> but I have goals to meet). What all do I need? Capacitors, inductors,
> etc... it doesn't make a whole lot of sense to me... YET! I'm a work in
> progress!
>
> JWheeler
> kd5bcu

2169. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 16:34:40 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9anfk9025n5@news2.newsguy.com>
Source record: 53566

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message news:3ACE691A.59D6@pop.removethistomailme.net...
> Really, this stuff isn't rocket science. Unless you have an HP8505A in
> your shack, you probably don't have any idea of the range of complex
> impedances your antenna exhibits across the bands.

I think most people can make a reasonable judgement based on what the antenna is and what bands are of interest. Sure, you're not going to know exactly, but you can get close enough. Better yet, you can grab a copy of NEC off the net and model the antenna. Again, you need to understand that the antenna will be affected by real world interferences, but you can certainly get close enough to come up with a tuner without resorting to expensive equipment.

Most of us tend to forget that a lot of the basics are within our reach without complex gear. Sure, a fancy piece of equipment makes it easier, but understanding is a lot more satisfying.

didleydadidah

2170. MUST SELL 8877 EIMAC CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-07 23:46:42 UTC
From: kf4toh@aol.com
Message-ID: <20010407194642.18673.00002135@ng-ce1.aol.com>
Source record: 53567

FULL OUTPUT 8877 BY EIMAC
MY PLANS CHANGED GOING BACK TO GLASS TUBES
THIS TUBE HAS BEEN TESTED TO FULL POWER
100% PICS IF NEEDED

FAST SELL AT $300.00

2171. WTB: SB-110A + PS OR swan 350c

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 01:07:43 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <zROz6.14092$rk4.1025475@bgtnsc04-news.ops.worldnet.att.net>
Source record: 53568

Looking for 6 meter transceiver. State price and condition-- no junk pse
WS0E

2172. Dentron MLA2500 Modification for screen voltage on 4CX400/4CX800

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 02:28:55 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <3acfc971@flexnet239.uunt.net>
Source record: 53569

I am still in the process of trying to decide on how to use my newly acquired
MLA2500. I bought it without tubes. I am still looking for the details on the 4CX800 mod that was done in the past. I think it was in QST. I think
I have someone sending me a copy. Anyway, it seems to me that I have the following options:

3CX400A7 (Eimac or Svetlana) both brands expensive.
4CX400 Svetlana - I have a copy of the mod for this.
4CX800 Svetlana - no details yet.

I have not seen any 8875 or 3CX400A7 tubes that were within my budget. The 4CX400 and 4CX800 are. I could leave the amp as is, if I could find 8875's.

But in the meanwhile I have been thinking of ways to come up with screen voltage
for the 4CX mods. I could put a transformer in the box if I could find a place
to put it. I could use a string of several zener diodes off of the plate supply. I could
use the G2DAF (rf rectification method) I have seen a few places. Since I operate
almost exclusively CW, IMD is not too much of a concern within reason of course.
It seems to me that the G2DAF method would possibly be the best way to go, since
the space is so tight in the amplifier.

Any thoughts out there ?

Doug N4IJ

2173. Transistor Choices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 05:08:42 UTC
From: Jeff Barnhouse <jeff_barnhouse@hotmail.com>
Message-ID: <unSz6.600$hr6.201367@typhoon.hawaii.rr.com>
Source record: 53570

Hey all,
I'm sorry to ask this question, as I saw a post on it a couple of months ago and ended up purging it, but if you had to choose around 20 to 50 general components for amateur radio use, what would they be? I am mostly interested in transistors, but if you can think of other useful items, I would appreciate them also. I appreciate your help, and thanks for your patience!

Best of wishes,
Jeff Barnhouse

2174. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 09:13:00 UTC
From: 2w8ji@akorn.net
Message-ID: <3ad02adb.732079261@news.accessunited.com>
Source record: 53571
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 06 Apr 2001 17:51:34 -0700, Cortland Richmond
<Cortland.Richmond@usa.alcatel.com> wrote:

>Reg Edwards wrote:
>
>> 'Tis a fact, a magloop is the most efficient of all antennas when it
>> has to confined to a small space not too near the ground.
>
>Johnson and Jasik (if I recall correctly) mention an efficient, small
>loop antenna formed of metal .02 wavelength across into a loop .02
>wavelength in diameter. Resonance is achieved by turning the ends of the
>sheet so they are parallel to each other and act as a capacitor.
>
>I haven't tried it, but it might be an interesting evening project. If I
>have remembered the dimensions properly, a ten meter loop could fit in a
>8 inch cube. That's why I doubt my memory is correct; it sounds far too
>good to be true!

Small loops are NEVER as efficient as people postulate because there
are many sources of losses that are ignored, and the radiation
resistance is so low.

Connections are critical, and the capacitor design is critical. So is
conductor loss.

Unless the antenna is jammed up against lossy ground or used on
multile bands, you are often much better off with a short dipole.

73 Tom

2175. Re: Dentron MLA2500 Modification for screen voltage on 4CX400/4CX800

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 09:20:26 UTC
From: 2w8ji@akorn.net
Message-ID: <3ad02bde.732338570@news.accessunited.com>
Source record: 53572

On Sat, 7 Apr 2001 22:28:55 -0400, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>But in the meanwhile I have been thinking of ways to come up with screen
>voltage
>for the 4CX mods. I could put a transformer in the box if I could find a
>place
>to put it. I could use a string of several zener diodes off of the plate
>supply. I could
>use the G2DAF (rf rectification method) I have seen a few places. Since I
>operate
>almost exclusively CW, IMD is not too much of a concern within reason of
>course.
>It seems to me that the G2DAF method would possibly be the best way to go,
>since
>the space is so tight in the amplifier.
>
>Any thoughts out there ?
>
>Doug N4IJ

The G2DAF ciruit is mostly bunk. It has poor IMD, and doesn't really
greatly increase gain.

A few people report good results (NEVER with actual three tone
testing) while others who do actually test report poor IMD.

Whatever you do for the screen, it needs voltage regulated. The
circuit Svetlana offered had very poor regulation. People at Svetlana,
for some reason, felt differently than the rest of the engineering
world. They felt screen regulation was not important.

The "design" they had for a MLA mod also made the tubes far too easy
to drive.

You NEVER want to run your exciter at anything but very close to the
design output power. Most rigs get more dirty below that level.

73 Tom

2176. Purpose of the heater in YIG oscillators

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 10:24:30 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <9apef2$4sf$03$1@news.t-online.com>
Source record: 53573

Hi

what is the purpose of the heater found in many YIG oscillators? Just minimizing the temperature drift of the frequency?

Peter

2177. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 12:37:44 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9apluj$e6q$1@plutonium.btinternet.com>
Source record: 53574
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Tom wrote -
> Small loops are NEVER as efficient as people postulate because
there
> are many sources of losses that are ignored, and the radiation
> resistance is so low.
>
> Connections are critical, and the capacitor design is critical.
So is
> conductor loss.
==========
In addition to conductor, capacitor and ground proximity losses,
what are the other many sources you refer to ?

Reg.

2178. Re: Transistor Choices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 14:01:48 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9apr7t0f3v@news1.newsguy.com>
Source record: 53576

"Jeff Barnhouse" <jeff_barnhouse@hotmail.com> wrote in message
news:unSz6.600$hr6.201367@typhoon.hawaii.rr.com...
> Hey all,
> if you had to choose around 20 to 50 general components for
> amateur radio use, what would they be?

Well, as always, it depends <g>. Do you do mostly VHF, UHF, or HF? Just how comfortable are you with digital logic? What sorts of things do you tend to do?

Let me share what I tend to stock, mostly for HF experimentation.

Obviously, you need a full set of resistors, 1/4 or 1/8 watt work for 99% of situations. I keep a few of all 10% values and when I see a deal on 100 or 200 of common values I'll grab it. radioshack.com has resistors for a penny a piece in 100's, so at least pick up a bunch of 1K, 4.7K, 10K. Amazing how much you use those.

Caps are a bit more expensive, so a complete set isn't really feasible. I get what I can get cheap, but also try to keep a good range of silver micas because they are hard to get when you need them. I keep a big pile of 0.1 and 0.01 monolithics, then try to have a few on hand of a well-distributed set of values. Again, when I see a deal I grab it.

Inductors are a bit more of a problem. I keep a handful of popular values, then a good stock of toroids to make what else I may need. I keep quite a few -2's and -6's in 37 and 50 sizes, as well as quite a pile of FT37-43's for transformers. I keep a small number of FT37-67's, FT37-61's, and T50-7's as well. Speaking of transformers, it doesn't hurt to have a couple of 1000/8 ohm audio output transformers laying around. Again, you can often get deals on these things, so it's good to keep your eyes open.

You gotta have a few SA602 or 612's on hand. A selection of op amps doesn't hurt, either. A few LM380 and/or LM386's are a good thing, too.

Of course, a big pile of 78L05's, along with some 78L12's and a few other voltages. A couple of the 7805's for those LCD's with power hungry backlights is helpful, too.

You always need a big pile of 1N4148's. A bunch of 1N4001's is a good thing, too. A variety of Zeners can come in handy. And of course, you need at least a few MV2115's and MVAM109's. Again, other types as I see a deal.

I try to keep 4-6 16F84's on hand. These things are amazingly versatile but you gotta think different. Also, I keep a few of those teeny crystals (I think it's a C-3 case) in 4, 10 and 20 MHz. I grab any LCD with a Hitachi controller that I can get cheap.

Now to your original question about transistors. I keep a big pile of 2N2222's - these things are as cheap as sand an amazingly versatile. I also have a few 2N3904 and 3906's. A couple of MPF102's, J310's and 2N7000's for the FET end. The PA of any rig seems a bit of a problem. I'm not sure there's a real winner, but the commonly used PA transistors like the 2SC1969 seem hard to get.

Of course, you gotta have a good supply of 74xx parts. Lots of folks like 40xx parts instead. I just never got all that comfortable with them. I guess they are a little more versatile, but the 74xx things seem indestructable <g>

didleydadidah

2179. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 14:14:39 UTC
From: 2w8ji@akorn.net
Message-ID: <3ad071ae.750212675@news.accessunited.com>
Source record: 53575
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Sun, 8 Apr 2001 13:37:44 +0100, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Tom wrote -
>> Small loops are NEVER as efficient as people postulate because
>there
>> are many sources of losses that are ignored, and the radiation
>> resistance is so low.
>>
>> Connections are critical, and the capacitor design is critical.
>So is
>> conductor loss.
>==========================
>In addition to conductor, capacitor and ground proximity losses,
>what are the other many sources you refer to ?
>----
>Reg.

Connections are a major source of loss, and you still can not ignore
what goes on in media around the loop.

2180. Wanted: 11uH roller inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 15:01:38 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <td0vaps083mcc8@corp.supernews.com>
Source record: 53577

Wanted: one roller inductor like the Johnson 229-201 11uH or the Cardwell?
exact equivalent.
Thanks
Bob
KB8TL@yahoo.com

2181. Re: Transistor Choices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 16:15:23 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <v80A6.32992$Q15.3978493@news02.optonline.net>
Source record: 53578

Hi,

The list below isn't to bad. I'd add:

2.2 micro farad >20 volt bypass capacitors. Any package tantalums seem to work fine. Use them to bypass the 78L05's and 78L12's.

Electrolytics in the 100 to 200 microfarad range, 35 volt rating - good for small power supply type stuff

LM358 op amps. Cheap and easy to use.

1N4007's (1KV) are as cheap as the 1N4001's (100V)

Any small glass package shottkey (sp?) diode you come accross 1N5179 comes to mind

PIC 16F877's are nice to have ...

2N2369, 2N918, 2N2904 and 2N5108 are all reasonable things to keep around

Pick out any cheap TO-220 NPN and PNP transistors. TIP-xx's are the usual suspects. Good for audio / power stuff.

555 timers are used in a lot of stuff

A spool of number 26 magnet wire and a couple of drill bits will do a pretty good job for low value coils. It's amazing how close you can get. I'd keep a 1/4, 3/8 and 1/2 inch drill bit handy.

Red LED's any size. It's amazing how useful a "power on" light can be ....

Any time anything electronic heads for the trash grab the wall wart transformer off it. They are nice to have to power little projects. If you are into garage sales that's a good source as well.

This could go on forever, I think we're past 50 by now ...

Bob

KB8TQ

"WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote in message news:9apr7t0f3v@news1.newsguy.com...
> "Jeff Barnhouse" <jeff_barnhouse@hotmail.com> wrote in message
> news:unSz6.600$hr6.201367@typhoon.hawaii.rr.com...
> > Hey all,

> > if you had to choose around 20 to 50 general components for
> > amateur radio use, what would they be?
>
> Well, as always, it depends <g>. Do you do mostly VHF, UHF, or HF? Just
> how comfortable are you with digital logic? What sorts of things do you
> tend to do?
>
> Let me share what I tend to stock, mostly for HF experimentation.
>
> Obviously, you need a full set of resistors, 1/4 or 1/8 watt work for 99% of
> situations. I keep a few of all 10% values and when I see a deal on 100 or
> 200 of common values I'll grab it. radioshack.com has resistors for a penny
> a piece in 100's, so at least pick up a bunch of 1K, 4.7K, 10K. Amazing how
> much you use those.
>
> Caps are a bit more expensive, so a complete set isn't really feasible. I
> get what I can get cheap, but also try to keep a good range of silver micas
> because they are hard to get when you need them. I keep a big pile of 0.1
> and 0.01 monolithics, then try to have a few on hand of a well-distributed
> set of values. Again, when I see a deal I grab it.
>
> Inductors are a bit more of a problem. I keep a handful of popular values,
> then a good stock of toroids to make what else I may need. I keep quite a
> few -2's and -6's in 37 and 50 sizes, as well as quite a pile of FT37-43's
> for transformers. I keep a small number of FT37-67's, FT37-61's, and
> T50-7's as well. Speaking of transformers, it doesn't hurt to have a couple
> of 1000/8 ohm audio output transformers laying around. Again, you can often
> get deals on these things, so it's good to keep your eyes open.
>
> You gotta have a few SA602 or 612's on hand. A selection of op amps doesn't
> hurt, either. A few LM380 and/or LM386's are a good thing, too.
>
> Of course, a big pile of 78L05's, along with some 78L12's and a few

other
> voltages. A couple of the 7805's for those LCD's with power hungry
> backlights is helpful, too.
>
> You always need a big pile of 1N4148's. A bunch of 1N4001's is a
good
> thing, too. A variety of Zeners can come in handy. And of course,
you need
> at least a few MV2115's and MVAM109's. Again, other types as I see
a deal.
>
> I try to keep 4-6 16F84's on hand. These things are amazingly
versatile but
> you gotta think different. Also, I keep a few of those teeny
crystals (I
> think it's a C-3 case) in 4, 10 and 20 MHz. I grab any LCD with a
Hitachi
> controller that I can get cheap.
>
> Now to your original question about transistors. I keep a big pile
of
> 2N2222's - these things are as cheap as sand an amazingly versatile.
I also
> have a few 2N3904 and 3906's. A couple of MPF102's, J310's and
2N7000's for
> the FET end. The PA of any rig seems a bit of a problem. I'm not
sure
> there's a real winner, but the commonly used PA transistors like the
2SC1969
> seem hard to get.
>
> Of course, you gotta have a good supply of 74xx parts. Lots of
folks like
> 40xx parts instead. I just never got all that comfortable with
them. I
> guess they are a little more versatile, but the 74xx things seem
> indestructable <g>
>
> didleydadidah
>
>
>
>
>

2182. Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 18:26:11 UTC
From: PA5KE <pa5ke@euronet.nl>
Message-ID: <9aqai3ejb1@beast.euro.net>
Source record: 53579

Dear OM,

I am looking for a diagram of a +/- 500W solid-state lineair amplifier for
HF 80 - 10 meters (+50 Meters if possible).

Where to find a good diagram?

73, de Peter
PA5KE

2183. Re: Wanted: 11uH roller inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 19:12:37 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <FK2A6.93817$Ok4.7456575@news1.rdc1.ct.home.com>
Source record: 53580

http://www.cardwellcondenser.com/PAGES/md04.html

"Bob" <kb8tl@yahoo.com> wrote in message
news:td0vaps083mcc8@corp.supernews.com...
> Wanted: one roller inductor like the Johnson 229-201 11uH or the Cardwell?
> exact equivalent.
> Thanks
> Bob
> KB8TL@yahoo.com
>
>

2184. Invitation for "homebrew" magazine

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 20:11:02 UTC
From: Jim Stafford <w4qo@amsat.org>
Message-ID: <Mz3A6.1253$NM5.46389@eagle.america.net>
Source record: 53581

Folks,

This is not commercial as we are a non-profit radio club but the QRP Amateur Radio Club International (while promoting low power operation) could be thought of primarily as a homebrew club. Our magazine which is over 60 pages quarterly ($15 per year US) is about 2/3 technical and 1/3 operating. Each issue has several construction articles and is theory packed. We are not trying to compete with QEX or anything but just get more tech oriented stuff out into the community.

If you like building/construction, I think you will like our magazine. Try going to: http://www.qrparci.org for more info. Check out our Quick Links list and also our Technical/Projects page. Subscription info is all over the web site. Also, check out the table of contents for the past 5 years at: http://www.qsl.net/wd8rif/qq_arci.htm

Check us out and get a bigger thrill out of homebrew construction.

Jim, W4QO President- QRPARCI

2185. Re: FS RCA 1625 TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 20:26:07 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <zP3A6.94146$Ok4.7472433@news1.rdc1.ct.home.com>
Source record: 53582
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

FWIW: NOS from Fair is $4.50 each, and their tube pricing is no bargain.

Pete

"Jim Weir" <jim@rst-engr.com> wrote in message
news:sdbuct4go8pdgot5tc02rhv2ucd60klh96@4ax.com...
> fox <cfox007@bellsouth.net>
> shared these priceless pearls of wisdom:
>
> ->I have 9- 1625 tubes all test good full output.
> ->
> ->email with b/o
>
> b/o? Anybody on here got b/o? Not me, I took my shower this morning.
>
> Why play games? Tell us what you want for them and if we think they are
worth
> it, we'll call you. If you don't get any answers, drop it down next week.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

2186. WTB:(CORRECTION) SB-110A/SWAN 250C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 20:42:15 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <H24A6.15285$RF1.1146988@bgtnsc06-news.ops.worldnet.att.net>
Source record: 53583

Looking for these 6 meter rigs hopefully with a PS (sorry, not 350C) tnx Joe

2187. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 21:41:22 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2ulqa9.q6n.ln@localhost.localdomain>
Source record: 53584

PA5KE wrote:

> Dear OM,
>
> I am looking for a diagram of a +/- 500W solid-state lineair amplifier for
> HF 80 - 10 meters (+50 Meters if possible).

Motorola have published some nice designs. You should find
some data sheets and application notes on their web site.
I'm not sure about the URL, I think it is: www.mot.com

Try to find the data sheets for the MRF154 and the MRF150.

73, Ed. EI9GQ.

--
Remove 'X' to reply by mail.
http://www.qsl.net/ei9gq

Linux 2.4.2

2188. WTB:Metrotek Mustang II (CB)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-08 23:44:26 UTC
From: Heath <radiovintage@hotmail.com>
Message-ID: <KD6A6.856$K54.436129@nntp3.onemain.com>
Source record: 53585
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.cb

I am looking for a Metrotek Mustang II.Condition not important.Also
interested in a Metrotek Pacer II.Please state price and condition.
THANKS

2189. DIY directional coupler designs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 02:28:22 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ad11dab.9186339@news.cantech.net.au>
Source record: 53586

I have been fiddling with a design for a directional coupler usable from say 30MHz up to 1GHz or so, using striplines on FR4. To date, results are only fair.

I have searched the web (without any real success) for details of what surely must be out there somewhere.

Has anyone any pointers?

TIA
Peter VK6ZEG

2190. Anyone have a working 'VT-127' amp out there?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 02:30:11 UTC
From: hexter@blazenet.net
Message-ID: <td27ljiubosqbc@corp.supernews.com>
Source record: 53587

Was just wondering if anyone still had a working set of VT-127's in use in their shack. These were such a cool looking tube, and surplus by the thousands, and were generally about as gassy as a VR tube by the mid sixties. 73 KD3SH

2191. icom 207h

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 03:14:16 UTC
From: mwkg4iqm@earthlink.net
Message-ID: <3ad12755.27800449@news.direcpc.com>
Source record: 53588

ok heres the scoop i have the 207 and love it!!!!
just programing is a pain in the *** so i saw on the net some time
back a way to tak a opc-478 cloneing cable and the 601 remote head
cable both of witch i have and combined them to make a opc-646
programing cable for this unit but it seems the other of the site has
vanished along with his site!!! if any on can i help i would thank you
vary much also looking for the programing software i had it but the
disk i have it on seems to be bad now!!!

Marc Wallace
kg4iqm

2192. Re: Purpose of the heater in YIG oscillators

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 04:54:23 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <3gbA6.4572$ix4.3591335@news1.rdc1.sfba.home.com>
Source record: 53589

It isn't just the frequency drift. Various extraneous modes may sweep
through the main mode at certain temperatures and disrupt the oscillator.
These are somewhat analogous to "activity" dips in crystal oscillators.

Rick Karlquist N6RK

Peter Bolch <320058850955-0001@t-online.de> wrote in message
news:9apef2$4sf$03$1@news.t-online.com...
> Hi
>
> what is the purpose of the heater found in many YIG oscillators? Just
> minimizing the temperature drift of the frequency?
>
>
> Peter
>
>

2193. Antoher big question!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 04:54:26 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3AD14083.C5C88341@goodnet.com>
Source record: 53596
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.equipment

I think I need to replace the final transistors in my HF rig. They are the two CTC CD2545 models. However, I cannot find these ANYWHERE. The
online lookup service said they are discontinued by a manufacturer without a web address. Doe ANYBODY know where I could get these or at least a
comproble substitute? Thanks!
Ross, AC7JO

2194. FS: new 50 pf doorknob caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 05:23:12 UTC
From: k9sqg@aol.com
Message-ID: <20010409012312.15527.00002510@ng-fa1.aol.com>
Source record: 53590

Bought a grouping of 50 pf new doorknob caps. Have enough for my project needs and selling off the few that are excess. $3.50 each plus UPS shipping.

73s,

Evan

2195. Re: DIY directional coupler designs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 08:31:57 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <9artnm$an0$05$1@news.t-online.com>
Source record: 53591

Peter,

a 400 MHz to 3,6 GHz directional coupler has been published in VHF Communciation issue 2/96. Coupling is 20 dB, directivity is 20 dB up to 2 GHz. It is made of FR4.

Mini Circuits has quite some directional couplers. For instance the 10 to 1000 MHz ADC-10-4 has 10.5 dB coupling and 40 dB directivity (typical, 20 dB min up to 500 MHz). It costs 6.95 $ (quantity 10 - 49).

Peter

2196. Re: WTB:Metrotek Mustang II (CB)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 14:19:22 UTC
From: k5dh@raytheon.com
Message-ID: <KxjA6.5$px.114@dfw-service2.ext.raytheon.com>
Source record: 53592
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.cb

In article <KD6A6.856$K54.436129@nntp3.onemain.com>, radiovintage@hotmail.com says...
>
>I am looking for a Metrotek Mustang II.Condition not important.Also
>interested in a Metrotek Pacer II.Please state price and condition.
>THANKS

I know that many folks hate eBay, but that might be a good place to look for your Metrotek CB gear. I see Metrotek sets listed on eBay fairly often. I collect and restore Raytheon, Apelco, and Webster CB gear. the majority of my collection has come from eBay auctions, and I have not had to pay high prices for any of it so far (and I WON'T, if it comes down to that; I don't need the stuff bad enough to over-pay).

73,
Dean, K5DH
Visit my Raytheon CB radio web site:
http://www.qsl.net/k5dh/raytheon.html

2197. LAST HOURS DX-394 COMMUNCATION RECEIVER 150KHZ-30MHZ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 15:50:18 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD1DA3A.733624B8@bellsouth.net>
Source record: 53593
Cross-posted to:
rec.radio.amateur.swap,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.shortwave,rec.radio.scanner

LAST HOURS

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1228300701

2198. Re: Dentron MLA2500 Modification for screen voltage on 4CX400/4CX800

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 16:17:43 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9asnb6$6ne$2@woodrow.ucdavis.edu>
Source record: 53510

: Douglas Snowden <snowden@peoplepc.com> wrote:
: I am still in the process of trying to decide on how to use my newly
: acquired MLA2500. I bought it without tubes.

Hi Doug,

Good to see you over here on the news group. If I had a copy of the
paperwork on the HV Supply, I could probably come up with a much more
practical way to obtain a screen supply.
Depending on the current layout, one might be able to use a seperate
half or full wave circuit in addition to the onboard equipment.

Otherwise, lots of triodes are out there...

Stay away from the DAF circuits, not worth the trouble they produce while
operating (distortion big time). You want to be concerned with IMD
regardless of your mode.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

2199. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 17:11:57 UTC
From: DJ6JZ <DJ6JZ@compuserve.de>
Message-ID: <3ad1edd5_2@news.arcor-ip.de>
Source record: 53594

Hi Peter,

go to http://www.radio-portal.org
click on "Search in broad" and choose the categories "Manuals and Schematics
AND "Transceivers and Transmitters".

Regards,
Willi, DJ6JZ

PA5KE <pa5ke@euronet.nl> schrieb in im Newsbeitrag:
9aqai3ejb1@beast.euro.net...
> Dear OM,
>
> I am looking for a diagram of a +/- 500W solid-state lineair amplifier for
> HF 80 - 10 meters (+50 Meters if possible).
>
> Where to find a good diagram?
>
> 73, de Peter
> PA5KE

2200. Re: FM receiver 10.7MHz ~30-50khz bandwith?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 18:45:03 UTC
From: Ash <ash@gravitywell.org>
Message-ID: <3AD2031B.BC61A901@gravitywell.org>
Source record: 53595
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.space

First I want to thank for all replies I got from the original question.
Though it appears now as I do not need such a receiver, using the WFM (~150kHz)
filter on the R-8500 works great and produce noise-free pictures from Meteosat 7.

Regards Greg.

2201. Re: Antoher big question!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 19:28:53 UTC
From: Bob Koerber <n4bk@hiwaay.net>
Message-ID: <3AD20D75.8C84C390@hiwaay.net>
Source record: 53497
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.equipment

bomc wrote:
>
> I think I need to replace the final transistors in my HF rig. They are the two CTC CD2545 models. However, I cannot find these ANYWHERE. The
> online lookup service said they are discontinued by a manufacturer without a web address. Doe ANYBODY know where I could get these or at least a
> comproble substitute? Thanks!
> Ross, AC7JO

There is a company in NZ that is advertising them for 115.00 for a
matched pair the url is www.voyager.co.nz hope that helps. Bob N4BK

2202. Re: Antoher big question!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 19:57:44 UTC
From: Bob Koerber <n4bk@hiwaay.net>
Message-ID: <3AD21438.DEF6EE78@hiwaay.net>
Source record: 53498
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.equipment

bomc wrote:
>
> I think I need to replace the final transistors in my HF rig. They are the two CTC CD2545 models. However, I cannot find these ANYWHERE. The
> online lookup service said they are discontinued by a manufacturer without a web address. Doe ANYBODY know where I could get these or at least a
> comproble substitute? Thanks!
> Ross, AC7JO

Hi Ross there is a company in New Zealand DF Components
www.voyager.co.nz/~dfcomp/ that is advertising them as a matched pair
for 115.00 guess that is NZ Dollars. Bob N4BK

2203. Re: Antoher big question!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 20:00:11 UTC
From: Zoran Brlecic <zbrlecic@earthlink.net>
Message-ID: <3AD2153E.B2C2B4C9@earthlink.net>
Source record: 53499
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.equipment

bomc wrote:

> I think I need to replace the final transistors in my HF rig. They are the two CTC CD2545 models. However, I cannot find these ANYWHERE. The
> online lookup service said they are discontinued by a manufacturer without a web address. Doe ANYBODY know where I could get these or at least a
> comproble substitute? Thanks!

NTE has a substitute: http://www.nteinc.com/

Select Semiconductors under the Crossreference drop-down menu. The equivalent is NTE317.
Then select Online Ordering to see where you can buy them.
For example, Mouser Electronics sells them for $60. Good luck.

73 .... Zoran WA7AA

--
Support freedom of speech, or I'll kill you!

2204. Re: Can you recommend A signal gen board or kit ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 22:29:52 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3AD23801.D13DA2BA@nf.sympatico.ca>
Source record: 53501

>
> 451ctds@pop3.concentric.net wrote:
> >
> > I bought a beautiful old General Radio Signal Generator, and on
> > learning it was AC / DC cut all the wires, and stripped all that unsafe
> > crap out.
> > Now I want to retrofit the old cabinet with modern electronics, can
> > anyone suggest a suitable module, board, or kit ?

Then Bill Meacham wrote:
>
> Placing a coupla blocking caps on the in/out connectors, or
> floating them, (if they weren't already) would have saved you a
> lot of trouble.

Gee: What a shame!

A lightweight one to one isolation transformer on the AC input (Sig generators don't take much power) would have ben good idea too! Might just as well have started with a new box and put modern electronics in it! Different technology entirely.

Or is the original poster 'having us on' i.e. pulling our legs? In order to get a recation?

Terry S.

2205. klystron help 4 info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-09 23:30:15 UTC
From: Francesco Tamburro <ik8pae@uniserv.uniplan.it>
Message-ID: <3ad24607$1@spin2.uniserv.uniplan.it>
Source record: 53500

Does anyone knows QKK753 klystron?
I've found some klystrons -QKK753-(Raytheon).
I want use its but I haven't any data sheets.
Do You can help me?.
Thanks in advance and best regards.
vy '73 de ik8pae Francesco

2206. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 00:12:34 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <SdsA6.6766$uh5.258572@typhoon.mw.mediaone.net>
Source record: 53502

"PA5KE" <pa5ke@euronet.nl> wrote in message
news:9aqai3ejb1@beast.euro.net...
> Dear OM,
>
> I am looking for a diagram of a +/- 500W solid-state lineair amplifier for
> HF 80 - 10 meters (+50 Meters if possible).
>
> Where to find a good diagram?

Check this little one out:

http://www.ibelings.com/n4ip/sskw/

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

2207. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 00:16:38 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <0qsA6.5811$2P2.902705@news6-win.server.ntlworld.com>
Source record: 53503

```
squilsh <squilsh@ntlworld.com> wrote in message
news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> Has anybody considered doing amateur radar?
>
> I've been looking on the Web but nobody seems to be doing it. What I mean
is
> building Tx/Rx's, operating in the amateur bands, which pick up their own
> signal, reflected from objects.
>
> This could be a solution to the lack of QSO's on the VHF/UHF/microwave
> bands, and provide some activity for class B licensee's. There would be
> plenty of room for experimentation and home construction, which are
aspects
> of ham radio just as important as actual communication.
>
> Although professional radar equipment is very expensive and complex,
because
> of military requirements etc, this doesn't mean that amateur home-made
stuff
> has to be, it would basically be a Tx/Rx/aerial combination plus some
> control electronics and LED's etc for a display, some radar systems
produce
> an audio output.
>
> An example of how simple it can be is in the book:
>
> "Electronic Projects for Experimenters", by R.A. Penfold, published in the
> UK by Babani Press.
>
> This describes a simple radar, although using ultrasonics instead of
radio,
> it only needs 4 IC's, 4 transistors, and 10 LED's for the display.
>
> Another book currently available from Chevet Supplies of Blackpool, who
> advertise in PW and Radcom, is "Radar (Brassey's Lad Warfare Series)",
which
> describes how various systems work.
>
>
>
>
>
>
>
```

2208. Computer aided RTTY demod question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 01:29:31 UTC
From: hexter@blazenet.net
Message-ID: <td4ofrkv5jrged@corp.supernews.com>
Source record: 53504

I have a real nice 600 to 900 hz demod unit that I would like to use with my computer. The demod outputs rs-232 serial port style levels.

I have used Hamcom, but am looking for a program that does not decode frequency via the computer, but simply decodes the external data levels from my external decoder. 75wpm baudot is my main focus.

tnx og 73

2209. Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 02:39:02 UTC
From: sktullgren@aol.com
Message-ID: <20010409223902.27456.00003462@ng-mj1.aol.com>
Source record: 53505

hey gang,

Real simple quesiton:
I acquired a selection of misc. inductor coils from a junkpile. There are no markings on the coil what-so-ever. How do I calculate the inducatance(s) of the assortment of coils? I tried the coil formulas and got a rough figure. Is there an easier method to measuring without a bunch of expensive test equipment?

shawn
kd5hlm

2210. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 03:25:03 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AD27D0F.8004AA73@coqui.net>
Source record: 53506

SKTullgren wrote:
>
> hey gang,
>
> Real simple quesiton:
> I acquired a selection of misc. inductor coils from a junkpile. There are
> no markings on the coil what-so-ever. How do I calculate the inducatance(s) of
> the assortment of coils? I tried the coil formulas and got a rough figure. Is
> there an easier method to measuring without a bunch of expensive test
> equipment?
>
> shawn
> kd5hlm

The simplest way I know of is using a fixed value capacitor in
parallel and measuring with a grid-dip meter...which is a pretty
inexpensive item with lots of uses. Also, nowadays you can get
some fairly inexpensive digital multimeters that will read
capacitance and inductance.
--

Bill Meacham
Vieques, PR

2211. B&K MODEL 700 MUTUAL CONDUCTANCE TUBE TESTER FA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 04:03:36 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD28618.E02CAE4F@bellsouth.net>
Source record: 53507
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.shortwave,rec.radio.cb

really nice shape
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1229027029

2212. Re: Loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 05:09:59 UTC
From: aduffy@sprint.ca
Message-ID: <3AD295A7.C86E7F13@sprint.ca>
Source record: 53508
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks Reg and Kevin. Before I started cutting up $45 CDN in copper strips I definitely wanted to make sure about things. Definately wouldn't want an expensive door stop (although I could pass it off as modern art... well maybe).

As it turns out through modeling, the wider conductor increased my efficiency nicely but the band width was reduced quite a bit. Not that is was all that great to begin with. It'll have to be a design trade off. In the original design the bandwidth was 30kHz on 80m by shaping the drive loop differently (rectangular), so I hope to compensate by trying that with mine.

Once again, thanks to both of you.

73, Tony
VA3ATD, London, ON

aduffy@sprint.ca wrote:

> Hi All,
>
> Any one have an idea what % I should adjust the diameter of the loop to
> compensate for the effects of using 4.5" copper strips in place of 3/4"
> copper pipe in the main loop? And would it be advisable to construct the
> drive loop of the same material
>
> ---
> 73, Tony
>
> VA3ATD, London, ON

2213. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 05:19:29 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AD298DB.863@pop.removethistomailme.net>
Source record: 53509

SKTullgren wrote:
>
> hey gang,
>
> Real simple quesiton:
> I acquired a selection of misc. inductor coils from a junkpile. There are
> no markings on the coil what-so-ever. How do I calculate the inducatance(s) of
> the assortment of coils? I tried the coil formulas and got a rough figure. Is
> there an easier method to measuring without a bunch of expensive test
> equipment?
>
> shawn
> kd5hlm

Order one of these:

http://www.aade.com/lcmeter.htm

... and build it. It'll measure any passive reactive component in your
junkbox, with more resolution and accuracy than you'll ever need.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2214. IC source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 07:42:30 UTC
From: pnjorge <pnjorge@mail.telepac.pt>
Message-ID: <9audv5ini1@brown.telepac.pt>
Source record: 53513

Looking for a 74HC4029. Who can supply this IC?

thanks in advance
73

Paul
CT1EFL

2215. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 08:06:24 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9auui0$v1o$1@news6.svr.pol.co.uk>
Source record: 53516

> I acquired a selection of misc. inductor coils from a junkpile. There are
> no markings on the coil what-so-ever. How do I calculate the
inducatance(s) of
> the assortment of coils? I tried the coil formulas and got a rough
figure. Is
> there an easier method to measuring without a bunch of expensive test
> equipment?
==========
You might find US$ 240.- expensive for a piece of (versatile) test equipment
, but with the MFJ-259B analyser you could measure the inductance of all
those inductors at various frequencies quickly and reasonably accurately .

I have no commercial involvement with MFJ ,but this analyser is the most
versatile piece of test equipment (for up to 170 MHz) I ever purchased to
enjoy our common hobby.

73 Frank gm0csz.kn6wh@ukrs.org

2216. Homebrew morse code training box with LCD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 09:45:37 UTC
From: Rocky Ng <vr2ng@qsl.net>
Message-ID: <3AD2D641.78FB05EC@qsl.net>
Source record: 53511

Homebrew morse code training box with LCD

This is a project which utilize an Ateml
microcontroller and a LCD panel. For HAM to train up
our CW speed. Full construction instruction, PCB
image, rom code is posted on website :

http://www.geocities.com/cw19kit

Good luck!

2217. Help needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 09:46:22 UTC
From: Spyros SV2BXC <spkintz@the.forthnet.gr>
Message-ID: <986895981.922203@athnrd02.forthnet.gr>
Source record: 53512

Does anyone know how to reset Icom IC - 2400?Good DX to all of us.

2218. Re: Do you enjoy doing calculations ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 10:12:41 UTC
From: c_moss@bigfoot.com
Message-ID: <e4n5dtk4ib830q92c7c42a4sudsp6737ic@4ax.com>
Source record: 53514

Hi Reg.

>Hi Clive, if you read the few pages of notes which form part of the
>program you will find all the arithmetic formulae used by the
>program. They can also be found in any elementary book on AC
>circuit theory. The program makes the job of using the formulae
>less tedious than a pocket calculator. But you still have to know
>what its all about.

Ok, Thanks for that.

>So why would you *really* like to wade through the 50 kilobytes of
>source code ?

I'm always interested in source code as i write a lot of software for
my own use.

Clive

2219. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 11:42:55 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9aurfomvd1@neptunium.btinternet.com>
Source record: 53515

Download in a few seconds program SOLNOID2 from website below.
--
****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

SKTullgren wrote > hey gang,
>
> Real simple quesiton:
> I acquired a selection of misc. inductor coils from a
junkpile. There are
> no markings on the coil what-so-ever. How do I calculate the
inducatance(s) of
> the assortment of coils? I tried the coil formulas and got a
rough figure. Is
> there an easier method to measuring without a bunch of expensive
test
> equipment?

2220. Re: Marine band circuit wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 12:20:21 UTC
From: Joe Jesson <jjesson@ais.net>
Message-ID: <3ad30a4b_2@Newsfeeds.com>
Source record: 53519

Check out the low-cost 2 meter superhet kit at MFJ... with trivial mods you
can cover 150-170. I built one and love it - sensitive and selective but
non-synthesiszer.

Joe J.

"jim" <jjj@ring.com> wrote in message
news:9a37divgi1@slb7.atl.mindspring.net...
> Looking for a circuit.
> Marine band VHF receiver ~150-170 MHZ. (25kHz increments)
> Wish list...
> No transmitter, selectivity w/ attenuator, rotary control, antenna jack
>
> Zero budget (student).
>
> Please bear with me, I am a total novice.
>
> -- Jim
>
>
>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2221. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 12:48:49 UTC
From: Adam Adkins <km5nNoSpam@earthlink.net>
Message-ID: <MPG.153cbd9c203ff4ae989689@news.earthlink.net>
Source record: 53517

[This followup was posted to rec.radio.amateur.homebrew and a copy was
sent to the cited author.]

In article <0qsA6.5811$2P2.902705@news6-win.server.ntlworld.com>,
squilsh@ntlworld.com says...
> Has anybody considered doing amateur radar?
>

Take a look at the last North Texas Microwave Society (NTMS)
newsletter. There is an article about all kinds of different
applications, including a simple amateur radar.

The web page is at http://www.ntms.org

73,

Adam, KM5N

2222. Re: klystron help 4 info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 13:11:09 UTC
From: j.m.franke@larc.nasa.gov
Message-ID: <j.m.franke-1004010911090001@franke.larc.nasa.gov>
Source record: 53518

Frequency 7.8 to 8.4 GHz
Beam voltage 300
Cathode current 26 mA
Output power 150 mW
Reflector voltage -280
Tuning bandwidth 25 MHz

That's all I know.

John

In article <3ad24607$1@spin2.uniserv.uniplan.it>, "Francesco Tamburro"
<ik8pae@uniserv.uniplan.it> wrote:

> Does anyone knows QKK753 klystron?
> I've found some klystrons -QKK753-(Raytheon).
> I want use its but I haven't any data sheets.
> Do You can help me?.
> Thanks in advance and best regards.
> vy '73 de ik8pae Francesco

2223. RCA Power Transistor Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 14:53:14 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <JLeDOTAa5x06EwBD@langwang.demon.co.uk>
Source record: 53520

Help - has anyone still got a copy of an RCA Power Transistor Handbook
published in mid 70s ? It had a circuit in it of a Low Voltage variable psu with
adjustable current limit based around the CA3046 transistor array & (I think)
CA3140 Op Amp. I've made a number up for friends but now I want one I
can't find my copy of the circuit - if anyone recognises the cct & can e-mail
me a scanned copy you'd solve my psu (lack of) problems. Thanks.
--
Dick
GM0MNL

2224. Stop by - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 15:57:03 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <j3GA6.4515$Ak1.459603@newsread2.prod.itd.earthlink.net>
Source record: 53521
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Lots of STUFF to do at www.ab7sl.com such as...

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

2225. Spammed again (Was:Stop by - www.ab7sl.com -)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 16:33:04 UTC
From: K0HB@qwest.net
Message-ID: <9avck0$on9$1@news.netmar.com>
Source record: 53522
Cross-posted to: rec.radio.amateur.policy,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <j3GA6.4515$Ak1.459603@newsread2.prod.itd.earthlink.net>, Charles Johnston <ctj92@earthlink.net> writes:

>Lots of STUFF to do at www.ab7ls.com such as...

This guy must get a nice commission from his advertisers everytime someone visits.

----- Posted via NewsOne.Net: Free (anonymous) Usenet News via the Web -----
http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

2226. Re: Transistor Choices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 18:20:18 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3AD34EE2.9D8DC428@telocity.com>
Source record: 53523

The CA3028 used to be popular as an IF/RF amp. They seem to be getting scarce thou'. The MC1350 is still around and is a good replacement. 1N4007 diodes actually have a PIN structure and make a good poor-man's PIN switching diode, but 'real' HP pin diodes have lower noise and switch faster. 741 op amps are good for general purpose audio app's such as active filters but are getting a little long in the tooth. Various jfet input op amps are a better choice but slightly more expensive. Power mostfets such as the IRF5xx family make good rf power amps with 12-28 volts supply. Some of these devices will give as much as 100 watts on 6 meters for a pair of them, but circuit board layout and transformer design are critical here. 2N2905 PNP transistors and 2N3053 NPN transistors make good QRP finals to about 15 meters (these transistors can be used as a complemtary pair).

> "Jeff Barnhouse" <jeff_barnhouse@hotmail.com> wrote in message
> news:unSz6.600$hr6.201367@typhoon.hawaii.rr.com...
> > Hey all,
> > if you had to choose around 20 to 50 general components for
> > amateur radio use, what would they be?
>
> Well, as always, it depends <g>. Do you do mostly VHF, UHF, or HF? Just
> how comfortable are you with digital logic? What sorts of things do you
> tend to do?
>
> Let me share what I tend to stock, mostly for HF experimentation.
>
> Obviously, you need a full set of resistors, 1/4 or 1/8 watt work for 99% of
> situations. I keep a few of all 10% values and when I see a deal on 100 or
> 200 of common values I'll grab it. radioshack.com has resistors for a penny
> a piece in 100's, so at least pick up a bunch of 1K, 4.7K, 10K. Amazing how
> much you use those.
>
> Caps are a bit more expensive, so a complete set isn't really feasible. I
> get what I can get cheap, but also try to keep a good range of silver micas
> because they are hard to get when you need them. I keep a big pile of 0.1
> and 0.01 monolithics, then try to have a few on hand of a well-distributed
> set of values. Again, when I see a deal I grab it.
>
> Inductors are a bit more of a problem. I keep a handful of popular values,
> then a good stock of toroids to make what else I may need. I keep quite a
> few -2's and -6's in 37 and 50 sizes, as well as quite a pile of FT37-43's
> for transformers. I keep a small number of FT37-67's, FT37-61's, and
> T50-7's as well. Speaking of transformers, it doesn't hurt to have a couple
> of 1000/8 ohm audio output transformers laying around. Again, you can often
> get deals on these things, so it's good to keep your eyes open.

>
> You gotta have a few SA602 or 612's on hand. A selection of op amps doesn't
> hurt, either. A few LM380 and/or LM386's are a good thing, too.
>
> Of course, a big pile of 78L05's, along with some 78L12's and a few other
> voltages. A couple of the 7805's for those LCD's with power hungry
> backlights is helpful, too.
>
> You always need a big pile of 1N4148's. A bunch of 1N4001's is a good
> thing, too. A variety of Zeners can come in handy. And of course, you need
> at least a few MV2115's and MVAM109's. Again, other types as I see a deal.
>
> I try to keep 4-6 16F84's on hand. These things are amazingly versatile but
> you gotta think different. Also, I keep a few of those teeny crystals (I
> think it's a C-3 case) in 4, 10 and 20 MHz. I grab any LCD with a Hitachi
> controller that I can get cheap.
>
> Now to your original question about transistors. I keep a big pile of
> 2N2222's - these things are as cheap as sand an amazingly versatile. I also
> have a few 2N3904 and 3906's. A couple of MPF102's, J310's and 2N7000's for
> the FET end. The PA of any rig seems a bit of a problem. I'm not sure
> there's a real winner, but the commonly used PA transistors like the 2SC1969
> seem hard to get.
>
> Of course, you gotta have a good supply of 74xx parts. Lots of folks like
> 40xx parts instead. I just never got all that comfortable with them. I
> guess they are a little more versatile, but the 74xx things seem
> indestructable <g>
>
> didleydadidah

2227. Re: Dentron MLA2500 Modification for screen voltage on 4CX400/4CX800

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 18:39:56 UTC
From: Kenneth Scharf <kajfre@telocity.com>
Message-ID: <3AD3537C.4DEA3BD4@telocity.com>
Source record: 53524

There are three ways of using tetrode tubes in the amplifier.

1: connect the grids to ground and raise the cathode above ground and use as a grounded grid triode. This works fine for 'glass' tubes such as the 4-xxx series (4-400 in particular), but the external anode tubes generally don't have enough mass in their grids. The result is that you might overheat the grid structure if you drive the amp too hard. The 4cx800 might get away with this, I don't think that the 4cx400 will since it is built on the same structure as the 4cx250 series tubes.

2: Connect the grids to ground for rf (via capacitiors) and supply normal voltage via low q rf chokes, raise the cathode above ground and drive the cathode. This is the grounded grid tetrode connection. This method takes less drive than grounded grid triode, but more than grid driven mode. You will proably need a resistive pad network to reduce the drive from your rig by 50-75 percent.

3: Connect the grids to normal voltage, the control grid goes to rf ground through a non inductive power resistor. If this resistor is 50 ohms the driving rig will see a 1:1 swr but the amount of power required to drive the linear may be too much if the tubes require too much peak to peak grid voltage to drive them to full output. You can calcuate the lowest resistor value you will want to use from the ohms law and watts law relationships:

E/I*R and W/E*I so W = (E*E)/R etc....

You might have to use a T or Pi network of resistors here to match the power requirements and driving impedance between the rig and linear. Needless to say the resistor network can get kinda large and needs air circulating to keep it cool. Or you could make the resistor network external to the amp and dunk them in a can full of transformer oil like the Heath cantenna.

The handbook has circuits for regulated screen voltage using tubes, TI makes a hi voltage three terminal adjustable regulator that might work.

> : Douglas Snowden <snowden@peoplepc.com> wrote:
> : I am still in the process of trying to decide on how to use my newly
> : acquired MLA2500. I bought it without tubes.
>
> Hi Doug,
>
> Good to see you over here on the news group. If I had a copy of the
> paperwork on the HV Supply, I could probably come up with a much more
> practical way to obtain a screen supply.
> Depending on the current layout, one might be able to use a seperate
> half or full wave circuit in addition to the onboard equipment.

>
> Otherwise, lots of triodes are out there...
>
> Stay away from the DAF circuits, not worth the trouble they produce while
> operating (distortion big time). You want to be concerned with IMD
> regardless of your mode.
>
> cheers
> skipp@pilot.ucdavis.edu
> http://sonic.ucdavis.edu

2228. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 18:41:09 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AD353C5.BE208BC5@toast.net>
Source record: 53525

Adam Adkins wrote:

> [This followup was posted to rec.radio.amateur.homebrew and a copy was
> sent to the cited author.]
>
> In article <0qsA6.5811$2P2.902705@news6-win.server.ntlworld.com>,
> squilsh@ntlworld.com says...
> > Has anybody considered doing amateur radar?
> >
>
> Take a look at the last North Texas Microwave Society (NTMS)
> newsletter. There is an article about all kinds of different
> applications, including a simple amateur radar.
>
> The web page is at http://www.ntms.org

I ask this out of technical curiosity about the rules: would using radar
be permitted, not being two-way communications?

john

2229. Re: RCA Power Transistor Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 18:43:13 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10104101439440.7023-100000@Gloria.CAM.ORG>
Source record: 53528

On Tue, 10 Apr 2001, Dick wrote:

> Help - has anyone still got a copy of an RCA Power Transistor Handbook
> published in mid 70s ? It had a circuit in it of a Low Voltage variable psu with
> adjustable current limit based around the CA3046 transistor array & (I think)
> CA3140 Op Amp. I've made a number up for friends but now I want one I
> can't find my copy of the circuit - if anyone recognises the cct & can e-mail
> me a scanned copy you'd solve my psu (lack of) problems. Thanks.
> -
> Dick
> GM0MNL
>
>
I knew I didn't have the book, but I checked some others hoping I
might see the same sort of circuit. No luck; I guess my RCA books
are too old for the CA3140.

If you are lucky, the circuit would show up in a data sheet or application
note for either the CA3140 or CA3046. That's not too useful, but
maybe someone is more likely to have those than the specific book,
and perhaps you can find the information on the web. People do
seem to have much success in finding data sheets online, so it
might be worth a check.

Michael VE2BVW

2230. Re: IC source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 18:57:51 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10104101443520.7023-100000@Gloria.CAM.ORG>
Source record: 53529

On Tue, 10 Apr 2001, pnjorge wrote:

> Looking for a 74HC4029. Who can supply this IC?
>
> thanks in advance
> 73
>
> Paul
> CT1EFL
>
>
This may be hard to find. I had to look up the device, because the
number wasn't one I recognized. The 4029 is a
"presettable binary/decimal up/down counte". It's also supposed
to be a synchronous counter. I don't ever remember seeing it in a
circuit and it's not in two of the data books I checked (including
the only one I have that includes 74HC devices). While it's a
versatile IC, it would be rare that a circuit needed all it's functins,
and there are other ICs that will do the same things, though not
at the same time.

So if it's available, I suspect you'll have to go to place that
deals with industry rather than one that aims towards hobbyists.
Digikey, the only catalog I have handy, lists the CD4029, but I
see no sign of a 74HC4029.

Unless this is to repair something, or a circuit that actually
switches between binary and decimal counting, you might do well
to use a more commonly available counter.

Michael VE2BVW

2231. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 19:11:27 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ukl6dtoc657qaacbvq8rek34089sqd9m6d@4ax.com>
Source record: 53526

On Tue, 10 Apr 2001 13:41:09 -0500, John O'Flaherty
<oflahert@toast.net> wrote:

>I ask this out of technical curiosity about the rules: would using radar
>be permitted, not being two-way communications?

Is it legal to call CQ for a long time :-).

Hearing your own echoes back from the Moon is a form of amateur radar.

If you have so much ERP that you can hear the backscatter from planes,
clouds and heavy rain, the forward scatter would be strong enough for
long distance communication.

Paul OH3LWR

2232. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 19:22:30 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <HND5jLA21106EwAg@invest.fsbusiness.co.uk>
Source record: 53527

Leland,

>> I am looking for a diagram of a +/- 500W solid-state lineair amplifier for
>> HF 80 - 10 meters (+50 Meters if possible).
>>
>> Where to find a good diagram?
>
>Check this little one out:
>
>http://www.ibelings.com/n4ip/sskw/
That is a nice unit but what I'd like to see is something along the
lines of a SMPS (similar to those found in the higher power and better
quality car audio amps) powering some high voltage FET's producing a
conservative 1500w pep from a 'stiff' 14v supply.

Class-E PA would do nicely at 90% efficiency. The SMPS would be up near
that efficiency level also!

Any takers.

Let's move onto the next level.

2SC2879's have had their day.

Phil G4ZOW

2233. Re: Dentron MLA2500 Modification for screen voltage on 4CX400/4CX800

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 20:14:21 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <is2yUmAdm206EAne@ifwtech.com>
Source record: 53530

Kenneth Scharf wrote:
>There are three ways of using tetrode tubes in the amplifier.
>
>1: connect the grids to ground and raise the cathode above ground and use as
>a grounded grid triode. This works fine for 'glass' tubes such as the 4-xxx
>series (4-400 in particular), but the external anode tubes generally don't
>have enough mass in their grids.
>The result is that you might overheat the
>grid structure if you drive the amp too hard.

No tetrode was originally designed for GG operation with both grids at the same potential relative to the cathode and anode - if the manufacturers had intended that, they'd have designed a triode instead! The problem is high dissipation in the control grid, but the older glass tetrodes were designed with a high control grid dissipation for class C, so they will survive this mode.

The more modern ceramic tetrodes have a much finer grid structure, closer to the cathode to give high transconductance which allows them to operate at low voltage / high current. This means the grid dissipation is much lower than in glass bottles of similar power output capability, so no modern high-transconductance tetrode is likely to survive the "both grids DC grounded" mode of operation for long.

>The 4cx800 might get away
>with this, I don't think that the 4cx400 will since it is built on the same
>structure as the 4cx250 series tubes.

BTW, the 4CX400 is quite different internally from the 4CX250. The tube that's simply a 4CX250R with a larger anode is the 8930, which the 4CX400A resembles externally.

The next two methods are the only sensible ways to drive a tetrode, but they do require separate screen and grid bias supplies. There are actually several combinations of DC and RF grounding that will work, and there's an application note on my website which describes each one in turn: www.ifwtech.com/g3sek/boards/tetrode/an-4-1.0.pdf

>2: Connect the grids to ground for rf (via capacitiors) and supply normal
>voltage via low q rf chokes, raise the cathode above ground and drive the
>cathode. This is the grounded grid tetrode connection. This method takes
>less drive than grounded grid triode, but more than grid driven mode. You
>will proably need a resistive pad network to reduce the drive from your rig
>by 50-75 percent.
>
>3: Connect the grids to normal voltage, the control grid goes to rf ground

>through a non inductive power resistor. If this resistor is 50 ohms the
>driving rig will see a 1:1 swr but the amount of power required to drive the
>linear may be too much if the tubes require too much peak to peak grid
>voltage to drive them to full output. You can calcuate the lowest resistor
>value you will want to use from the ohms law and watts law relationships:
>
>E/I*R and W/E*I so W = (E*E)/R etc....
>
>You might have to use a T or Pi network of resistors here to match the power
>requirements and driving impedance between the rig and linear. Needless to
>say the resistor network can get kinda large and needs air circulating to
>keep it cool. Or you could make the resistor network external to the amp
>and dunk them in a can full of transformer oil like the Heath cantenna.
>
>The handbook has circuits for regulated screen voltage using tubes, TI makes
>a hi voltage three terminal adjustable regulator that might work.
>
Unfortunately the voltage rating of those regulators isn't quite high
enough for most tubes (the output voltage rating may be for some tubes,
but the input voltage almost certainly isn't). Again there are
alternative circuits downloadable from my web site.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2234. Re: IC source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 20:52:56 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AD372A8.167EB0E7@rupert.tds-az.lmco.com>
Source record: 53541

Michael Black wrote:
>
> On Tue, 10 Apr 2001, pnjorge wrote:
>
> > Looking for a 74HC4029. Who can supply this IC?
> >
> > thanks in advance
> > 73
> >
> > Paul
> > CT1EFL
> >
> >
> This may be hard to find. I had to look up the device, because the
> number wasn't one I recognized. The 4029 is a
> "presettable binary/decimal up/down counte". It's also supposed
> to be a synchronous counter. I don't ever remember seeing it in a
> circuit and it's not in two of the data books I checked (including
> the only one I have that includes 74HC devices). While it's a
> versatile IC, it would be rare that a circuit needed all it's functins,
> and there are other ICs that will do the same things, though not
> at the same time.
>
> So if it's available, I suspect you'll have to go to place that
> deals with industry rather than one that aims towards hobbyists.
> Digikey, the only catalog I have handy, lists the CD4029, but I
> see no sign of a 74HC4029.
>
> Unless this is to repair something, or a circuit that actually
> switches between binary and decimal counting, you might do well
> to use a more commonly available counter.
>
> Michael VE2BVW

I think that there is just a problem with the part number. The
CD4029 does exist but I never heard of a 74HC4029. I tried to
look it up in the many data books I have, and on the web, and
came up with nothing. The place that I hunt up most of my parts
is at "http://www.questlink.com". If you can't find it there,
chances are it doesn't exist or isn't made any more.

I think Michael is correct and that what you want is the CD4029.
However, I don't necessarily agree that it would be rare that
a circuit needed all it's functions. Functionally, the CD4029
is very similar to the SN74190, and all it's LS, S, HC, and HCT

derivitives. This IC and its relatives, the SN74191 , SN74192, and SN74193 were used a lot in their days. My experience found the SN74191 and SN74193 more useful than the SN74190 because of the synchronous preload. Because this group of counters was so versatile, we used them by the dozens. The more popular hobby counter, the SN7490, was seldom used at all.

If Paul could give us an idea of the circuit that he is working with, maybe we can be of more help.

Martin, K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore my responses may not be as timely as you, or I, would like them to be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

2235. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 21:30:51 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9avu2j0p69@news1.newsguy.com>
Source record: 53532

This comes up over and over again. Apparently, different people have different opinions of what constitutes "expensive". A grid dipper is a nice thing to have, but probably not something you would use all that much. An AADE LC meter is maybe nicer to have, but more expensive. An MFJ analyzer perhaps nicer, and yet more expensive.

You don't need all that stuff, although each makes the job easier. (And besides, I'm pretty cheap!)

What you DO need is an RF probe and a high-impedance voltmeter. I presume anyone asking the question has the meter, but maybe not the probe. So run down to your local rat shack and invest a buck or two, and build one. Chances are pretty good you have what you need in the junk box, so you may not even need to run down to the shack.

Next, you need a low power RF source of known frequency. A QRPp transmitter is fine. Worse comes to worse buy an Epson oscillator from DigiKey for 3 bucks or get real fancy and get a Fireball 40 from NJQRP or a Pixie from HSC for 10 or so. If you like building just make an oscillator from one of those junk crystals lying around.

Now it's pretty obvious, isn't it. Connect the coil in question in series with a known resistor across the RF source. Measure 2 voltage drops and a little Ohm's law and you now know the reactance of the coil at the source frequency. Not too hard to get to inductance from there, is it?

Can't quite get it? OK, suppose you have a 1K ohm resistor and you've built the FB40 for 14.161. (This is a standard choice for that xmitter). For the sake of argument, suppose the voltage across the resistor is 1 volt and you have 2 volts across the coil. XL is then 2K.

Since XL=2 pi F L,
L = XL / (2 PI F)
= 2000 / (6.28 * 14.161) = 45 microhenries

You don't even need to calibrate your probe since it's the ratio you care about. Your meter can even be a piece of junk as long as it's impedance is high. And if you're lazy like me and have a few to do, you put the equation in Excel and just poke in the voltages.

didleydadidah

"SKTullgren" <sktullgren@aol.com> wrote in message
news:20010409223902.27456.00003462@ng-mj1.aol.com...
> hey gang,
>
> Real simple quesiton:

> I acquired a selection of misc. inductor coils from a junkpile. There
are
> no markings on the coil what-so-ever. How do I calculate the
inducatance(s) of
> the assortment of coils? I tried the coil formulas and got a rough
figure. Is
> there an easier method to measuring without a bunch of expensive test
> equipment?
>
> shawn
> kd5hlm

2236. Re: Stop by - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 21:54:45 UTC
From: helmsman <>
Message-ID: <2707dtko0fb3g05b57urdgj2f383c9lb85@4ax.com>
Source record: 53531
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Tue, 10 Apr 2001 15:57:03 GMT, "Charles Johnston"
<ctj92@earthlink.net> wrote:

>Lots of STUFF to do at www.ab7sl.com such as...
>
Always a nice page to visit.
.
Shame on ARIZONA,USA
Be aware these people are NOT convicted of anything.
http://www.geocities.com/novapunkca/
If you don't like it tell the Governor.
http://www.governor.state.az.us/feedback.html

2237. Re: IC source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 23:24:10 UTC
From: pnjorge <pnjorge@mail.telepac.pt>
Message-ID: <9b05do$7ka$1@brown.telepac.pt>
Source record: 53538

Thanks for the feedback.
I need two for a 9600 G3RUH Modem I'm building for a TNC2 - the circuit lists everything as HCxxxx (ex: HC164 = 74HC164, HC86 = 74HC86 etc) I have everything except the two HC4029. I'll try the CD4029. Hopefully I can get them here locally... I'll let you know how I got on.
Anyway I 'developed' other priorities this morning when my PC's second hard disk died (thank goodness for backups)... spent a frantic day trying to get a minimal system going here hi.

Thanks again!
73
Paul

K7MEM <jda@rupert.tds-az.lmco.com> wrote in message news:3AD372A8.167EB0E7@rupert.tds-az.lmco.com...
> Michael Black wrote:
> >
> > On Tue, 10 Apr 2001, pnjorge wrote:
> >
> > > Looking for a 74HC4029. Who can supply this IC?
> > >
> > > thanks in advance
> > > 73
> > >
> > > Paul
> > > CT1EFL
> > >
> > >
> > This may be hard to find. I had to look up the device, because the
> > number wasn't one I recognized. The 4029 is a
> > "presettable binary/decimal up/down counte". It's also supposed
> > to be a synchronous counter. I don't ever remember seeing it in a
> > circuit and it's not in two of the data books I checked (including
> > the only one I have that includes 74HC devices). While it's a
> > versatile IC, it would be rare that a circuit needed all it's functins,
> > and there are other ICs that will do the same things, though not
> > at the same time.
> >
> > So if it's available, I suspect you'll have to go to place that
> > deals with industry rather than one that aims towards hobbyists.
> > Digikey, the only catalog I have handy, lists the CD4029, but I
> > see no sign of a 74HC4029.
> >
> > Unless this is to repair something, or a circuit that actually
> > switches between binary and decimal counting, you might do well

> > to use a more commonly available counter.
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> > Michael VE2BVW
>
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> look it up in the many data books I have, and on the web, and
> came up with nothing. The place that I hunt up most of my parts
> is at "http://www.questlink.com". If you can't find it there,
> chances are it doesn't exist or isn't made any more.
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> a circuit needed all it's functions. Functionally, the CD4029
> is very similar to the SN74190, and all it's LS, S, HC, and HCT
> derivitives. This IC and its relatives, the SN74191 , SN74192, and
> SN74193 were used a lot in their days. My experience found the
> SN74191 and SN74193 more useful than the SN74190 because of the
> synchronous preload. Because this group of counters was so
> versatile, we used them by the dozens. The more popular hobby
> counter, the SN7490, was seldom used at all.
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> Martin, K7MEM
>
> --
> Martin E. Meserve K7MEM
> martin.e.meserve AT lmco.com
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> be. If I seem to be ignoring you, send me another E-Mail to jog my
> memory. Opinions are my own and do not reflect the opinions of my
> employer.

2238. U-TEST-M MODEL SE-1772 TUBE TESTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 23:40:02 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD399D2.276B823B@bellsouth.net>
Source record: 53533
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.shortwave

excellent condition no reserve.
let the pics load please
thanks

http://images.honesty.com/imagedata/h/183/29/31832970.jpg

2239. Re: U-TEST-M MODEL SE-1772 TUBE TESTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 23:42:54 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD39A7E.45687786@bellsouth.net>
Source record: 53534
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.shortwave

sorry didn't put FA in title

fox wrote:

> excellent condition no reserve.
> let the pics load please
> thanks
>
> http://images.honesty.com/imagedata/h/183/29/31832970.jpg

2240. Re: U-TEST-M MODEL SE-1772 TUBE TESTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-10 23:45:34 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD39B1E.76322743@bellsouth.net>
Source record: 53535
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.shortwave

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1229286077

fox wrote:

> excellent condition no reserve.
> let the pics load please
> thanks
>
> http://images.honesty.com/imagedata/h/183/29/31832970.jpg

2241. Re: Stop by - www.qsl.net/k7on/ -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 00:28:22 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.153db5a0a05f43a39896aa@news.earthlink.net>
Source record: 53536
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

In article <j3GA6.4515$Ak1.459603@newsread2.prod.itd.earthlink.net>,
ctj92@earthlink.net says...
> Lots of STUFF to do >

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--

2242. Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 00:38:32 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <cINA6.31775$C51.8172786@news1.rdc1.tn.home.com>
Source record: 53537

I want to build an audible tuning aid for a blind ham friend. I have located the circuit, but the PDF file schematic is impossible to read. The article originally appeared in the March 1997 QST, page 38. If anyone has this issue (I throw them out about every 3 years) and could scan the schematic for me, forwarding it to me via email, I would sure appreciate it and so would Bob (W4USW).

Tnks es 73
jim K4KAE

2243. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 01:35:37 UTC
From: The Bakers <nospam@worldnet.att.net>
Message-ID: <JxOA6.1002$IS.107485@bgtnsc07-news.ops.worldnet.att.net>
Source record: 53539

Isn't there a type of radar (IIRC it is called "bistatic" but I may be wrong on this) where existing high-power VHF/UHF transmitters like TV broadcasting stations are used as the TX "point sources". The user (e.g., amateur) builds an RX system which displayed the reflected echoes from objects as a function of azimuth, elevation, etc.

ISTR a magazine article which described just such a system including a photo of the display. Local landmarks, maybe an aircraft or two, etc. were clearly visible.

Or did I just imagine it ? :-)

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:ukl6dtoc657qaacbvq8rek34089sqd9m6d@4ax.com...
> On Tue, 10 Apr 2001 13:41:09 -0500, John O'Flaherty
> <oflahert@toast.net> wrote:
>
>
> >I ask this out of technical curiosity about the rules: would using radar
> >be permitted, not being two-way communications?
>
> Is it legal to call CQ for a long time :-).
>
> Hearing your own echoes back from the Moon is a form of amateur radar.
>
> If you have so much ERP that you can hear the backscatter from planes,
> clouds and heavy rain, the forward scatter would be strong enough for
> long distance communication.
>
> Paul OH3LWR
>

2244. request to post used brew equipment for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 03:10:09 UTC
From: gnmouser <gnmouser@rhapsodymfg.com>
Message-ID: <xTPA6.142$b6.101204@news03.micron.net>
Source record: 53540

request to post used brew equipment for sale

Dear Moderator of this Newsgroup: I am requesting permission or some way to post the details of a brew-it-yourself company.
The company is not for sale but rather the kettles, bottle washer, boiler, filters, carboys and much of the related equipment.
I do not want to offend anyone in this news group...So, if the I could receive a yes or no I would really appreciate it.

2245. Re: DIY directional coupler designs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 06:17:09 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ad3f634.4044176@news.cantech.net.au>
Source record: 53542

On Mon, 9 Apr 2001 10:31:57 +0200, "Peter Bolch"
<320058850955-0001@t-online.de> wrote:

>Mini Circuits has quite some directional couplers. For instance the 10 to
>1000 MHz ADC-10-4 has 10.5 dB coupling and 40 dB directivity (typical, 20 dB
>min up to 500 MHz). It costs 6.95 $ (quantity 10 - 49).

Had a look -an absolutely wicked range of devices. Have requested
their cattledog so I can peruse at a more leisurely pace. Tnks.

>>a 400 MHz to 3,6 GHz directional coupler has been published in VHF
>Communciation issue 2/96. Coupling is 20 dB, directivity is 20 dB up to 2
>GHz. It is made of FR4.

I have been unable to locate a source for copies of this mag here in
Perth (Aus). Is there a kind soul who could scan and upload or email
same?

Many thanks for the leads.

Peter VK6ZEG

2246. Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 06:50:41 UTC
From: J Titcomb <kimoloka@hawaii.rr.com>
Message-ID: <59TA6.5224$hr6.836413@typhoon.hawaii.rr.com>
Source record: 53543

Aloha Guys (and Gals)

There's too many newsgroups out there to find the exact one to answer this one particular question, which just happens to be about computers.

So I'm going to rely on my fellow hams, who are also experts in many other fields. Enough stroking? Here's the question:

How can I get rid of the Microsoft Networking logon prompt that pops up every time Windows starts? I know all you have to do is click Cancel, or ESC, to continue loading Windows, but why do I have to keep doing this every single time? Is there a way to get rid of the prompt altogether?

I already did a search on my browser engine and also on the microsoft.com site, but couldn't seem to find the answer.

Thanks for any help and 73s

Jim Titcomb
KH6IX

2247. Re: Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 07:13:14 UTC
From: 451ctds@pop3.concentric.net
Message-ID: <3AD40455.182E0A37@pop3.concentric.net>
Source record: 53544

I find that not replying to it causes it to go away, Wish I had a more technical answer, but I'm a retard. Not entering a password convinces the log on screen to retire early. Took several tries on my nutty network, but the problem's gone.

2248. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 07:30:03 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <5ur7dtcbo4fvmqb104il5p62gu7a01rqh7@4ax.com>
Source record: 53546

On Tue, 10 Apr 2001 20:22:30 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>That is a nice unit but what I'd like to see is something along the
>lines of a SMPS (similar to those found in the higher power and better
>quality car audio amps) powering some high voltage FET's producing a
>conservative 1500w pep from a 'stiff' 14v supply.

Why on earth do you want to operate this system from a 14 V supply ?

Are you thinking about mobile operation ?

A normal car alternator is not capable of producing such currents and
the car battery is not very stiff, when 100+ amps are taken out of it.
Feeding 500 W into a HF mobile antenna in a modern car full of
electronics is just asking for trouble.

>Class-E PA would do nicely at 90% efficiency. The SMPS would be up near
>that efficiency level also!

For a home station, why would you first convert the 230 V AC to a
stiff 14 V DC with great expenses and then switch it up to some higher
DC voltage. The Vce(sat) voltage losses alone are 5 .. 10 % of the 14
V switcher operating voltage, so I do not see how the switcher
efficiency could be even close to 90 %.

For home station use, a primary switcher operating from 400 V DC and
controlled by the amplitude information of the audio information would
give a high system efficiency and eliminate the heavy 50 Hz iron
transformer with a light ferrite transformer. A more traditional
approach would be to use a 50 Hz iron transformer and generate a 100 V
DC unregulated supply and use a switcher to drop the required voltages
suitable for the final stage.

Modulating the supply voltage with the audio amplitude should be good
enough for AM, but SSB would require also controlling the RF phase
going into the power amplifier as in various HELAPS designs.

Paul OH3LWR

2249. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 07:30:04 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <3vt7dtgl1455t2c897kfrs5krlan4om2si@4ax.com>
Source record: 53545

On Wed, 11 Apr 2001 01:35:37 GMT, "The Bakers"
<nospam@worldnet.att.net> wrote:

>Isn't there a type of radar (IIRC it is called "bistatic" but I may be wrong
>on this) where existing high-power VHF/UHF transmitters like TV broadcasting
>stations are used as the TX "point sources".

When living close to an airport, listen to amateur frequencies for
repeaters that are just outside normal reach. When a plane is flying
in a favourable direction, quite strong signals with characteristic
"airplane flutter" can be heard from these distant repeater.

Planes can also produce ghosts in local TV reception, especially if
omnidirectional built in antennas are used.

>The user (e.g., amateur)
>builds an RX system which displayed the reflected echoes from objects as a
>function of azimuth, elevation, etc.

It would be possible to have one highly directional antenna pointing
directly to the TV transmitter and an other movable highly directional
antenna to point to the plane and monitor the TV synch pulses on a
dual trace oscilloscope to determine the path length difference
between the direct and reflected (ghost) signals, however, I do not
see how the direction could be automatically determined. While the
az-el direction the movable antenna is pointing to for maximum signal
gives some clues, the beamwidth for any UHF TV antenna is still quite
broad to give exact heading.

Paul OH3LWR

2250. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 09:26:09 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9b2drr$jj6$1@newsg2.svr.pol.co.uk>
Source record: 53461

> >That is a nice unit but what I'd like to see is something along the
> >lines of a SMPS (similar to those found in the higher power and better
> >quality car audio amps) powering some high voltage FET's producing a
> >conservative 1500w pep from a 'stiff' 14v supply.
>
> Why on earth do you want to operate this system from a 14 V supply ?
>
> Are you thinking about mobile operation ?
>
> A normal car alternator is not capable of producing such currents and
> the car battery is not very stiff, when 100+ amps are taken out of it.
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> electronics is just asking for trouble.
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> transformer with a light ferrite transformer. A more traditional
> approach would be to use a 50 Hz iron transformer and generate a 100 V
> DC unregulated supply and use a switcher to drop the required voltages
> suitable for the final stage.
>
> Modulating the supply voltage with the audio amplitude should be good
> enough for AM, but SSB would require also controlling the RF phase
> going into the power amplifier as in various HELAPS designs.
>
> Paul OH3LWR
==========
Paul , How would you handle the voltage problem for MOBILE operation ?
Would it be sensible to run the high power solid state equipment from a
separate 24 or 48 V battery supply ,charging the batteries from the 12-13.8
V on-board supply via a DC to DC switcher (obviously with proper voltage
regulation and possibly current limitation) ?

Frank gm0csz.kn6wh@ukrs.org

2251. Re: Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 11:48:04 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9b1gam02kqf@news1.newsguy.com>
Source record: 53452

If it's Windows 9x and you are not on a network, you 'might' be able to get rid of it. This is an installation choice, and I don't see a quick way to eliminate it. The thing is, you want your computer set up for a single user, not multiple.

In the control panel for passwords, 'User Profiles' tab, be sure 'All users use the same profile...' is selected. Be sure the 2 check boxes on that panel are unselected. Under the control panel for users, be sure there is no more than one user. It wouldn't surprise me if deleting the last user would make the logon panel go away, but I can't be sure of that.

If you are on a network, as a minimum you cannot have 'User level access control' selected, but that may not be enough.

I'm pretty sure you can make it go away with a registry setting, but offhand I can't tell you what that would be. You might rummage through HKEY_LOCAL_MACHINE looking for suspects but be sure to back up the registry first and have a current startup disk in hand.

didleydadidah

"J Titcomb" <kimoloka@hawaii.rr.com> wrote in message
news:59TA6.5224$hr6.836413@typhoon.hawaii.rr.com...
> Aloha Guys (and Gals)
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> site, but couldn't seem to find the answer.
>
> Thanks for any help and 73s
>
> Jim Titcomb
> KH6IX
>
>

2252. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 12:21:23 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3AD44C9E.C1119CAF@earthlink.net>
Source record: 53447

squilsh wrote:

> > Has anybody considered doing amateur radar?

Here in the US, the FCC has restrictions in place for one-way transmissions by Amateur Radio Licensees. I haven't done an in-depth look at 47 CFR part 97, however I do believe that radar would violate the _spirit_ of the one-way transmission restrictions.

You might want to check into the rules and regs of your own country. Correct me if I'm wrong, U.S. Amateurs, but I'm pretty sure it's unlawful here.

73,

Henry C. Gernhardt, III
KE4PIB

2253. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 12:27:11 UTC
From: la8ak@online.no
Message-ID: <3ad41a33.581048148@news.online.no>
Source record: 53449

Hi

I've quite frequent had discussions where a 500W amplifier - operated
from 12VDC is requested, only to be used in the shack.......The
appliance operator dictate the technical term for the amplifier he
needs.
Suppose you choose 50VDC for the amplifier, but why on earth use
power regulator at all? You only need 50VDC - a 36V AC transformer
with rectifier bridge and capacitor are all the power supply parts you
need for a linear amplifier (add a fuse and a switch)

73,
JM

On Wed, 11 Apr 2001 10:30:03 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Tue, 10 Apr 2001 20:22:30 +0100, Philip de Cadanet
><phil@invest.fsbusiness.co.uk> wrote:
>
>
>>That is a nice unit but what I'd like to see is something along the
>>lines of a SMPS (similar to those found in the higher power and better
>>quality car audio amps) powering some high voltage FET's producing a
>>conservative 1500w pep from a 'stiff' 14v supply.
>
>Why on earth do you want to operate this system from a 14 V supply ?
>
>Are you thinking about mobile operation ?
>
>A normal car alternator is not capable of producing such currents and
>the car battery is not very stiff, when 100+ amps are taken out of it.
>Feeding 500 W into a HF mobile antenna in a modern car full of
>electronics is just asking for trouble.
>
>>Class-E PA would do nicely at 90% efficiency. The SMPS would be up near
>>that efficiency level also!
>
>For a home station, why would you first convert the 230 V AC to a
>stiff 14 V DC with great expenses and then switch it up to some higher
>DC voltage. The Vce(sat) voltage losses alone are 5 .. 10 % of the 14
>V switcher operating voltage, so I do not see how the switcher
>efficiency could be even close to 90 %.
>
>For home station use, a primary switcher operating from 400 V DC and

>controlled by the amplitude information of the audio information would
>give a high system efficiency and eliminate the heavy 50 Hz iron
>transformer with a light ferrite transformer. A more traditional
>approach would be to use a 50 Hz iron transformer and generate a 100 V
>DC unregulated supply and use a switcher to drop the required voltages
>suitable for the final stage.
>
>Modulating the supply voltage with the audio amplitude should be good
>enough for AM, but SSB would require also controlling the RF phase
>going into the power amplifier as in various HELAPS designs.
>
>Paul OH3LWR
>
>

2254. Re: Inductor coil calculations

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 12:27:12 UTC
From: la8ak@online.no
Message-ID: <3ad41c32.581559435@news.online.no>
Source record: 53448

On Tue, 10 Apr 2001 17:30:51 -0400, "WB8RCR" <wb8rcr_NOSPAM@qsl.net>
wrote:

>
>What you DO need is an RF probe and a high-impedance voltmeter. I presume
>anyone asking the question has the meter, but maybe not the probe. So run
>down to your local rat shack and invest a buck or two, and build one.
>Chances are pretty good you have what you need in the junk box, so you may
>not even need to run down to the shack.
>

one problem is that many VTVM's have insufficient sensitivity when
used with RF probes. They were ufb for valve radio, while for
solidstate experiments even the HP427A isn't good enough, you need to
measure down below 1mV DC.
This is done quite easy using a CA3140E or other op-amp, see
applications notes for simple VTVM for this IC. Diode probes are never
precision measurements, but it is possible to achieve 20% accuracy
over the ranges 30mV-10V 0.1-1000MHz with not much problems using
1N270 voltage doubler RF probe

73,
Jan-Martin
LA8AK

2255. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 12:41:20 UTC
From: Tom Becker <gtbecker@rightime.com>
Message-ID: <td8k7ippgp5q3b@corp.supernews.com>
Source record: 53450

> ... I'm pretty sure it's unlawful here.

Well, not entirely. Transmitter hunts, beacons...

--

Tom Becker
--... ...--
GTBecker@RighTime.com GTBecker@OnRamp.net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

2256. Re: Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 12:48:14 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AD4528E.C6783DE3@toast.net>
Source record: 53451

451ctds@pop3.concentric.net wrote:

> I find that not replying to it causes it to go away, Wish I had a more
> technical answer, but I'm a retard. Not entering a password convinces
> the log on screen to retire early. Took several tries on my nutty
> network, but the problem's gone.

The only disadvantage to getting it to go away is that the operating system
will no longer remember your logon passwords to other things, like dial-up
networking.

john

2257. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 14:22:43 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <td8q5kan1inqe8@corp.supernews.com>
Source record: 53453

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:5ur7dtcbo4fvmqb104il5p62gu7a01rqh7@4ax.com...
>
> For a home station, why would you first convert the 230 V AC to a
> stiff 14 V DC with great expenses and then switch it up to some higher
> DC voltage. The Vce(sat) voltage losses alone are 5 .. 10 % of the 14
> V switcher operating voltage, so I do not see how the switcher
> efficiency could be even close to 90 %.

Many switching power supplies use MOSFET devices. For example the IRFP360
is a 400 volt device with a Rds_on of 0.20 ohms. The conduction loss in a
MOSFET is simply Idrain * Rds_on. By paralleling a number of devices the
"effective" Rds_on decreases, thus the conduction losses can be reduced.
Then by using a resonate mode switching design, zero voltage or zero
current, the switching losses can be reduced to almost zero. So with low
conduction losses, and nearly zero switching losses, it is not uncommon to
see well designed switching power supplies with efficiencies at or above 90
percent.

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"FBI bomb technician. If you see
me running, TRY to keep up! "

2258. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 15:47:18 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <vur8dtge2n8bp8u4pm036o8abimdlmr4hj@4ax.com>
Source record: 53454

On Wed, 11 Apr 2001 10:22:43 -0400, "Leland C. Scott"
<no-spam@junk-mail.net> wrote:

>Many switching power supplies use MOSFET devices. For example the IRFP360
>is a 400 volt device with a Rds_on of 0.20 ohms. The conduction loss in a
>MOSFET is simply Idrain * Rds_on.

Thus, you can run 5 A and still keep the voltage drop below 1 V.

>By paralleling a number of devices the
>"effective" Rds_on decreases, thus the conduction losses can be reduced.

An amplifier producing 500 W RF would require 600 .. 1000 W of DC
power. Taking this from a 14 V supply requires 43 .. 71 A, thus, you
would have to put 9 .. 14 of those FETs in parallel to keep the
voltage drop below 1 V.

>Then by using a resonate mode switching design, zero voltage or zero
>current, the switching losses can be reduced to almost zero. So with low
>conduction losses, and nearly zero switching losses, it is not uncommon to
>see well designed switching power supplies with efficiencies at or above 90
>percent.

When you start with 300 .. 400 V DC (rectified mains voltage) and 1 ..
5 A currents, obtaining over 90 % efficiency should not be too hard,
however, when starting with 12 .. 14 V and 100 A, obtaining such
efficiency is much harder.

Paul OH3LWR

2259. Re: Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 16:20:14 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b207svsi1@dipsy.missouri.edu>
Source record: 53455

WB8RCR wrote ...[chop chop]
Jim, and whoever else cares:

You may have had several responses to this one off the group, but here's how to do it for those interested (Assuming you are the only user, and that you are not on a network.).

If the Windows Logon is your startup 'thingy' you are in luck. And everything will be simple.
For this case,
1) Go to the Start->Find->Files/Folder and in the search field put the following: *.pwl (star included)
2) Set the search directory as the C:\ drive (or where-ever you have Windows)
3) Hit enter....grind grind grind
4) You should have a list with all logon names followed by .pwl in the box (below the search directory selector)
5) Select them all (Ctrl-A)
6) Hit Delete and watch them go byebye
7) Log out of Windows (may require reboot--but I don't recall if it should)
8) When you get the login prompt from Windows, simply hit Cancel or the Esc. key and you should never see that thing again.

Now, if you are logged into a network, you can do one of two things:
1) Get the TweakUI.exe thing from Microsoft. It has an option on the Network tab that allows you to automagically logon to a network by filling in the check box--but that's not very secure.
2) You can forget about logging onto the network ever again, and get rid of Network Neighborgood. It's easy. It's fun. It's exciting. Left Click on Network Neighborhood and select Properties. Click on Primary Network Logon dropdown box, and select Windows Logon. If you'd like to see Network Neighborhood gone, then you have to find Client for MS Networks (in the 'white' box above). Select it, click remove, and get your Win9x see-dee ready (if you didn't copy it to your hd). Click OK and then you've got to reboot. Next time you reboot, pick up at Step #8 above. Everything should work just peachy.

Pete
ki0eg

2260. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 16:51:16 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <td92s8s4ftqq5c@corp.supernews.com>
Source record: 53456

"Paul Keinanen" <keinanen@sci.fi> wrote in message
news:vur8dtge2n8bp8u4pm036o8abimdlmr4hj@4ax.com...
> When you start with 300 .. 400 V DC (rectified mains voltage) and 1 ..
> 5 A currents, obtaining over 90 % efficiency should not be too hard,
> however, when starting with 12 .. 14 V and 100 A, obtaining such
> efficiency is much harder.

But do able. It all depends on how much money, and effort, you want to put
in to the design. For example to improve the efficiency of low voltage power
supplies the rectifier diodes are replaced with FETs. The gates are then
driven in sync with the secondary voltage.

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"FBI bomb technician. If you see
me running, TRY to keep up! "

2261. Re: Antoher big question!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 18:11:07 UTC
From: Reagan Thomas <reaganNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3AD49E3B.2182092F@r-a-tSPAMISBAD.com>
Source record: 53478
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors,rec.radio.amateur.misc,rec.radio.amateur.equipment

> bomc wrote:
>
> > I think I need to replace the final transistors in my HF rig. They are the two CTC CD2545 models. However, I cannot find these ANYWHERE. The
> > online lookup service said they are discontinued by a manufacturer without a web address. Doe ANYBODY know where I could get these or at least a
> > comproble substitute? Thanks!

Partminer (www.partminer.com) says that Richardson Electronics (www.rell.com, 1-800-348-5580) has them for $24.50

-RAT

2262. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 18:25:44 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <2SVFECAoGK16Ewf0@invest.fsbusiness.co.uk>
Source record: 53457

Hello Paul,

>Why on earth do you want to operate this system from a 14 V supply ?
>
>Are you thinking about mobile operation ?
Well yes, that is my personal interest, QRO HF mobile operating. No
televisions or VCR's to interfere with!
>A normal car alternator is not capable of producing such currents and
>the car battery is not very stiff, when 100+ amps are taken out of it.
Who said anything about a normal car alternator. For 500w pep the peak
current drain may be rather high but the average current is not.

I run an alternator controller as part of my charging system together
with a couple of split charged deep cycle batteries and can hold the key
down pulling 150A with only .3v drop down from 14.6 off load.

As Leyland said "it can be done" with time, effort and a little
investment.
>Feeding 500 W into a HF mobile antenna in a modern car full of
>electronics is just asking for trouble.
I run two diesels, no electronics, no ignition system and no
interference!

Look at the E-350 alternator (14v @ 385A @ 5000rpm) at
www.electrodyne.com

He also makes a nice 48v @ 100A unit!
>>Class-E PA would do nicely at 90% efficiency. The SMPS would be up near
>>that efficiency level also!
>
>For a home station, why would you first convert the 230 V AC to a
>stiff 14 V DC with great expenses and then switch it up to some higher
>DC voltage. The Vce(sat) voltage losses alone are 5 .. 10 % of the 14
>V switcher operating voltage, so I do not see how the switcher
>efficiency could be even close to 90 %.
Leyland answered this. Go take a peak inside some of the big car audio
amps at the next ICE show near you. You'll be surprised. Regulators
everywhere but with relatively few audio O/P devices.
>
>
>For home station use, a primary switcher operating from 400 V DC and
>controlled by the amplitude information of the audio information would
>give a high system efficiency and eliminate the heavy 50 Hz iron
>transformer with a light ferrite transformer. A more traditional
>approach would be to use a 50 Hz iron transformer and generate a 100 V
>DC unregulated supply and use a switcher to drop the required voltages

>suitable for the final stage.
>
>Modulating the supply voltage with the audio amplitude should be good
>enough for AM, but SSB would require also controlling the RF phase
>going into the power amplifier as in various HELAPS designs.
>
>Paul OH3LWR
Paul,

Another item that's just not been published on the web is a KISS based
Pulse Width Modulator for an AM transmitter.

(((73)))

Phil G4ZOW

2263. Re: DIY directional coupler designs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 19:26:00 UTC
From: Peter Bolch <320058850955-0001@t-online.de>
Message-ID: <9b2b7f$u83$06$1@news.t-online.com>
Source record: 53459

Peter,

> I have been unable to locate a source for copies of this mag here in
> Perth (Aus). Is there a kind soul who could scan and upload or email
> same?

VHF Communications is published by KM-Publications in the UK (Andy Barter, e-mail: AndyBarter@compuserve.com).

I've got the German version of the article and can scan it for you next week if you like. I could also translate the important information (dimensions of the lines, parts used, specs of the coupler).

The author of the article mentions that the construction of stripline couplers is described in depth in "Stripline Circuit Design" by Howe Harlan Jr. (Artech House, 1974).

Peter

2264. Looking for Quartz Crystals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 19:27:37 UTC
From: rhebert <rexheb@NOSPAMbellsouth.net>
Message-ID: <Je2B6.4374$N8.484116@bin1.nnrp.aus1.giganews.com>
Source record: 53458

Hello guys,

I've got an RCA WR-50B RF Generator w/ IF Sweep
that says it can use a crystal plugged into its front panel
socket to generate a marker during sweep

The oscillator circuit is described in the manual as a
parallel-resonant Pierce design with 32pF loading

I'm trying to locate 1 each of these crystals
(I've included the old RCA part numbers incase they are of any use)

100 KHz ... RCA PN: 11C100
455 KHz ... RCA PN: 11C101
1.0 MHz ... RCA PN: 11C102
4.5 MHz ... RCA PN: 214796
10 MHz ... RCA PN: 11C103
10.7 MHz ... RCA PN: 11C104

Base: HC-6U or HC-13 maybe
pin diameter: 0.05"
pin spacing: 0.486"

If anyone has any of these or equivalents for sale
or can help me locate them, please contact me

Thanks

Rex Hebert WD5FVZ
Lafayette, Louisiana

Please remove NOSPAM to Email me

2265. Re: request to post used brew equipment for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 19:49:46 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3AD4B559.6C63B748@midwestmicro-tek.com>
Source record: 53462

J Yazel wrote:

> On Tue, 10 Apr 2001 21:10:09 -0600, "gnmouser"
> <gnmouser@rhapsodymfg.com> wrote:
> >request to post used brew equipment for sale
> >Dear Moderator of this Newsgroup: I am requesting permission or some way to
> >post the details of a brew-it-yourself company.
> >The company is not for sale but rather the kettles, bottle washer, boiler,
> >filters, carboys and much of the related equipment.
> >I do not want to offend anyone in this news group...So, if the I could
> >receive a yes or no I would really appreciate it.
> > ------------------------------------
>
> Friendly suggestion.
>
> This newsgroup is about radios/electronics.
>
> You may not find much serious interest in brewing equipment here
> (unless it's on a weekend).
>
> Jack W8RAG
>
>

Au contrair, Jack. Just lastnight I bottled up 5 gallons of Australian Lager
thats been sitting in a secondary in my basement (55 F) for 2 months. In about
two more months I should have two cases of fine Lager ;-) Yumm.

2266. Re: request to post used brew equipment for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 19:53:19 UTC
From: jyazel@nls.net
Message-ID: <3ad4b5a0.2052278@news.newsguy.com>
Source record: 53460

On Tue, 10 Apr 2001 21:10:09 -0600, "gnmouser"
<gnmouser@rhapsodymfg.com> wrote:
>request to post used brew equipment for sale
>Dear Moderator of this Newsgroup: I am requesting permission or some way to
>post the details of a brew-it-yourself company.
>The company is not for sale but rather the kettles, bottle washer, boiler,
>filters, carboys and much of the related equipment.
>I do not want to offend anyone in this news group...So, if the I could
>receive a yes or no I would really appreciate it.
> ------------------------------------

Friendly suggestion.

This newsgroup is about radios/electronics.

You may not find much serious interest in brewing equipment here
(unless it's on a weekend).

Jack W8RAG

2267. Re: DIY directional coupler designs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 20:44:59 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <ScHUOgUPUXLjfj5qY8vEL03GGnpA@wingate>
Source record: 53464

On Wed, 11 Apr 2001 21:26:00 +0200 "Peter Bolch"
<320058850955-0001@t-online.de> wrote:

>The author of the article mentions that the construction of stripline
>couplers is described in depth in "Stripline Circuit Design" by Howe Harlan
>Jr. (Artech House, 1974).

I'm sure that will worth the $95.00 for 344 pages in amazon, but it's
rather expensive!!

There is some in deep theory online about stripline coupling circuit
design?. I searched the net some time ago, and could't find much about edge
coupled striplines.
73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

2268. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 20:51:51 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <td9gv8fvqae195@corp.supernews.com>
Source record: 53463

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:2SVFECAoGK16Ewf0@invest.fsbusiness.co.uk...
> Another item that's just not been published on the web is a KISS based
> Pulse Width Modulator for an AM transmitter.

That is not really that hard to do. There are at least two methods I know about.

The first uses a full or half "H bridge" design. The triggering frequency of the transistors are adjusted to match the resonate frequency. That way the transistors will switch when the current going through them is nearly zero, thus keeping the switching losses low. To modulate the "transmitter" the DC supply voltage must be modulated at an audio rate.

The second method again uses a full or half "H bridge" design. Again the triggering frequency of the transistors are adjusted to match the resonate frequency. But in this case the phase of the transistor gate drive in one diagonal is shifted relative to the other one at an audio rate. The price you pay in this case is switching losses in the transistors, but you feed the "transmitter" a constant DC voltage.

Take your pick.

The first method is what is used in the line of induction heating power supplies the company I work for sells. We currently get up to 90KW out of these units running up to 200KHz. The variable DC power control is just a simple Buck converter. One of the engineers I know, who used to work for a sister company in our group, now works for Harris. He did work on an AM transmitter they are now selling. He told me the design is not that much different from what he was used to in the induction heating power supplies.

I did some circuit simulations using the second method, and breadboarded the logic and drive circuits which seemed to work. I did not build the power circuit, just did the simulations. I did the simulations in Circuit Maker Pro version 6. Keep in mind this was not with the idea of building a radio transmitter. If anyone is interested I can supply a copy of my notes, and the simulation run waveforms. You can look up my E-mail address on www.QRZ.com .

There are some articles, on the web, about class E amplifiers, but this is a completely different animal too.

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"FBI bomb technician. If you see
me running, TRY to keep up! "

2269. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 21:23:58 UTC
From: magne@clustra.com
Message-ID: <m34rvv2kr5.fsf@clustra.com>
Source record: 53465

John O'Flaherty <oflahert@toast.net> writes:

> I ask this out of technical curiosity about the rules: would using radar
> be permitted, not being two-way communications?

You don't say which countrys regulations you were interested in
(these do vary, you know :)

In Norway, you can do radar experiments as long as you
observe frequency limits (keep inside the amateur bands),
power limits, modulation scheme limits (a very archaic
regulation we have here) and that you transmit your callsign
every 10 minutes. You will of course need to ensure that
no communication is taking place on the frequency (-ies)
before starting.

I would be surprised if your national regulations mandated
that every form of communication be two-way :)

--Magne / la1bfa

2270. Re: request to post used brew equipment for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 21:32:41 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9b2ilm06ln@news2.newsguy.com>
Source record: 53467

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message
news:3AD4B559.6C63B748@midwestmicro-tek.com...
> Au contrair, Jack. Just lastnight I bottled up 5 gallons
> of Australian Lager thats been sitting in a secondary

And who says hams aren't well rounded ... in more ways than one <g>

didleydadidah

2271. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 22:16:10 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <KI4B6.9165$uh5.357780@typhoon.mw.mediaone.net>
Source record: 53466

"Dennis W. Ostrowski" <dwostrowski@lucent.com> wrote in message
news:3AD4BE12.81A03067@lucent.com...
> "Leland C. Scott" wrote:
> >
> > Saw this on a Tee-shirt:
> >
> > "FBI bomb technician. If you see
> > me running, TRY to keep up! "
>
> ENJOY!
>
> Dennis O.

Thanks! I have to change the quote. That was the picture I saw. I just could
not get the exact quote right. It's fixed now.

--
73's,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

2272. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 22:41:37 UTC
From: magne@clustra.com
Message-ID: <m3y9t712la.fsf@clustra.com>
Source record: 53468

magne@clustra.com (Magne Mï¿½hre) writes:

> I would be surprised if your national regulations mandated
> that every form of communication be two-way :)

I was obviously wrong. I looked at the FCC part 97, and it
clearly states that unless specifically allowed, all forms of
one-way communcation is forbidden. I guess other administrations
may have put up similar restrictions.

--Magne

2273. Re: Stop by - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 23:24:05 UTC
From: la8ak@online.no
Message-ID: <3ad4e768.633589480@news.online.no>
Source record: 53469
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Tue, 10 Apr 2001 15:57:03 GMT, "Charles Johnston"
<ctj92@earthlink.net> wrote:

>Lots of STUFF to do at www.ab7sl.com such as...
>
and what about MPD-5C antenna on the WARC-bands?

-JM

2274. Re: Looking for Quartz Crystals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 23:24:41 UTC
From: DJ6JZ <DJ6JZ@compuserve.de>
Message-ID: <3ad4e850_2@news.arcor-ip.de>
Source record: 53470

Try a search for 'crystal' at http://www.radio-portal.org
Regards,
Willi, DJ6JZ

rhebert <rexheb@NOSPAMbellsouth.net> schrieb in im Newsbeitrag:
Je2B6.4374$N8.484116@bin1.nnrp.aus1.giganews.com...
>
> Hello guys,
>
> I've got an RCA WR-50B RF Generator w/ IF Sweep
> that says it can use a crystal plugged into its front panel
> socket to generate a marker during sweep
>
> The oscillator circuit is described in the manual as a
> parallel-resonant Pierce design with 32pF loading
>
> I'm trying to locate 1 each of these crystals
> (I've included the old RCA part numbers incase they are of any use)
>
> 100 KHz ... RCA PN: 11C100
> 455 KHz ... RCA PN: 11C101
> 1.0 MHz ... RCA PN: 11C102
> 4.5 MHz ... RCA PN: 214796
> 10 MHz ... RCA PN: 11C103
> 10.7 MHz ... RCA PN: 11C104
>
> Base: HC-6U or HC-13 maybe
> pin diameter: 0.05"
> pin spacing: 0.486"
>
> If anyone has any of these or equivalents for sale
> or can help me locate them, please contact me
>
> Thanks
>
> Rex Hebert WD5FVZ
> Lafayette, Louisiana
>
>
> Please remove NOSPAM to Email me
>
>
>

2275. Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-11 23:45:32 UTC
From: "Rex Klopfenstein, Jr." <rklopfen@wcnet.org>
Message-ID: <3AD4EC9C.16F249FD@wcnet.org>
Source record: 53471

I don't know if this list has an archive. I am sure this question has
been posted (and answered) before!

I am looking for a company that will generate single pc boards from CAD
file (such as those generated by Electronics Workbench). I seem to
remember a company that would actually provide a CAD program to generate
the files. As would have it, I can't remember the actual company name.

Any help would be appreciated!

--
Rex Klopfenstein, Jr.
Bowling Green, OH
KC8PFP
rklopfen@wcnet.org
http://www.wcnet.org/~rklopfen

2276. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 00:25:15 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <LB6B6.2923$cb6.279472@newsread2.prod.itd.earthlink.net>
Source record: 53472

I don't hink radar is a one-way communication. If you are using radar you expect to receive the transmitted signal. You will not just be listening to yourself talk, either. The received signal wil be processed to retrieve specific intelligence.

One way transmissions are transmitted with no intention of having them received by anybody. I might be wrong, too, but the one-way thing is not a valid point. There are some other valid points brought out.. qrm , etc.

Bill KU8H

Magne M&#65533;hre <magne@clustra.com> wrote in message
news:m3y9t712la.fsf@clustra.com...
> magne@clustra.com (Magne M&#65533;hre) writes:
>
> > I would be surprised if your national regulations mandated
> > that every form of communication be two-way :)
>
> I was obviously wrong. I looked at the FCC part 97, and it
> clearly states that unless specifically allowed, all forms of
> one-way communcation is forbidden. I guess other administrations
> may have put up similar restrictions.
>
> --Magne
>
>

2277. LM317 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 00:37:05 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3AD4F8B1.A88EA4F9@visi.com>
Source record: 53473

Hi gang,
I have a power supply that uses an LM317 3 terminal adjustable regulator. It has about +22VDC applied to the input and the usual resistor from the "adj" pin to the "out" pin, and a variable resistor to ground.

As you may know, with this arrangement, the minimum output from the regulator is about +1.2V. So.....I lifted the ground end of the variable resistor, and conneted it instead a 2 resistor voltage divider across a -12VDC supply to provide -1.2VDC to the bottom of the variable resistor in the LM318 ckt. Now the output of the LM318 goes all the way down to 0V. I've checked it under lots of conditions, loaded, no load, cold, hot, etc., and can't find any problems with it.

Before I have a bunch of my students make this change to their power supplies, I thought i'd see if anyone else in this group has tryed this and found any gotcha ya's.
Thanks.

72
Bob L. WB0POQ

2278. Re: LM317 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 01:03:44 UTC
From: Steve Ratzlaff <sratzlaf@flash.net>
Message-ID: <3AD4FE66.544B01BB@flash.net>
Source record: 53474

Hi Bob,
The manufacturer's databook info for the LM317 show this to be the proper way to bias the IC down to zero volts. If you figured out how to do this on your own, that's great, but it's a well-known technique! I don't know of any problems doing this.
Steve

Bob Liesenfeld wrote:
>
> Hi gang,
> I have a power supply that uses an LM317 3 terminal adjustable
> regulator. It has about +22VDC applied to the input and the usual
> resistor from the "adj" pin to the "out" pin, and a variable resistor to
> ground.
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> regulator is about +1.2V. So.....I lifted the ground end of the
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> supplies, I thought i'd see if anyone else in this group has tryed this
> and found any gotcha ya's.
> Thanks.
>
> 72
> Bob L. WB0POQ

2279. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 01:55:13 UTC
From: Bob Headrick <bobh@proaxis.com>
Message-ID: <3ad50a8e_2@news.pacifier.com>
Source record: 53475

"Rex Klopfenstein, Jr." <rklopfen@wcnet.org> wrote in message
news:3AD4EC9C.16F249FD@wcnet.org...
> I don't know if this list has an archive. I am sure this question has
> been posted (and answered) before!
>
> I am looking for a company that will generate single pc boards from CAD
> file (such as those generated by Electronics Workbench). I seem to
> remember a company that would actually provide a CAD program to generate
> the files. As would have it, I can't remember the actual company name.
>
> Any help would be appreciated!

Try www.expresspcb.com .

- 73 Bob W7OV

2280. Re: Computer Question?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 03:15:21 UTC
From: KI8JC - Greg Elsbernd <ki8jc@arrl.net>
Message-ID: <d59B6.7724$nI4.1197854@typhoon.kc.rr.com>
Source record: 53476

Well I see several wrong answers.

Go into control panel,
double click networking
about halfway down on the window that opens you will see a pull down list titled "Primary Network Logon"
change that from "Client for Microsoft Networks" to "Windows Logon"
Click OK
From this point on, things can be kind of weird.
Windows will probably ask you to reboot.
When it comes back up, you will have the Windows Logon, not the Network Logon,
the first thing you need to try is a blank password. If that doesn't work, then you need to use the old password to start up windows. Then once windows is started, go into control panel, double click "passwords"
Click "change Windows Password"
Fill in the old password, but leave the new password and the confirm new password blank.
At this point, you should not have to enter in a password again when you restart windows.

73
"J Titcomb" <kimoloka@hawaii.rr.com> wrote in message news:59TA6.5224$hr6.836413@typhoon.hawaii.rr.com...
Aloha Guys (and Gals)

There's too many newsgroups out there to find the exact one to answer this one particular question, which just happens to be about computers.

So I'm going to rely on my fellow hams, who are also experts in many other fields. Enough stroking? Here's the question:

How can I get rid of the Microsoft Networking logon prompt that pops up every time Windows starts? I know all you have to do is click Cancel, or ESC, to continue loading Windows, but why do I have to keep doing this every single time? Is there a way to get rid of the prompt altogether?

I already did a search on my browser engine and also on the microsoft.com site, but couldn't seem to find the answer.

Thanks for any help and 73s

Jim Titcomb
KH6IX

2281. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 03:32:07 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <4l9B6.3411$6R5.207315@news1.atl>
Source record: 53477

Check the ads in Circuit Cellar INK http://www.circellar.com lots of PCB vendors there.
Most vendors will require Gerber and Excellon (drill) files. Not sure if EWB produces good gerber output. Autorouters in software that costs less than $2K usually suck. Heck, even the ones that cost more than $2K suck too! Ask anyone who uses ORCAD!

I have used APCircuits in Calgary. http://www.apcircuits.com Their minimum is 2 boards of the same artwork. They have a freeware copy of Protel Easytrax (DOS), which will get you started producing gerbers. They also have a decent Gerber viewer (GCPREVUE) which you really need to use to check your plots before you send them out. They have a quick turnaround and are really decent to work with.

If you're brave, you can go the laser printer (TONER-TRANSFER) route and etch and drill your boards yourself. For single sided boards this is an OK way to go if you have the time and patience.

PCB design and fabrication is NOT a trivial exercise. For the cost and time involved learning the software, and the expense of making a mistake, if you're doing a one-off you'll make out better with dead-bug or vectorboard for RF/Analog, and wire-wrap for digital.

My personal preference for one-offs is single sided clad vectorboard using a pad cutter and point to point wiring. Lots of ground plane and is fairly rugged. Not good for SMT, though...

73
Rory N7CR

"Rex Klopfenstein, Jr." <rklopfen@wcnet.org> wrote in message news:3AD4EC9C.16F249FD@wcnet.org...
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> --
> Rex Klopfenstein, Jr.
> Bowling Green, OH
> KC8PFP

> rklopfen@wcnet.org
> http://www.wcnet.org/~rklopfen
>
>

2282. Mahalo plenty!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 04:45:30 UTC
From: J Titcomb <kimoloka@hawaii.rr.com>
Message-ID: <KpaB6.212$AR6.29939@typhoon.hawaii.rr.com>
Source record: 53479

Hey, Guys, Thanks for your help. Got the problem fixed. Sorry if I offended anyone by using this newsgroup for a computer question. The people in the Windows98 newsgroup are pretty knowledgable, but also kind of harsh and intolerant of beginners or inexperienced people. Whereas I feel comfortable among other hams, who are usually more than willing to help someone else out. Mahalo plenty, 73 es aloha. Jim KH6IX

J Titcomb <kimoloka@hawaii.rr.com> wrote in message
news:59TA6.5224$hr6.836413@typhoon.hawaii.rr.com...
> Aloha Guys (and Gals)
>
> There's too many newsgroups out there to find the exact one to answer this
> one particular question, which just happens to be about computers.
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> ESC, to continue loading Windows, but why do I have to keep doing this
every
> single time? Is there a way to get rid of the prompt altogether?
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> I already did a search on my browser engine and also on the microsoft.com
> site, but couldn't seem to find the answer.
>
> Thanks for any help and 73s
>
> Jim Titcomb
> KH6IX
>
>

2283. Re: Mahalo plenty!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 06:30:29 UTC
From: Cory <corywillbe@hotmail.com>
Message-ID: <tdaisbsiqfo1c@corp.supernews.com>
Source record: 53480

Although he already got it...if anyone is interested the easiest way to get rid of the logon window is to go to control pannel then network and simply remove client for microsoft networks, and/or microsoft family logon.

Cory KC0KHP
"J Titcomb" <kimoloka@hawaii.rr.com> wrote in message news:KpaB6.212$AR6.29939@typhoon.hawaii.rr.com...
> Hey, Guys, Thanks for your help. Got the problem fixed. Sorry if I offended
> anyone by using this newsgroup for a computer question. The people in the
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> > site, but couldn't seem to find the answer.
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> > Thanks for any help and 73s
> >
> > Jim Titcomb
> > KH6IX
> >
> >

>
>

2284. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 07:12:33 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <ndHxnKAhVV16EwNL@invest.fsbusiness.co.uk>
Source record: 53489

Leland,

>I did some circuit simulations using the second method, and breadboarded the
>logic and drive circuits which seemed to work. I did not build the power
>circuit, just did the simulations. I did the simulations in Circuit Maker
>Pro version 6. Keep in mind this was not with the idea of building a radio
>transmitter. If anyone is interested I can supply a copy of my notes, and
>the simulation run waveforms. You can look up my E-mail address on
>www.QRZ.com .
>
>There are some articles, on the web, about class E amplifiers, but this is a
>completely different animal too.
My colleague and I have constructed fritz Raab's Class-E PA with a pair
of IRF510's. My colleague Peter pointed out to Fritz that some of calc's
were not quite on the ball which he later acknowledged. However, the
design came out with the correct numbers:

700w of cw on 160m for under 10 bucks!

We also matched his 92% efficiency.

Raab and his partner designed a Class-S modulator but have never
published the design.

Back to my point. There has still been very little 'practical' work
published on the web with regards an AM PWM.

Those that run home-brewed pulse width modulated transmitters seem to
keep all their work to themselves and I suppose one cannot blame them.

Regards

Phil G4ZOW

2285. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 09:31:36 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <8cqadt8jumikda0rh0jkr3t981k0n8g1nb@4ax.com>
Source record: 53415

On Wed, 11 Apr 2001 12:26:09 +0300, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>Paul , How would you handle the voltage problem for MOBILE operation ?
>Would it be sensible to run the high power solid state equipment from a
>separate 24 or 48 V battery supply ,charging the batteries from the 12-13.8
>V on-board supply via a DC to DC switcher (obviously with proper voltage
>regulation and possibly current limitation) ?

Provided that the Tx/Rx duty cycle is low, only moderate currents
would have to be taken from the 12 V system and thus, there would be
less ohmic losses for a specific number of active devices in the
inverter.

Provided that you have access to the alternator windings before the
rectifiers, you might even try to connect the AC output from the
alternator to a suitable 3 phase transformer and using 3 phase
rectifiers to feed the battery charger. One problem with such
arrangement is that the frequency varies quite a lot, so you have to
select proper transformer core materials.

Paul OH3LWR

2286. Re: LM317 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 12:00:38 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <GNgB6.530419$w35.77652218@news1.rdc1.nj.home.com>
Source record: 53481

Nat Semi has a somewhat expensive voltage reference in their application notes.

However, you can use an LM337L -- the TO92 "negative" version of the LM317. This device costs about $0.45 and provides the exact opposite voltage needed to bias the LM317. I have one in a Heath IP27 power supply that I "POOGED" to lab standards.

"Steve Ratzlaff" <sratzlaf@flash.net> wrote in message news:3AD4FE66.544B01BB@flash.net...
> Hi Bob,
> The manufacturer's databook info for the LM317 show this to be the
> proper way to bias the IC down to zero volts. If you figured out how to
> do this on your own, that's great, but it's a well-known technique! I
> don't know of any problems doing this.
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> > Before I have a bunch of my students make this change to their power
> > supplies, I thought i'd see if anyone else in this group has tryed this
> > and found any gotcha ya's.
> > Thanks.
> >
> > 72
> > Bob L. WB0POQ

2287. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 12:09:04 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <AVgB6.530420$w35.77655779@news1.rdc1.nj.home.com>
Source record: 53482

Ultiboard (made by Electronics Workbench) will provide a variety of Gerber formats. You have to make sure that the format you generate is consistent with that of the board manufacturer.

I have been making my own of late. I recently purchased a HP7475a plotter. (They go for $20 on EBay). The plotter seems to do a better job of printing to mylar than the laser jet. You just create a plot file in Ultiboard (this file can be edited in MSWord -- one of the parameters AA is set by Ultiboard to an "inconveniently" precise level) and send it via DOS command to the printer.

I use the positive boards that Circuit Specialist carries. Very easy to use.

"Rory Davis" <n7cr@bellsouth.net> wrote in message
news:4l9B6.3411$6R5.207315@news1.atl...
> Check the ads in Circuit Cellar INK http://www.circellar.com lots of PCB
> vendors there.
> Most vendors will require Gerber and Excellon (drill) files. Not sure if
EWB
> produces good gerber output. Autorouters in software that costs less than
> $2K usually suck. Heck, even the ones that cost more than $2K suck too!
Ask
> anyone who uses ORCAD!
>
> I have used APCircuits in Calgary. http://www.apcircuits.com Their minimum
> is 2 boards of the same artwork. They have a freeware copy of Protel
> Easytrax (DOS), which will get you started producing gerbers. They also
> have a decent Gerber viewer (GCPREVUE) which you really need to use to
check
> your plots before you send them out. They have a quick turnaround and are
> really decent to work with.
>
> If you're brave, you can go the laser printer (TONER-TRANSFER) route and
> etch and drill your boards yourself. For single sided boards this is an OK
> way to go if you have the time and patience.
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> PCB design and fabrication is NOT a trivial exercise. For the cost and
time
> involved learning the software, and the expense of making a mistake, if
> you're doing a one-off you'll make out better with dead-bug or vectorboard
> for RF/Analog, and wire-wrap for digital.
>
> My personal preference for one-offs is single sided clad vectorboard using
a

> pad cutter and point to point wiring. Lots of ground plane and is fairly
> rugged. Not good for SMT, though...
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> > Rex Klopfenstein, Jr.
> > Bowling Green, OH
> > KC8PFP
> > rklopfen@wcnet.org
> > http://www.wcnet.org/~rklopfen
> >
> >
>
>

2288. Icom PCR-1000 Control Program for PPC?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 12:54:51 UTC
From: Paul Knight <paul.knight@prairiecomm.com>
Message-ID: <9b48is$k3q$1@bob.news.rcn.net>
Source record: 53483
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hi! This is a longshot, but is anyone aware of a Pocket PC (WinCE 3.0) program for controlling an Icom PCR-1000 receiver? That capability is about the only thing precluding me from losing my laptop forever in favor of the E-125. There are several good programs available under Win9X, but I would love to be able to run it from the Casio.

Thanks!

Paul WD8DKY
paul.knight@prairiecomm.com

2289. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 13:14:41 UTC
From: Bob Koerber <n4bk@hiwaay.net>
Message-ID: <3AD5AA41.2E9426E7@hiwaay.net>
Source record: 53484

Schatzie wrote:
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Check out www.4pcb.com they even have online quotes very fast and pretty
reasonable. For Cad software try www.cadsoftusa.com. You can download
a free trial of their software and purchase it for a real reasonable
price for experimenters. I am using it at work under Linux and it is
excellent. 73's Bob N4BK

2290. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 16:04:59 UTC
From: j.m.franke@larc.nasa.gov
Message-ID: <j.m.franke-1204011204590001@franke.larc.nasa.gov>
Source record: 53485

In article <3AD4EC9C.16F249FD@wcnet.org>, rklopfen@wcnet.org wrote:

> I don't know if this list has an archive. I am sure this question has
> been posted (and answered) before!
>
> I am looking for a company that will generate single pc boards from CAD
> file (such as those generated by Electronics Workbench). I seem to
> remember a company that would actually provide a CAD program to generate
> the files. As would have it, I can't remember the actual company name.
>
> Any help would be appreciated!
>
> --
> Rex Klopfenstein, Jr.
> Bowling Green, OH
> KC8PFP
> rklopfen@wcnet.org
> http://www.wcnet.org/~rklopfen

Try:
www.expresspcb.com

2291. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 16:06:54 UTC
From: j.m.franke@larc.nasa.gov
Message-ID: <j.m.franke-1204011206540001@franke.larc.nasa.gov>
Source record: 53486

And, depends on the type of radar and the desired operating band, for example, pulse is not allowed on 3cm.

John WA4WDL

In article <LB6B6.2923$cb6.279472@newsread2.prod.itd.earthlink.net>, "Bill Cromwell" <bcromwell1@earthlink.net> wrote:

> I don't hink radar is a one-way communication. If you are using radar you
> expect to receive the transmitted signal. You will not just be listening to
> yourself talk, either. The received signal wil be processed to retrieve
> specific intelligence.
>
> One way transmissions are transmitted with no intention of having them
> received by anybody. I might be wrong, too, but the one-way thing is not a
> valid point. There are some other valid points brought out.. qrm , etc.
>
> Bill KU8H
>
> Magne M�hre <magne@clustra.com> wrote in message
> news:m3y9t712la.fsf@clustra.com...
> > magne@clustra.com (Magne M�hre) writes:
> >
> > > I would be surprised if your national regulations mandated
> > > that every form of communication be two-way :)
> >
> > I was obviously wrong. I looked at the FCC part 97, and it
> > clearly states that unless specifically allowed, all forms of
> > one-way communcation is forbidden. I guess other administrations
> > may have put up similar restrictions.
> >
> > --Magne
> >
> >

2292. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 17:03:03 UTC
From: Roger <rdhalste@tm.net>
Message-ID: <bdlB6.441$5d.59443@newshog.newsread.com>
Source record: 53487
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

Roger Halstead (K8RI) www.RogerHalstead.com
N833R World's Oldest Debonair? s# CD-2

"Stephen P. Johnson" <stephen.p.johnson@worldnet.att.net> wrote in message
news:Ce7z6.12293$RF1.819836@bgtnsc06-news.ops.worldnet.att.net...
> I am trying to get my ICOM 706 Mk2 G ham radio running
> in my new 2001 VW Passat. I am hearing a lot of digi-noise
> and S9 birdies every 19.5 KHz through all of the HF
> bands. All of the grunge is coming in through the
> antenna, not the power leads. I spoke with VW corporate
> and they told me to talk to my dealer. The dealer told me to go to Radio
> Shack. The dealer said VW is not selling shop manuals for the
> 2001 Passat, so I don't have much to go on.

When Chrysler/Dodge/Plymouth first cam out with the Concord series and V-6
they would wipe out a local repeater (4 miles away) for up to half a block.
I was going to purchase one, but it was impossible to operate on 147.00.
That appeared to be the only frequency they bothered.

The dealer was very helpful and traced the problem to the computer.
The car didn't have to be running, just go open a door. The problem would
continue for a few minutes after you left the car. AS it was the computer
and Chrysler was not interested in fixing it, I bought something else.
Actually there was probably little Chrysler could have done without
redesigning the computer.

I thought of this yesterday when driving along and something swamped the
repeater out. As it uses PL the radio went quiet, but showed a strong
signal. I looked up and sure enough it was one of those older Chrysler
Concords passing me.

I understand that newer ones do not have that problem, but I've not
personally checked
>

> Wonder is anyone has tried operating a ham radio in a VW
> Passat and knows how to deal with all the noise!

Not the Passat, but with all the computers and controllers in cars now days
it can be a real can of worms. Even once you locate the offending device,
it may not be something that can be fixed.

BTW, some car climate controls can be a real bear when it comes to RFI.
>

Good Luck,

Roger Halstead (K8RI) www.RogerHalstead.com
N833R World's Oldest Debonair? s# CD-2

> Steve Johnson, N2FT
>
>

2293. Re: Hallicrafters Help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 17:10:05 UTC
From: Roger <rdhalste@tm.net>
Message-ID: <NjlB6.444$5d.59562@newshog.newsread.com>
Source record: 53488
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"Harvey Tetmeyer" <k5ljm@mindspring.com> wrote in message
news:98ub2qrju1@slb6.atl.mindspring.net...
> Mike,
>
> My guess is you have one or more bad decoupling capacitors in the high
> voltage line to your RF and/or IF amplifiers stages. With the reduced
> signal, the AGC allows the gain to go to max and there is enough positive
> feedback through the high voltage supply line to cause oscillation.
>
> Try temporarily paralling each one of these capacitors with another of
equal
> or larger capacitance and see if the noise goes away. If it does, replace
> the old capacitor.

I had one of these when they were new and capacitors were a problem then.
I had to replace leaky "ceramic" bypass and coupling caps in the SR-160 as
well as in the HT-44 transmitter and SX-117 receiver. The HT-44 was
particularly bad and required replacing "all" of the ceramics in the driver
stage. When the coupling cap started getting leaky the finals started
acting really strange <:-))

Good Luck,

Roger Halstead (K8RI) www.RogerHalstead.com
N833R World's Oldest Debonair? s# CD-2

>
> Good luck and 73,
>
> Harvey, K5LJM
>
>
> "Mike Barrett" <zootv@mgfairfax.rr.com> wrote in message
> news:3AB27092.BFB2861@mgfairfax.rr.com...
> >
> > Hi, I have a Hallicrafters SR-160 that starts to screech/whine when
> > there is little or no receive signal present. The static on 20m is
> > usually enough to prevent the problem, but not always. Does anyone know
> > what may be causing the problem? I've had the rig for 9 years and use
> > it primarily as a reciever. I know I have never changed any of the
> > tubes and I don't know how long they were in before I was given the
> > radio. Thanks!
> > Mike
> > KD4RNF

> >
>
>

2294. LAST HOURS FA B&K MODEL 700 MUTUAL CONDUCTANCE TUBE TESTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 18:42:53 UTC
From: fox <cfox007@bellsouth.net>
Message-ID: <3AD5F72D.8513AB5A@bellsouth.net>
Source record: 53490
Cross-posted to: rec.radio.scanner,rec.radio.shortwave,rec.radio.amateur.homebrew,rec.radio.amateur.swap

This is really nice. Take a look.
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1229027029

2295. Philips CR101

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 19:03:46 UTC
From: la8ak@online.no
Message-ID: <3ad5fbfb.704402676@news.online.no>
Source record: 53491

Searching the circuit diagram for Philips(?) CR101 receiver,
and also curious if circuit diagram for the BX925A receiver is
available somewhere, believe we had the last mentioned RX staying in
an army radio room when I was telegraphy operator. Fred Ostermann says
it is extremely scarce, so I have at least seen it, but unfortunately
all such secret equipment must be destroyed after being in within NATO

73
Jan_Martin

2296. LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 19:40:08 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b50aj$gd9$1@dipsy.missouri.edu>
Source record: 53492

I posted this over on sci.electronics.design, but they're in the middle of a slugfest and I didn't get any response. Hopefully someone over here can help out.

1) I've been working on an LC oscillator, just for kicks, and I've found small amounts of information here and there on them. One of my biggest, and only, questions regarding oscillators is, assuming a pure LC tank, what is an optimal reactance to have per componenet (i.e. Xl = n-ohms and Xc = m-ohms)? I've seen values raning from 180 ohms up to 350 ohms, but no-one really comes out and says "Higher reactance is better..." or "Oh no, higher reactance is not better..." Has there been any work done on this?

2) I'm becoming quite involved in rf design in the 1MHz to 50MHz region, and I'm wondering if anyone's got a list of "core" (no pun intended) powdered iron toroidal mixes and sizes that they could recommend. Since we've now got a good list of active devices recently, I'm curious about the passive devices...

3) One final question: Is there a way to directly calculate the self-inductance of a small wire chunk? I built a dead-bug circuit, but it doesn't function properly, and I'm guessing that there is inductance somewhere that I am not considering.

Any and all help is very much appreciated.
Thanks
Pete
ki0eg

2297. Re: Marine band circuit wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 20:38:37 UTC
From: Thomas Mills <Thomas.Mills@nsc.com>
Message-ID: <3AD6124C.77FB4E4D@nsc.com>
Source record: 53493

Why not just buy a vhf scanner? Probably less than 100.00 new at Radio Shach,
or an older one for probably less than 50 on EBAY,
Plus you'll have all the other VHF /HUF frequencies as well.

Tom

Joe Jesson wrote:

> Check out the low-cost 2 meter superhet kit at MFJ... with trivial mods you
> can cover 150-170. I built one and love it - sensitive and selective but
> non-synthesiszer.
>
> Joe J.
>
> "jim" <jjj@ring.com> wrote in message
> news:9a37divgi1@slb7.atl.mindspring.net...
> > Looking for a circuit.
> > Marine band VHF receiver ~150-170 MHZ. (25kHz increments)
> > Wish list...
> > No transmitter, selectivity w/ attenuator, rotary control, antenna jack
> >
> > Zero budget (student).
> >
> > Please bear with me, I am a total novice.
> >
> > -- Jim
> >
> >
> >
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2298. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 21:14:48 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AD61AC8.F9219013@toast.net>
Source record: 53494

Bojangle Chicken wrote:

> I posted this over on sci.electronics.design, but they're in the middle of a
> slugfest and I didn't get any response. Hopefully someone over here can
> help out.
>
> 1) I've been working on an LC oscillator, just for kicks, and I've found
> small amounts of information here and there on them. One of my biggest, and
> only, questions regarding oscillators is, assuming a pure LC tank, what is
> an optimal reactance to have per componenet (i.e. Xl = n-ohms and Xc =
> m-ohms)? I've seen values raning from 180 ohms up to 350 ohms, but no-one
> really comes out and says "Higher reactance is better..." or "Oh no, higher
> reactance is not better..." Has there been any work done on this?
>
> 2) I'm becoming quite involved in rf design in the 1MHz to 50MHz region, and
> I'm wondering if anyone's got a list of "core" (no pun intended) powdered
> iron toroidal mixes and sizes that they could recommend. Since we've now
> got a good list of active devices recently, I'm curious about the passive
> devices...
>
> 3) One final question: Is there a way to directly calculate the
> self-inductance of a small wire chunk? I built a dead-bug circuit, but it
> doesn't function properly, and I'm guessing that there is inductance
> somewhere that I am not considering.
>
> Any and all help is very much appreciated.
> Thanks
> Pete
> ki0eg

Amidon will send you a large one-sheet catalog full of formulas and part numbers
for powdered iron and ferrite toroids, rods and beads.
http://www.amidoncorp.com/f_ham.htm

john

2299. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 22:19:47 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b59ltunn1@dipsy.missouri.edu>
Source record: 53496

I've got one or two. They also have them packaged with the cores. I was just wondering if there were a few "all purpose" cores. For example, for winding broad-banded transformers (for mixer stages, inter-amplifier stages, etc) is there a 'common' core material used.

Right now I'm using some T25-3 cores, and I'm getting fairly mediocre results at 13.5MHz, but for the time being that's all that I have. I'm making a trip to a 'big city' on Saturday for the holiday and I'm liable to stop by the local full-range junk-box store and get a good variety, but I've got no clue as to what's a "good" variety to have.

Pete
ki0eg

John O'Flaherty <oflahert@toast.net> wrote in message
> Amidon will send you a large one-sheet catalog full of formulas and part numbers
> for powdered iron and ferrite toroids, rods and beads.
> http://www.amidoncorp.com/f_ham.htm
>
> john
>

2300. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 22:30:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AD62C7E.73E16150@eznec.com>
Source record: 53495

Bojangle Chicken wrote:
>
> I posted this over on sci.electronics.design, but they're in the middle of a
> slugfest and I didn't get any response. Hopefully someone over here can
> help out.
>
> 1) I've been working on an LC oscillator, just for kicks, and I've found
> small amounts of information here and there on them. One of my biggest, and
> only, questions regarding oscillators is, assuming a pure LC tank, what is
> an optimal reactance to have per componenet (i.e. Xl = n-ohms and Xc =
> m-ohms)? I've seen values raning from 180 ohms up to 350 ohms, but no-one
> really comes out and says "Higher reactance is better..." or "Oh no, higher
> reactance is not better..." Has there been any work done on this?

I don't think there's a single answer to this question. Tradeoffs are involved, and the optimal choice is likely to depend on the oscillator topology. For a good discussion of oscillators, I recommend "Introduction to Radio Frequency Design" by Wes Hayward. The first edition was published by Prentice-Hall, and the second, now available, is published by the ARRL.

> 2) I'm becoming quite involved in rf design in the 1MHz to 50MHz region, and
> I'm wondering if anyone's got a list of "core" (no pun intended) powdered
> iron toroidal mixes and sizes that they could recommend. Since we've now
> got a good list of active devices recently, I'm curious about the passive
> devices...

Micrometals is the major manufacturer of powdered iron cores, and their cores are sold by Amidon and other retailers. They used to print a booklet titled "Q Curves For Iron Powder Cores", and it might still be available. Check out their web site http://www.micrometals.com. Over the 3-30 MHz range, at least, I've found type 6 (yellow) to give the highest Q for the typical range of inductances I end up needing for filters, tuned circuits, and the like. You might do a little better with type 2 in the 1-3 MHz range, but if I were to choose a single material, it'd be type 6. The core size you use depends a lot on your power level and size requirements. I use mostly T-37 and T-44 cores, occasionally T-50, for most of my QRP work.

> 3) One final question: Is there a way to directly calculate the
> self-inductance of a small wire chunk? I built a dead-bug circuit, but it
> doesn't function properly, and I'm guessing that there is inductance
> somewhere that I am not considering.

Here's a rule of thumb: 30-40 nH/inch for very thin (e.g., bonding) wire, 10-20 nH/inch for #18 wire.

> Any and all help is very much appreciated.
> Thanks
> Pete
> ki0eg

Roy Lewallen, W7EL

2301. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 22:41:16 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b5au6oh1@dipsy.missouri.edu>
Source record: 53397

Thanks Roy. I've got the book you mentioned, as well, however, it's 100miles and 2hours away from me right now. The internet is only marginally helpful if one's got the time to sift through all of the non-pertinent (or too technical) information. I guess it's time to break down and just learn two-port analysis more fully [rather than a cursory understanding].

Core material 6 or 2 would probably work 100% better than the #3 that I'm using.

Again, thanks.
Pete
ki0eg

Roy Lewallen <w7el@eznec.com> wrote in message news:3AD62C7E.73E16150@eznec.com...
> Bojangle Chicken wrote:
> >
> > I posted this over on sci.electronics.design, but they're in the middle of a
> > slugfest and I didn't get any response. Hopefully someone over here can
> > help out.
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> > 1) I've been working on an LC oscillator, just for kicks, and I've found
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> > only, questions regarding oscillators is, assuming a pure LC tank, what is
> > an optimal reactance to have per componenet (i.e. Xl = n-ohms and Xc =
> > m-ohms)? I've seen values raning from 180 ohms up to 350 ohms, but no-one
> > really comes out and says "Higher reactance is better..." or "Oh no, higher
> > reactance is not better..." Has there been any work done on this?
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> I don't think there's a single answer to this question. Tradeoffs are
> involved, and the optimal choice is likely to depend on the oscillator
> topology. For a good discussion of oscillators, I recommend
> "Introduction to Radio Frequency Design" by Wes Hayward. The first
> edition was published by Prentice-Hall, and the second, now available,
> is published by the ARRL.
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> > 2) I'm becoming quite involved in rf design in the 1MHz to 50MHz region, and
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> > iron toroidal mixes and sizes that they could recommend. Since we've
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passive
> > devices...
>
> Micrometals is the major manufacturer of powdered iron cores, and their
> cores are sold by Amidon and other retailers. They used to print a
> booklet titled "Q Curves For Iron Powder Cores", and it might still be
> available. Check out their web site http://www.micrometals.com. Over the
> 3-30 MHz range, at least, I've found type 6 (yellow) to give the highest
> Q for the typical range of inductances I end up needing for filters,
> tuned circuits, and the like. You might do a little better with type 2
> in the 1-3 MHz range, but if I were to choose a single material, it'd be
> type 6. The core size you use depends a lot on your power level and size
> requirements. I use mostly T-37 and T-44 cores, occasionally T-50, for
> most of my QRP work.
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> > 3) One final question: Is there a way to directly calculate the
> > self-inductance of a small wire chunk? I built a dead-bug circuit, but
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> > doesn't function properly, and I'm guessing that there is inductance
> > somewhere that I am not considering.
>
> Here's a rule of thumb: 30-40 nH/inch for very thin (e.g., bonding)
> wire, 10-20 nH/inch for #18 wire.
>
> > Any and all help is very much appreciated.
> > Thanks
> > Pete
> > ki0eg
>
> Roy Lewallen, W7EL

2302. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 23:23:12 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9b5de301eap@news1.newsguy.com>
Source record: 53400

As others have said, most of your tuned circuits for HF beg for a -6 or -2. Unlike some other writers, I tend to prefer the T50's, tho I use a bunch of T37's, too. The 37's are a little small to wind, and sometimes you need a bigger core just to get enough turns without going to a very small wire size.

It's fairly common practice to use T50-7's for VFOs. The -7 has a slightly better temperature coefficient than the -6, making it a little easier to correct for temperature drift (but still a major pain). It's easier to stabilize VFOs at lower frequencies, so you generally need the T50 to get enough turns.

For mixer transformers, etc, the FT37-43 seems the most popular. Occasionally a -67 or -61 will be used for other transformers, but the -43 has a much higher mu so can be used with a lot less turns.

If you are building for a lot of power, you may want a larger size toroid to accommodate a larger wire.

didleydadidah

"Bojangle Chicken" <bojanglechicken@yahoo.com> wrote in message news:9b50aj$gd9$1@dipsy.missouri.edu...

2303. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-12 23:56:19 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <DgrB6.35803$uk.3257106@news02.optonline.net>
Source record: 53398

Hi,

The oscillator question is a bit more complex than it looks at first glance.

What you are trying for is the highest loaded Q possible. Since loaded Q includes losses from both the tuned circuit and the amplifying stage you have trade off's. A very typical way to go about it is to design so that half the loss is in the tuned circuit and half the loss is in the amplifier stage.

Since different amplifier stages have different combinations of input and output impedance you have a bunch of variables there. Once you add in the variables from different circuit topologies it can get pretty strange.

On top of all that there are ranges in which a given core material, core size, core shape and winding material will give optimum Q. People in the filter business spend years working out some of the magic combinations they use.

One way to demonstrate what's going on. Take a look at the powdered iron company catalogs. They have nice graphs of Q versus frequency for many cores. Next sit down and wind a core and measure it's Q. Generally you will not hit their numbers. It's not that they are wrong, it just takes a while before your winding technique is as good as theirs.

Not sure all that helps, but there it is.

Bob Camp
KB8TQ

"Bojangle Chicken" <bojanglechicken@yahoo.com> wrote in message news:9b50aj$gd9$1@dipsy.missouri.edu...
> I posted this over on sci.electronics.design, but they're in the middle of a
> slugfest and I didn't get any response. Hopefully someone over here can
> help out.
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> 1) I've been working on an LC oscillator, just for kicks, and I've found
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> m-ohms)? I've seen values raning from 180 ohms up to 350 ohms, but
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>
> 3) One final question: Is there a way to directly calculate the
> self-inductance of a small wire chunk? I built a dead-bug circuit,
but it
> doesn't function properly, and I'm guessing that there is inductance
> somewhere that I am not considering.
>
> Any and all help is very much appreciated.
> Thanks
> Pete
> ki0eg
>
>

2304. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 00:08:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AD64394.98429DD4@eznec.com>
Source record: 53399

Yes, type 3 material is a very poor choice for the HF range. According to the Micrometals data, it's best in the region of a few hundred kHz, and isn't good at all above about 1 MHz.

A lot of people see this kind of data for ferrites and reach the same conclusion, but mistakenly. You wouldn't want to use a low frequency ferrite for an inductor at HF any more than you'd want to use a low frequency powdered iron (like type 3). But low frequency ferrites are usually the best choice for broadband transformers and chokes at HF and even above. In those applications, low Q (coupled with relatively high Z) is an asset rather than a liability.

Roy Lewallen, W7EL

Bojangle Chicken wrote:
>
> Thanks Roy. I've got the book you mentioned, as well, however, it's
> 100miles and 2hours away from me right now. The internet is only marginally
> helpful if one's got the time to sift through all of the non-pertinent (or
> too technical) information. I guess it's time to break down and just learn
> two-port analysis more fully [rather than a cursory understanding].
>
> Core material 6 or 2 would probably work 100% better than the #3 that I'm
> using.
>
> Again, thanks.
> Pete
> ki0eg

2305. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 00:46:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AD64C79.E6D96A70@eznec.com>
Source record: 53401

"FT" numbers are ferrites, not powdered iron. This is a very different material, with different characteristics, uses, and tradeoffs. The "FT" system of numbering is used by Amidon, and when the material type is a number, it's usually the Fair-Rite material type number, Fair-Rite being one of Amidon's suppliers. Fair-Rite has a good web site at http://www.fair-rite.com.

As WB8RCR said, type 43 (ferrite) material is a good choice for broadband transformers, although over the HF range, you can get higher impedance per turn squared from 70 series ferrites. Type 43 is better if you're running enough power to the transformer to cause core heating, when the relatively low bulk resistivity of type 70 material is a problem, or if you have enough DC bias to cause a concern about core saturation. 60 series material has considerably lower impedance per turn squared than 43, but would be the material of choice at the upper VHF range. You might also have to use it if even less heating and higher flux density handling ability than type 43 is required. But you also might have a hard time getting a high enough impedance and avoiding self resonance with 60 series material at HF. A few of the 60 series materials look like they might make fairly decent inductors at HF, but most will result in inductors with poorer Q and temperature stability than ones wound on powdered iron cores.

Roy Lewallen, W7EL

WB8RCR wrote:

> . . .

> For mixer transformers, etc, the FT37-43 seems the most popular.
> Occasionally a -67 or -61 will be used for other transformers, but the -43
> has a much higher mu so can be used with a lot less turns.
> . . .

2306. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 01:36:01 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b5l5r$g0q$1@dipsy.missouri.edu>
Source record: 53402

Roy Lewallen <w7el@eznec.com> wrote in message
> As WB8RCR said, type 43 (ferrite) material is a good choice for
> broadband transformers, although over the HF range, you can get higher
> impedance per turn squared from 70 series ferrites. Type 43 is better if
> you're running enough power to the transformer to cause core heating,
> when the relatively low bulk resistivity of type 70 material is a
> Roy Lewallen, W7EL
>
> WB8RCR wrote:
> > For mixer transformers, etc, the FT37-43 seems the most popular.
> > Occasionally a -67 or -61 will be used for other transformers, but
the -43
> > has a much higher mu so can be used with a lot less turns.
> > . . .

These are the kinds of responses I was looking for. Yes, the differences between the FT and T cores are subtle. I've no experience with anything but powdered iron at the moment. I may pick up some FT-43-xx cores for the transformer, as well as maybe a few more T-3-[25/37]'s for a comparison some time (as broad banded transformers). Since I'll likely be in the 'industry' for some time to come, they won't go to waste.

Thanks
Pete
ki0eg

2307. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 01:47:57 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b5ls8$h5e$1@dipsy.missouri.edu>
Source record: 53403

Bob Camp <bob@cq.nu> wrote:
> The oscillator question is a bit more complex than it looks at first
> glance.

Haha...not to me! I knew it was going to be a fun project...fun translate into wiley (or hard, I guess).

> you have trade off's. A very typical way to go about it is to design
> so that half the loss is in the tuned circuit and half the loss is in
> the amplifier stage.

Bob, do you know where you learned this rule-of-thumb 'constraint' from? This seems intuitively correct [maximum power transfer at equal impedances in parallel], but I like to use the formulas. I'm a glutton for punishment.

> Since different amplifier stages have different combinations of input
> and output impedance you have a bunch of variables there. Once you add
> in the variables from different circuit topologies it can get pretty
> strange.

I've made that part simple by sticking with the commone-emitter circuit as the basis for most of my oscillator designs. I have been looking closely at the Clapp variation, and have achieved results, but not as expected. My first and final guess was the tank inductor and/or extraneous inductance (i.e. lead lengths).

> One way to demonstrate what's going on. Take a look at the powdered
> iron company catalogs. They have nice graphs of Q versus frequency for
> many cores. Next sit down and wind a core and measure it's Q.
> Generally you will not hit their numbers. It's not that they are
> wrong, it just takes a while before your winding technique is as good
> as theirs.

My main goal, so far, in selecting cores has been to choose a size of wire large enough to produce the desired inductance while nearly completely filling the core surface with wire. The more turns, the better (for my sense of equity), because if I get 10 turns of insulated wire of some sort snuggly wrapped, then I know that the inductance I measure is not going to change much because of physical wire-shape changes.

Your discussion has caused me to rethink some of my original interpretations of what I thought I knew. Even though it didn't directly address the question, it was helpful. Thanks.
Pete
ki0eg

2308. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 02:48:19 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <TNtB6.39323$uk.3525430@news02.optonline.net>
Source record: 53404

Hi Pete,

"Bojangle Chicken" <bojanglechicken@yahoo.com> wrote in message
news:9b5ls8$h5e$1@dipsy.missouri.edu...
>
> Bob Camp <bob@cq.nu> wrote:
> > The oscillator question is a bit more complex than it looks at
first
> > glance.
>
> Haha...not to me! I knew it was going to be a fun project...fun
translate
> into wiley (or hard, I guess).
>
> > you have trade off's. A very typical way to go about it is to
design
> > so that half the loss is in the tuned circuit and half the loss is
in
> > the amplifier stage.
>
> Bob, do you know where you learned this rule-of-thumb 'constraint'
from?
> This seems intuitively correct [maximum power transfer at equal
impedances
> in parallel], but I like to use the formulas. I'm a glutton for
punishment.

Actually it's a derived result for a colpits oscillator in terms of fractional frequency stablilty. Different topologies have different optimum points.

How's your Russian ? The last couple books I saw on this never made it into English .... As I recall they came out by one of the guys at Moscow Power Institute.

For formulas dig out copies of the Frequency Control Symposium Proceedings. They go back to about 194? or so.

Simply calculating how much power is in each part of the oscillator is far from simple. Several authors have made carriers out of it. Most of them have published dozens of papers and a couple of books. Check for anything by Ben Parzen. Key works "osci's" and "lator's" (realy - that's what he calls them). For about $45K (gulp ....) Ben was willing drop by and explain things ...

>
> > Since different amplifier stages have different combinations of
input
> > and output impedance you have a bunch of variables there. Once you
add
> > in the variables from different circuit topologies it can get
pretty
> > strange.
>
> I've made that part simple by sticking with the commone-emitter
circuit as
> the basis for most of my oscillator designs. I have been looking
closely at
> the Clapp variation, and have achieved results, but not as expected.

Check your active stage gain. The oscillator should die at half
current. If it does not then you have to much gain. If you want to do
it the hard way do a spice simulation and check for 6 db excess open
loop gain.

My
> first and final guess was the tank inductor and/or extraneous
inductance
> (i.e. lead lengths).

Once you have decided on a topology take a look at the amplifier(s) as
they go into limiting. Generaly they will have much lower impedances
in that case. This will either drive you to very large capacitors or
to a topology that decouples the resonator from the amplifier. It's
the decoupling process that leads you to more rational components and
circuits that have weird names.

>
> > One way to demonstrate what's going on. Take a look at the
powdered
> > iron company catalogs. They have nice graphs of Q versus frequency
for
> > many cores. Next sit down and wind a core and measure it's Q.
> > Generally you will not hit their numbers. It's not that they are
> > wrong, it just takes a while before your winding technique is as
good
> > as theirs.
>
> My main goal, so far, in selecting cores has been to choose a size
of wire
> large enough to produce the desired inductance while nearly
completely
> filling the core surface with wire. The more turns, the better (for
my
> sense of equity), because if I get 10 turns of insulated wire of
some sort
> snuggly wrapped, then I know that the inductance I measure is not

going to
> change much because of physical wire-shape changes.
>

One pretty important part of the process is to measure Q. If you have
a good Q meter then you are in business. If not then generaly you make
a filter and measure it. Then you assume that all the loss is in the
coil (which it never is ...) or you go nuts trying to measure
capacitor Q.

> Your discussion has caused me to rethink some of my original
interpretations
> of what I thought I knew. Even though it didn't directly address
the
> question, it was helpful. Thanks.
> Pete
> ki0eg
>
>

Glad it helped.

Bob

KB8TQ

2309. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 02:59:35 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9b5q33ifr1@nntp9.atl.mindspring.net>
Source record: 53405

Actually, if you are making oscillators.... I'd want the highest reasonable Q factors as one part of reducing phase noise in the oscillator.

I know this is something of a throwback to earlier technology, but an open air coil has a lot to be said for it in terms of Q and temperature stability.

Granted, it is not self shielded which can be a problem in "miniature" crowded component designs, but for a one-off homebrew system it's likely to give good results.

Well, assuming you are using a good quality mechanical Variable Capacitor.... If you have a varactor diode, and maybe a large tuning range, the high Q inductor isn't going to help much. It's going to be full of phase noise at the best of times and you'd have to lean on a PLL to quiet it down a bit.

In that case, the small size and self shielding characteristics of a toroid would make sense.

Jim Pennell
N6BIU

2310. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 03:11:17 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AD66E55.C7C7028C@dioxine.com>
Source record: 53406

Jim Pennell wrote:

> Actually, if you are making oscillators.... I'd want the highest
> reasonable Q factors as one part of reducing phase noise in the oscillator.
>
> I know this is something of a throwback to earlier technology, but an
> open air coil has a lot to be said for it in terms of Q and temperature
> stability.

What Jim said. In the case where I really want/need to use a core at HF,
I generally use the 'yellow' -6 material, it seems to offer the best overal
Q/permeability combination. I have a stock of T-50-6 and T-68-6 for exactly
this reason.

However, the November 1993 QST, on page 83, has a useful chart of small air-core
coil inductances wound on standard bolts as mandrels which I've made a lot
of use of for VHF/UHF work. Thanks to Dave W7PMD for this.

Dana

2311. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 03:57:14 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <uOuB6.11864$uh5.428874@typhoon.mw.mediaone.net>
Source record: 53407

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:ndHxnKAhVV16EwNL@invest.fsbusiness.co.uk...
> My colleague and I have constructed fritz Raab's Class-E PA with a pair
> of IRF510's. My colleague Peter pointed out to Fritz that some of calc's
> were not quite on the ball which he later acknowledged. However, the
> design came out with the correct numbers:

Can you get your hands on a copy of the January/February 2001 issue of QEX?
There is a very nice article on class-E PAs by Nathan O. Sokal (WA1HQC). He
has a collection of equations curve fitted to data generated by numerically
solving the circuit equations. The curve fitted equations are suitable for
design use. The accuracy appears to be better than 0.5 percent over the
range of data used.

The Fritz Raab design is one of the 43 references he lists at the end of the
article.

--
Leland C. Scott
KC8LDO

ARRL Member
NCI Member
--
"Sometimes our enthusiasm for change
depends on our willingness to take a
chance on tomorrow by risking what
we have today."

2312. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 03:57:54 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b5tg2$sd1$1@dipsy.missouri.edu>
Source record: 53408

Jim Said:
> I know this is something of a throwback to earlier technology, but an
> open air coil has a lot to be said for it in terms of Q and temperature
> stability.
>
> Granted, it is not self shielded which can be a problem in "miniature"
> crowded component designs, but for a one-off homebrew system it's likely
to
> give good results.
>

And then Dana Said:
> However, the November 1993 QST, on page 83, has a useful chart of small
air-core
> coil inductances wound on standard bolts as mandrels which I've made a lot
> of use of for VHF/UHF work. Thanks to Dave W7PMD for this.

--This is probably worth repeating. Thanks. I'll be looking that one up
when I get back home.

Jim and Dana
I was actually considering the air-wound inductor at first. However, when I couldn't find anything to wind it around here at "home" I sort of gave up. But now that you mention bolts, I may reconsider. I was going to build the oscillator into a Bud box anyway, so it'll be isolated from the final circuitry anyway. I turned to the toroidal cores simply because I happened to have a couple that I got for free at a hamfest, and they were relatively easy to produce with the inductance that I needed.

I have access to an HP LCR meter [one of the fancy ones] at school and have a measured Qu of 85 (averaged over about 3 minutes) [+/- 2.5] for a 100kHz, 100mV signal. That's with leads long enough to stick into the metal fingers on the meter-adaptor and a T50-3 core. I tried fabricating a few air inductors over a screwdriver shaft, but I was getting L in the 0.2 to 0.6nH range (small form, large diameter wire--that's all I had at the time), which is a far cry from the 2.xxuH I needed [for 13.5MHz oscillator]. I was winding the coils with wire that was still in it's plastic insulation, as it provided _exactly_ the spacing required to get the number of turns for the inductance I needed.

And Bob, it's funny you mention Russian, as I've got a co-worker at school who's a Russian major about to graduate (and re-enroll for mechanical engineering).

Anyway, I have much gratitude to this list for the information that has been provided. This summer after classes let out, I fully intend to sit down and

derive some results using fancy math. If I learn anything from it, I'll even post it. Maybe someone else will get something useful out of it.

Again, thanks for the help
Pete
ki0eg

ps Sorry for the long posts. I usually get wordy.

2313. WTB: Digital scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 04:28:58 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3AD68089.18D84C3B@snet.net>
Source record: 53409

Looking for budget priced Digital Storage Scope:
Tek 2230
Tek 2430A
HP 54502A

Or similiar to above
Thanks for reading,
Vin

2314. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 04:29:50 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ue2bdt0sn9sj4kqqd4ip8tsrjfk5lgdvqh@4ax.com>
Source record: 53410

On Wed, 11 Apr 2001 12:26:09 +0300, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>Paul , How would you handle the voltage problem for MOBILE operation ?
>Would it be sensible to run the high power solid state equipment from a
>separate 24 or 48 V battery supply ,charging the batteries from the 12-13.8
>V on-board supply via a DC to DC switcher (obviously with proper voltage
>regulation and possibly current limitation) ?

Provided that the Tx/Rx duty cycle is low, only moderate currents
would have to be taken from the 12 V system and thus, there would be
less ohmic losses for a specific number of active devices in the
inverter.

Provided that you have access to the alternator windings before the
rectifiers, you might even try to connect the AC output from the
alternator to a suitable 3 phase transformer and using 3 phase
rectifiers to feed the battery charger. One problem with such
arrangement is that the frequency varies quite a lot, so you have to
select proper transformer core materials.

Paul OH3LWR

2315. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 04:30:09 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9b5vct$hd9$1@slb6.atl.mindspring.net>
Source record: 53411

This website might be of interest.... I noticed a section on
calculating inductors that may be helpful.

http://www.geocities.com/SiliconValley/3569/

Scroll down the left side index bar until you find a section called
DATA/TECH and in that area is the link to the page for calcuating inductors.

Jim Pennell
N6BIU

2316. Yaesu FT-7B keying

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 06:19:25 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <GRwB6.1011$qr.2310@nntpserver.swip.net>
Source record: 53412
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I have just got hold of a FT-7B.
In CW, the relay activating circuitry has some very slow action and the first dot almost disappears in speeds around 30 wpm. Is there any ready-made solution for this?
I believe there was something called "Fox Tango modifications" some years back. Is this material avaliable on the net?

thanks
sm6pxj

2317. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 07:14:32 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <vyJDMJAYdq16Ew+N@invest.fsbusiness.co.uk>
Source record: 53413

Leland,

>Can you get your hands on a copy of the January/February 2001 issue of QEX?
>There is a very nice article on class-E PAs by Nathan O. Sokal (WA1HQC). He
>has a collection of equations curve fitted to data generated by numerically
>solving the circuit equations. The curve fitted equations are suitable for
>design use. The accuracy appears to be better than 0.5 percent over the
>range of data used.
Unfortunately I do not know anyone locally who subscribes to QEX. One
day I'll get around to it.

I'll put out an APB for someone to kindly scan a copy.

I have read something else by Nathan as his name rings a bell.

Equations are not my forte and I leave those to my C.eng IEE colleague
Peter. Give me some metal and I'll make you a fancy looking cabinet.

I would still like to crack the 1500w pep barrier from a 14v rail in the
mobile on 'all-bands'. I'm sure it can be done though the corona and
coil arcing could be a problem on top band.

(((73)))

Phil G4ZOW

2318. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 07:27:47 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <dCjPgTAzpq16Ew60@invest.fsbusiness.co.uk>
Source record: 53414

Frank,

You need one of these in your christmas stocking.

My little baby but only good for 5-600w.
>>Paul , How would you handle the voltage problem for MOBILE operation ?
>>Would it be sensible to run the high power solid state equipment from a
>>separate 24 or 48 V battery supply ,charging the batteries from the 12-13.8
>>V on-board supply via a DC to DC switcher (obviously with proper voltage
>>regulation and possibly current limitation) ?
G3YXM has gone the switching battery route. Not my personal preference
but it works real well for him.

Do a search on his call-sign and it will take you to his page with
pictures, circuits etc. One of the UK's stronger LF mobiles, even on
136KHz!
>Provided that the Tx/Rx duty cycle is low, only moderate currents
>would have to be taken from the 12 V system and thus, there would be
>less ohmic losses for a specific number of active devices in the
>inverter.
>
>Provided that you have access to the alternator windings before the
>rectifiers, you might even try to connect the AC output from the
>alternator to a suitable 3 phase transformer and using 3 phase
>rectifiers to feed the battery charger. One problem with such
>arrangement is that the frequency varies quite a lot, so you have to
>select proper transformer core materials.
Peter Dahl supplies 3-phase trannies but I believe mainly for those who
wish to run valves mobile!

www.electrodyne.com produce 28 & 48V alternators.

(((73)))

Phil G4ZOW

2319. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 08:20:12 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <qzQScDA8ar16EwOy@invest.fsbusiness.co.uk>
Source record: 53416

Frank,

I tried to include the URL for a picture of the innards of a Metron
mobile amp but for some obscure reason it did not paste.

I'll try again later when I have more time.

Phil G4ZOW
>Frank,
>
>You need one of these in your christmas stocking.
>
>My little baby but only good for 5-600w.
>>>Paul , How would you handle the voltage problem for MOBILE operation ?
>>>Would it be sensible to run the high power solid state equipment from a
>>>separate 24 or 48 V battery supply ,charging the batteries from the 12-13.8
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>>>regulation and possibly current limitation) ?
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>but it works real well for him.
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>pictures, circuits etc. One of the UK's stronger LF mobiles, even on
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>>rectifiers, you might even try to connect the AC output from the
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>>rectifiers to feed the battery charger. One problem with such
>>arrangement is that the frequency varies quite a lot, so you have to
>>select proper transformer core materials.
>Peter Dahl supplies 3-phase trannies but I believe mainly for those who
>wish to run valves mobile!
>
>www.electrodyne.com produce 28 & 48V alternators.
>
>(((73)))
>
>Phil G4ZOW

2320. Re: Yaesu FT-7B keying

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 09:21:37 UTC
From: mike <kenbarri@hotmail.com>
Message-ID: <3AD6C4E6.6AF41E0B@hotmail.com>
Source record: 53417
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

http://www.qth.com/inrad/
there is a fox tango kit in this page.

CA wrote:

> I have just got hold of a FT-7B.
> In CW, the relay activating circuitry has some very slow action and the
> first dot almost disappears in speeds around 30 wpm. Is there any ready-made
> solution for this?
> I believe there was something called "Fox Tango modifications" some years
> back. Is this material avaliable on the net?
>
> thanks
> sm6pxj

2321. Re: Solid-State Lineair Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 11:26:53 UTC
From: la8ak@online.no
Message-ID: <3ad6cf8c.758572200@news.online.no>
Source record: 53418

On Fri, 13 Apr 2001 03:57:14 GMT, "Leland C. Scott" wrote:

>Can you get your hands on a copy of the January/February 2001 issue of QEX?
>There is a very nice article on class-E PAs by Nathan O. Sokal (WA1HQC). He
>has a collection of equations curve fitted to data generated by numerically
>solving the circuit equations. The curve fitted equations are suitable for
>design use. The accuracy appears to be better than 0.5 percent over the
>range of data used.

you may download recent QEX from the ARRL site....

73,
LA8AK

2322. APRS Experiments - Picture Gallery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 12:14:38 UTC
From: Andrew Rich <andrew.rich@bigpond.com>
Message-ID: <WUBB6.2183$482.9124@newsfeeds.bigpond.com>
Source record: 53419

www.users.bigpond.com/andrew.rich/index.htm

andrew.rich@bigpond.com

2323. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 12:22:34 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ecCB6.5$Ce4.8740@news1.rdc1.ct.home.com>
Source record: 53420

There may be a problem with using open-air coils (I hope I have followed this thread correctly so far) for a VCO. If the coil is subjected to vibration, it will be microphonic and may modulate the signal if the PLL is not designed to respond to audible frequency variations. The loop reference frequency and loop characteristics will come into play. You may to consider sealing the open air coil in wax or other low-loss RF dilectric material.

Pete

"Bojangle Chicken" <bojanglechicken@yahoo.com> wrote in message news:9b5tg2$sd1$1@dipsy.missouri.edu...
> Jim Said:
> > I know this is something of a throwback to earlier technology, but an
> > open air coil has a lot to be said for it in terms of Q and temperature
> > stability.
> >
> > Granted, it is not self shielded which can be a problem in "miniature"
> > crowded component designs, but for a one-off homebrew system it's likely
> to
> > give good results.
> >
>
> And then Dana Said:
> > However, the November 1993 QST, on page 83, has a useful chart of small
> air-core
> > coil inductances wound on standard bolts as mandrels which I've made a
lot
> > of use of for VHF/UHF work. Thanks to Dave W7PMD for this.
>
> --This is probably worth repeating. Thanks. I'll be looking that one up
> when I get back home.
>
> Jim and Dana
> I was actually considering the air-wound inductor at first. However, when
I
> couldn't find anything to wind it around here at "home" I sort of gave up.
> But now that you mention bolts, I may reconsider. I was going to build
the
> oscillator into a Bud box anyway, so it'll be isolated from the final
> circuitry anyway. I turned to the toroidal cores simply because I
happened
> to have a couple that I got for free at a hamfest, and they were
relatively

> easy to produce with the inductance that I needed.
>
> I have access to an HP LCR meter [one of the fancy ones] at school and
have
> a measured Qu of 85 (averaged over about 3 minutes) [+/- 2.5] for a
100kHz,
> 100mV signal. That's with leads long enough to stick into the metal
fingers
> on the meter-adaptor and a T50-3 core. I tried fabricating a few air
> inductors over a screwdriver shaft, but I was getting L in the 0.2 to
0.6nH
> range (small form, large diameter wire--that's all I had at the time),
which
> is a far cry from the 2.xxuH I needed [for 13.5MHz oscillator]. I was
> winding the coils with wire that was still in it's plastic insulation, as
it
> provided _exactly_ the spacing required to get the number of turns for the
> inductance I needed.
>
> And Bob, it's funny you mention Russian, as I've got a co-worker at school
> who's a Russian major about to graduate (and re-enroll for mechanical
> engineering).
>
> Anyway, I have much gratitude to this list for the information that has
been
> provided. This summer after classes let out, I fully intend to sit down
and
> derive some results using fancy math. If I learn anything from it, I'll
> even post it. Maybe someone else will get something useful out of it.
>
> Again, thanks for the help
> Pete
> ki0eg
>
> ps Sorry for the long posts. I usually get wordy.
>
>
>
>

2324. Re: LC Tanks and Toroidal Inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 12:38:20 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9b6s0202i5h@news2.newsguy.com>
Source record: 53422

"Bojangle Chicken" <bojanglechicken@yahoo.com> wrote in message
news:9b5l5r$g0q$1@dipsy.missouri.edu...
>
> I may pick up some FT-43-xx cores for the transformer, as well as maybe
> a few more T-3-[25/37]'s for a comparison some

If you are planning to "stock up", you might want to check out Dan's
(http://www.fix.net/dans.html/). He frequently has collections of toroids
at attractive prices. Since he only takes orders by snail mail, tho,
sometimes it's a little long waiting. He also has a transformer wire kit
which consists of 3 different colors of magnet wire - a must have for those
trifilars. He does have a minimum order, but he has so much good stuff it's
not much of a problem.

When I'm in a bind, I'll generally order toroids from www.radioshack.com (!)
They have a fair selection, decent prices, no minimum order, and attractive
shipping, plus they will get it here in a few days. Amidon and Palomar
Engineers have a much better selection and slightly better prices, but they
have large minimum orders (and little else I want to fill the minimum
order), expensive shipping, and generally take a couple of weeks.

Also, I would wind a few of those -25's before going out and buying a bunch.
I find them too small to wind easily if there are more than a few windings.

As far as air wound coils, obviously the Q is a big advantage, and I try to
keep some large stiff wire around for the purpose. You can always find
something to use as a form, drill bits, dowels, film cans, etc. But
generally, for frequencies below about 15 meters they tend to get awfully
big. But then, I'm sort of from the Altoids tin school.

didleydadidah

2325. Re: IC source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 13:06:08 UTC
From: Reagan Thomas <reaganNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3AD6F9C0.77BCFCA0@r-a-tSPAMISBAD.com>
Source record: 53421

pnjorge wrote:
>
> Looking for a 74HC4029. Who can supply this IC?
>
> thanks in advance
> 73
>
> Paul
> CT1EFL

It looks like that part is a Logic, Binary/Decade Up/Down Counter, DIP 16 pkg. Seems hard to find.
It's possible that nobody ever made a 74HC... version. The CD4029 (I think #'s like that were Motorola or RCA??) should be OK and, if I've ID'd it right there may be a substitute, MC14029BCP by ON SEMICONDUCTOR, in-stock at Allied Electronics (www.alliedelec.com)

-RAT

2326. need help with KPC2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 17:32:05 UTC
From: swells8069@aol.com
Message-ID: <20010413133205.08106.00000043@ng-cj1.aol.com>
Source record: 53423

Ive been trying to make a computer to tnc cable.The tnc has a 25 pin connector my laptop has the db9 connecter.The only connector that is a 25 pin on my puter is the printer port.Any suggestions are appreated

2327. Re: need help with KPC2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 17:51:22 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9debsf.hle.w9wi@linux1.localdomain>
Source record: 53424

On 13 Apr 2001 17:32:05 GMT, Swells8069 <swells8069@aol.com> wrote:
>Ive been trying to make a computer to tnc cable.The tnc has a 25 pin connector
>my laptop has the db9 connecter.The only connector that is a 25 pin on my puter
>is the printer port.Any suggestions are appreated

The cable you need will go from the DB9 connector on the laptop to the DB25
on the KPC2.

Most likely what will work is to connect pin 2 on the DB9 to pin 3 on the
DB25; pin 3 on the DB9 to pin 2 on the DB25; and pin 5 on the DB9 to pin 7
on the DB25. Chances are no other connections will be necessary. If you
wire it this way, use software flow control - hardware flow control will not
work.

If it doesn't work that way, let us know & I'll look up the handshaking
leads.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com
Due to excessive spam, messages from uu.net are deleted unread.

2328. NEED 572 B SV

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 17:53:20 UTC
From: Gomes <ct1hix@netc.pt>
Message-ID: <3ad749e6@212.18.160.197>
Source record: 53425

I need 572b SV .

73 CT1HIX Gomes

2329. Re: NEED 572 B SV

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 19:01:54 UTC
From: arnoldg@sf.telia.no
Message-ID: <3ad74d0d.34885493@news.telia.no>
Source record: 53426

Hello,

Both the Svetlana 572B and the audiovalves Svetlana 572-3 and 572-10
are in stock. I suppose you need the transmitting type.

Regards,

Arnold Goks�yr

On Fri, 13 Apr 2001 19:53:20 +0200, "Gomes" <ct1hix@netc.pt> wrote:

>I need 572b SV .
>
> 73 CT1HIX Gomes
>
>

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

2330. 6.4 Mhz Crystal needed in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 19:04:15 UTC
From: victor-nelson <victor-nelson@ntlworld.com>
Message-ID: <EfIB6.9901$Ow3.2322985@news2-win.server.ntlworld.com>
Source record: 53427

I can`t find a supplier for these crystals.Please help!

2331. Marconi TF995 Signal Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 20:34:03 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <987208256.3001.0.nnrp-02.9e98acde@news.demon.co.uk>
Source record: 53434
Cross-posted to: alt.electronics.maplin-electronics,alt.ham-radio.marketplace,rec.radio.amateur.homebrew,sci.electronics.misc,sci.electronics.repair,uk.radio.amateur

I have a Marconi TF995 Signal Generator that is going in the skip !!!

If some one wants it and is willing to collect it you can have it.

It is old but still works (takes a while to warm up) I.E. you still get
output
from it.
Calibration is well out of date and I give NO guarantee but it is free.
So as I said it is for the skip unless some one wants it

I am in Stockport near Manchester, England.
E-mail me if you want it. mailto:Marconi.TF995@g1gyc.demon.co.uk

73 Martin
~~~~~~
Each of us is given a bag of tools, shapeless mind and a book of Rules
~~~~~~
Remove :-
_NOSPAM_FOR_ME_ from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~
~~~~~~

2332. Re: need help with KPC2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 20:36:27 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3AD7634B.DC3620EE@dialpoint.net>
Source record: 53429

Just buy a 25 to 9 pin adapter at almost any place computer stuff is
sold. They may even have a cable already made up. Just be sure the
male/female conectors match what you need.

Swells8069 wrote:
>
> Ive been trying to make a computer to tnc cable.The tnc has a 25 pin connector
> my laptop has the db9 connecter.The only connector that is a 25 pin on my puter
> is the printer port.Any suggestions are appreated

2333. Re: 6.4 Mhz Crystal needed in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 21:14:45 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9b7pul$25e$1@newsg1.svr.pol.co.uk>
Source record: 53428

Try Q Electronic Design they advertise in the mags.
0208 391 0545. They list a 6.4 meg crystal in an HC45 package for ï¿½3-95.
Don

2334. Re: 6.4 Mhz Crystal needed in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 22:00:40 UTC
From: c_moss@bigfoot.com
Message-ID: <5ntedts36igijhbcotfcrdld0vdrsvjkvf@4ax.com>
Source record: 53430

>I can`t find a supplier for these crystals.Please help!

Farnell probably have one too ... www.farnell.com and go to the UK page.

2335. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 23:23:13 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3AD78A8F.86F93B21@nf.sympatico.ca>
Source record: 53431

> > I was obviously wrong. I looked at the FCC part 97, and it
> > clearly states that unless specifically allowed, all forms of
> > one-way communcation is forbidden.

Question: Broadcasting stations transmit, whether anyone is listening or not. Is that 'one way'.
Broadcastin an amateur CQ, whether anyone replies or not?
Tranmitting a call on, say, an unmonitored marine VHF channel which does not receive an answer?
CB truckers "Anyone got ears on?".
I think I've missed the point here?
Comment please.

2336. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-13 23:33:01 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <N0MB6.644$Ce4.77964@news1.rdc1.ct.home.com>
Source record: 53432

Then it would preclude remote control of models. I think the intent of
that section is to prevent "broadcasting", i.e. one way transmissions, by
Amateurs to a listening audience.

"Terry S" <tsanford@nf.sympatico.ca> wrote in message
news:3AD78A8F.86F93B21@nf.sympatico.ca...
>
> > > I was obviously wrong. I looked at the FCC part 97, and it
> > > clearly states that unless specifically allowed, all forms of
> > > one-way communcation is forbidden.
>
> Question: Broadcasting stations transmit, whether anyone is listening or
> not. Is that 'one way'.
> Broadcastin an amateur CQ, whether anyone replies or not?
> Tranmitting a call on, say, an unmonitored marine VHF channel which does
> not receive an answer?
> CB truckers "Anyone got ears on?".
> I think I've missed the point here?
> Comment please.

2337. 10 meter repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 00:09:26 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3ad7952c$0$8955@echo-01.iinet.net.au>
Source record: 53433

Dear all
Does anyone have experience in setting up a repeater on 10? I understand that it is necessary to use separate sites for transmitter and receiver as it is difficult to get adequate selectivity with the transmit/receive freqs only 100 KHz apart. (although in percentage terms this is the same as a 2M repeater)
Cavities are obviously physically too big
I would be grateful for info on any working systems.

Richard

2338. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 01:11:56 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9b87vi$b7f$1@slb7.atl.mindspring.net>
Source record: 53435

Must be addressing fence post's. Part 97 covers ham radio NOT broadcast stations. CQ's are not concidered one way... Code practice is allowed.....
Have a good day 73 Sparks

2339. Re: 10 meter repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 01:19:48 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AD7A5B3.1B980241@ix.netcom.com>
Source record: 53436

Hi Richard - why not mail or E-Mail the 10M repeater owners, I'm sure they can help. For hundreds of 10M repeaters see URL:
http://www.thiecom.de/10mlist.htm
--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!
==========

Richard Hosking wrote:

> Dear all
> Does anyone have experience in setting up a repeater on 10? I understand
> that it is necessary to use separate sites for transmitter and receiver as
> it is difficult to get adequate selectivity with the transmit/receive freqs
> only 100 KHz apart. (although in percentage terms this is the same as a 2M
> repeater)
> Cavities are obviously physically too big
> I would be grateful for info on any working systems.
>
> Richard

2340. Thanks Alot

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 01:23:54 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9b88r6$c52$1@dipsy.missouri.edu>
Source record: 53437

I would like to thank those individuals who have given me information, help and lists of materials. Your assistance has been overwhelming, and much appreciated. Hopefully I'll be able to answer my own question in 10 or 20 years, but until then, some of the more technical aspects of what I was curious about will just have to wait. Again, thanks.

Pete
ki0eg

2341. ft101 op amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 09:07:54 UTC
From: stephen zl1any <g_and_s_pearce@xtra.co.nz>
Message-ID: <3ad8136a$1@zfree.co.nz>
Source record: 53438

The regulator board in my ft101b is kerfut ... I think the
mfc6034a op amp (6 legged dip) has died .. it is configured as
a voltage regulator to supply 6 v to vfo and other things ..
an option is to replace with a more modern device .. but a bit
inelegant on the board .. does anyone know of a source for
a replacement op amp

Thanks
Stephen zl1any
<g_and_s_pearce@xtra.co.nz>

http://www.zfree.co.nz

2342. FA: Radio Shack Freq. Counter 22-305

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 14:03:34 UTC
From: Reagan Thomas <reaganNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3AD858B6.18DB4BA3@r-a-tSPAMISBAD.com>
Source record: 53439

Very nice condition Freq. Counter, 1MHz to 1.3GHz

Please check it out at:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1228995896

Thanks,

-RAT

2343. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 14:25:48 UTC
From: magne@clustra.com
Message-ID: <m3wv8nr21f.fsf@clustra.com>
Source record: 53440

"Peter J. Bertini" <commquart@home.com> writes:

> Then it would preclude remote control of models. I think the intent of
> that section is to prevent "broadcasting", i.e. one way transmissions, by
> Amateurs to a listening audience.

Well, what I said was:

> > > > I was obviously wrong. I looked at the FCC part 97, and it
> > > > clearly states that unless specifically allowed, all forms of
> > > > one-way communcation is forbidden.

"unless specifically allowed" is the *operative* term :)

"Telecommand of model craft" is handled specifically in 97.215,
remote control of amateur radio stations in 97.213, beacons in
97.203. There are no such specifics that allow radars, as far
as I can tell.

There is however something called "auxiliary station" (97.201)
which *is* allowed to transmit one-way communications. There
are some limitations concerning license and frequency bands.
Perhaps this procedure might be used?

--Magne / la1bfa (who should rather stick to interpreting
Norwegian law, which is uncomprehensible enough :)

2344. Re: 6.4 Mhz Crystal needed in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 15:25:54 UTC
From: Bob Read <rmread@attglobal.net>
Message-ID: <3ad86d86_3@news2.prserv.net>
Source record: 53441

Try QSL Crystals in the UK.....very fast and not too dear.

Bob G4VGO

@4ax.com...
>
> >I can`t find a supplier for these crystals.Please help!
>
> Farnell probably have one too ... www.farnell.com and go to the UK
> page.
>

2345. Re: ft101 op amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 16:37:00 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10104141215490.28830-100000@Gloria.CAM.ORG>
Source record: 53442

On 14 Apr 2001, stephen zl1any wrote:

>
> The regulator board in my ft101b is kerfut ... I think the
> mfc6034a op amp (6 legged dip) has died .. it is configured as
> a voltage regulator to supply 6 v to vfo and other things ..
> an option is to replace with a more modern device .. but a bit
> inelegant on the board .. does anyone know of a source for
> a replacement op amp
>
>
> Thanks
> Stephen zl1any
> <g_and_s_pearce@xtra.co.nz>
>
>
While I haven't kept track of who, there are companies that deal in
obsolete semiconductors. And even without checking, I'd be pretty
certain this one is obsolete; at came out 25 to 30 years ago, and
then 3-terminal regulators came along. It's not a DIP as we know it
today; all of the leads come out of the package for a distance before
bending, and two of the leads come out further than the rest. This
package setup seemed unique to Motorola.

The MFC6034 is a voltage regulator. A 1974 Motorola Data Book
says it can outpu between 4.6 an 17volts, and can output 200mA maximum.
The input voltage has to be 3 volts higher than the output voltage.

This book is an overview of Motorola products, and does not include
a data sheet for the device or even the pinout. A 1978 Motorola Data
Book I have does not list the device.

However, a 1974 HEP replacement guide has an entry for the MFC6030
(it has a higher maximum output voltage, but otherwise seems the same)
shows the pinouts as:

V.ref 6 1 gnd
bypass 5 2 V.in
V.ref 4 3 V.out

(pins 2 and 5 should have longer leads)

The data book shows other regulators in the series that aren't far
different; how stiff the regulation seems to be the only difference,
and your device isn't even the best of the lot.

The MFC6030 is in the same package, but has can output a higher max output voltage. The MFC6032 also. The MFC6033 seems almost identical to the MFC6034.

Unless the circuit has external circuitry to make the regulator handle more current (which would mean integrating would be a bit harder) I'd just put in a 3-terminal regulator.

Michael VE2BVW

2346. lawn mower voltage reg???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 19:55:47 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tdhaq7orj70i43@corp.supernews.com>
Source record: 53443

i have a small john deere lawn tractor with a failed rectifier-regualtor..
a factory replacement is nearly $100.00..
the device is encapsulated with a a large heatsink and about the size of a
small fist..
it has 3 connections, ac from the alternator and output to the ammeter with
the device being ground..
i got some good 50volt, 35 amp bridges but would like to know what else i'd
need for a simple regulator..
is there any device that i could buy from an auto parts store that would
have the components..
after failure i've been trickle charging the battery but that's not goodfor
the battery..
the current drain is for one cylinder ignition and a pto magnetic clutch..
any ideas appreciated..
tnx
hank

2347. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 21:21:04 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <Ij3C6.3956$xA.456059@news2-win.server.ntlworld.com>
Source record: 53444
Cross-posted to: uk.radio.amateur,sci.engr.radar+sonar,rec.radio.amateur.homebrew

squilsh <squilsh@ntlworld.com> wrote in message
news:Uv2A6.1702$2P2.268973@news6-win.server.ntlworld.com...
>
> >
> > Another book currently available from Chevet Supplies of Blackpool, who
> > advertise in PW and Radcom, is "Radar (Brassey's Lad Warfare Series)",
> which
>
> I meant "...*Land* Warfare Series" of course :o)
>
>
>
>
Thankyou for all the replies, now I might try writing to Practical Wireless
and see what happens.

2348. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-14 22:54:00 UTC
From: Douglas Dwyer <ddwyer@ddwyer.demon.co.uk>
Message-ID: <KVgleDAIUN26Ewxo@ddwyer.demon.co.uk>
Source record: 53349
Cross-posted to: uk.radio.amateur,sci.engr.radar+sonar,rec.radio.amateur.homebrew

Electronics World

In article <Ij3C6.3956$xA.456059@news2-win.server.ntlworld.com>, squilsh
<squilsh@ntlworld.com> writes
>
>squilsh <squilsh@ntlworld.com> wrote in message
>news:Uv2A6.1702$2P2.268973@news6-win.server.ntlworld.com...
>>
>> >
>> > Another book currently available from Chevet Supplies of Blackpool, who
>> > advertise in PW and Radcom, is "Radar (Brassey's Lad Warfare Series)",
>> which
>>
>> I meant "...*Land* Warfare Series" of course :o)
>>
>>
>>
>>
>Thankyou for all the replies, now I might try writing to Practical Wireless
>and see what happens.
>
>
>

--
Douglas Dwyer

2349. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 02:26:49 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ad905b5.4834592@news.aepnet.org>
Source record: 53445

On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
wrote:

>
>squilsh <squilsh@ntlworld.com> wrote in message
>news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
>> Has anybody considered doing amateur radar?

I can't find the original post on this, so I'll tack on here.

Before contemplating radar operation (in the US), you best look at FCC
part 97.305, "Authorized emission types."

Pulse operation is forbidden on most of the amateur bands. This
includes X-band which would be the most logical place to operate a
radar because of equipment availability.

N7WS

2350. Re: lawn mower voltage reg???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 03:16:03 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tdi4jmo9bu7u1b@corp.supernews.com>
Source record: 53446

with a little digging i've found the mtce manual..
not very technical but quoting from it follows:
"the stator is single phase, energized by a rotor with 12 permanent
magnets...
no load voltage is supposed to be 28 to 32 volts AC...
regulation is provided by zener diodes that sense the counter-voltage
created by the battery to control or limit the charging rate..
since these devices generate heat during operation, the regualtor is
equipped with finned surfaces to provide greater cooling..
when the battery is low, the reg permits a higher charge rate, and when it
si fully charged the devices limit the charge rate.."
looks like a car regulator won't work...

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:tdhaq7orj70i43@corp.supernews.com...
> i have a small john deere lawn tractor with a failed
rectifier-regualtor..
> a factory replacement is nearly $100.00..
> the device is encapsulated with a a large heatsink and about the size of a
> small fist..
> it has 3 connections, ac from the alternator and output to the ammeter
with
> the device being ground..
> i got some good 50volt, 35 amp bridges but would like to know what else
i'd
> need for a simple regulator..
> is there any device that i could buy from an auto parts store that would
> have the components..
> after failure i've been trickle charging the battery but that's not
goodfor
> the battery..
> the current drain is for one cylinder ignition and a pto magnetic clutch..
> any ideas appreciated..
> tnx
> hank
>
>

2351. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 03:49:01 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <aT8C6.5744$6R5.344200@news1.atl>
Source record: 53347

"Wes Stewart " <nospam_n7ws@arrl.net> wrote in message
news:3ad905b5.4834592@news.aepnet.org...
> On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
> wrote:
>
> >
> >squilsh <squilsh@ntlworld.com> wrote in message
> >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> >> Has anybody considered doing amateur radar?
>
> I can't find the original post on this, so I'll tack on here.
>
> Before contemplating radar operation (in the US), you best look at FCC
> part 97.305, "Authorized emission types."
>
> Pulse operation is forbidden on most of the amateur bands. This
> includes X-band which would be the most logical place to operate a
> radar because of equipment availability.

FSK is not prohibited tho. If you were to use a 3cm Gunnplexer for a low power radar, it would be pretty simple to shift the LO freq between Ft and Ft +/- IF.

N7CR

2352. Re: lawn mower voltage reg???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 04:17:23 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <xh9C6.155093$lj4.4690956@news6.giganews.com>
Source record: 53348

You need the zener diodes that are used to prevent overcharging of the battery. What is the battery voltage?

73, Bob K6DDX

2353. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 12:44:36 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AD997B4.4CA9FBA3@bloomer.net>
Source record: 53351

By shifting +/- the I.F. I think you would violate 97.307(a):No amateur transmission shall occupy more bandwidth than necessary for the transmission rate and emission type being transmitted, in accordance with good amateur practice.

It's probably easiest to just pick a band where pulse is authorized: 33cm, 13cm, 9cm, 5cm, 1.2cm, 6mm, 4mm, 2.5mm, 2mm, 1mm and above 300 GHz.

Scott
N0EDV

Rory Davis wrote:
>
> "Wes Stewart " <nospam_n7ws@arrl.net> wrote in message
> news:3ad905b5.4834592@news.aepnet.org...
> > On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
> > wrote:
> >
> > >
> > >squilsh <squilsh@ntlworld.com> wrote in message
> > >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> > >> Has anybody considered doing amateur radar?
> >
> > I can't find the original post on this, so I'll tack on here.
> >
> > Before contemplating radar operation (in the US), you best look at FCC
> > part 97.305, "Authorized emission types."
> >
> > Pulse operation is forbidden on most of the amateur bands. This
> > includes X-band which would be the most logical place to operate a
> > radar because of equipment availability.
>
> FSK is not prohibited tho. If you were to use a 3cm Gunnplexer for a low
> power radar, it would be pretty simple to shift the LO freq between Ft and
> Ft +/- IF.
>
> N7CR

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2354. Re: lawn mower voltage reg???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 13:44:22 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <WAhC6.15259$C55.1299041@news1.rdc1.nj.home.com>
Source record: 53352

This is one of those episodes which drive my enthusiasm for companies like International Rectifier. In this application the Zener is burning the excess energy as heat. A switcher from Unitrode (Texas Instr.) Nat Semi or Maxim can take a widely varying input voltage, varying load and regulate. Just think of all the RFI you could create with the switcher running at 100kHz. The software for the switching part can be found on Nat Semi's website.

I doubt that you would get better gas mileage unless you were building thousands of them.

"Bob" <balbert@cnmnetwork.com> wrote in message
news:xh9C6.155093$lj4.4690956@news6.giganews.com...
> You need the zener diodes that are used to prevent overcharging of the
> battery. What is the battery voltage?
>
> 73, Bob K6DDX
>
>

2355. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 14:35:48 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <8liC6.3672$Ce4.327454@news1.rdc1.ct.home.com>
Source record: 53353

Oppps. I didn't even consider pulse. I was thinking more along the lines
of 10 gig doppler shift radar--I think Ramsey sells a simple kit for around
99 bucks.

Pete

"Wes Stewart " <nospam_n7ws@arrl.net> wrote in message
news:3ad905b5.4834592@news.aepnet.org...
> On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
> wrote:
>
> >
> >squilsh <squilsh@ntlworld.com> wrote in message
> >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> >> Has anybody considered doing amateur radar?
>
> I can't find the original post on this, so I'll tack on here.
>
> Before contemplating radar operation (in the US), you best look at FCC
> part 97.305, "Authorized emission types."
>
> Pulse operation is forbidden on most of the amateur bands. This
> includes X-band which would be the most logical place to operate a
> radar because of equipment availability.
>
> N7WS
>

2356. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 14:42:30 UTC
From: Chris <csnichol@netusa1.net>
Message-ID: <3AD9B356.2C4A@netusa1.net>
Source record: 53350

Most of the commonly avaliable 10GHz stuff is CW doppler
radar (traffic radar). There have been a lot of responses but I
guess no one on here is actually doing it.
Chris

Wes Stewart wrote:
>
> On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
> wrote:
>
> >
> >squilsh <squilsh@ntlworld.com> wrote in message
> >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> >> Has anybody considered doing amateur radar?
>
> I can't find the original post on this, so I'll tack on here.
>
> Before contemplating radar operation (in the US), you best look at FCC
> part 97.305, "Authorized emission types."
>
> Pulse operation is forbidden on most of the amateur bands. This
> includes X-band which would be the most logical place to operate a
> radar because of equipment availability.
>
> N7WS

2357. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 14:51:12 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ad9b55d.49093405@news.aepnet.com>
Source record: 53355

On Sun, 15 Apr 2001 14:35:48 GMT, "Peter J. Bertini" <commquart@home.com> wrote:

>Oppps. I didn't even consider pulse. I was thinking more along the lines
>of 10 gig doppler shift radar--I think Ramsey sells a simple kit for around
>99 bucks.
>
>Pete

Whoops indeed!

RADAR = RAdio Detection And Ranging.

How do you get the range to a stationary (or any) target using doppler "radar"?
<g>

N7WS

>
>"Wes Stewart " <nospam_n7ws@arrl.net> wrote in message
>news:3ad905b5.4834592@news.aepnet.org...
>> On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
>> wrote:
>>
>> >
>> >squilsh <squilsh@ntlworld.com> wrote in message
>> >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
>> >> Has anybody considered doing amateur radar?
>>
>> I can't find the original post on this, so I'll tack on here.
>>
>> Before contemplating radar operation (in the US), you best look at FCC
>> part 97.305, "Authorized emission types."
>>
>> Pulse operation is forbidden on most of the amateur bands. This
>> includes X-band which would be the most logical place to operate a
>> radar because of equipment availability.
>>
>> N7WS
>>
>
>

2358. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 15:38:16 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <IfjC6.3679$Ce4.337352@news1.rdc1.ct.home.com>
Source record: 53356

Hi Wes...

Radar now has many uses... Identifying weather makeup, discerning the speed of moving objects (baseballs, police radar). I think the current usage of the acronym transcends the original "ranging" aspects dating back 60 or more years.

regards

Pete

"Wes Stewart" <nospam_n7ws@arrl.net> wrote in message news:3ad9b55d.49093405@news.aepnet.com...
> On Sun, 15 Apr 2001 14:35:48 GMT, "Peter J. Bertini" <commquart@home.com> wrote:
>
> >Oppps. I didn't even consider pulse. I was thinking more along the lines
> >of 10 gig doppler shift radar--I think Ramsey sells a simple kit for around
> >99 bucks.
> >
> >Pete
>
> Whoops indeed!
>
> RADAR = RAdio Detection And Ranging.
>
> How do you get the range to a stationary (or any) target using doppler "radar"?
> <g>
>
> N7WS
>
>
> >
> >"Wes Stewart " <nospam_n7ws@arrl.net> wrote in message
> >news:3ad905b5.4834592@news.aepnet.org...
> >> On Tue, 10 Apr 2001 01:16:38 +0100, "squilsh" <squilsh@ntlworld.com>
> >> wrote:
> >>
> >> >
> >> >squilsh <squilsh@ntlworld.com> wrote in message
> >> >news:Ph2A6.1648$2P2.259174@news6-win.server.ntlworld.com...
> >> >> Has anybody considered doing amateur radar?

> >>
> >> I can't find the original post on this, so I'll tack on here.
> >>
> >> Before contemplating radar operation (in the US), you best look at FCC
> >> part 97.305, "Authorized emission types."
> >>
> >> Pulse operation is forbidden on most of the amateur bands. This
> >> includes X-band which would be the most logical place to operate a
> >> radar because of equipment availability.
> >>
> >> N7WS
> >>
> >
> >
>
>

2359. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 15:39:02 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <m0gjdt8l5dmrlfq0rm2lr0hqeer0kem08j@4ax.com>
Source record: 53357

On Sun, 15 Apr 2001 14:51:12 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:
>
>Whoops indeed!
>
>RADAR = RAdio Detection And Ranging.
>
>How do you get the range to a stationary (or any) target using doppler "radar"?
><g>
>
>N7WS
>
Maybe use two or more and triangulate?

Sorry Wes the devil made me do it :-)

Danny

K6MHE

2360. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 16:49:17 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ad9d10a.56179063@news.aepnet.com>
Source record: 53358

On Sun, 15 Apr 2001 08:39:02 -0700, Dan Richardson <k6mhe@arrl.net> wrote:

>On Sun, 15 Apr 2001 14:51:12 GMT, nospam_n7ws@arrl.net (Wes Stewart)
>wrote:
>>
>>Whoops indeed!
>>
>>RADAR = RAdio Detection And Ranging.
>>
>>How do you get the range to a stationary (or any) target using doppler "radar"?
>><g>
>>
>>N7WS
>>
>Maybe use two or more and triangulate?
>
>Sorry Wes the devil made me do it :-)
>
>Danny
>
>K6MHE

Actually, you can do it with a CW radar if you use linear frequency modulation (LFM). The time of arrival of the echo (thus the range) can be determined from the frequency difference between the transmit and received signals. Unfortunately, if there is also doppler from a moving target then it gets more complicated. But it can be done.

Wes

2361. Re: What do these mean : CHM, DW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 17:28:16 UTC
From: Idontwantspam@net
Message-ID: <3ad9cc94.51781491@news.bellatlantic.net>
Source record: 53359

On Mon, 16 Apr 2001 06:33:25 GMT, audiofan@hotmail.com (Peter) wrote:

>I am asking this question on behalf of a friend who has no internet
>access. He has just obtained a marine transceiver (2 Meter) and it
>has buttons marked "CHM" and "DW". What are they for?

DW is for dual watch. This means the radio can monitor traffic on 2
channels (for example, the channel you and friends are using, and the
general calling channel).

Scanning would do more channels than this.

If you have the brand name, you could look at their website for more
details.

Happy trails,
Gary

"In three words I can sum up everything I've learned about life: it goes on."
-Robert Frost-

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

2362. WTB: 200+ watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 18:40:34 UTC
From: k9sqg@aol.com
Message-ID: <20010415144034.20647.00000309@ng-bk1.aol.com>
Source record: 53360

Looking for a heavy duty soldering iron, 200 watt or so, for some antenna and related projects.

Thanks.

Evan

2363. Admiralty Meter forsale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 18:57:42 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <987361155.8011.0.nnrp-07.9e98acde@news.demon.co.uk>
Source record: 53361
Cross-posted to: alt.ham-radio.marketplace,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,sci.electronics.components,uk.radio.amateur

Hello all,
I have got a meter from an Admiralty portable output meter
PATT A5756 1960 serial N�18 forsale
It is in very good condition for its 40 years of age.
The meter has a paper facia with a 1 volt RMS maker at 50%
scale (I do not know the FSD or current rating of the coil)
The face is approx 3.25 inch (83 mm) dia and is housed in a
flanged black painted carrier, the flange is 4.25 inch (108 mm)
diameter and requires a cut out 3.57 inch (90.5 mm)

```
On the back of the meter is an earthing terminal (for screening
the case) and two terminal that are connected to the movement
one has a "+" marked next to it
The number 46610 is marked below the terminal and this has
been protected with varnish to prevent it coming off.
Also a label with "U.K. Pat. NO. 758363" is attached.
```

Anyone interested ?
I am looking for £5 + P&P but make me an offer !!

```
Martin G1GYC

--
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Each of us is given a bag of tools, shapeless mind and a book of Rules
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Remove :-
_NOSPAM_FOR_ME_ from return address to reply or click this link

mailto:martin@g1gyc.demon.co.uk
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```

2364. potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-15 20:27:07 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tdk10uj79a1i3b@corp.supernews.com>
Source record: 53362

i've got a John Deere lawn tractor rectifier-regulator that's potted in a
heat sink..
it's from the early 70s, black and quite strong...
in need to rebuild the unit and would like suggestions on getting it out..
is there a solvent??
tnx
hank

2365. Remote ATU Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 01:20:01 UTC
From: la8ak@online.no
Message-ID: <3ada46f1.985779125@news.online.no>
Source record: 53363

need an ATU for 21m (69') long inverted-L antenna to be used for 7, 14, 21, 28MHz - it is pretty high impedance at the feedpoint, possibly near 5000 ohms, so I hope to use the same configuration for all those bands. The ATU should be switched for pre-set positions

I am consiering the WARC bands, but already have another antenna for 30m

Suppose a single tuned circuit with tapping for feeder will work for one band, but it is problem to cover 3:1 or 4:1 frequency tuning range using only a single coil and only switching the parallel capacitors

suggestions?

73
Jan-Martin
LA8AK

2366. Re: Remote ATU Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 01:33:07 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3ADA4BD3.FC317CBC@coqui.net>
Source record: 53364

J M Noeding wrote:
>
> need an ATU
>
> Suppose a single tuned circuit with tapping for feeder will work for
> one band, but it is problem to cover 3:1 or 4:1 frequency tuning range
> using only a single coil and only switching the parallel capacitors
>
> suggestions?
>
> 73
> Jan-Martin
> LA8AK

What kind of remote switch? An old remote antenna switch..or
relays? With a relay configuration you could select coil taps
also. Otherwise, I don't think you will get the range you want.

Bill Meacham WX4A
Vieques, PR

2367. Re: potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 01:35:07 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3ADA4C4A.549A9936@valley.net>
Source record: 53365

Henry Kolesnik wrote:

> i've got a John Deere lawn tractor rectifier-regulator that's potted in a
> heat sink..
> it's from the early 70s, black and quite strong...
> in need to rebuild the unit and would like suggestions on getting it out..
> is there a solvent??
>

Hello--
I've used a mixture of glacial acetic acid and methylene chloride as a stripper (I don't
recall the proportions, alas). Straight methylene chloride will also work--there's
a paint-removal product called "Zip-Strip" made by Star Bronze Co. of Alliance, OH
that will do the job, but more slowly.

Plan on soaking the assembly for a few days, removing it, scratching away the gooey epoxy,
immersing it again for a few days, until completion.

Note that whatever cuts the epoxy potting resin will also do a bangup job of
dissolving the resin in glass-epoxy PC board, epoxy-painted device markings, etc.

These solvents are unpleasant and somewaht dangerous to work with, so follow the
precautions you'd normally use for flammable/corrosive/tissue-dissolving chemicals.

73--
Brad AA1IP

2368. ad9831 etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 04:50:43 UTC
From: stephen zl1any <g_and_s_pearce@xtra.co.nz>
Message-ID: <3ada7a23$1@zfree.co.nz>
Source record: 53366

Hi,
Would like to experiment with this device and possibly
ad9850 and the motorola series serially programmable pll chips
with a view to building a modularised broad frequency
frequency generator.

Unfortunately don't seem to be able to find a one stop shop which
will provide all these in one off's and deliver them here to nz
without bankrupting myself .. has anyone any suggestions
for a supplier who might be able to help me

Thanks

Stephen zl1any

http://www.zfree.co.nz

2369. What do these mean : CHM, DW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 06:33:25 UTC
From: audiofan@hotmail.com
Message-ID: <3ada91f9.2050073@news.pacific.net.sg>
Source record: 53354

I am asking this question on behalf of a friend who has no internet
access. He has just obtained a marine transceiver (2 Meter) and it
has buttons marked "CHM" and "DW". What are they for?
Please post to this NG, do not email to me.
Thanks
Pete

2370. Solarcon

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 07:12:03 UTC
From: aduffy@sprint.ca
Message-ID: <3ADA9B43.55EDDEBB@sprint.ca>
Source record: 53367

Has anyone tried the Solarcon "Ground Zero" antenna on 10m? If so how did it compare to a regular dipole in a base or mobile application.

73. Tony
VA3ATD, London, ON

2371. Re: WTB: 200+ watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 07:58:17 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9bhro2$d6t$1@news6.svr.pol.co.uk>
Source record: 53393

> Looking for a heavy duty soldering iron, 200 watt or so, for some antenna
and
> related projects.
======================
For remote work (eg outside the shack) I would recommend , a soldering iron
heated by (butane) gas

There are basically 2 types :

1) Catalytic element burner tip bit up to 100 W available in a boardmarker
size unit
I use Portasol which is made in Ireland (Eire) and find 100 W
equivalent more than adequate for any
antenna job. I am sure Weller has a similar unit.

2) Gas bottle with burner and copper soldering bit as available from
Camping Gas (France) or Primus (Sweden) ,the latter running on propane .
These systems involve a larger gas container but can also be used for many
other duties , torch ,paint remover etc. Perhaps not so handy as 1) but
fine for any antenna job.

My experience with high power electric soldering irons is poor ..... the
element often has a relatively short life.

73 Frank gm0csz.kn6wh@ukrs.org

2372. Help with Pulse Width Modulation control circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 08:40:04 UTC
From: b_t_s@hotmail.com
Message-ID: <3adaafc0.17376512@news.mother.com>
Source record: 53368

For the past while I've been trying to get a buck regulator circuit working using a TL494 IC (a commonly used PWM chip for computer power supplies). I've been having trouble using the error amplifiers and I'm not sure how to bias them. I can use a variable resistor connected to the feed back to control the modulation but this doesn't provide automatic voltage regulation. I need some simple way to get the error amplifiers working.

Anyway I'm beginning to think that EEs aren't as bright as I though they would be, I have heard several times that these chips are easy to use but it's taking me weeks!

Thanks for any help.

Brock

2373. FA: Final hours, Freq. Counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 11:48:42 UTC
From: Reagan Thomas <reaganNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3ADADC1A.9433CC66@r-a-tSPAMISBAD.com>
Source record: 53369

RS 22-305 Freq. Counter. Going, going...

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1228995896

-RAT

2374. Re: potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 12:15:09 UTC
From: 451ctds@pop3.concentric.net
Message-ID: <3ADAE29B.507872AE@pop3.concentric.net>
Source record: 53370

Sounds like epoxy, nothing dissolves cured epoxy. Drill small holes,
make honeycomb pattern, small sharp chisel comes next, good luck !

Doesn't Deere have the part ? Try another dealer

2375. Re: lawn mower voltage reg???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 12:20:08 UTC
From: 451ctds@pop3.concentric.net
Message-ID: <3ADAE3C5.854F6AF4@pop3.concentric.net>
Source record: 53371

One possibility, a complete junkyard GM CSI [Charging System
Intergrated] Alternator. GM started using these in
the Mid 1970's so they are available. Get the plug too ! The spaded
wire goes straight to the battery, along with the big red from the plug,

the little wire is for the no output warning light

2376. Re: potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 13:04:16 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <k5CC6.5739$tv1.392045@newsread1.prod.itd.earthlink.net>
Source record: 53372

There are many solvents that will attack cured epoxies, dimethylformamide, methylene chloride, diethyl toluamide to name a few. They all take time to work, hours to days, and what is formed is not a solution but a gel which can be scraped off. And how they affect the potted components has to be taken into account. One thing is certain , they are all very hazardous to work with in a home environment. Check the sci.chem news group for more info.

<451ctds@pop3.concentric.net> wrote in message
news:3ADAE29B.507872AE@pop3.concentric.net...
> Sounds like epoxy, nothing dissolves cured epoxy. Drill small holes,
> make honeycomb pattern, small sharp chisel comes next, good luck !
>
> Doesn't Deere have the part ? Try another dealer
>
>

2377. Re: Help with Pulse Width Modulation control circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 14:50:59 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tdm1mmjo789494@corp.supernews.com>
Source record: 53374

"Brock" <b_t_s@hotmail.com> wrote in message
news:3adaafc0.17376512@news.mother.com...
> For the past while I've been trying to get a buck regulator circuit
> working using a TL494 IC (a commonly used PWM chip for computer power
> supplies). I've been having trouble using the error amplifiers and I'm
> not sure how to bias them.

Can you post a complete copy of the circuit as you have it now?. That way
somebody can take a look at it and comment on what is going wrong. It would
be much quicker that trying to describe what you have in words.

--
--
73 de,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

2378. Re: 10 meter repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 16:00:27 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9bf4ur$79s$2@woodrow.ucdavis.edu>
Source record: 53375

Hi Richard,
The quick simple answer is that repeaters of all types are only as good as the receiver front end. One needs to have mucho mucho selectivity and front end over load protection on the receiver or it simply wont play.

When you see old surplus Motorola or GE two-way radios out there with 6/8 front end helical type coils at the receiver input, that's a real world indication the design was well thought out.

Then between the receiver and the antenna, one would also place large bandpass and or bandpass/bandreject cavities in the coaxial line. You must protect the receiver or it just plain won't work.

Now on to the transmitter side...

You don't need 250 watts of transmit power, in fact you will end up hosing yourself up in most cases. Like the receiver, one would hope you have similar bandpass, bandpass/bandreject cavities for the transmitter side coaxial line.

Here's where I'm going with all this... consider your well protected receiver listening to a frequency for some very weak signals. Call a usable received signal 1 or 2 micro volts.

Now think about a transmitter right next to it in frequency blowing 10 watts of power out the door (doesn't seem like much does it..). The difference between the receiver level and the transmit power is converted to a dB value. The math methods of power/signal conversion can be found in any ARRL Handbook.

To have a system that will work well, you have to construct a receiver/antenna/filter system combined with transmitter power output level & all the proper filtering with actual preformance values that add up to a value that "fit within the real world spec calculations."

I made a surplus GE Master Pro Receiver (a very well built unit) into a repeater along with a 2 watt Hamtronics transmitter. Two converted CB ground planes seperated by 60 feet on a wood pole and home made box filters from the ARRL Handbook. Even as silly as it made read, the system playes well from a hill top.

Put an amplifier on the tx side and the noise (remember those dB system values) hoses up the repeater and it all fails with grunge.

So a simple, well made low power system will function quite nicely, same rules apply on six meters.

Add and Scom 7K controller and your set...

hope that helps
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: Richard Hosking <zaprichardh@iinet.net.au(remove the zap)> wrote:
: Dear all
: Does anyone have experience in setting up a repeater on 10? I understand
: that it is necessary to use separate sites for transmitter and receiver as
: it is difficult to get adequate selectivity with the transmit/receive freqs
: only 100 KHz apart. (although in percentage terms this is the same as a 2M
: repeater)
: Cavities are obviously physically too big
: I would be grateful for info on any working systems.

: Richard

2379. Wanted: 10 uH roller inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 17:29:41 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <tdmb0vdu2lsva1@corp.supernews.com>
Source record: 53376

Wanted: one roller inductor EXACTLY like the 10 uH Johnson 229-201 or the Cardwell / Multronics equivalent. Picture at
http://www.cardwellcondenser.com/PAGES/md04g.html
Thanks
Bob
KB8TL@yahoo.com
PS: I know these can be bought new for about $100, and used for almost as much at SS of N but a tad pricey for my project.

2380. solid state vibrator schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 17:38:41 UTC
From: Gordon Ward <glw@hiwaay.net>
Message-ID: <b3GC6.8086$u7.1761088@e3500-chi1.usenetserver.com>
Source record: 53377

Need a schematic for solid state car vibrator.

glw@hiwaay.net

2381. Re: potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 18:52:34 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <_9HC6.33$uN3.14557@e420r-atl1.usenetserver.com>
Source record: 53378

"Marty" <marty1225@earthlink.net> wrote in message
news:k5CC6.5739$tv1.392045@newsread1.prod.itd.earthlink.net...
> There are many solvents that will attack cured epoxies,
dimethylformamide,
> methylene chloride, diethyl toluamide to name a few. They all take time
to
> work, hours to days, and what is formed is not a solution but a gel which
> can be scraped off. And how they affect the potted components has to be
> taken into account. One thing is certain , they are all very hazardous
to
> work with in a home environment. Check the sci.chem news group for more
> info.

You can also add hexafluoro-isopropanol to the candidate list too. BUT...

Basically these solvents swell the cured polymer, making it soft enough
that it can often be mechanically removed. They WILL attack the potted
components.

And Marty is quite correct - these are EXTREMELY HAZARDOUS materials to use
at home. In fact, as early as five years ago, Eastman Chemical Company was
greatly restricting the use of methylene chloride in most labs. You had to
undergo a special training course before you could even get a bottle from
the stock room.

Dr. Barry L. Ornitz WA4VZQ ornitz@tricon.net

2382. RE: Remote ATU Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 19:38:50 UTC
From: Juan <novalid@novalid.com>
Message-ID: <9bfhd2$3pb$1@diana.bcn.ttd.net>
Source record: 53379

I propose you to use a T network with two variable capacitors and an inductor. The variable capacitors can be tuned with RC servos, and the coil tapped with relays.

Old but effective

Juan,EA6NP

2383. Info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 20:59:20 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <K2JC6.9377$cf5.917976@news6-win.server.ntlworld.com>
Source record: 53380
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew,uk.radio.amateur

Info required on conversion of Pye T30 to 2M linear
Any help appreciated

Alec Wood
M1BNK

2384. Re: solid state vibrator schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 21:37:50 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3ADB662E.2781E494@rupert.tds-az.lmco.com>
Source record: 53382

Gordon Ward wrote:
>
> Need a schematic for solid state car vibrator.
>
> glw@hiwaay.net

Go to http://www.yahoo.com and do a search on
"solid state vibrator". I got 1000 hits. some
of the info is no good but there has got to be
a schematic in there somewhere.

Martin K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2385. Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-16 21:58:54 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com>
Source record: 53381
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Just today I got on with some construction for the first time in ages, due to health problems, and had a go at a Morse practice oscillator, so I can send Morse with my handheld, I'm learning with the help of another local ham.

The question is about enamelled copper wire, I needed to make some links and didn't have any link wire, so I took a new roll of ECW and tried to remove the enamelling, but it wouldn't come off. The wire in question has copper coloured enamelling, unlike the pink-red stuff I've had previously, which just came off when scraped with a sharp knife.

I also tried burning/melting it with a soldering iron and a candle, these had no effect except that the candle caused surface blackening, which when scraped off left the enamel still there underneath.

Anybody got any ideas?

73's, Alex M1HAR

2386. Johnson roller inductor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 01:40:57 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <tdn7q872mr0607@corp.supernews.com>
Source record: 53383

Anyone know what the difference is between the EF Johnson 229-201-1, -2
or -3 roller inductors? I believe they are all 10uH but maybe different
vintages.....??
TNX
Bob
KB8TL@YAHOO.COM

2387. Re: potting solvent ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 02:16:02 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <27qkdt8q6seq72o37pc2av1k356u12bkd3@4ax.com>
Source record: 53385

"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote:

>i've got a John Deere lawn tractor rectifier-regulator that's potted in a
>heat sink..
>it's from the early 70s, black and quite strong...
>in need to rebuild the unit and would like suggestions on getting it out..
>is there a solvent??

Try soaking it in Acetone, in a covered container, for several days.
This MAY do something.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

2388. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 02:34:43 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3ADBACF8.2EAA@pop.removethistomailme.net>
Source record: 53384
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

squilsh wrote:
>
> The question is about enamelled copper wire, I needed to make some links and
> didn't have any link wire, so I took a new roll of ECW and tried to remove
> the enamelling, but it wouldn't come off.

> 73's, Alex M1HAR

Sounds like you have some high-quality polythermalized magnet wire
there. You can't strip it with heat, at least not with anything short
of a welding torch.

What are you trying to use the wire for (what is a "link"?)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2389. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 04:13:10 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <1nPC6.215231$5H6.7306319@e420r-atl2.usenetserver.com>
Source record: 53386
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"squilsh" <squilsh@ntlworld.com> wrote in message
news:m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com...
> The question is about enamelled copper wire, I needed to
> make some links and didn't have any link wire, so I took a
> new roll of ECW and tried to remove the enamelling, but it
> wouldn't come off. The wire in question has copper coloured
> enamelling, unlike the pink-red stuff I've had previously,
> which just came off when scraped with a sharp knife.
>
> I also tried burning/melting it with a soldering iron and a
> candle, these had no effect except that the candle caused
> surface blackening, which when scraped off left the enamel
> still there underneath.

As John Miles, KE5FX, noted, the wire is probably covered with Polythermaleze (Belden) or another similar coating. These coatings are extremely tough and difficult to remove. If you can still find it, GC Electronics sells a material called Strip-X. You heat the wire slightly and dip it in this material. Let it set for about 20 seconds and wipe the insulation off with a clean cloth. Unfortunately I have not seen Strip-X sold for quite a while. It was originally made from a mixture of phenol and potassium hydroxide. A later version used either phenol or cresol and methylene chloride. Both versions are extremely dangerous, especially the later version. This stuff will eat through latex gloves in seconds and then right through your skin. [There have been deaths recorded from spilling a very similar mixture on the skin, coating an area no larger than the size of a silver dollar.]

A better approach is to heat the wire to redness until the coating burns or carbonizes. This will mean a better heat source than the candle. Once cool, the wire end should be cleaned with fine sandpaper to remove the oxidation.

73, Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net

Remove the NO SPAM to reply.

2390. Re: What do these mean : CHM, DW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 05:52:10 UTC
From: audiofan@hotmail.com
Message-ID: <3adbda03.128710@news.pacific.net.sg>
Source record: 53373

Thank you for the reply. DW is indeed dual monitoring of 2 channels. This is a marine set and there is a "default" channel 16 (much like ch 9 on CB) and DW switches between 16 and another selected channel at the rate of about 1 switch each 2 seconds. Unfortunately this brand (Venus) is an obscure Japanese set, and I doubt if any website exixts.

On Sun, 15 Apr 2001 17:28:16 GMT, Idontwantspam@net (Gary S.) wrote:

>On Mon, 16 Apr 2001 06:33:25 GMT, audiofan@hotmail.com (Peter) wrote:
>
>>I am asking this question on behalf of a friend who has no internet
>>access. He has just obtained a marine transceiver (2 Meter) and it
>>has buttons marked "CHM" and "DW". What are they for?
>
>DW is for dual watch. This means the radio can monitor traffic on 2
>channels (for example, the channel you and friends are using, and the
>general calling channel).
>
>Scanning would do more channels than this.
>
>If you have the brand name, you could look at their website for more
>details.
>
>Happy trails,
>Gary
>---
>"In three words I can sum up everything I've learned about life: it goes on."
>-Robert Frost-
>
>Gary D. Schwartz, Needham, MA, USA
>Please reply to: garyDOTschwartzATpoboxDOTcom

2391. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 09:14:01 UTC
From: Ged <ged61@ntlworld.com>
Message-ID: <7QTMFADZIA36EwOA@ntlworld.com>
Source record: 53388
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In message <m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com>,
squilsh <squilsh@ntlworld.com> writes
>Just today I got on with some construction for the first time in ages, due
>to health problems, and had a go at a Morse practice oscillator, so I can
>send Morse with my handheld, I'm learning with the help of another local
>ham.
>
>The question is about enamelled copper wire, I needed to make some links and
>didn't have any link wire, so I took a new roll of ECW and tried to remove
>the enamelling, but it wouldn't come off. The wire in question has copper
>coloured enamelling, unlike the pink-red stuff I've had previously, which
>just came off when scraped with a sharp knife.
>
>I also tried burning/melting it with a soldering iron and a candle, these
>had no effect except that the candle caused surface blackening, which when
>scraped off left the enamel still there underneath.
>
>Anybody got any ideas?
>
>73's, Alex M1HAR

You could start by learning how to distinguish between full-stops and
commas.
--
Ged

2392. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 09:47:28 UTC
From: Ged <ged61@ntlworld.com>
Message-ID: <vBZZhWAwEB36Ew9X@ntlworld.com>
Source record: 53387
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In message <m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com>,
squilsh <squilsh@ntlworld.com> writes
>Just today I got on with some construction for the first time in ages, due
>to health problems, and had a go at a Morse practice oscillator, so I can
>send Morse with my handheld, I'm learning with the help of another local
>ham.
>
>The question is about enamelled copper wire, I needed to make some links and
>didn't have any link wire, so I took a new roll of ECW and tried to remove
>the enamelling, but it wouldn't come off. The wire in question has copper
>coloured enamelling, unlike the pink-red stuff I've had previously, which
>just came off when scraped with a sharp knife.
>
>I also tried burning/melting it with a soldering iron and a candle, these
>had no effect except that the candle caused surface blackening, which when
>scraped off left the enamel still there underneath.
>
>Anybody got any ideas?
>
>73's, Alex M1HAR

You could start by learning how to distinguish between a full-stop and a
comma.
--
Ged

2393. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 14:14:10 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3ADC4FB2.C9E425F6@midwestmicro-tek.com>
Source record: 53390
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Ged wrote:

> In message <m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com>,
> squilsh <squilsh@ntlworld.com> writes
> >Just today I got on with some construction for the first time in ages, due
> >to health problems, and had a go at a Morse practice oscillator, so I can
> >send Morse with my handheld, I'm learning with the help of another local
> >ham.
> >
> >The question is about enamelled copper wire, I needed to make some links and
> >didn't have any link wire, so I took a new roll of ECW and tried to remove
> >the enamelling, but it wouldn't come off. The wire in question has copper
> >coloured enamelling, unlike the pink-red stuff I've had previously, which
> >just came off when scraped with a sharp knife.
> >
> >I also tried burning/melting it with a soldering iron and a candle, these
> >had no effect except that the candle caused surface blackening, which when
> >scraped off left the enamel still there underneath.
> >
> >Anybody got any ideas?
> >
> >73's, Alex M1HAR
>
> You could start by learning how to distinguish between a full-stop and a
> comma.
> --
> Ged

And this, is a helpful answere, to a construction question?

Rick KC0GIX

2394. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 14:35:08 UTC
From: Reagan Thomas <ratNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3ADC549C.7FDA3395@r-a-tSPAMISBAD.com>
Source record: 53389
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

John Miles wrote:
>
> squilsh wrote:
> >
[snip]
> What are you trying to use the wire for (what is a "link"?)
>
> -- jm
>
> ----------
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> ----------

Those of us in the US would say a "link" is a "jumper" wire
The Brits sometimes also use the term "shunt" where we might use
"jumper"

-RAT

2395. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 15:25:26 UTC
From: cobra148 <cobra148@ntlworld.com>
Message-ID: <XdZC6.11190$cf5.1092357@news6-win.server.ntlworld.com>
Source record: 53392
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Rick Haub <rhaub@midwestmicro-tek.com> wrote in message
news:3ADC4FB2.C9E425F6@midwestmicro-tek.com...

: And this, is a helpful answere, to a construction question?
:
: Rick KC0GIX

Rick, you made a typo on "answer". Ged will be after *you* now. ;o)

Bob.

2396. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 16:12:19 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3ADC6B63.128B7FDA@toast.net>
Source record: 53391

"Barry L. Ornitz" wrote:

> "squilsh" <squilsh@ntlworld.com> wrote in message
> news:m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com...
> > The question is about enamelled copper wire, I needed to
> > make some links and didn't have any link wire, so I took a
> > new roll of ECW and tried to remove the enamelling, but it
> > wouldn't come off. The wire in question has copper coloured
> > enamelling, unlike the pink-red stuff I've had previously,
> > which just came off when scraped with a sharp knife.
> >
> > I also tried burning/melting it with a soldering iron and a
> > candle, these had no effect except that the candle caused
> > surface blackening, which when scraped off left the enamel
> > still there underneath.
>
> As John Miles, KE5FX, noted, the wire is probably covered
> with Polythermaleze (Belden) or another similar coating.
> These coatings are extremely tough and difficult to remove.
> If you can still find it, GC Electronics sells a material
> called Strip-X. You heat the wire slightly and dip it in
> this material. Let it set for about 20 seconds and wipe the
> insulation off with a clean cloth. Unfortunately I have not
> seen Strip-X sold for quite a while. It was originally made
> from a mixture of phenol and potassium hydroxide. A later
> version used either phenol or cresol and methylene chloride.
> Both versions are extremely dangerous, especially the later
> version. This stuff will eat through latex gloves in seconds
> and then right through your skin. [There have been deaths
> recorded from spilling a very similar mixture on the skin,
> coating an area no larger than the size of a silver dollar.]
>
> A better approach is to heat the wire to redness until the
> coating burns or carbonizes. This will mean a better heat
> source than the candle. Once cool, the wire end should be
> cleaned with fine sandpaper to remove the oxidation.

If you're going to have to use sandpaper anyhow, wouldn't that remove it
without the other steps?

john

2397. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 16:55:36 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <57todtkd2ah58ic4jsj8v56vca5sqihohm@4ax.com>
Source record: 53394
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

John Miles <jmiles@pop.removethistomailme.net>
shared these priceless pearls of wisdom:

-
->Sounds like you have some high-quality polythermalized magnet wire
->there. You can't strip it with heat, at least not with anything short
->of a welding torch.

Oops, sorry, John. Polythermaleze (Belden trademark) is INTENDED to be stripped with a soldering iron, or even better, a solder pot. That's what the "thermal-ease" at the end of the trademark means.

My suspicion is that he has formvar or some other good tough coating that will strip, when done properly, with a hobby knife (X-acto or similar), or as noted, with sandpaper.

Me? I spend the $5 and get a small spool of polythermaleze.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

2398. Re: WTB: 200+ watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 17:16:44 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3ADC7A7C.4EB1E9A0@iquest.net>
Source record: 53395

How about the Weller D550pk rated at 260 watts (~$40) and available at
your local Grainger's? The electric units are limited to operating
where power is available, which may be a factor if you've not installed
a ac receptable at the tower base ;')

Bests,
Patrick
W9GTA

Frank Dinger wrote:
>
> > Looking for a heavy duty soldering iron, 200 watt or so, for some antenna
> and
> > related projects.
> ======================
> For remote work (eg outside the shack) I would recommend , a soldering iron
> heated by (butane) gas
>
> There are basically 2 types :
>
> 1) Catalytic element burner tip bit up to 100 W available in a boardmarker
> size unit
> I use Portasol which is made in Ireland (Eire) and find 100 W
> equivalent more than adequate for any
> antenna job. I am sure Weller has a similar unit.
>
> 2) Gas bottle with burner and copper soldering bit as available from
> Camping Gas (France) or Primus (Sweden) ,the latter running on propane .
> These systems involve a larger gas container but can also be used for many
> other duties , torch ,paint remover etc. Perhaps not so handy as 1) but
> fine for any antenna job.
>
> My experience with high power electric soldering irons is poor ..... the
> element often has a relatively short life.
>
> 73 Frank gm0csz.kn6wh@ukrs.org

2399. Re: Johnson roller inductor question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 17:23:44 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3ADC7C20.3B48809A@iquest.net>
Source record: 53396

Bob,

I don't have the catalogs here at the ofice, but the electrical perameters are varied for each model. The inductance and maximum circulating current allowed are key - 5uH/3A, 10uH/5A, and 18uH/9A as I recall. May be off one model, as they offered a 28uH unit in the lineup.

Absolutely they are NOT all 10uH. If you need specific's email me and I'll review old catalog.

Bests,

Patrick
W9GTA

Bob wrote:
>
> Anyone know what the difference is between the EF Johnson 229-201-1, -2
> or -3 roller inductors? I believe they are all 10uH but maybe different
> vintages.....??
> TNX
> Bob
> KB8TL@YAHOO.COM

2400. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 19:02:36 UTC
From: John Melvin <johnny@melvin.com>
Message-ID: <9bi401qii1@newsg1.svr.pol.co.uk>
Source record: 53297

I will just answer the question.
By links do you mean small jumpers on a pc board.
You really don't need insulated wire for that.
If you DO need insulated then WIRE WRAP is pretty good.
On pc board I use "zero ohm resistors"
Sold on a band like resistors but are shorts. Bend nice and look good.
Other than that just hook-up wire is ok.
Not sue if I got . or , in correct places.
As long as my links work , they don't know.
Johnny G3LIV.

"Barry L. Ornitz" <ornitzNOSPAM@usa.net> wrote in message
news:1nPC6.215231$5H6.7306319@e420r-atl2.usenetserver.com...
>
> "squilsh" <squilsh@ntlworld.com> wrote in message
> news:m4KC6.9620$cf5.945008@news6-win.server.ntlworld.com...
> > The question is about enamelled copper wire, I needed to
> > make some links and didn't have any link wire, so I took a
> > new roll of ECW and tried to remove the enamelling, but it
> > wouldn't come off. The wire in question has copper coloured
> > enamelling, unlike the pink-red stuff I've had previously,
> > which just came off when scraped with a sharp knife.
> >
> > I also tried burning/melting it with a soldering iron and a
> > candle, these had no effect except that the candle caused
> > surface blackening, which when scraped off left the enamel
> > still there underneath.
>
> As John Miles, KE5FX, noted, the wire is probably covered
> with Polythermaleze (Belden) or another similar coating.
> These coatings are extremely tough and difficult to remove.
> If you can still find it, GC Electronics sells a material
> called Strip-X. You heat the wire slightly and dip it in
> this material. Let it set for about 20 seconds and wipe the
> insulation off with a clean cloth. Unfortunately I have not
> seen Strip-X sold for quite a while. It was originally made
> from a mixture of phenol and potassium hydroxide. A later
> version used either phenol or cresol and methylene chloride.
> Both versions are extremely dangerous, especially the later
> version. This stuff will eat through latex gloves in seconds
> and then right through your skin. [There have been deaths
> recorded from spilling a very similar mixture on the skin,
> coating an area no larger than the size of a silver dollar.]
>

> A better approach is to heat the wire to redness until the
> coating burns or carbonizes. This will mean a better heat
> source than the candle. Once cool, the wire end should be
> cleaned with fine sandpaper to remove the oxidation.
>
> 73, Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net
>
> Remove the NO SPAM to reply.
>
>

2401. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 19:23:13 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3ADC9821.5D81844B@midwestmicro-tek.com>
Source record: 53298
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

cobra148 wrote:

> Rick Haub <rhaub@midwestmicro-tek.com> wrote in message
> news:3ADC4FB2.C9E425F6@midwestmicro-tek.com...
>
> : And this, is a helpful answere, to a construction question?
> :
> : Rick KC0GIX
>
> Rick, you made a typo on "answer". Ged will be after *you* now. ;o)
>
> Bob.

Oh, deer!

Rick

2402. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 19:59:47 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <%e1D6.15043$uN3.300157@e420r-atl1.usenetserver.com>
Source record: 53299

"John O'Flaherty" <oflahert@toast.net> wrote in message
news:3ADC6B63.128B7FDA@toast.net...
> If you're going to have to use sandpaper anyhow, wouldn't that remove it
> without the other steps?

Jim Weir was correct, the wire coating is Formvar - not Polythermaleze.
Formvar(R) is an extremely tough coating. Sandpaper will have great
difficulty in removing it.

After burning off the insulation, the sandpaper removes the oxide coating
which is a trivial operation. In fact, I generally use a Scothbrite
kitchen scouring pad rather than sandpaper. Simply pulling the wire
through it while the pad is squeezed with the fingers is al that is
necessary. You will not remove Formvar this easily!

You can also dunk the still red wire into methanol which will reduce the
oxide to copper.
[And if you have a calibrated nose, you can smell the formic acid produced
by the oxidation of the methanol.] I did not suggest this initially as you
generally have an open flame to heat the wire and an open container of
methanol nearby is an accident waiting to happen. The scouring pad is a
much safer option and the one I suggest.

Dr. Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net

Remove the NO SPAM to reply.

Formvar is an epoxy modified polyvinyl formal resin. It has an
exceptionally high peel strength which is why it is so hard to remove from
the wire.

2403. Amateur TV

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 20:26:49 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9bi8rvhij1@wanadoo.fr>
Source record: 53300

I wrote this page on TV VITS.

http://perso.wanadoo.fr/jf.fourcadier/LB2000/LB_ph1/TV/ltest_e.htm

Could anyone help me to correct my mistakes ?

Thank you for your help

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

2404. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 20:27:15 UTC
From: Ged <ged61@ntlworld.com>
Message-ID: <$6dtv3AjcK36EwM+@ntlworld.com>
Source record: 53302
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In message <XdZC6.11190$cf5.1092357@news6-win.server.ntlworld.com>,
cobra148 <cobra148@ntlworld.com> writes
>
>Rick, you made a typo on "answer". Ged will be after *you* now. ;o)
>
>Bob.
>
>
Do you semi-literate CB'ers / lazy-arsed Class-B's always have to prompt
each other?
--
Ged

2405. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 20:27:31 UTC
From: Ged <ged61@ntlworld.com>
Message-ID: <g6pqvKBzcK36EwOo@ntlworld.com>
Source record: 53301
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In message <3ADC4FB2.C9E425F6@midwestmicro-tek.com>, Rick Haub
<rhaub@midwestmicro-tek.com> writes
>
>And this, is a helpful answere, to a construction question?
>
>Rick KC0GIX
>
It's 'ANSWER' you semi-literate git. It's obvious why you object to
someone trying to maintain reasonable standards.
Did you come from CB?
--
Ged

2406. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 21:51:11 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3ADCBC03.21B6@pop.removethistomailme.net>
Source record: 53303
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Jim Weir wrote:
>
> John Miles <jmiles@pop.removethistomailme.net>
> shared these priceless pearls of wisdom:
>
> -
> ->Sounds like you have some high-quality polythermalized magnet wire
> ->there. You can't strip it with heat, at least not with anything short
> ->of a welding torch.
>
> Oops, sorry, John. Polythermaleze (Belden trademark) is INTENDED to be stripped
> with a soldering iron, or even better, a solder pot. That's what the
> "thermal-ease" at the end of the trademark means.
>

Hmm. That's interesting -- I could've sworn the 10-pound spool of #22
magnet wire I wound my Tesla coil with was sold as "polythermalized
magnet wire." The idea was that arcs drawn off the secondary
(intentionally or otherwise) wouldn't burn off the enamel.

It was nice stuff, I still have some. You can't strip it at soldering
temperatures -- no way, no how. Only mechanical abrasion, from
sandpaper or a knife, would do the trick. I'll have to look back at
some of my old references to see exactly what they called it.

Either way, why use enamelled copper wire for normal electronic wiring?
<g>

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2407. Re: Printed Circuit Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 22:13:18 UTC
From: Steve Noskowicz <sorry@junk.email.returned.com>
Message-ID: <3ADCBFFE.B8491A07@junk.email.returned.com>
Source record: 53305

Try FAR Circuits. He does many of the QST boards. Look for any
articles using a PCB and FAR usually is advertised at the end. Fred
does that sort of thing.

Steve N. K9DCI

Rex Klopfenstein, Jr. wrote:
>
> ...company that will generate single pc boards from CAD
> file (such as those generated by Electronics Workbench).
> --
> Rex Klopfenstein, Jr.
> Bowling Green, OH
> KC8PFP
> rklopfen@wcnet.org
> http://www.wcnet.org/~rklopfen

2408. Re: LM317 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 22:16:02 UTC
From: Steve Noskowicz <sorry@junk.email.returned.com>
Message-ID: <3ADCC0A2.1F64EB55@junk.email.returned.com>
Source record: 53306

Ditto.

The only 'problem' with a linear series pass cranked down to a low
voltage is the extra series pass dissipation. Don't think an exrea 1.2
volts'll kill ya.
Steve K9DCI

Steve Ratzlaff wrote:
>
> Hi Bob,
> The manufacturer's databook info for the LM317 show this to be the
> proper way to bias the IC down to zero volts. If you figured out how to
> do this on your own, that's great, but it's a well-known technique! I
> don't know of any problems doing this.
> Steve
>
> Bob Liesenfeld wrote:
> >
> > Hi gang,
> > I have a power supply that uses an LM317 3 terminal adjustable
> > regulator. It has about +22VDC applied to the input and the usual
> > resistor from the "adj" pin to the "out" pin, and a variable resistor to
> > ground.
> >
> > As you may know, with this arrangement, the minimum output from the
> > regulator is about +1.2V. So.....I lifted the ground end of the
> > variable resistor, and conneted it instead a 2 resistor voltage divider
> > across a -12VDC supply to provide -1.2VDC to the bottom of the variable
> > resistor in the LM318 ckt. Now the output of the LM318 goes all the way
> > down to 0V. I've checked it under lots of conditions, loaded, no load,
> > cold, hot, etc., and can't find any problems with it.
> >
> > Before I have a bunch of my students make this change to their power
> > supplies, I thought i'd see if anyone else in this group has tryed this
> > and found any gotcha ya's.
> > Thanks.
> >
> > 72
> > Bob L. WB0POQ

2409. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 22:23:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3ADCC259.3D0C4AA7@eznec.com>
Source record: 53304
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Thermal strip enameled wire was commonly used at a company I worked for, and I've used it for many years for prototyping and homebrew projects. There are at least a couple of varieties of it (and probably several different manufacturers), which differ in ease of stripping. In a production environment, it was stripped by dipping the end into a pot of molten solder. It's not easy to strip with a soldering iron, and at least one variety is pretty difficult. The first problem is getting good thermal contact with the wire, which requires scraping pretty hard with a well-tinned iron, or getting good contact to the wire end. The second is getting it hot enough. I've found that about 800 F is needed for stripping in a reasonable length of time. You can strip at the more common tip temperature of 700 F but it takes longer. At lower temperatures, you might not be able to get it off at all. Finally, you've got to be patient. The stuff boils away, which takes a little while. The larger the wire, the longer it takes, since larger wire is cooler closer to the work area. The largest I've routinely dealt with is about #22 -- larger wire would take more patience yet and/or a big iron. The residue is easily removed by rubbing with the iron or with light sanding.

I have no idea whether some of the wire being discussed is thermal strip or not. I'm just pointing out that it would be easy to not recognize thermal strip wire if you did have some.

Roy Lewallen, W7EL

John Miles wrote:
>
> Jim Weir wrote:
> >
> > John Miles <jmiles@pop.removethistomailme.net>
> > shared these priceless pearls of wisdom:
> >
> > -
> > ->Sounds like you have some high-quality polythermalized magnet wire
> > ->there. You can't strip it with heat, at least not with anything short
> > ->of a welding torch.
> >
> > Oops, sorry, John. Polythermaleze (Belden trademark) is INTENDED to be stripped
> > with a soldering iron, or even better, a solder pot. That's what the
> > "thermal-ease" at the end of the trademark means.
> >
>
> Hmm. That's interesting -- I could've sworn the 10-pound spool of #22

> magnet wire I wound my Tesla coil with was sold as "polythermalized
> magnet wire." The idea was that arcs drawn off the secondary
> (intentionally or otherwise) wouldn't burn off the enamel.
>
> It was nice stuff, I still have some. You can't strip it at soldering
> temperatures -- no way, no how. Only mechanical abrasion, from
> sandpaper or a knife, would do the trick. I'll have to look back at
> some of my old references to see exactly what they called it.
>
> Either way, why use enamelled copper wire for normal electronic wiring?
> <g>
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

2410. Re: 10 meter repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-17 22:31:28 UTC
From: Steve Noskowicz <sorry@junk.email.returned.com>
Message-ID: <3ADCC440.897866E5@junk.email.returned.com>
Source record: 53307

Richard,

There are two main considerations for duplex operation. Receiver filtering and transmitter filtering.

A filter on the receiver reduces (attenuates) the Tx power to a level acceptable to the receiver. The specific level depends on the receiver design. The effect is generally two pronged. The Tx power can overload the front end directly OR the Tx carrier frequency can mix with noise coming from the LO (which is one IF away from the LO freq) and create noise on the Rx frequency. (See sideband noise below)
This filter must attenuate the Tx frequency.

The other aspect of the 'duplex' problem is that a transmitter has noise extending out from the carrier. We call it sideband noise. The amount depends on the transmitter design. In general, a crystal controlled transmitter will have lower sideband noise than a synthesized one.
The filter on the transmitter reduces this to a level below the receiver sensitivity. This filter must attenuate the Rx frequency.

Using two antennas provides some of both of these types of attenuation. Vertical displacement of vertical antennas yields better isolation since there is less radiation up/down.

Good luck

Steve N. K9DCI

Skipp wrote:
>
> Hi Richard,
> The quick simple answer is that repeaters of all types are only as good as
> the receiver front end. One needs to have mucho mucho selectivity and
> front end over load protection on the receiver or it simply wont play.
>
> When you see old surplus Motorola or GE two-way radios out there with 6/8
> front end helical type coils at the receiver input, that's a real world
> indication the design was well thought out.
>
> Then between the receiver and the antenna, one would also place large
> bandpass and or bandpass/bandreject cavities in the coaxial line. You must
> protect the receiver or it just plain won't work.
>
> Now on to the transmitter side...
>

> You don't need 250 watts of transmit power, in fact you will end up hosing
> yourself up in most cases. Like the receiver, one would hope you have
> similar bandpass, bandpass/bandreject cavities for the transmitter side
> coaxial line.
>
> Here's where I'm going with all this... consider your well protected
> receiver listening to a frequency for some very weak signals. Call a
> usable received signal 1 or 2 micro volts.
>
> Now think about a transmitter right next to it in frequency blowing 10
> watts of power out the door (doesn't seem like much does it..). The
> difference between the receiver level and the transmit power is converted
> to a dB value. The math methods of power/signal conversion can be found in
> any ARRL Handbook.
>
> To have a system that will work well, you have to construct a
> receiver/antenna/filter system combined with transmitter power output
> level & all the proper filtering with actual preformance values that add
> up to a value that "fit within the real world spec calculations."
>
> I made a surplus GE Master Pro Receiver (a very well built unit) into a
> repeater along with a 2 watt Hamtronics transmitter. Two converted CB
> ground planes seperated by 60 feet on a wood pole and home made box
> filters from the ARRL Handbook. Even as silly as it made read, the system
> playes well from a hill top.
>
> Put an amplifier on the tx side and the noise (remember those dB system
> values) hoses up the repeater and it all fails with grunge.
>
> So a simple, well made low power system will function quite nicely, same
> rules apply on six meters.
>
> Add and Scom 7K controller and your set...
>
> hope that helps
> skipp@pilot.ucdavis.edu
> http://sonic.ucdavis.edu
>
> : Richard Hosking <zaprichardh@iinet.net.au(remove the zap)> wrote:
> : Dear all
> : Does anyone have experience in setting up a repeater on 10? I understand
> : that it is necessary to use separate sites for transmitter and receiver as
> : it is difficult to get adequate selectivity with the transmit/receive freqs
> : only 100 KHz apart. (although in percentage terms this is the same as a 2M
> : repeater)
> : Cavities are obviously physically too big
> : I would be grateful for info on any working systems.
>
> : Richard

2411. Where can I get matched 10M Xtals?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 01:47:29 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3ADCF232.4612FFCB@goodnet.com>
Source record: 53308

Hi all,
I just KNOW that as soon as I submit this post, I will find somebody else who just asked it, but here goes:
Where can I get the cheapest set of 10M novice band transmitting xtals (prefer 28.4 MHz) I need 4 or 5 for a club project- close enough for
rockbound rigs to work together. Thanks!
Ross, AC7JO

2412. WTB: Greenlee Chassis Punch: 1-1/4"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 02:12:29 UTC
From: Michael Wachur <KA1YY@EROLS.COM>
Message-ID: <9bit6d$626$1@bob.news.rcn.net>
Source record: 53309

Hi,

Looking for someone who has a Greenlee chassis punch that is extra to their needs. Need a 1-1/4" punch. Let me know what you have (condition), what you want for it and shipping.

Thanks and 73,
Michael Wachur
K3OR
Clarksville, Maryland 21029

2413. Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 02:41:21 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3ADCFED1.22FD8390@grove.iup.edu>
Source record: 53310
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

I just picked up a used Yaesu FT-890. When I went to try out AM while listening on another receiver it sounded like it was on sideband. Looking at the wattmeter, there wasn't a carrier I flipped the other receiver to upper sideband then lower sideband hearing the signal just fine on either mode. Being a new comer, I think this is referred to as double sideband mode?

If so, is this normal? Or is this some kind of modification an owner would / could have made? Or is the radio just plain broke? If it is a modification, why would somebody want double sideband (assuming I'm right) on a HF radio?.

Any thoughts???

Scott.

2414. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 03:06:43 UTC
From: Ed Cregger <nuke663jlm@vei.net>
Message-ID: <tdq11oo9igeg34@corp.supernews.com>
Source record: 53311
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

The radio is in need of adjustment. Double sideband is not a
featured mode of the Yaesu FT-890.

Before I shipped it off, I would check with a station some
distance away.
--
Ed Cregger, NM2K
nuke663jlm@vei.net

*Remove the "nuke" for correct email address

"Scott McClements" <yetbbwa@grove.iup.edu> wrote in message
news:3ADCFED1.22FD8390@grove.iup.edu...
> I just picked up a used Yaesu FT-890. When I went to try
out AM while
> listening on another receiver it sounded like it was on
sideband.
> Looking at the wattmeter, there wasn't a carrier I flipped
the other
> receiver to upper sideband then lower sideband hearing the
signal just
> fine on either mode. Being a new comer, I think this is
referred to as
> double sideband mode?
>
> If so, is this normal? Or is this some kind of
modification an owner
> would / could have made? Or is the radio just plain broke?
If it is a
> modification, why would somebody want double sideband
(assuming I'm
> right) on a HF radio?.
>
> Any thoughts???
>
> Scott.
>

2415. Load Z for given Zo, dB and measured Input Z

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 03:43:16 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9bj2c2$k1o$1@plutonium.btinternet.com>
Source record: 53312

NOW AVAILABLE.

Updated version of PROGRAM "ZL-ZIN.exe"

Coaxial and Balanced-pair Transmission Line Calculations.

This program computes the value of the load or terminating
impedance which
must exist at the end of a transmission line of given Zo and
attenuation for
a measured line input impedance. It is tailored specially to
calculate the
feedpoint impedance of an inaccessible radio antenna from input
impedance
measurements at the readily-available transmitter end of the
feedline.

Another application is the precise design of transmission line
impedance
matching transformers.

It can also be used to correct errors perhaps due to unavoidably
long test
leads when measuring radio components at HF.

As the transmission line becomes longer it is necessary to know its
characteristics more accurately. Simple means of estimating line
characteristics are described in the notes.

This is an updated version of a program of the same name issued in
1999.
There are some minor changes in the accompanying operating notes
and a
facility to sweep measured input reactance in small increments from
the
keyboard has been added. Mathematical operations and computed
results
remain unchanged.

It is suggested you download this new version and if you already
have the
earlier issue overwrite it with this one dated 15th April 2001.

Download ZL_ZIN in a few seconds. Only 52 Kbytes. Not zipped up.
Run immediately.

****

Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

2416. TRW PT9839

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 03:57:43 UTC
From: Norm Melick <henmel@worldnet.att.net>
Message-ID: <3ADD10B9.28C744C4@worldnet.att.net>
Source record: 53313

Does anybody have any info. on this stud mounted RF amplifier? It is being used in an amplifier labeled "Hooker 100A." I'd like to know what the specs. are, and where I can get two of these.

Thanks,

Norm/KQ6SD

2417. LC Tank Followup

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 05:09:09 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9bj7he$3th$1@dipsy.missouri.edu>
Source record: 53314

Thanks to those who replied, again. I got a nice collection of iron powder donuts over the weekend, and finally got a chance to test a circuit. I guess I wound some decent inductors because I got nearly the exact theoretical values for almost everything within about 5%. It's amazing how close to reality theory can come!

Again, thanks alot [Bob, Roy, Jim and WB8RCR].
Pete
ki0eg

2418. Re: CB INTERFERENCE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 07:02:05 UTC
From: _ Lilith_ <no45reply@nor45etun.net>
Message-ID: <h1bD6.3776$TK.377324@news.uswest.net>
Source record: 53315
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,us.legal

--

AVoobner <voobner@cotse.com> wrote in message news:3ad8aeb8$1@news2.mibx.net...
>
> If you have ever had your TV interfered with, or heard loud voices swearing
> on your stereo or computer speakers, you have been the victim of a "CBer"
> using an illegal amplifier. CB radios are permitted only 5 watts of power
> output by the FCC.
>
> Yet many CBers use illegal RF amplifiers in defiance of the law. These "outlaw
> CB" guys think they can get away with it and laugh in the publics face.
> Here is one of the worst, (below) a fellow who makes a living from selling
> these things and promoting their use.
>
> If you want to help, send a short note to INFO@FCC.GOV and perhaps copy this
> email as reference.
>
> Thank you,
> A. Voobner

Thanks for the tip, I always wanted one of those amps.

>
> Subject: MOBIL AMP SALE
> Date: Sat, 14 Apr 2001 19:09:40 GMT
> From: "Train" <cbmods@optonline.net>
> Newsgroups: rec.radio.cb
>
> As a public service to the NG, I will be offering to sell mobil amps to
> those wishing to buy them. This is not done out of greed but out of
> necessity to thwart the losers in the NG who think they have taken over OUR
> nice little group and can use it to harass and belittle as they see fit.
> To
> offer sale of these items is just the thing needed in a public forum to mess
> with these nil-minded simpletons. Amps such as Texas Star, Palomar, Cobra,
> Messenger, Gray, Galaxy, X-Force and so on. These will be sold for a limited
> time and at a VERY small profit IF ANY !
>
> This is not a money thing so much as it is an access thing.
>
> Since these self appointed radio/computer gods have declared knowledge an
> illegal thing also, I might just make the entire Secret CB book series
> available on CD along with a CD of amplifier schematics for base and mobil
> amps. Why is it that when these morons just think they are getting somewhere

> in their fight somebody like me comes along and pisses on their parade?
> BECAUSE THEY NEED IT AND DESERVE IT!!!!!!!!!
>
> E-Mail me with your needs......
> Train
> tra1n@aol.com
> train@cbmods.com
> cbmods@optonline.net

"Did you really think we want those laws observed? said Dr. Ferris.
We WANT them to be broken. You'd better get it straight that it's
not a bunch of boy scouts you're up against.... We're after power
and we mean it .... There's no way to rule innocent men. The only
power any government has is the power to crack down on criminals.
Well, when there aren't enough criminals one MAKES them. One
declares so many things to be a crime that it becomes impossible
for men to live without breaking laws. Who wants a nation of law
abiding citizens? What's there in that for anyone? But just pass
the kind of laws that can neither be observed nor enforced or
objectively interpreted--and you create a nation of law-breakers--
and then you cash in on guilt. Now that's the system Mr. Reardon,
that's the game, and once you understand it, you'll be much easier
to deal with." --Ayn Randrad

2419. Re: Where can I get matched 10M Xtals?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 14:28:35 UTC
From: Jpos <jpos@mobilemark.com>
Message-ID: <IvhD6.27$ta3.14738@nntp0.chicago.il.ameritech.net>
Source record: 53320

HI Ross,
28.322MHz is a standard microprocessor crystal frequency. If you can move off of 28.4 you can buy these cheep from Digikey. IE $1.40 ea or $1.20 in lots of 10.
Hope this helps.
Jerry N9DKQ

"bomc" <bomc@goodnet.com> wrote in message news:3ADCF232.4612FFCB@goodnet.com...
> Hi all,
> I just KNOW that as soon as I submit this post, I will find somebody else who just asked it, but here goes:
> Where can I get the cheapest set of 10M novice band transmitting xtals (prefer 28.4 MHz) I need 4 or 5 for a club project- close enough for
> rockbound rigs to work together. Thanks!
> Ross, AC7JO

2420. Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 15:16:59 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3ADDAFEA.880550C8@midwestmicro-tek.com>
Source record: 53316
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

cobra148 wrote:

> Rick Haub <rhaub@midwestmicro-tek.com> wrote in message
> news:3ADC4FB2.C9E425F6@midwestmicro-tek.com...
>
> : And this, is a helpful answere, to a construction question?
> :
> : Rick KC0GIX
>
> Rick, you made a typo on "answer". Ged will be after *you* now. ;o)
>
> Bob.

Gee Bob, your write, he did come after me. And with a vengence! He called me a git! Witch I beleive is an insult of some kind. He also called me a CB'er!, wich I now is an insult. But he is write, he is so much better than I. Can you emagine how wonderfull the world would be if we all had such tiny lives that we could spent our days trolling news groups in an effert to better those around us by pointing out there small mistakes in speling, puntuation and grammer? And hear I thought that *content* was more importent then comma splices. Fortunatly I have found a friend in Ged, he can point me in the proper direction (hence this post witch has nothing to do with homebrew but will give Ged hours of corective fun!). Tnx Ged! (By the way is Ged you're reel name? some one could use it against you if they new).

Rick KC0GIX

****
* all speling grammer and puntuation errors left in to provide small people with some *
* thing to do. Your welcum!
:-)
*
****

2421. phase noise vs time jitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 16:39:32 UTC
From: deyoreo@re.ray.com
Message-ID: <3addc338.20535418@proxy.res.ray.com>
Source record: 53317

I'm trying to determine the time jitter is a square wave due to phase noise on the oscillator. I understand that the jitter, or allan varience, is the integral of the power spectral density. But how dpo ypu go from SingleSideBand Phase noise to Power Spectral density? I've seen a spreadsheet at Wenzel Assocs that multiplies the SSB by 2. Then I've seen from HP that SSB= (f^2) * PowrDensitySpectrum. I'm confused. Any help?

2422. W8MMQ Radio Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 16:47:48 UTC
From: Daniel Hicks <w8mmq-no-spam@email.com>
Message-ID: <3addc5a5$0$42877$1dc6e903@news.corecomm.net>
Source record: 53318

The W8MMQ Antique Radio Page has moved!

Check out the site:
http://www.w8mmq.com/

You can still access the web site from qsl.net.

The radio mods archive has been updated, and is at:
http://www.w8mmq.com/mods/

2423. Re: phase noise vs time jitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 17:47:27 UTC
From: Richard Karlquist <rick@area.com>
Message-ID: <PqkD6.8884$Jh5.8749853@news1.rdc1.sfba.home.com>
Source record: 53319

Script L(f)., commonly known at SSB phase noise, plus 3 dB, equals S sub phi of f, commonly known as power spectral density of phase*. I don't know what HP app note you are referring to, but as you say, you are confused, and the app note is talking about something else. There are many definitions of jitter, but you are correct in that they are basically integrals of phase noise. The Allan variance, OTOH, is *not* a simple integral of phase noise. Rather, it is equivalent to a convolution of a particular function (kind of looks like a sinc function) with phase niose. There is no simple relationship between the two. For further details, read Michael Fischer's papers from the 1976, 77, and 78 Frequency Control Symposium (available through IEEE UFFC socieity).

The difference between jitter and Allan variance is as follows. Jitter attempts to find the variance of the frequency error. However, the variance, as defined by classical statistical theory, is infinite. Thus, a high pass filter function is imposed to make it finite. The Allan variance (which Allan calls the two-sample variance), uses a first difference technique to implement what is in essence a high pass function, but the function is not a simple one when descrbed in the frequency domain.

Rick Karlquist N6RK

*approximately, for values less than about -20 dBc.

<deyoreo@re.ray.com> wrote in message
news:3addc338.20535418@proxy.res.ray.com...
>
> I'm trying to determine the time jitter is a square wave due to phase
> noise on the oscillator. I understand that the jitter, or allan
> varience, is the integral of the power spectral density. But how dpo
> ypu go from SingleSideBand Phase noise to Power Spectral density? I've
> seen a spreadsheet at Wenzel Assocs that multiplies the SSB by 2. Then
> I've seen from HP that SSB= (f^2) * PowrDensitySpectrum. I'm
> confused. Any help?

2424. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 20:14:03 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9bksiakda1@woodrow.ucdavis.edu>
Source record: 53321
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi there,

Although double sideband wasn't supplied as a normal function of your radio, there are simple mods which allow it.

I installed the same mod on my TS-430 to allow double sideband, of which I use on 40 meters. Conversations within the West Coast "War Zone" are often jammed. We use double sideband when the bandwidth allows to ensure a valid signal can be heard in most cases. Listening is done on which ever sideband is the most clear at the time.

So, check your radio out to see if there is in fact, a mod in place to enable double sideband. Searching through the common and available modification web sites might turn up the actual mod.

cheers
skipp

http://sonic.ucdavis.edu

2425. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 21:08:27 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3ADE024B.6D14B62B@bloomer.net>
Source record: 53322
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

What? Using twice the necessary bandwidth just to communicate? Why not
just move 3 KHz to a clear spot? Sounds like you would be adding to
the "jamming" or just irritating the other guys causing them to jam you
in retaliation. Sounds like 75M at night. Please don't spread these
ideas to the midwest where we co-exist in peace on 40M.

Scott
N0EDV

Skipp wrote:
>
> Hi there,
>
> Although double sideband wasn't supplied as a normal function of your
> radio, there are simple mods which allow it.
>
> I installed the same mod on my TS-430 to allow double sideband, of which I
> use on 40 meters. Conversations within the West Coast "War Zone" are
> often jammed. We use double sideband when the bandwidth allows to ensure
> a valid signal can be heard in most cases. Listening is done on which
> ever sideband is the most clear at the time.
>
> So, check your radio out to see if there is in fact, a mod in place to
> enable double sideband. Searching through the common and available
> modification web sites might turn up the actual mod.
>
> cheers
> skipp
>
> http://sonic.ucdavis.edu

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2426. Re: Where can I get matched 10M Xtals?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 21:44:17 UTC
From: bomc <bomc@goodnet.com>
Message-ID: <3ADE0AB1.DB4252C1@goodnet.com>
Source record: 53323

Yes, but will microprocessor crystals work for transmitting (QRP) in a radio? I thought there was something about capacitance and tolertant,
etc...? If so, that would be great! Either way, thank you for the reply and I look forward to learning more about this.
AC7JO

Jpos wrote:
>
> HI Ross,
> 28.322MHz is a standard microprocessor crystal frequency. If you can move
> off of 28.4 you can buy these cheep from Digikey. IE $1.40 ea or $1.20 in
> lots of 10.
> Hope this helps.
> Jerry N9DKQ
>
> "bomc" <bomc@goodnet.com> wrote in message
> news:3ADCF232.4612FFCB@goodnet.com...
> > Hi all,
> > I just KNOW that as soon as I submit this post, I will find somebody else
> who just asked it, but here goes:
> > > Where can I get the cheapest set of 10M novice band transmitting xtals
> (prefer 28.4 MHz) I need 4 or 5 for a club project- close enough for
> > > rockbound rigs to work together. Thanks!
> > > Ross, AC7JO

2427. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 22:32:40 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <cCoD6.20251$122.3689804@news1.rdc1.md.home.com>
Source record: 53324
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott,
You need to dial in a little carrier. The CW carrier controls
that.

Bob

"Scott McClements"
> I just picked up a used Yaesu FT-890. When I went to try out AM while
> listening on another receiver it sounded like it was on sideband.
> Looking at the wattmeter, there wasn't a carrier I flipped the other
> receiver to upper sideband then lower sideband hearing the signal just
> fine on either mode. Being a new comer, I think this is referred to as
> double sideband mode?
>
> If so, is this normal? Or is this some kind of modification an owner
> would / could have made? Or is the radio just plain broke? If it is a
> modification, why would somebody want double sideband (assuming I'm
> right) on a HF radio?.
>
> Any thoughts???
>
> Scott.
>

2428. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 22:39:00 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <8IoD6.2056$042.211087@newsread1.prod.itd.earthlink.net>
Source record: 53325
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott,

It's too late. I saw the post. I'm gonna modify my rig to tramitt on all three sidebands. That'll fix the QRM! I'll have the loudest signal in the midwest!

<evil grin> Bill

Scott <acepilot@bloomer.net> wrote in message news:3ADE024B.6D14B62B@bloomer.net...
> What? Using twice the necessary bandwidth just to communicate? Why not
> just move 3 KHz to a clear spot? Sounds like you would be adding to
> the "jamming" or just irritating the other guys causing them to jam you
> in retaliation. Sounds like 75M at night. Please don't spread these
> ideas to the midwest where we co-exist in peace on 40M.
>
> Scott
> N0EDV
>
>
> Skipp wrote:
> >
> > Hi there,
> >
> > Although double sideband wasn't supplied as a normal function of your
> > radio, there are simple mods which allow it.
> >
> > I installed the same mod on my TS-430 to allow double sideband, of which
I
> > use on 40 meters. Conversations within the West Coast "War Zone" are
> > often jammed. We use double sideband when the bandwidth allows to
ensure
> > a valid signal can be heard in most cases. Listening is done on which
> > ever sideband is the most clear at the time.
> >
> > So, check your radio out to see if there is in fact, a mod in place to
> > enable double sideband. Searching through the common and available
> > modification web sites might turn up the actual mod.
> >
> > cheers
> > skipp
> >
> > http://sonic.ucdavis.edu
>

> --
> --Scott--
> 1986 Corben Junior Ace N3642
> http://corbenflyer.tripod.com/
> RV-4 under construction (tail feathers)
>
> Gotta Fly or Gonna Die!
>

2429. Re: Where can I get matched 10M Xtals?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-18 23:20:49 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9bl7hc01jdo@news2.newsguy.com>
Source record: 53326

"bomc" <bomc@goodnet.com> wrote in message
news:3ADE0AB1.DB4252C1@goodnet.com...
> Yes, but will microprocessor crystals work for transmitting (QRP) in a
radio? I thought there was something about capacitance and tolertant,

Yes of course.

Now it may be, that in your circuit, a 28.322 MHz crystal will oscillate at 28.319 or something, but who cares, as long as they all oscillate at 28.319. And in most circuits, you are going to use a trimmer that lets you adjust the crystal over a wider range than the load capacitance difference anyway.

Crystal load capacitances don't vary over all that wide a range anyway, and you will mostly use 10% caps, so your circuit will vary.

One approach I used experimentally is to use these little Epson oscillators. They are about 3 bucks and you can order them for whatever frequency you want. There is some phase noise so you wouldn't use them in a high performance receiver, but for some local 10 meter playing around they are just fine. You can't move them at all, however, so if you are going to use them in both a transmitter and a DC receiver, it can be a little tricky.

If you are only interested in transmitting, NJQRP has a transmitter kit that uses a microprocessor oscillator at 28.322 and has a division circuit so you can use it on 80, 40, or 20 as well as 10. The kit is $10 I think. I have used the Epson oscillators in that circuit as well and they work just fine.

didleydadidah

2430. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 01:11:55 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3ADE3B5B.F070FFF6@bloomer.net>
Source record: 53327
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Darn, there goes the neighborhood! ;) I guess I just don't see the
wisdom of modifying the transmitter and transmitting DSB, supressed
carrier when a flip of the switch can put the rig into AM mode and keep
the carrier, for 2 interfering signals instead of just one.

Just when I was getting used to that "new" math stuff ;)

Scott
N0EDV

Bill Cromwell wrote:
>
> Scott,
>
> It's too late. I saw the post. I'm gonna modify my rig to tramitt on all
> three sidebands. That'll fix the QRM! I'll have the loudest signal in the
> midwest!
>
> <evil grin> Bill
>
> Scott <acepilot@bloomer.net> wrote in message
> news:3ADE024B.6D14B62B@bloomer.net...
> > What? Using twice the necessary bandwidth just to communicate? Why not
> > just move 3 KHz to a clear spot? Sounds like you would be adding to
> > the "jamming" or just irritating the other guys causing them to jam you
> > in retaliation. Sounds like 75M at night. Please don't spread these
> > ideas to the midwest where we co-exist in peace on 40M.
> >
> > Scott
> > N0EDV
> >
> >
> > Skipp wrote:
> > >
> > > Hi there,
> > >
> > > Although double sideband wasn't supplied as a normal function of your
> > > radio, there are simple mods which allow it.
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> > > I installed the same mod on my TS-430 to allow double sideband, of which
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> > > often jammed. We use double sideband when the bandwidth allows to
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> > > enable double sideband. Searching through the common and available
> > > modification web sites might turn up the actual mod.
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> > 1986 Corben Junior Ace N3642
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> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2431. Re: phase noise vs time jitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 01:18:19 UTC
From: sdeyoreo@hotmail.com
Message-ID: <3ade3964.962012@news.direcpc.com>
Source record: 53328

How's this sound:
If I convert a sine wave to a square wave, the phase noise would cause
a jitter in the square wave. To figure how much, everything I've read
indicates that the jitter = the integral of the (SSB + 3 db)
divided by 2PiFc. Using this method with SSB numbers from HP catalog
gives jitters about 5 pSec.
Does method seem cirrect?

On Wed, 18 Apr 2001 17:47:27 GMT, "Richard Karlquist" <rick@area.com>
wrote:

>Script L(f)., commonly known at SSB phase noise, plus 3 dB, equals S sub phi
>of f, commonly known as power spectral density of phase*. I don't know what
>HP app note you are referring to, but as you say, you are confused, and the
>app note is talking about something else. There are many definitions of
>jitter, but you are correct in that they are basically integrals of phase
>noise. The Allan variance, OTOH, is *not* a simple integral of phase noise.
>Rather, it is equivalent to a convolution of a particular function (kind of
>looks like a sinc function) with phase niose. There is no simple
>relationship between the two. For further details, read Michael Fischer's
>papers from the 1976, 77, and 78 Frequency Control Symposium (available
>through IEEE UFFC socieity).
>
>The difference between jitter and Allan variance is as follows. Jitter
>attempts to find the variance of the frequency error. However, the
>variance, as defined by classical statistical theory, is infinite. Thus, a
>high pass filter function is imposed to make it finite. The Allan variance
>(which Allan calls the two-sample variance), uses a first difference
>technique to implement what is in essence a high pass function, but the
>function is not a simple one when descrbed in the frequency domain.
>
>Rick Karlquist N6RK
>
>*approximately, for values less than about -20 dBc.
>
>
>
>
><deyoreo@re.ray.com> wrote in message
>news:3addc338.20535418@proxy.res.ray.com...
>>
>> I'm trying to determine the time jitter is a square wave due to phase
>> noise on the oscillator. I understand that the jitter, or allan
>> varience, is the integral of the power spectral density. But how dpo
>> ypu go from SingleSideBand Phase noise to Power Spectral density? I've

>> seen a spreadsheet at Wenzel Assocs that multiplies the SSB by 2. Then
>> I've seen from HP that SSB= (f^2) * PowrDensitySpectrum. I'm
>> confused. Any help?
>
>

2432. Optoisolator with a flip flop

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 03:08:53 UTC
From: Arnold Kresse <SKresse@stratos.net>
Message-ID: <3ade564b$0$12820$4c5ecdc7@news.erinet.com>
Source record: 53329

I am looking for a optoisolator with a flip flop output in a 8-pin-dip package or smaller with possibly built in internal debouncing. Do they make such a device? If so, who and how do I get one? If not I wonder why not.

2433. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 03:31:37 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3ADE5C19.8AD7F34E@grove.iup.edu>
Source record: 53330
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Nope, rotating the carrier control to any position doesn't produce any carrier. Only when I speak into the mic does it put out power (swings up to a full 100 watts just like SSB mode does). The received audio (AM) sounds just like a SSB signal.

Scott.

B-Squared wrote:

> Scott,
> You need to dial in a little carrier. The CW carrier controls
> that.
>
> Bob
>
> "Scott McClements"
> > I just picked up a used Yaesu FT-890. When I went to try out AM while
> > listening on another receiver it sounded like it was on sideband.
> > Looking at the wattmeter, there wasn't a carrier I flipped the other
> > receiver to upper sideband then lower sideband hearing the signal just
> > fine on either mode. Being a new comer, I think this is referred to as
> > double sideband mode?
> >
> > If so, is this normal? Or is this some kind of modification an owner
> > would / could have made? Or is the radio just plain broke? If it is a
> > modification, why would somebody want double sideband (assuming I'm
> > right) on a HF radio?.
> >
> > Any thoughts???
> >
> > Scott.
> >

2434. Manual for Tek 491 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 12:48:45 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9bmmrg$vf4$1@slb1.atl.mindspring.net>
Source record: 53331

Any one have a manual for a Tec 491 scope? Thanks Sparks W4EAS

2435. Make that a S/A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 12:51:51 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9bmn19$5qn$1@slb1.atl.mindspring.net>
Source record: 53332

Need Manual for Tek S/A

2436. FA Wavetek Modules--Lot of 12--Various Models

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 14:46:10 UTC
From: John Klewer <n6ax@pacbell.net>
Message-ID: <3ADEFA32.93113049@pacbell.net>
Source record: 53333
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.equipment

Lot of Wavetek modules on ebay, quantity 12, fir 3000 series signal generators, 2000 series sweepers and others as well.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1230573023

Thanks

John

2437. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 15:21:50 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9bmvoo$7rl$1@slb1.atl.mindspring.net>
Source record: 53334
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Not to mention the effect of the mixing of the audio with the carrier and having all sorts of products. Well the quality of the QRMer has certainly gone downhill since Riley showed up. HI.

If you all want to know how to really trash up a good radio check with K4OKA and KA8WAM, they win handsdown.

Dan/W4NTI

"Scott" <acepilot@bloomer.net> wrote in message news:3ADE3B5B.F070FFF6@bloomer.net...
> Darn, there goes the neighborhood! ;) I guess I just don't see the
> wisdom of modifying the transmitter and transmitting DSB, supressed
> carrier when a flip of the switch can put the rig into AM mode and keep
> the carrier, for 2 interfering signals instead of just one.
>
> Just when I was getting used to that "new" math stuff ;)
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> Scott
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>
> Bill Cromwell wrote:
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> > Scott,
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> > It's too late. I saw the post. I'm gonna modify my rig to tramitt on all
> > three sidebands. That'll fix the QRM! I'll have the loudest signal in
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> > midwest!
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> > <evil grin> Bill
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> > Scott <acepilot@bloomer.net> wrote in message
> > news:3ADE024B.6D14B62B@bloomer.net...
> > > What? Using twice the necessary bandwidth just to communicate? Why
not
> > > just move 3 KHz to a clear spot? Sounds like you would be adding to
> > > the "jamming" or just irritating the other guys causing them to jam
you
> > > in retaliation. Sounds like 75M at night. Please don't spread these
> > > ideas to the midwest where we co-exist in peace on 40M.
> > >
> > > Scott

> > > N0EDV
> > >
> > >
> > > Skipp wrote:
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> > > > Hi there,
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> > > > Although double sideband wasn't supplied as a normal function of
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> > > > use on 40 meters. Conversations within the West Coast "War Zone"
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> > ensure
> > > > a valid signal can be heard in most cases. Listening is done on
which
> > > > ever sideband is the most clear at the time.
> > > >
> > > > So, check your radio out to see if there is in fact, a mod in place
to
> > > > enable double sideband. Searching through the common and available
> > > > modification web sites might turn up the actual mod.
> > > >
> > > > cheers
> > > > skipp
> > > >
> > > > http://sonic.ucdavis.edu
> > >
> > > --
> > > --Scott--
> > > 1986 Corben Junior Ace N3642
> > > http://corbenflyer.tripod.com/
> > > RV-4 under construction (tail feathers)
> > >
> > > Gotta Fly or Gonna Die!
> > >
>
> --
> --Scott--
> 1986 Corben Junior Ace N3642
> http://corbenflyer.tripod.com/
> RV-4 under construction (tail feathers)
>
> Gotta Fly or Gonna Die!

2438. English Variants, was Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 17:45:04 UTC
From: Reagan Thomas <ratNOTTOSPAMME@r-a-tSPAMISBAD.com>
Message-ID: <3ADF2420.CB16F3DE@r-a-tSPAMISBAD.com>
Source record: 53335
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

"Anthony R. Gold" wrote:
>
> On Tue, 17 Apr 2001 09:35:08 -0500, Reagan Thomas
> <ratNOTTOSPAMME@r-a-tSPAMISBAD.com> wrote:
>
> > The Brits sometimes also use the term "shunt" where we might use
> > "jumper"
>
> A "shunt" is ordinarily Brit either for a fender bender or for the
> local movement of railway rolling stock. In electronics it is also
> used for a component placed in parallel with a particular element,
> such as a meter shunt, but I've never seen that term used as a jumper.
>
> Regards,
> --
> Tony - G3SKR / W2TG email: tgold@panix.com

You're prolly right. shunt = jumper may be a figment of my imagination.

I've been amused by English/American crossreferences (like in the Haynes manual for my old Volkwagen KG) where they get some of the terms totally wrong. He's an exerpt from a Control Techniques VFAC drive manual (made in Wales):

English American

Amoured Conduited (WRONG! Americans say "Amoured" also)
Commissioning Startup (Americans use both)
Cubicle Enclosure
DC Link DC Bus
Earth Ground
Enable Allow (WRONG! Americans say "Enable")
Encoder Pulse Tach (?)
Energise Turn-on (I would normally say "Energize")
Fit Install
Fixing Mounting
Healthy Normal
Link Jumper
Screen(ing) Shield(ing)
Mains Power system
Mounting Pillar Stand-off

-RAT

4

2439. Datasheets BF981 and or BF966

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 18:02:25 UTC
From: Jean Paul Mertens <jean.paul@jpmsoft.telenet.be>
Message-ID: <RKFD6.2887$ii.431171@afrodite.telenet-ops.be>
Source record: 53336

Hello all,

I'm looking for the datasheeds of the dual-gate mosfets BF981 and or BF966.
Is there someone who can tell me where to find them.

tnx 73's
ON1AMI
www.qsl.net/on1ami

2440. Re: Manual for Tek 491 Scope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 19:28:50 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3ADF3D60.5275@pop.removethistomailme.net>
Source record: 53337

sparksw4eas@mindspring.com wrote:
>
> Any one have a manual for a Tec 491 scope? Thanks Sparks W4EAS

That's a spectrum analyzer, not a scope. You should be able to snag a manual from one of the sources listed at http://www.reprise.com/host/tektronix/home/default.asp -- hit the "Resources" link at the top of the page.

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2441. Re: English Variants, was Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 20:31:45 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <8niudtkvltd8bcv5uh9ci9n47j3du7efb6@4ax.com>
Source record: 53338

On Thu, 19 Apr 2001 12:45:04 -0500, Reagan Thomas
<ratNOTTOSPAMME@r-a-tSPAMISBAD.com> wrote:

>English American
>--------------------------
>Amoured Conduited (WRONG! Americans say "Amoured" also)

No real American would ever spell it "Armoured", never mind your typo above.

W7TI (flame armor on)

2442. Re: English Variants, was Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 21:11:00 UTC
From: la8ak@online.no
Message-ID: <3adf4f8a.1315710626@news.online.no>
Source record: 53339

On Thu, 19 Apr 2001 12:45:04 -0500, Reagan Thomas
<ratNOTTOSPAMME@r-a-tSPAMISBAD.com> wrote:

>
>I've been amused by English/American crossreferences (like in the Haynes
>manual for my old Volkwagen KG) where they get some of the terms totally
>wrong. He's an exerpt from a Control Techniques VFAC drive manual (made
>in Wales):
>
>English American
>--------------------------
>Amoured Conduited (WRONG! Americans say "Amoured" also)

WRONG! Englishmen say "Amoured", too

2443. "Simplest Transverter" Schematic ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 21:35:27 UTC
From: milo17@aol.com
Message-ID: <20010419173527.21506.00000252@ng-fh1.aol.com>
Source record: 53340

Some time ago, 73 magazine published a schematic for the "Simplest Transverter". This circuit converted a 2 meter input to a very low power 6 meter output. I am looking for this diagram and am having no luck on the 'net. Anybody have a copy or can point me in the right direction ? Any help is greatly appreciated. Thanks in advance !

Mike N2JVT

2444. Re: English Variants, was Re: Construction question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 23:08:16 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <1urudtksrubpjcncm1cv6mut253k5cj7dk@4ax.com>
Source record: 53341

On Thu, 19 Apr 2001 21:11:00 GMT, la8ak@online.no (J M Noeding) wrote:

>WRONG! Englishmen say "Amoured", too

In place of "conduited"? It's worse than I thought.

73, Bill W7TI

2445. wtd: 220/3500 @ 2amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 23:34:26 UTC
From: kf8od@aol.com
Message-ID: <20010419193426.05120.00000192@ng-mm1.aol.com>
Source record: 53342

Looking for a plate transformer. 220 volt primary single phase. 3500 volt secondary at 2 amps ccs. Please respond to me directly.

73, Mike
KF8OD

2446. Re: TRW PT9839

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 23:35:02 UTC
From: Gerhard Hoffmann <ghf@berlin.snafu.de>
Message-ID: <3ADF7626.459D1EF2@berlin.snafu.de>
Source record: 53344

Norm Melick wrote:
>
> Does anybody have any info. on this stud mounted RF amplifier? It

My 1977 TRW data book goes only to PT9797. They sold the product
line and the fab to Motorola shortly after this, but your PT9839
isn´t in my Moto RF device data book, either.

73, Gerhard

2447. Re: 10 meter repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-19 23:45:51 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3adf7893$0$7377@echo-01.iinet.net.au>
Source record: 53343

Thanks for the reply
I appreciate the problems with front ends and transmitter broadband noise
etc
However cavities are not practical on 10M due to size.
Can you get away with stub or other filters and isolators?
I am looking details of a setup which works without having to locate the
receiver at another site.

Richard

"Skipp" <skipp@pilot.ucdavis.edu> wrote in message
news:9bf4ur$79s$2@woodrow.ucdavis.edu...
> Hi Richard,
> The quick simple answer is that repeaters of all types are only as good as
> the receiver front end. One needs to have mucho mucho selectivity and
> front end over load protection on the receiver or it simply wont play.
>
> When you see old surplus Motorola or GE two-way radios out there with 6/8
> front end helical type coils at the receiver input, that's a real world
> indication the design was well thought out.
>
> Then between the receiver and the antenna, one would also place large
> bandpass and or bandpass/bandreject cavities in the coaxial line. You must
> protect the receiver or it just plain won't work.
>
> Now on to the transmitter side...
>
> You don't need 250 watts of transmit power, in fact you will end up hosing
> yourself up in most cases. Like the receiver, one would hope you have
> similar bandpass, bandpass/bandreject cavities for the transmitter side
> coaxial line.
>
> Here's where I'm going with all this... consider your well protected
> receiver listening to a frequency for some very weak signals. Call a
> usable received signal 1 or 2 micro volts.
>
> Now think about a transmitter right next to it in frequency blowing 10
> watts of power out the door (doesn't seem like much does it..). The
> difference between the receiver level and the transmit power is converted
> to a dB value. The math methods of power/signal conversion can be found in
> any ARRL Handbook.
>
> To have a system that will work well, you have to construct a
> receiver/antenna/filter system combined with transmitter power output
> level & all the proper filtering with actual preformance values that add

> up to a value that "fit within the real world spec calculations."
>
> I made a surplus GE Master Pro Receiver (a very well built unit) into a
> repeater along with a 2 watt Hamtronics transmitter. Two converted CB
> ground planes seperated by 60 feet on a wood pole and home made box
> filters from the ARRL Handbook. Even as silly as it made read, the system
> playes well from a hill top.
>
> Put an amplifier on the tx side and the noise (remember those dB system
> values) hoses up the repeater and it all fails with grunge.
>
> So a simple, well made low power system will function quite nicely, same
> rules apply on six meters.
>
> Add and Scom 7K controller and your set...
>
> hope that helps
> skipp@pilot.ucdavis.edu
> http://sonic.ucdavis.edu
>
> : Richard Hosking <zaprichardh@iinet.net.au(remove the zap)> wrote:
> : Dear all
> : Does anyone have experience in setting up a repeater on 10? I understand
> : that it is necessary to use separate sites for transmitter and receiver
as
> : it is difficult to get adequate selectivity with the transmit/receive
freqs
> : only 100 KHz apart. (although in percentage terms this is the same as a
2M
> : repeater)
> : Cavities are obviously physically too big
> : I would be grateful for info on any working systems.
>
> : Richard
>
>
>

2448. Re: Amateur TV

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 01:07:31 UTC
From: Wayne Maxwell <gwmax@bellsouth.net>
Message-ID: <5VLD6.6097$3e.4580467@news3.mco>
Source record: 53345

The signals you are referring to are Vertical INTERVAL Test signals, that may be inserted into undisplayed lines of the television signal. These lines are used for such things as Closed Captioning, TV station ID, Ghost Cancellation and of course, Test Signals. The equipment used is commonly called a 'VITS Inserter', or Vertical Interval Test Signal Inserter. For the broadcaster, a 'Pre-distorter' is used to litterally distort the video signal in a very selective way before it goes into the TV exciter. While monitoring the VITS of the received and demodulated signal, the pre-distorter may be adjusted to compensate for nonlinearities of the transmitter and undesired effects of the transmission line and antenna. Thus, the received TV signal is a very close, distortion-free replica of the signal applied to the TV transmitter.

J.F. FOURCADIER <jf.fourcadier@wanadoo.fr_NOSPAM> wrote in message news:9bi8rvhij1@wanadoo.fr...
> I wrote this page on TV VITS.
>
> http://perso.wanadoo.fr/jf.fourcadier/LB2000/LB_ph1/TV/ltest_e.htm
>
> Could anyone help me to correct my mistakes ?
>
> Thank you for your help
>
>
> --
>
> 73 de F4DAY
>
> Jean-Fran&#65533;ois FOURCADIER
>
>
>

2449. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 02:04:31 UTC
From: Oris Grim <oris@dirtball.com>
Message-ID: <3ADF992F.1E6B4688@dirtball.com>
Source record: 53346
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Ed
I would look at the manual to see where the carrier control is. I think in that rig there is a control either on the rear of the rig or on the inside to controll the carrier. Most Yaesu rigs sound pretty good on AM.

73 and good luck
Oris

Ed Cregger wrote:

> The radio is in need of adjustment. Double sideband is not a
> featured mode of the Yaesu FT-890.
>
> Before I shipped it off, I would check with a station some
> distance away.
> --
> Ed Cregger, NM2K
> nuke663jlm@vei.net
>
> *Remove the "nuke" for correct email address
>
> "Scott McClements" <yetbbwa@grove.iup.edu> wrote in message
> news:3ADCFED1.22FD8390@grove.iup.edu...
> > I just picked up a used Yaesu FT-890. When I went to try
> out AM while
> > listening on another receiver it sounded like it was on
> sideband.
> > Looking at the wattmeter, there wasn't a carrier I flipped
> the other
> > receiver to upper sideband then lower sideband hearing the
> signal just
> > fine on either mode. Being a new comer, I think this is
> referred to as
> > double sideband mode?
> >
> > If so, is this normal? Or is this some kind of
> modification an owner
> > would / could have made? Or is the radio just plain broke?
> If it is a
> > modification, why would somebody want double sideband
> (assuming I'm
> > right) on a HF radio?.
> >
> > Any thoughts???

> >
> > Scott.
> >

2450. Re: "Simplest Transverter" Schematic ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 03:23:32 UTC
From: wa8ulx@aol.com
Message-ID: <20010419232332.21827.00000306@ng-md1.aol.com>
Source record: 53247

>Some time ago, 73 magazine published a schematic for the "Simplest
>Transverter". This circuit converted a 2 meter input to a very low power 6
>meter output. I am looking for this diagram and am having no luck on the
>'net.
>Anybody have a copy or can point me in the right direction ? Any help is
>greatly appreciated. Thanks in advance !
>
> Mike N2JVT
>

I do let me see if I can find it, if I can I will Email it to you

2451. Re: Datasheets BF981 and or BF966

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 06:24:24 UTC
From: k7itm@aol.com
Message-ID: <20010420022424.08652.00000239@ng-mk1.aol.com>
Source record: 53248

If you do a search for them on the Philips web site, it directs you to BF996S and BF991. I may be wrong, but suspect these are SMT versions of the same things you are asking about. Perhaps their data sheets (available on the Philips site) will be useful to you.

Cheers,
Tom
k7itm

>Hello all,
>
>I'm looking for the datasheeds of the dual-gate mosfets BF981 and or BF966.
>Is there someone who can tell me where to find them.
>
>tnx 73's
>ON1AMI

2452. Dentron MLA2500 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 10:48:15 UTC
From: Bill Russell <willy@global2000.net>
Message-ID: <5s40et4oo5ndqqgo1h5788qb7hda9g1vee@4ax.com>
Source record: 53249

I am doing the modification to the MLA2000 outlined in the May 96
article adding a 4CX800A. I have noticed a couple of mistakes on the
schematic. I tried to email the author but the address is no longer
active. Does anyone know where I can get a corrected schematic.
Thanks much,
Bill Russell

2453. Re: Dentron MLA2500 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 16:34:21 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9bpoedgsm5@woodrow.ucdavis.edu>
Source record: 53250

: Bill Russell <willy@global2000.net> wrote:
: I am doing the modification to the MLA2000 outlined in the May 96
: article adding a 4CX800A. I have noticed a couple of mistakes on the
: schematic. I tried to email the author but the address is no longer
: active. Does anyone know where I can get a corrected schematic.
: Thanks much,
: Bill Russell

Sorry to write No Bill... Welcome to the world of quick conversions not well doccumented.

If you need to know something specific, Email me direct and I'll try to help. I do a lot of amplifier work.

cheers
skipp@pilot.ucdavis.edu

2454. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 17:01:29 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9bpq19gsm6@woodrow.ucdavis.edu>
Source record: 53251
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Look Scott and you other goofs...

Since you all blew writen hot air out in a followup before you thought it through, I'm only going to review the facts one time.

Go back and read my follow up post where I explained how DSB is used as an effective means to thwart jamming. Moving solves nothing as jammers will often follow. It's a practical solution that works well and costs little.

Your irritation comment is way out of line and shows you don't understand or have much experience in the real East/West Coast 40 meter experience. A day band by nature, 40 meters doesn't cover out of the regional State(s) of your "compared to - less populated area." So forget trying to make any type of informed comment when you don't have the information or experience of what happens in our areas. You never addressed the original authors information request, just blew a lot of trash onto the news group here.

I seriously doubt you or your other blow-hard friends would be able to provide the original Author any useful topic information.

Using Double sideband in legal bands makes much sense over AM, a trip through any Communications or Radio Handbook will explain why. An ARRL Handbook would be a great place for you to review the basics.

So go find some other post to comment upon where you have a better understanding of what's actually going on, both hardware wise and out in the real world where it's applied.

skipp

: In rec.radio.amateur.homebrew Scott <acepilot@bloomer.net> wrote:
: What? Using twice the necessary bandwidth just to communicate? Why not
: just move 3 KHz to a clear spot? Sounds like you would be adding to
: the "jamming" or just irritating the other guys causing them to jam you
: in retaliation. Sounds like 75M at night. Please don't spread these
: ideas to the midwest where we co-exist in peace on 40M.
: Scott
: N0EDV

2455. FS: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 17:59:24 UTC
From: arnoldg@sf.telia.no
Message-ID: <3ae077f0.1217462@news.telia.no>
Source record: 53252
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hello,

I have some EL 37 valves in stock. They are all NOS and obviously made
by Mullard. Some of them are branded Haltron and some Mullard, but
they are identical so I am pretty sure that the Haltron are just
rebranded Mullards. After all, Haltron never made valves, just
rebranded and distributed.
US$ 113.- each or best offer. I can send a picture.
E-mail me if interested

Regards,

Arnold Goks�yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Valves, sockets, transformers, books and components
Web site is now completely updated.

2456. single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 18:25:36 UTC
From: gray <gvbale@yahoo.com>
Message-ID: <plv0etkqqri5pgarugb1c78qjb3mmnr0kd@4ax.com>
Source record: 53253

Any ideas or circuits of converting 240v single phase into 415v 3 phase at 50hz with a power of about 3kva.

With the result being not to heavy.

2457. R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 19:55:41 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AE0943D.495B344C@clifto.com>
Source record: 53254

I'm interfacing to the output of an R/C receiver. The control outputs are variable-width pulses, varying between something like 1.2 and 2 ms. I want to change that to a proportionate voltage level (say, 0-1V). Simplest idea I can come up with is charging a capacitor with a constant-current source and using a sample-and-hold to steady the output, and of course scaling to the desired range with an op amp. But that seems like so much hardware, and my gut is telling me there has to be a simpler way. Ideas?

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

2458. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 20:16:43 UTC
From: AC7KY <mert1963@email.msn.com>
Message-ID: <OjtVubdyAHA.337@cpmsnbbsa07>
Source record: 53256

Try here:
http://www.grizzly.com/fcgi-bin/lookup.fcgi/products/lookup.cfg?q=item&kw=G5
840
They have models up to 20 hp. Don' know about the "not too heavy" part
though...

gray wrote in message ...
>Any ideas or circuits of converting 240v single phase into 415v 3
>phase at 50hz with a power of about 3kva.
>
>With the result being not to heavy.

2459. Universal Cat Interface 73 Mag Aug 91

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 20:23:18 UTC
From: Ned Collins <lucille@gofree.indigo.ie>
Message-ID: <2U0E6.10196$_W2.10569@news.indigo.ie>
Source record: 53255

Hi OM,

Appreicate a copy of the above article.

73's de Ned/EI5DS

2460. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 20:31:54 UTC
From: AC7KY <mert1963@email.msn.com>
Message-ID: <OBJLMkdyAHA.289@cpmsnbbsa09>
Source record: 53257

That URL didn't post right...
go to www.grizzly.com and search for "phase converter".

AC7KY wrote in message ...
>Try here:
>http://www.grizzly.com/fcgi-bin/lookup.fcgi/products/lookup.cfg?q=item&kw=G
5
>840
>They have models up to 20 hp. Don' know about the "not too heavy" part
>though...
>

2461. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 20:48:50 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3AE0A0E7.18FD361A@earthlink.net>
Source record: 53258

Gray---

> Any ideas or circuits of converting 240v single phase into 415v 3
> phase at 50hz with a power of about 3kva.

I don't think it's going to be easy. You're looking at a phase shift of +/- 120 degrees, which could possibly be done by using some sort of reactive network, however would, IMHO, be lossy (I'm not up on AC theory that well, but I know the basics, so feel free to correct me).

Most likely, and this would be lossy as well, I would suggest using a three-phase generator, possibly powered using a motor run off the mains. You wouldn't need to worry about power-handling capacity of reactive elements, and you would have simple, direct 415v3ph power off the generator.

Another option would be to see if your local power company can provide you with a 415v (480v?) 3ph power drop. It would be expensive, but if you're running big guns, may be your best bet.

If you don't mind my asking, why do you need that paticular level?

Hope it helps,

Henry C. Gernhardt, III
KE4PIB

2462. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 21:03:22 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AE0A41A.A1A5BC34@bloomer.net>
Source record: 53259
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Skipp,
First off, give me your call sign so I can see how long YOU'VE been
licensed. You can tell me until you're blue in the face that using DSB
"to ensure
a valid signal can be heard in most cases" is the right thing to do.
So, are you listening to one of the sidebands or both in the RECEIVE
mode? It sounds as if you listen to one of the sidebands, whichever is
interferred with the least. If so, you are sending out at least twice
the bandwidth as what you are listening to. That doesn't seem to be
"good amateur practice." In the midwest, this would almost be called
malicious interferance on your part. I don't see how you conclude that
"DSB is used as an
> effective means to thwart jamming. Moving solves nothing as jammers
> will often follow. " What if the jammer just moves his signal up or down a couple KHz and
starts interferring with the sideband you're listening to?

Scott
N0EDV

Skipp wrote:
>
> Look Scott and you other goofs...
>
> Since you all blew writen hot air out in a followup before you thought it
> through, I'm only going to review the facts one time.
>
> Go back and read my follow up post where I explained how DSB is used as an
> effective means to thwart jamming. Moving solves nothing as jammers
> will often follow. It's a practical solution that works well and costs
> little.
>
> Your irritation comment is way out of line and shows you don't understand
> or have much experience in the real East/West Coast 40 meter experience.
> A day band by nature, 40 meters doesn't cover out of the regional State(s)
> of your "compared to - less populated area." So forget trying to make any
> type of informed comment when you don't have the information or experience
> of what happens in our areas. You never addressed the original authors
> information request, just blew a lot of trash onto the news group here.
>
> I seriously doubt you or your other blow-hard friends would be able to
> provide the original Author any useful topic information.
>
> Using Double sideband in legal bands makes much sense over AM, a trip
> through any Communications or Radio Handbook will explain why. An ARRL

> Handbook would be a great place for you to review the basics.
>
> So go find some other post to comment upon where you have a better
> understanding of what's actually going on, both hardware wise and out in
> the real world where it's applied.
>
> skipp
>
> : In rec.radio.amateur.homebrew Scott <acepilot@bloomer.net> wrote:
> : What? Using twice the necessary bandwidth just to communicate? Why not
> : just move 3 KHz to a clear spot? Sounds like you would be adding to
> : the "jamming" or just irritating the other guys causing them to jam you
> : in retaliation. Sounds like 75M at night. Please don't spread these
> : ideas to the midwest where we co-exist in peace on 40M.
> : Scott
> : N0EDV

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2463. German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 21:34:39 UTC
From: Sverre Holm <sverre@ifi.uio.no>
Message-ID: <Pine.GSO.4.21.0104202332540.14344-100000@granvin.ifi.uio.no>
Source record: 53260

In Europe we get these inexpensive clocks that automatically update from a transmitter somewhere in Germany every hour or so. Does anyone know the frequency and the specifications for these signals?

Sverre Holm

2464. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 21:39:22 UTC
From: brokebob@aol.com
Message-ID: <20010420173922.08902.00000300@ng-fy1.aol.com>
Source record: 53261

simplest idea to me would be to hook a cheap servo to a pot with a DC voltage
on the pot. Could be scaled with a couple of resistors.
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

2465. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 21:52:33 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AE0AFA1.A1666C4D@coqui.net>
Source record: 53262

Sverre Holm wrote:
>
> In Europe we get these inexpensive clocks that automatically update from a
> transmitter somewhere in Germany every hour or so. Does anyone know the
> frequency and the specifications for these signals?
>
> Sverre Holm

DCF77, see this link.
http://www.eecis.udel.edu/~mills/ntp/dcf77.htm

Bill Meacham
Vieques, PR

2466. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-20 22:50:00 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9bqedb$gr5$1@slb7.atl.mindspring.net>
Source record: 53263
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott,

As you, and many others, have already surmised Skipp is a raving idiot.

Anyone that advocates using DSB to avoid jammers is a jerk.

All going to DSB proves is that he could care less about interfering with others, as long as he gets through.

Dan/W4NTI

"Scott" <acepilot@bloomer.net> wrote in message news:3AE0A41A.A1A5BC34@bloomer.net...
> Skipp,
> First off, give me your call sign so I can see how long YOU'VE been
> licensed. You can tell me until you're blue in the face that using DSB
> "to ensure
> a valid signal can be heard in most cases" is the right thing to do.
> So, are you listening to one of the sidebands or both in the RECEIVE
> mode? It sounds as if you listen to one of the sidebands, whichever is
> interferred with the least. If so, you are sending out at least twice
> the bandwidth as what you are listening to. That doesn't seem to be
> "good amateur practice." In the midwest, this would almost be called
> malicious interferance on your part. I don't see how you conclude that
> "DSB is used as an
> > effective means to thwart jamming. Moving solves nothing as jammers
> > will often follow. " What if the jammer just moves his signal up or down a couple KHz and starts interferring with the sideband you're listening to?
>
> Scott
> N0EDV
>
>
> Skipp wrote:
> >
> > Look Scott and you other goofs...
> >
> > Since you all blew writen hot air out in a followup before you thought it
> > through, I'm only going to review the facts one time.
> >
> > Go back and read my follow up post where I explained how DSB is used as an
> > effective means to thwart jamming. Moving solves nothing as jammers
> > will often follow. It's a practical solution that works well and costs

> > little.
> >
> > Your irritation comment is way out of line and shows you don't
understand
> > or have much experience in the real East/West Coast 40 meter experience.
> > A day band by nature, 40 meters doesn't cover out of the regional
State(s)
> > of your "compared to - less populated area." So forget trying to make
any
> > type of informed comment when you don't have the information or
experience
> > of what happens in our areas. You never addressed the original authors
> > information request, just blew a lot of trash onto the news group here.
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> > I seriously doubt you or your other blow-hard friends would be able to
> > provide the original Author any useful topic information.
> >
> > Using Double sideband in legal bands makes much sense over AM, a trip
> > through any Communications or Radio Handbook will explain why. An ARRL
> > Handbook would be a great place for you to review the basics.
> >
> > So go find some other post to comment upon where you have a better
> > understanding of what's actually going on, both hardware wise and out in
> > the real world where it's applied.
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> > skipp
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> > : In rec.radio.amateur.homebrew Scott <acepilot@bloomer.net> wrote:
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> > : just move 3 KHz to a clear spot? Sounds like you would be adding to
> > : the "jamming" or just irritating the other guys causing them to jam
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> > : in retaliation. Sounds like 75M at night. Please don't spread these
> > : ideas to the midwest where we co-exist in peace on 40M.
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>
> --
> --Scott--
> 1986 Corben Junior Ace N3642
> http://corbenflyer.tripod.com/
> RV-4 under construction (tail feathers)
>
> Gotta Fly or Gonna Die!

2467. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 00:41:26 UTC
From: Bill & Suzie Whatley <spud@verinet.com>
Message-ID: <uF4E6.30$T3.135469568@news.frii.net>
Source record: 53264

You did not mention what would qualify as "not too heavy" or how efficient
you need it to be...

A small motor-generator combination seems like a valid option
without knowing more details.

73
WA5VRL
Willis

2468. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 00:46:00 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AE0D848.9C6061F2@bloomer.net>
Source record: 53265
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Thanks Dan,
That was all I was suggesting in my first reply to his original post. I assumed he was fairly new and didn't realize what he was, in fact, doing. Moving up or down the band is the best approach...at least others won't consider you a lid by being polite and giving up the frequency in search of a clear spot. Chances are that someone else may have had a QSO in progress when the band conditions changed and made the other station audible to the other. Many times I get amazed while listening to a QSO in progress when all of a sudden I hear a new QSO on frequency, obviously not just starting out and one group will jump on the other that the frequency is in use although the other QSO was probably in progress as well at the same time, then the skip distance changed and "voila" interference.

"Why can't we all just get along?"

Scott
N0EDV

W4NTI wrote:
>
> Scott,
>
> As you, and many others, have already surmised Skipp is a raving idiot.
>
> Anyone that advocates using DSB to avoid jammers is a jerk.
>
> All going to DSB proves is that he could care less about interfering with
> others, as long as he gets through.
>
> Dan/W4NTI
>
> "Scott" <acepilot@bloomer.net> wrote in message
> news:3AE0A41A.A1A5BC34@bloomer.net...
> > Skipp,
> > First off, give me your call sign so I can see how long YOU'VE been
> > licensed. You can tell me until you're blue in the face that using DSB
> > "to ensure
> > a valid signal can be heard in most cases" is the right thing to do.
> > So, are you listening to one of the sidebands or both in the RECEIVE
> > mode? It sounds as if you listen to one of the sidebands, whichever is
> > interferred with the least. If so, you are sending out at least twice
> > the bandwidth as what you are listening to. That doesn't seem to be
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> > malicious interferance on your part. I don't see how you conclude that
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> a couple KHz and starts interferring with the sideband you're listening to?
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> > Scott
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> >
> >
> > Skipp wrote:
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> > > Since you all blew writen hot air out in a followup before you thought
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> > > through, I'm only going to review the facts one time.
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> > > Go back and read my follow up post where I explained how DSB is used as
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> > > effective means to thwart jamming. Moving solves nothing as jammers
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> > > little.
> > >
> > > Your irritation comment is way out of line and shows you don't
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> > > A day band by nature, 40 meters doesn't cover out of the regional
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> > > of your "compared to - less populated area." So forget trying to make
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> > > the real world where it's applied.
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> > > skipp
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> > > : in retaliation. Sounds like 75M at night. Please don't spread these
> > > : ideas to the midwest where we co-exist in peace on 40M.
> > > : Scott
> > > : N0EDV
> >
> > --
> > --Scott--
> > 1986 Corben Junior Ace N3642
> > http://corbenflyer.tripod.com/
> > RV-4 under construction (tail feathers)
> >
> > Gotta Fly or Gonna Die!

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2469. Measuring S parameters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 01:35:58 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3AE0E3FE.3D60B385@visi.com>
Source record: 53266

Hi gang,
Before I knock myself out trying this, I thought I'd get the group's thoughts. I'm thinking of building a basic network analyzer to measure reflection coefficients and phase angles (aka S parameters) of some BJTs (2N2222, 2N3904) at HF.

I have several mini-circuits directional couplers rated for HF and a 60MHz dual trace scope. My plan is to build a compact (low stray L and C) test jig for a BJT, with adjustable bias, make up some 50 Ohm terminators, and a stable xtal oscillator with a choice of 3 or 4 frequencies around say 10MHz and 50 Ohm Zout.

By connecting the directional couplers between the oscillator / test jig / termination, I think I can come up with S11, and S22 (at least the reflection coefficient part). I would use the scope to read incident voltages and reflected voltages (with a compensated X10 probe).

To get the phase angle part of S11 and S22, I am thinking I can use the dual trace capability of the scope to measure the phase angle difference between the incident and reflected waves to perhaps a couple of degrees.

My goal would be to get some reasonably accurate values for S11 and S22 (and maybe S21), at a few HF data points to then plug into a smith chart or the ARRL Radio Designer BIP model. Manufacturers seem to have *some* S data for VHF and up for a few devices, but not much for HF. I would not be attempting these measurements above say 20MHz.

So....Am I *dreaming* or does this sound like a do-able project?

Thanks for any ideas!
Bob Liesenfeld WB0POQ
wb0poq@visi.com

2470. Re: Dentron MLA2500 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 01:49:35 UTC
From: 2w8ji@akorn.net
Message-ID: <3ae0e670.445362553@news.accessunited.com>
Source record: 53267

On Fri, 20 Apr 2001 06:48:15 -0400, Bill Russell
<willy@global2000.net> wrote:

>I am doing the modification to the MLA2000 outlined in the May 96
>article adding a 4CX800A. I have noticed a couple of mistakes on the
>schematic. I tried to email the author but the address is no longer
>active. Does anyone know where I can get a corrected schematic.
>Thanks much,
>Bill Russell

I'm not so sure that is a good mod to make Bill. The screen regulation
will be poor, and it overloads the transformer winding.

It also drives too easy.

As I recall there were some backwards electrolytic capacitors in the
schematic of the voltage multiplier system.

2471. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 02:34:56 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ae0f03e.2927170@news.cantech.net.au>
Source record: 53268

On Fri, 20 Apr 2001 19:25:36 +0100, gray <gvbale@yahoo.com> wrote:

>Any ideas or circuits of converting 240v single phase into 415v 3
>phase at 50hz with a power of about 3kva.
>

AFAIK (as an EE with 35+ years under my belt - and my wife says they
show), there are only three ways to do this:
1. Static converter
This is similar to a UPS, with a rectifier/battery/3-phase_inverter
string. Not the sort of thing you would build yourself, but you could
get the individual pieces and you could practically configure it.
2. Rotary converter
A single phase motor coupled to a 3-phase alternator.
HEAVY. Losses at both ends, and losses at idle are more than a sane
paying customer would tolerate.
3. Modified Scott transformation.
Originally configured for a single 90 deg shift to obtain two phases
in quadrature, you can play with this to get other shifts
artificially. Would need a bank of transformers.
HEAVIER and lossy.

None is really a pretty solution, the static being the best bet and
the lightest.

>With the result being not to heavy.

Not all that likely, see above.

HTH
Peter

2472. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 04:17:25 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AE109D5.43540EF0@clifto.com>
Source record: 53269

Brokebob wrote:
> simplest idea to me would be to hook a cheap servo to a pot with a DC voltage
> on the pot. Could be scaled with a couple of resistors.

It would probably be preferable to open the servo and tap onto the pot
inside it.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

2473. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 04:21:28 UTC
From: novatech@eskimo.com
Message-ID: <9br1s8hut1@eskinews.eskimo.com>
Source record: 53270

Sverre Holm <sverre@ifi.uio.no> writes:

>In Europe we get these inexpensive clocks that automatically update from a
>transmitter somewhere in Germany every hour or so. Does anyone know the
>frequency and the specifications for these signals?

DCF at 77.5 kHz, http://www.dcf77.de/

>Sverre Holm

--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

2474. FA: CDR Model TR-44 Ham antenna rotator system

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 04:39:21 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AE10F3E.CFDD45E4@mailcity.com>
Source record: 53271

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1231378150

2475. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 08:06:30 UTC
From: la8ak@online.no
Message-ID: <3ae0ce2e.9072941@news.online.no>
Source record: 53272

On Fri, 20 Apr 2001 17:52:33 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:

>Sverre Holm wrote:
>>
>> In Europe we get these inexpensive clocks that automatically update from a
>> transmitter somewhere in Germany every hour or so. Does anyone know the
>> frequency and the specifications for these signals?
>>
>> Sverre Holm
>
>DCF77, see this link.
>http://www.eecis.udel.edu/~mills/ntp/dcf77.htm
>---

>
is it on 77,5kHz ?

JM

2476. Re: Tubes fo sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 09:26:33 UTC
From: ve6nap@ve6nap.com
Message-ID: <3ae1535b.20007414@news.telusplanet.net>
Source record: 53273

On Wed, 18 Apr 2001 07:44:30 GMT, ve6nap@ve6nap.com wrote:
>>
>5933 (1) NOS in White box

The 5933 is Gone.....

the rest are stil available as a lot OFFERS + Shipping
See Below

Mixed lot of assorted tubes with out boxes
These are pulls from old equipment
Filliments light
sold as is
not realy worth my time to test.

Partial list of box contents

No boxes individualy wraped in paper and packed
1B3 (3)
1K3 (2)
3CB6 (1)
5U4 (2)
6AC10 (1)
6AL5 (5)
6AX4 (2)
6BZ6 (1)
6JS6 (2)
6K?4 (1)
6JZ8 (1)
6KD6 (2)
6LB6 (1)
6SN7GTB (1)
6SQ7 (1)
6X4 (1)
12AT7 (2)
12L6GT (1)
17DE4 (1)
14B6 (1)
14BR11 (1)
25AX4 (1)
50C5 (3)

>plus perhaps a few other loose tubes as I clean up
>
>

>
>Reply to
>
>ve6nap@rac.ca
>Edmonton, Alberta
>
>
>
>
>
>
>
>

2477. Re: single phase to 3 phase converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 10:06:30 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <a4h2etgsqq2936r3l2e5sk48tr4ctc6aun@4ax.com>
Source record: 53274

On Fri, 20 Apr 2001 19:25:36 +0100, gray <gvbale@yahoo.com> wrote:

>Any ideas or circuits of converting 240v single phase into 415v 3
>phase at 50hz with a power of about 3kva.

Do you need a clean 3 phase feed or do you just need a rotating magnetic field for a phase electric motor. In the latter case you might try a trick that i have seen some decades ago in a text book to get a 3 phase motor running when only 1 phase was available. The live and neutral was connected to two phase inputs and from these terminals two capacitors were connected to the third phase. I think standard 1 phase starter capacitors were used. Of course, the power output is well below the rated output due to the lower voltage.

However, I have never seen this in practice, since over here the 3 phase feed comes to nearly every building.

Paul OH3LWR

2478. Problems with IC706 mic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 10:38:39 UTC
From: phnystr@attglobal.net
Message-ID: <3AE1632F.593834E8@attglobal.net>
Source record: 53275

I have had an IC706 MKII for a couple of years.

I just recently bought a power gage to my antenna.

I discovered that my microphone, that comes standard with the IC706
MKII just exites the trx to 2 watts of output power! It should be 100w
(or something like 100/sqrt(2) !

No wonder people have difficulties hearing me.

I have heard that this microphone can be modified to produce a better
result.

Does anyone know how to do that?

Please e-mail me in that case:

phnystr@attglobal.net

Best 73s SM5WVN /Phil

2479. Data, RF-PA transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 11:11:13 UTC
From: OZ1BV <oz1bv@vind.gl_AntiSpam>
Message-ID: <9brpl2eob1@news.inet.tele.dk>
Source record: 53276

Dr. OM's

Can anybody help me with data for these two transistors ?

Motorola RF2123
Motorola SRF1226

Vy 73 de OZ1BV/OX3IO, Brian

2480. Re: Dentron MLA2500 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 11:41:56 UTC
From: Bill Russell <willy@global2000.net>
Message-ID: <08s2etstmit1f9vqpm18mb01pnf27ae0d2@4ax.com>
Source record: 53277

A couple of corrections to my origional post.....its an
MLA2500 not MLA2000 and the artical was in the May 96 issue of QST.
(cant type early in the am!!!!) I did find the new email address of
the author and am waiting for a reply.

On Fri, 20 Apr 2001 06:48:15 -0400, Bill Russell
<willy@global2000.net> wrote:

>I am doing the modification to the MLA2000 outlined in the May 96
>article adding a 4CX800A. I have noticed a couple of mistakes on the
>schematic. I tried to email the author but the address is no longer
>active. Does anyone know where I can get a corrected schematic.
>Thanks much,
>Bill Russell

2481. Re: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 12:12:12 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9c0uco$us9$1@newsg3.svr.pol.co.uk>
Source record: 53233
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

> I have some EL 37 valves in stock. They are all NOS and obviously made
> by Mullard. Some of them are branded Haltron and some Mullard, but
> they are identical so I am pretty sure that the Haltron are just
> rebranded Mullards. After all, Haltron never made valves, just
> rebranded and distributed.
> US$ 113.- each or best offer. I can send a picture.
> E-mail me if interested
>
> Regards,
>
> Arnold Goks&#65533;yr
>
> DEMOSTENES - N6899 Balestrand, Norway
> Tlf. +47 5769 1340 Fax +47 5769 1267
> http://www.demostenes.no
==========

Normally I don't respond to offers like the above ,but on this occasion I
feel I have to react.

The EL37 is a pre WW II pentode used in the output stage of domestic
(broadcast) receivers with an output of up to 11.5 Watts . (Va =250 V ,Ia =
100 mA)
As far as the asking price is concerned Arnold either made a decimal error
(we all do from time to time) or he tries to take the amateur community for
a ride . Even US$11.30 seems on the high side for this type of
valve..... Hope that Arnold ,in future,will offer his ware at
more realistic prices.....at least on this NG or perhaps even better
.....not at all !

Frank gm0csz.kn6wh@ukrs.org

2482. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 12:16:06 UTC
From: Tom Becker <gtbecker@rightime.com>
Message-ID: <te2ug7kuej0p96@corp.supernews.com>
Source record: 53278

> ... variable-width pulses, varying between something like 1.2 and 2 ms. I want to change that to a proportionate voltage level (say, 0-1V)...

That's a simple task in a BX-24 (http://www.netmedia.com). You can easily time the pulse and generate a calculated 10-bit analog voltage between 0 and +5V with standard instructions in pseudo-VisualBasic.

Tom Becker
--... ...--
GTBecker@RighTime.com GTBecker@OnRamp.net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

2483. Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 12:23:16 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <UYeE6.49987$C55.4619367@news1.rdc1.nj.home.com>
Source record: 53279

I lost my bookmarks moving to the new computer. Can anyone recall the source (vendor) for gears and small parts?

Jack
exWA8PZL

2484. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 12:32:31 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9c0ud1$us9$2@newsg3.svr.pol.co.uk>
Source record: 53234

> In Europe we get these inexpensive clocks that automatically update from a
> transmitter somewhere in Germany every hour or so. Does anyone know the
> frequency and the specifications for these signals?
> Sverre Holm
==========
The German frequency (from a tx in the Frankfurt a/M area) is 77.5 KHz

In the UK & USA the frequency is 60 kHz , in the UK from a tx at Rugby
in the Midlands - England

Although the range is up to 1000 km for these clocks to work reliably ,
clocks receiving 77 kHz seem to work well in most areas of the UK.

I use a make Zeon Tech clock made in Germany ,but receiving Rugby @ 60 kHz

The accuracy of these clocks is based on a 'Caesium Clock' , I believe in
the UK located at the National Physics Laboratory , NPL.

Frank gm0csz.kn6wh@ukrs.org

2485. Re: Ratty O' Shack comic episode # 2 (To the city)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 12:36:36 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <klv2etghu9iulf8jq9r74hgaqjrojv3i27@4ax.com>
Source record: 53280

On 20 Apr 2001 23:30:29 GMT, rattyoshack@aol.comicstrip (Ratty O Shack the comic strip) wrote:

>Ratty O' Shack comic episode # 2 (To the city)
>Meet Probot.. the trusty robo side kick.
>Episode # 2 now showing for your viewing pleasure at:
>http://www.RattyOShack.com
>
>Ratty O' Shack is my comic strip about an alien from the planet
>"Teck-nul-ogie", who arrives here on earth thinking he has cloned himself to
>look like a human.. only to find his physical replicator device didn't do such
>a good job. He must now fit in with human kind until he can return home... but
>before that, he must survive using his superior brain power and anything
>else... such as pure luck... to get him through each day. Follow his
>Adventures, which should prove.. very interesting.
>
>Ratty O' Shack comic strip
>http://www.RattyOShack.com
> or
>http://RattyOShack.netfirms.com

Some people have way too much time on their hands.

W7TI

2486. FS: Coaxial Dynamics model 81000A WATTMETER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 13:06:52 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3AE185EC.62E4F191@alltel.net>
Source record: 53281

For Sale: Coaxial Dynamics model 81000A wattmeter. Near new condition
with orig
manual. No Slugs just the meter. Price is $190.00 plus $10.00 to send
priority mail.
See pic's at the URL below. Also see page 90 of current AES catalog. All
bird 43 slugs
work with it. http://www.homestead.com/wb5apd/wattmeter.html
--
73
Bob Dodson WB5APD

2487. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 13:16:07 UTC
From: vwbob59@cs.deletethis.com
Message-ID: <3ae186b7.2807856@news.compuserve.com>
Source record: 53282
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

Hey Guys - any help on this subject would be greatly appriciated by me as well. I do OK on 2 meter (noisy though) but AM is a mess in my 99 New Beetle 1.8T. Also being an aviation buff I like to listen to 118 - 132 mhz AM when I go over to trhe airport (Unicom, Atis, Air Traffic Control, etc) This particulat frequency is unuseable in the car... sounds to me like Ignition noise.....

Help!

Bob Wood N3ZIM in Philly

2488. WTB: Heath cabinet paint

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 14:41:59 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <X_gE6.9871$hH3.848851@bgtnsc04-news.ops.worldnet.att.net>
Source record: 53283

Anyone selling this type of paint out there, advise, Joe in MO.

2489. PLEASE HELP: Newbie needs advice!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 14:48:46 UTC
From: rjholland <rjholland@NOSPAMstudents.wisc.edu>
Message-ID: <9bs6nu$rg8$1@news.doit.wisc.edu>
Source record: 53284
Cross-posted to: alt.radio.pirate,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Hello,

I am an artist who is working on several sound pieces. I need broadcast equipment for them. The tow project require

1. several FM mono transmitters that will have the following qualities:

1) Will be stable
2) Will have a range of at least 1000 feet (longer would be great)
3) If a kit will be easy to assemble, I can solder, but not terribly well, I would prefer something pre-assembled.
4) that will be reasonably cheap, I am a student

AND

2. a stereo FM transmitter that will allow me to do longer ranger broadcasting ala LPFM. With the same attributes as above in terms of ease of assembly and use.

If any one has any suggestions I would love some words of wit and wisdom. I want to find a reputable place or person to do business with.

Thanks! PLEASE E-MAIL ME!

Richard Holland
rjholland@students.wisc.edu

2490. WTB: Drake 7 line 1544/1548 cable/box

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 15:18:58 UTC
From: k9sqg@aol.com
Message-ID: <20010421111858.17451.00000386@ng-fj1.aol.com>
Source record: 53286

Looking for another 1544 and 1548 cable and adaptor box for the TR-7 that allows transcieve operation with the R-7 receiver and RV-75 VFO.

Enjoy the Drakes.

73s,

Evan

2491. Re: Ratty O' Shack comic episode # 2 (To the city)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 15:19:46 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9e398i.rsi.QSB@animas.frontier.net>
Source record: 53285

On Sat, 21 Apr 2001 05:36:36 -0700, Bill Turner scribbled:
>On 20 Apr 2001 23:30:29 GMT, rattyoshack@aol.comicstrip (Ratty O Shack the comic
>strip) wrote:
>
>>Ratty O' Shack comic episode # 2 (To the city)
>>Meet Probot.. the trusty robo side kick.
>>Episode # 2 now showing for your viewing pleasure at:
>>http://www.RattyOShack.com
>
>Some people have way too much time on their hands.
>
>W7TI

usenet users for instance. <g>

Jonesy W3DHJ

2492. Re: PLEASE HELP: Newbie needs advice!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 16:29:10 UTC
From: Howard Lute <optcamel@ix.netcom.com>
Message-ID: <MPG.154b55348109709a989cdd@nntp.ix.netcom.com>
Source record: 53287
Cross-posted to: alt.radio.pirate,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

In article <9bs6nu$rg8$1@news.doit.wisc.edu>, rjholland@NOSPAMstudents.wisc.edu says...
> Hello,
>
> I am an artist who is working on several sound pieces. I need broadcast
> equipment for them. The tow project require
>
> 1. several FM mono transmitters that will have the following qualities:
>
> 1) Will be stable
> 2) Will have a range of at least 1000 feet (longer would be great)
> 3) If a kit will be easy to assemble, I can solder, but not terribly well, I
> would prefer something pre-assembled.
> 4) that will be reasonably cheap, I am a student
>
> AND
>
> 2. a stereo FM transmitter that will allow me to do longer ranger
> broadcasting ala LPFM. With the same attributes as above in terms of ease of
> assembly and use.
>
> If any one has any suggestions I would love some words of wit and wisdom. I
> want to find a reputable place or person to do business with.
>
> Thanks! PLEASE E-MAIL ME!
>
> Richard Holland
> rjholland@students.wisc.edu
>
>
>
>
Try my site, url below, then feel free to contact me by email, I'll try to help or I'll
point you in the right direction.
--
friend,
Howard
-kell-
eBay Rating = 840
Howard and Kelly Lute
LPFM Page: http://pw1.netcom.com/~optcamel/fmradio.htm <--click here!
email: hnlute@www.optcamel.com

2493. Yaesu spkr/patch, Kenwood filter FS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 17:02:37 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <33jE6.171030$lj4.5125226@news6.giganews.com>
Source record: 53289
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Yaesu SP-901 Landliner telephone patch/external speaker with manual, excellent condition. This can be used with nearly any transceiver. $75 plus a little for shipping.

Kenwood CW filter YK-88C-1 for TS-930S, TS-940S, many others. $80 including shipping to lower 48.

73, Bob K6DDX

2494. Re: WTB: Drake 7 line 1544/1548 cable/box

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 17:03:21 UTC
From: rcnixon@mindspring.com
Message-ID: <3ae1bbed.4984283@news.mindspring.com>
Source record: 53288

If you just want to use them, there is a schematic out on the Drake List homepage for the cable set and interface. If you want the actual Drake parts, keep looking. Of course, you couls do both, in which case the URL is: http://www.zerobeat.net/drakelist/. Look in the mods section, or the tech notes. You could also ask in the message board. It's a great place for Drake owners. I envy your RV-75 and R-7. Be sure to let me know when you want to sell them!

Russ - kf4wxd

k9sqg@aol.com (K9SQG) wrote:

>Looking for another 1544 and 1548 cable and adaptor box for the TR-7 that
>allows transcieve operation with the R-7 receiver and RV-75 VFO.
>
>Enjoy the Drakes.
>
>73s,
>
>Evan

2495. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 18:18:50 UTC
From: Chris Barrera <cbarrera@dontspamme.com>
Message-ID: <9bsiuakul1@tilde.csc.ti.com>
Source record: 53290
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

I just installed a yaesu ft90 in my b5.5 (2001.5) VW passat.
So far no one has complained about me on 2M. I will tune the AM air bands
on my way home and let you know how reception goes.

The annoying part with the install is that I didn't see an easy way to
run wires from the battery. I didn't try very hard either. So I did
the dubious step of getting a 10A rated cigarette lighter plug with
banana posts from Rat-Shack and hooked my rig up mounted in the trunk
with the trunk's power-plug. Supposedly my rig won't draw more than 9.5
on maximum transmit, not that I plan to ever do the maximum...

Chris Barrera
cbarrera@ t i . c o m

In rec.autos.makers.vw.watercooled Bob Wood <vwbob59@cs.deletethis.com> wrote:
: Hey Guys - any help on this subject would be greatly appriciated by me
: as well. I do OK on 2 meter (noisy though) but AM is a mess in my 99
: New Beetle 1.8T. Also being an aviation buff I like to listen to 118 -
: 132 mhz AM when I go over to trhe airport (Unicom, Atis, Air Traffic
: Control, etc) This particulat frequency is unuseable in the car...
: sounds to me like Ignition noise.....

: Help!

: Bob Wood N3ZIM in Philly

2496. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 18:30:15 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AE1D1B7.1F8D827F@clifto.com>
Source record: 53291

Tom Becker wrote:
> > ... variable-width pulses, varying between something like 1.2 and 2 ms. I
> want to change that to a proportionate voltage level (say, 0-1V)...
>
> That's a simple task in a BX-24 (http://www.netmedia.com). You can easily
> time the pulse and generate a calculated 10-bit analog voltage between 0 and
> +5V with standard instructions in pseudo-VisualBasic.

My travels through the web have shown me lots of people who are having
trouble doing that task plus others with various microprocessors. A
processor might even be a fun way to do this; but the project this goes
into is already enough work without acquiring development/programming
boards and learning their quirks and the quirks of the processors, etc.

I could also gate a biased counter to do this digitally, latching the
count at end of pulse. But by the time I do that, I end up with more
parts (and lots more nodes) than the analog solution I proposed, which
my gut tells me is already overly complicated for the task.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

2497. QST 7/99 GPS ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 18:43:14 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <te3l69ss54eud8@corp.supernews.com>
Source record: 53292

there was an article in QST July 98 to build a unit using GPS to discipline
an oscillator...
has anyone built one that they're interested in selling?
tnx
hank wd5jfr

2498. K6OLG / W7AAZ IF-AGC project May 1996

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 20:03:45 UTC
From: Ken Linney <Ken.Linney@btinternet.com>
Message-ID: <9bsot5$o46$1@uranium.btinternet.com>
Source record: 53293

Hello All

I would be interested to hear from anyone who has build this
system as I intend to make a start. Was there ever a follow up to it
in Dec QST 1996???

Happy soldering .... Ken

(Ken.Linney@btinternet.com)

2499. Re: LM317 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 20:17:50 UTC
From: "GardenProductions@att.net" <GardenProductions@att.net>
Message-ID: <B707633A.608D%GardenProductions@att.net>
Source record: 53294

That will work fine. Bypass the adj term to ground with a big electrolytic.
Regards,
George Kaye
George Kaye Audio Labs, Inc
8 Broadway Alley
(Shipping: C/O A&R Locksmith,
134 East 27th St.)
NY, NY 10016
212-779-3713
646 498 3817 (Cell)

> From: Bob Liesenfeld <wb0poq@visi.com>
> Newsgroups: rec.radio.amateur.homebrew
> Date: Wed, 11 Apr 2001 19:37:05 -0500
> Subject: LM317 mods
>
> Hi gang,
> I have a power supply that uses an LM317 3 terminal adjustable
> regulator. It has about +22VDC applied to the input and the usual
> resistor from the "adj" pin to the "out" pin, and a variable resistor to
> ground.
>
> As you may know, with this arrangement, the minimum output from the
> regulator is about +1.2V. So.....I lifted the ground end of the
> variable resistor, and conneted it instead a 2 resistor voltage divider
> across a -12VDC supply to provide -1.2VDC to the bottom of the variable
> resistor in the LM318 ckt. Now the output of the LM318 goes all the way
> down to 0V. I've checked it under lots of conditions, loaded, no load,
> cold, hot, etc., and can't find any problems with it.
>
> Before I have a bunch of my students make this change to their power
> supplies, I thought i'd see if anyone else in this group has tryed this
> and found any gotcha ya's.
> Thanks.
>
> 72
> Bob L. WB0POQ

2500. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 20:23:35 UTC
From: Tom Becker <gtbecker@rightime.com>
Message-ID: <te3r2bf0a09naa@corp.supernews.com>
Source record: 53295

> ... the project [] is already enough work without acquiring
development/programming boards and learning their quirks...

The processor is just another designer's tool, albeit a very powerful and flexible one. Yes, new tools require time to master, but the monetary costs are $200 or so to get an evaluation/prototyping board and a processor or three; the programming environment is gratis. A few days later you'll be moving an analog signal through the thing and you'll be hooked. If you had that tool in your repertoire I'll bet you'd not think twice about implementing your PulseWidth:Voltage project in BX-24 code rather than holding a linearly-ramped voltage; it's a natural for the part and a good starter project.

Tom Becker
--... ...--
GTBecker@RighTime.com GTBecker@OnRamp.net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

2501. Re: Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 21:37:27 UTC
From: novatech@eskimo.com
Message-ID: <9bsuin$7nk$1@eskinews.eskimo.com>
Source record: 53296

"Schatzie" <jdwalton@home.com> writes:

>I lost my bookmarks moving to the new computer. Can anyone recall the
>source (vendor) for gears and small parts?

Berg.

>Jack
>exWA8PZL

--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

2502. Re: Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 22:48:07 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3ae20dfe.265497569@news.aepnet.com>
Source record: 53198

On 21 Apr 2001 21:37:27 GMT, novatech@eskimo.com (Steven Swift) wrote:

>"Schatzie" <jdwalton@home.com> writes:
>
>>I lost my bookmarks moving to the new computer. Can anyone recall the
>>source (vendor) for gears and small parts?
>
>Berg.

Also try Reid Tool.

www.reidtool.com

N7WS

>>Jack
>>exWA8PZL
>
>--
>Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
>NOVATECH INSTRUMENTS, INC. P.O. Box 55997
>206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

2503. Wanted - schematic and/or service manual Fujistsu Ten Ulimited FTP40-292H

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-21 22:57:12 UTC
From: jkile@home.com
Message-ID: <cfoE6.12927$Jh5.14147454@news1.rdc1.sfba.home.com>
Source record: 53197
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Looking for a schematic and/or service manual for a Fujitsu Ten
Unlimited, Model FTP40-292H. It is currently tuned at about 460 Mhz.

Any info would be greatly appreciated.
Thanks,
John - KE6EJS

2504. Needed VIZ WR 50-C signal gen schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 00:02:14 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3ae21f1d.20862924@news.usfamily.net>
Source record: 53199
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hi,

I need a schematic for a VIZ WR 50-C RF signal generator.

Can you help me?

Please reply via email.

Thanks,

Bob

2505. Re: Problems with IC706 mic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 00:29:55 UTC
From: CJ <cjr@visi.com>
Message-ID: <3AE22602.3331692@visi.com>
Source record: 53203

Three things come to mind. I have the original IC-706, so these things may not apply to your radio, but I rather think they might.

1. The microphone is a noise cancelling one. That means that one must speak very close to it. It should be held right up to the mouth. Otherwise, it will pick up your voice from both the intended front grill/grating and also from the background input and you will tend to cancel yourself out.

2. There is a microphone gain control item on one of the menues. Look it up in the book. There is also a power output item. Be sure it is set to maximum. Remember that "average peak" power output on SSB as measured by a mechanical (D'Arsonval) meter is likely to be only about 20 - 25 % of the true peak power. Maybe less. It depends on whether or not compression is used and also on individual voice characteristics. A whistle into the microphone will often produce something appoximating the real peak output on a meter.

3. The overall gain of the radio varies from the lower frequency bands to the higher. I find it hard to get much ALC response on 10 meters, but with the same microphone gain settings, I get a big ALC response on 80 meters.

73, CJ K0CJ

phnystr@attglobal.net wrote:
>
> I have had an IC706 MKII for a couple of years.
>
> I just recently bought a power gage to my antenna.
>
> I discovered that my microphone, that comes standard with the IC706
> MKII just exites the trx to 2 watts of output power! It should be 100w
> (or something like 100/sqrt(2) !
>
> No wonder people have difficulties hearing me.
>
> I have heard that this microphone can be modified to produce a better
> result.
>
> Does anyone know how to do that?
>
> Please e-mail me in that case:
>
> phnystr@attglobal.net
>

> Best 73s SM5WVN /Phil

2506. Re: Needed VIZ WR 50-C signal gen schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 05:09:09 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AE26775.E2C235CD@coqui.net>
Source record: 53200
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Bob wrote:
>
> Hi,
>
> I need a schematic for a VIZ WR 50-C RF signal generator.
>
> Can you help me?
>
> Please reply via email.
>
> Thanks,
>
> Bob

I've got the RCA version WR-50B details hiding somewhere on my
HD. If you think that might correspond for you needs, lemme know
and I'll search for the info.
-BM

2507. off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 06:40:08 UTC
From: inagaddadavida@webtv.net
Message-ID: <20533-3AE27CC8-34@storefull-114.iap.bryant.webtv.net>
Source record: 53201

i have obtained a rf amp from the flea market for the price of $20. it is a "killer bee" dx 250 hdv. it was presented as never used, and by all appearances that looks to be true. i am not familiar with this equipment and would appreciate a lesson on the function and proper use of this thing. since this group is full of hams, i thought someone would help me. there are five controls and one meter. three are on/off push buttons. they are power, rec amp, and am. one is a rotary knob like a volume control. it is marked with "min" to "max". one is a rocker switch marked "ssb on/off". the meter is marked "rf output" and has a one to ten scale. most of these controls are self explanatory, but what does the "am" button do? what kind of power is the input supposed to handle? and what is the power output of this thing? are filters built into this amp to control harmonics, or is that an outboard part? what frequencies does this operate on anyway? i know that i need a license to transmit, so (respectfully speaking) please spare me the lectures. i need knowledge, not moral guidance. if this proves to be interesting then i will have more incentive than ever to try amateur radio. i guess having an amp is a start!

2508. # 61 ferrite material ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 12:19:12 UTC
From: amdx <amdx@att.net>
Message-ID: <4%zE6.30268$RF1.2522729@bgtnsc06-news.ops.worldnet.att.net>
Source record: 53202

During some experimentation I have turned some #61 ferrite toroids on a lathe.
They turned fairly easy, no problem.
I pulled the ferrite rod from three different portable radio in an attempt to find
a rod that I could turn with the same ease of the toroids. None of the rods seemed
to be the same, it was a harder material, it turned to a rust color with shiny metal
flecks mixed in.
I thought #61 was the material choose for most AM loopstick antennas, is there sonething I'm missing?

Mike

2509. where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 13:38:02 UTC
From: pdrunen@aol.com
Message-ID: <20010422093802.10317.00000445@ng-ci1.aol.com>
Source record: 53204

Hi Group,

Is the old issues of QST available on CD?
I do recall seeing them a few years back but now can not locate them on
the http://www.arrl.org or amateur electronic supply web site.

Thanks,

Paul

2510. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 14:14:06 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9buovp0jsq@news2.newsguy.com>
Source record: 53206

This is very curious.

Searching the web I came up with a few references that seemed to indicate that this is a 250 watt out, 5 watt in CB amplifier. Amplifiers of this type are illegal to manufacture or sell in the U.S., except that licensed amateurs have an exception where they are allowed to construct one a year and may sell it to another licensed amateur. There is no prohibition on buying one of these, however. The pictures that these CB articles linked to looked just like I would expect such an amp to look like, and looked kind of like you describe. One of these CB links indicates that this is a 4-6 watt input, 250 watt output amp. Exactly what you would want for illegal CB operation.

However, further searching led me to the manufacturer's page (http://www.texasstar.com/CW.html). The manufacturer calls this a 5 watt, crystal controlled CW transmitter! The description refers to semi break-in keying and an onboard receive preamp. Curiously, the manufacturer's page never once mentions QRP (as you would expect a 5 watt transmitter to be targeted at). Also, QRPers tend to be battery conscious, and the heavy use of incandescent lamps (power hungry) would be inconsistent with what this market would demand.

There are 4 models listed on the above page, and it isn't clear to me what the differences between the models are, other than the HDV models have a break-in delay rocker on the rear instead of a pushbutton on the front, the break-in pushbutton being replaced with a power output pot. There are an additional 6 models on another page that also appear to be the same thing, except for higher current consumption. The CB page (http://jmpaintball.homestead.com/ampspowersurpplys.html) seem to show these as all different power output amplifiers.

The manufacturer's page shows 3 or 4 buttons on the front panel, none of them listed as 'AM' as you describe. I'm curious if the pictures are similar to what you have.

The manufacturer's site includes a schematic which, at first glance, doesn't seem to support it being an amplifier. However, the size of the heat sinks in the pictures are excessive for a 5 watt transmitter.

Your $20 price would be consistent with a used 5 watt QRP transmitter - CB pages show used prices around $200, more in keeping with an amp.

In either case, this is a 10 meter device, whether a transmitter or amplifier. I would hurry up and get that license. The sunspot cycle has peaked and in a couple of years the 10 meter fun will fade for another decade. Right now, tho, 10 meters is great!

didleydadidah

"Jim" <inagaddadavida@webtv.net> wrote in message
news:20533-3AE27CC8-34@storefull-114.iap.bryant.webtv.net...
> i have obtained a rf amp from the flea market for the price of $20. it
> is a "killer bee" dx 250 hdv. it was presented as never used, and by all

2511. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 14:18:58 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <e0q5etckvm33foepqavn942abve9moh2kd@4ax.com>
Source record: 53208

Try:

http://www.arrl.org/catalog/?category=CD-ROMs&words=&SearchWords.x=5&SearchWords.y=5

On 22 Apr 2001 13:38:02 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi Group,
>
>Is the old issues of QST available on CD?
>I do recall seeing them a few years back but now can not locate them on
>the http://www.arrl.org or amateur electronic supply web site.
>
>Thanks,
>
>Paul

2512. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 14:21:45 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <15q5etsqkibfss04pl4vdt9q5or7uqmvt5@4ax.com>
Source record: 53207

Forgot to mention you can get the CD's at a little better price
(charges less for shipping) at:

http://www.jwoservices.com/

73
Danny, K6MHE

On 22 Apr 2001 13:38:02 GMT, pdrunen@aol.com (PDRUNEN) wrote:

>Hi Group,
>
>Is the old issues of QST available on CD?
>I do recall seeing them a few years back but now can not locate them on
>the http://www.arrl.org or amateur electronic supply web site.
>
>Thanks,
>
>Paul

2513. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 14:28:11 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AE2EA7A.847E6EE7@ix.netcom.com>
Source record: 53205

Hi paul -- they are at URL:
http://www.arrl.org/catalog/index.php3?category=Reference
Indivually or the whole set.

PDRUNEN wrote:

> Hi Group,
>
> Is the old issues of QST available on CD?
> I do recall seeing them a few years back but now can not locate them on
> the http://www.arrl.org or amateur electronic supply web site.
>
> Thanks,
>
> Paul

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

2514. Re: off topic, 10 meter amp? **ILLEGAL AMP***

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 15:22:42 UTC
From: ham <h@m.nos.pam>
Message-ID: <3AE2F741.806A707B@m.nos.pam>
Source record: 53209

Any similarity to a 5 watt CW transmitter and something made by Texas Star is purely coincidental and intentional on their part to try to keep them from being put out of business by the FCC. Note the 30 amp fuse in the diagram and a bit of scrutiny will show that the circuit is such that it requires no effort to make it a high power illegal CB amplifier. Let's hope that the one bought for $20 isn't put to use in this manner. If the buyer so intends, let's hope the transistors were burned out by a CBer too stupid to hook up the power with the correct polarity.

For those who ARE LICENSED and care and want to keep the CBers off 10 meters with high power, a note to:

FCCInfo@fcc.gov

complaining about Texas Star might help get them shut down.

This company must think they're smart to disguise obvious amplifiers as CW 5 watt transmitters! Yeah, SURE, and I have a bridge formerly called the Brooklyn Bridge that you can buy from me cheap and rename it however you wish and charge tolls on it.

WB8RCR wrote:

> This is very curious.
>
> Searching the web I came up with a few references that seemed to indicate
> that this is a 250 watt out, 5 watt in CB amplifier. Amplifiers of this
> type are illegal to manufacture or sell in the U.S., except that licensed
> amateurs have an exception where they are allowed to construct one a year
> and may sell it to another licensed amateur. There is no prohibition on
> buying one of these, however. The pictures that these CB articles linked to
> looked just like I would expect such an amp to look like, and looked kind of
> like you describe. One of these CB links indicates that this is a 4-6 watt
> input, 250 watt output amp. Exactly what you would want for illegal CB
> operation.
>
> However, further searching led me to the manufacturer's page
> (http://www.texasstar.com/CW.html). The manufacturer calls this a 5 watt,
> crystal controlled CW transmitter! The description refers to semi break-in
> keying and an onboard receive preamp. Curiously, the manufacturer's page
> never once mentions QRP (as you would expect a 5 watt transmitter to be
> targeted at). Also, QRPers tend to be battery conscious, and the heavy use
> of incandescent lamps (power hungry) would be inconsistent with what this
> market would demand.
>
> There are 4 models listed on the above page, and it isn't clear to me what

> the differences between the models are, other than the HDV models have a
> break-in delay rocker on the rear instead of a pushbutton on the front, the
> break-in pushbutton being replaced with a power output pot. There are an
> additional 6 models on another page that also appear to be the same thing,
> except for higher current consumption. The CB page
> (http://jmpaintball.homestead.com/ampspowersurpplys.html) seem to show these
> as all different power output amplifiers.
>
> The manufacturer's page shows 3 or 4 buttons on the front panel, none of
> them listed as 'AM' as you describe. I'm curious if the pictures are
> similar to what you have.
>
> The manufacturer's site includes a schematic which, at first glance, doesn't
> seem to support it being an amplifier. However, the size of the heat sinks
> in the pictures are excessive for a 5 watt transmitter.
>
> Your $20 price would be consistent with a used 5 watt QRP transmitter - CB
> pages show used prices around $200, more in keeping with an amp.
>
> In either case, this is a 10 meter device, whether a transmitter or
> amplifier. I would hurry up and get that license. The sunspot cycle has
> peaked and in a couple of years the 10 meter fun will fade for another
> decade. Right now, tho, 10 meters is great!
>
> didleydadidah
>
> "Jim" <inagaddadavida@webtv.net> wrote in message
> news:20533-3AE27CC8-34@storefull-114.iap.bryant.webtv.net...
> > i have obtained a rf amp from the flea market for the price of $20. it
> > is a "killer bee" dx 250 hdv. it was presented as never used, and by all

2515. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 15:26:08 UTC
From: ham <h@m.nos.pam>
Message-ID: <3AE2F80F.AF61C6F1@m.nos.pam>
Source record: 53210

Except their web page says 50 cents shipping charge one place and 75 cents another place. Maybe it's really $7.50???

Still better than others charge though.

Dan Richardson wrote:

> Forgot to mention you can get the CD's at a little better price
> (charges less for shipping) at:
>
> http://www.jwoservices.com/
>
> 73
> Danny, K6MHE
>

2516. Re: Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 16:06:42 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <hdf4et0evs1dbp8n4rgmdjgtrnvm0k8l7f@4ax.com>
Source record: 53211

"Schatzie" <jdwalton@home.com> wrote:

>I lost my bookmarks moving to the new computer. Can anyone recall the
>source (vendor) for gears and small parts?

Do a search for Stock Drive Products.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

2517. Cutting a branch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 16:17:52 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AE30430.2193075F@toast.net>
Source record: 53212

Yesterday I cut off a branch that had been interfering with my wire antenna. It was too high to climb to, and too high for a pole saw, and too unimportant to rent one of those lifts ($100 for just a couple of hours). I used a rope saw, which I made by using a grinder to cut one link of a chain saw chain. Then I used a slingshot, fishline, and rope to get over the limb. I attached the chain saw to the rope by making a loop knot at the end of the rope, and then pulling the end of the chain through the rope loop, and making a loop of the chain with some 20 ga. copper wire twisted through it. Then the same on the other end of the chain, and I had my rope saw. I got it up over the limb, and sawed back and forth for a few minutes, and then it jammed, and wouldn't loosen until I had pulled hard enough to separate the rope, and then the whole business came down. I could see from the traces of wood on the chain that it had been sawing on the wrong side. It sawed for a couple of minutes, until the wider part of the back of the chain hit the limb, and then it jammed.
After getting the rope back over the limb and reattaching the chain, I put a piece of fiberglass tape around the end of the chain as a flag, such that it stuck out from the back of the chain. Then, when I pulled the chain over the limb, I was able to see the direction of the flag, and twist the rope enough that the chain went over the limb in the right orientation. Then it only took about ten minutes of sawing to bring down the 3-inch diameter limb.

john

2518. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 17:57:31 UTC
From: Sverre Holm <sverre@ifi.uio.no>
Message-ID: <Pine.GSO.4.21.0104221950090.16043-100000@granvin.ifi.uio.no>
Source record: 53213

Thanks for replies.

The DCF77 station transmits at 77.5 kHz, more information can be found at
http://www.eecis.udel.edu/~mills/ntp/dcf77.htm
and http://www.dcf77.de/ .

My interest came because I intend to modify an old receiver that has the long-wave band (150 - 350 kHz) to a lower frequency to receive the amateur band at 136 kHz. I think this is easy to do by just adding some capacitance to the tuning and oscillator circuits. I was hoping that I also could receive DCF77, but I think the difference in frequency is too big.

Sverre Holm
Asker nr Oslo,
Norway

2519. Copy of Jan/Feb 2001 QEX artice

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 17:59:11 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <fZJ$GBAvvx46EwiU@invest.fsbusiness.co.uk>
Source record: 53215

Until I get around to subscribing to QEX would someone be good enough to scan a copy of the Class-E PA article by Nathan O' Sokal in the above QEX?

Very many thanks.

Phil G4ZOW

2520. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 18:02:41 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <3AE31CC1.63FA@bellsouth.net>
Source record: 53214

WB8RCR wrote:
>
> This is very curious.
>
> Searching the web I came up with a few references that seemed to indicate
> that this is a 250 watt out, 5 watt in CB amplifier. Amplifiers of this
> type are illegal to manufacture or sell in the U.S., except that licensed
> amateurs have an exception where they are allowed to construct one a year
> and may sell it to another licensed amateur. There is no prohibition on
> buying one of these, however. The pictures that these CB articles linked to
> looked just like I would expect such an amp to look like, and looked kind of
> like you describe. One of these CB links indicates that this is a 4-6 watt
> input, 250 watt output amp. Exactly what you would want for illegal CB
> operation.
>
> However, further searching led me to the manufacturer's page
> (http://www.texasstar.com/CW.html). The manufacturer calls this a 5 watt,
> crystal controlled CW transmitter! The description refers to semi break-in
> keying and an onboard receive preamp. Curiously, the manufacturer's page
> never once mentions QRP (as you would expect a 5 watt transmitter to be
> targeted at). Also, QRPers tend to be battery conscious, and the heavy use
> of incandescent lamps (power hungry) would be inconsistent with what this
> market would demand.
>
> There are 4 models listed on the above page, and it isn't clear to me what
> the differences between the models are, other than the HDV models have a
> break-in delay rocker on the rear instead of a pushbutton on the front, the
> break-in pushbutton being replaced with a power output pot. There are an
> additional 6 models on another page that also appear to be the same thing,
> except for higher current consumption. The CB page
> (http://jmpaintball.homestead.com/ampspowersurpplys.html) seem to show these
> as all different power output amplifiers.
>
> The manufacturer's page shows 3 or 4 buttons on the front panel, none of
> them listed as 'AM' as you describe. I'm curious if the pictures are
> similar to what you have.
>
> The manufacturer's site includes a schematic which, at first glance, doesn't
> seem to support it being an amplifier. However, the size of the heat sinks
> in the pictures are excessive for a 5 watt transmitter.

Yup,

Anybody with any radio "savvy" will know what this thing is! I visited
their site recently and got a laugh out of how they are "masking" their

illegal product. For example, the DX 1600, mostly known by CBers as the "Sweet Sixteen", has 16 transistors (in the 11 meter vernacular known as "pills"). Imagine! Sixteen output transistors for 5 watts "CW"! Also notice the label on the lower right corner "SSB Delay". Hmmmm.....sideband delay? HA!

73

Jerry
K4KWH
>

>

>

>

2521. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 18:07:13 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <rb76etksuj5vdjpjbbtltm2nr5meg8udf6@4ax.com>
Source record: 53217

Don't know maybe a larger item? John has always charged me a four-bit handling charge.. Very economical.

Danny

On Sun, 22 Apr 2001 08:26:08 -0700, ham <h@m.nos.pam> wrote:

>Except their web page says 50 cents shipping charge one place and 75 cents
>another place. Maybe it's really $7.50???
>
>Still better than others charge though.
>
>Dan Richardson wrote:
>
>> Forgot to mention you can get the CD's at a little better price
>> (charges less for shipping) at:
>>
>> http://www.jwoservices.com/
>>
>> 73
>> Danny, K6MHE
>>

2522. Re: off topic, 10 meter amp? **ILLEGAL AMP***

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 18:41:09 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9bv8kh01qod@news1.newsguy.com>
Source record: 53218

The schematic certainly is interesting.

There seems to be no sensing of RF on the 'radio' side, so it would be clumsy at best to use it as an amplifier, assuming the schematic is correct. There is an oscillator, as described, and a keying transistor which senses the oscillator to enable the TR relay. All of this would seem to support the 'CW Transmitter' claim.

However, looking a bit more closely at the finals, it would seem to be a bit of overkill to use 2 120 watt transistors in the final of a 5 watt transmitter! These are fairly expensive transistors. There also appears to be no SWR protection circuitry.

However, on another page, Texas Star shows the 'export' version of this transmitter to be an amplifier, 250W SSB or 120W AM.

And finally, Jim, getting back to your question of the AM switch. The schematic shows no such switch. However, on an amplifier that would be a useful thing to have. The reason is this ... on SSB, the output transistors only need to generate RF during a tiny part of the cycle. SSB transmissions have no output when there is no sound, so the overall duty cycle is no more than 50% when there is a sound, and 0 when not, so overall the actual duty cycle the transistor sees is on the order of 10-25%.

On AM, however, RF is being generated all the time at almost the full output. A switch which reduced the output on AM to prevent the transistors from being toasted would be a useful thing! In addition, there are some technical differences which would allow an amplifier to amplify SSB somewhat more efficiently than AM.

Not to rain on your parade, Jim, but this sort of amplifier is of relatively little use in amateur service. There are a couple of reasons for this. Firstly, 5 watt 10 meter transceivers are fairly rare. Those that do exist are generally intended for CB service and cost a lot more than 100 watt transceivers that can't be easily modified for CB. These also tend to be relatively low quality since the larger manufacturers are going to quickly become targets of the FCC if they make a transceiver that is purported to be for amateur use but is, in fact, aimed at the CB market.

The second reason has to do with the nature of 10 meters. 10 meters is the high end of the HF portion of the spectrum. When the band is open, it's quite easy to communicate worldwide with just a couple of watts because the atmospheric absorption is so low at that frequency. In addition, the atmospheric noise also tends to be quite low. I've personally worked all continents on 10 meters using less than 5 watts and a homemade antenna made from $50 worth of conduit. When the band isn't open, you can communicate

essentially line of sight no matter what the power. Tremendous increases in power can get you a little bit beyond line of sight, but not enough to make it worth the hassle. When you've worked Australia and Africa it's not much of a thrill to crank up a kilowatt to talk 50 miles away!

This isn't the case with CB. On CB, the band is channelized and receivers are built to accommodate the relatively wide requirements of AM. On CB, you are almost always talking over someone else, so the station with the most power wins. On the amateur frequencies, especially on 10 meters which is a very wide band, there is almost always a place between other stations, so you don't need to interfere with someone else, and it's not considered very good form to do so! So with no other stations to compete with, you don't need the power.

Again I would encourage you to get that license and get on the air sooner rather than later. The solar flux is low this weekend, so 10 meters is dead. But by next weekend the active solar region will have rotated into view, and 10 will be open again.

Meanwhile, I hear an EA7 (Spain) calling CQ on 20 - I think it's time to get on the air and off the Internet.

didleydadidah

"ham" <h@m.nos.pam> wrote in message news:3AE2F741.806A707B@m.nos.pam...
> Any similarity to a 5 watt CW transmitter and something
> made by Texas Star is purely coincidental and
> intentional on their part to try to keep them from being

2523. Re: Cutting a branch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 18:43:40 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9e69ir.55s.QSB@animas.frontier.net>
Source record: 53216

On Sun, 22 Apr 2001 11:17:52 -0500, John O'Flaherty scribbled:
> Yesterday I cut off a branch that had been interfering with my wire
>antenna. It was too high to climb to, and too high for a pole saw, and
>too unimportant to rent one of those lifts ($100 for just a couple of
>hours). I used a rope saw, which I made by using a grinder to cut one
>link of a chain saw chain.

They make a "wire saw" for backpackers and outdoors 'people'.
It's hard to describe -- sort of a tightly twisted ss band
with 'chips' of Very Sharp metal bonded to the full length.
It has two finger rings at either end and is about 19" (50cm)
long. It would work Quite Well in the lash-up you've described.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

2524. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 19:25:49 UTC
From: babbit@webtv.net
Message-ID: <10560-3AE3303D-1@storefull-116.iap.bryant.webtv.net>
Source record: 53219

yes, the picture at texas star site is exactly what i have! thanks for your help, but now i am more in the dark than before. what (technically speaking) is the difference between the illegal 250 watt amp and the qrp 5 watt transmitter? if it is a cb amp then wont it also amplify a 10 meter transceiver the same way? if used for cw then how is it used and what equipment is needed to excite the transmitter? is this a noise making piece of cb junk or is it a useful piece of equipment? is there a good source of knowledge that i could read to start me from the beginning so i can figure this stuff out? and why is there always someone wishing harm to my transistors? i suppose that i could leave it at a truck stop like an abandoned baby, but i was trying to find the PROPER use for it. the cb problem is not a problem because i dont speak "retard" (tardish?), the language in common use on the cb band. i just have an intrest that i want to satisfy.

2525. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 21:16:50 UTC
From: inagaddadavida@webtv.net
Message-ID: <10559-3AE34A42-19@storefull-116.iap.bryant.webtv.net>
Source record: 53221

first, to clear any confusion let it be understood that "babbit" is my wifes account. it was still me in an earlier post. the consensus of my private e-mail responses leads me to believe that this amp must be useless cb junk. i am slightly disappointed but i got what i wanted, answers. now let me eat crow here. i said that i didnt need moral input, but now i am asking for just that. as HAMS, and knowing that this useless junk has more value when used illegally, would you throw it into the parts box or would you put it back into circulation? i could possibly trade it for something useful if i gave it to a cb nerd. on the other hand, it would then be turned into a weapon of mass rf destruction and used against innocent hams who are minding their own business. am i responsible for the radio wreckage that this cb amp might cause even if i am not doing it myself? and if i am then would that outweigh the legitimate receiver or something that i might be able to trade for?

2526. Re: CB INTERFERENCE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 21:40:50 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <CdIE6.16568$Ce4.1515326@news1.rdc1.ct.home.com>
Source record: 53220
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,us.legal

> > If you want to help, send a short note to INFO@FCC.GOV and perhaps copy
this
> > email as reference.
> >
> > Thank you,
> > A. Voobner
>
>
>
> Thanks for the tip, I always wanted one of those amps.
>
>
>
Why? Based on a random sampling of various models I'v run acros,, in
general most of the ones I've tested were very poorly engineered.
Inadequate heatsinking, poor bias regulation (if even an attempt at
linearization was made!), and no harmonic filtering on the output.

Good luck to you if you get one....

Pete

2527. Re: Measuring S parameters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 23:20:15 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <PGJE6.42461$Xr.4610986@news02.optonline.net>
Source record: 53223

Bob,

With some care it should work.

Since the frequency accuracy does not have to be to good on your
sources you might try using simple L/C oscillators.

KB8TQ
Bob Camp

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:3AE0E3FE.3D60B385@visi.com...
> Hi gang,
> Before I knock myself out trying this, I thought I'd get the
group's
> thoughts. I'm thinking of building a basic network analyzer to
measure
> reflection coefficients and phase angles (aka S parameters) of some
BJTs
> (2N2222, 2N3904) at HF.
>
> I have several mini-circuits directional couplers rated for HF and
a
> 60MHz dual trace scope. My plan is to build a compact (low stray L
and
> C) test jig for a BJT, with adjustable bias, make up some 50 Ohm
> terminators, and a stable xtal oscillator with a choice of 3 or 4
> frequencies around say 10MHz and 50 Ohm Zout.
>
> By connecting the directional couplers between the oscillator /
test
> jig / termination, I think I can come up with S11, and S22 (at least
the
> reflection coefficient part). I would use the scope to read
incident
> voltages and reflected voltages (with a compensated X10 probe).
>
> To get the phase angle part of S11 and S22, I am thinking I can
use
> the dual trace capability of the scope to measure the phase angle
> difference between the incident and reflected waves to perhaps a
couple
> of degrees.
>
> My goal would be to get some reasonably accurate values for S11

and
> S22 (and maybe S21), at a few HF data points to then plug into a
smith
> chart or the ARRL Radio Designer BIP model. Manufacturers seem to
have
> *some* S data for VHF and up for a few devices, but not much for HF.
I
> would not be attempting these measurements above say 20MHz.
>
> So....Am I *dreaming* or does this sound like a do-able project?
>
> Thanks for any ideas!
> Bob Liesenfeld WB0POQ
> wb0poq@visi.com

2528. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 23:24:09 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <tKJE6.1285$Fv5.459075@paloalto-snr1.gtei.net>
Source record: 53222

Hey, you only spent 20 bucks for it. Part it out and maybe one day you will
be able to use the parts in something worthwhile. Many of these junk CB
amps used decent RF transistors, which could be better used to build or
repair a quality RF device...

73 de W6DKN

"Jim" <inagaddadavida@webtv.net> wrote in message
news:10559-3AE34A42-19@storefull-116.iap.bryant.webtv.net...
> first, to clear any confusion let it be understood that "babbit" is my
> wifes account. it was still me in an earlier post. the consensus of my
> private e-mail responses leads me to believe that this amp must be
> useless cb junk. i am slightly disappointed but i got what i wanted,
> answers. now let me eat crow here. i said that i didnt need moral input,
> but now i am asking for just that. as HAMS, and knowing that this
> useless junk has more value when used illegally, would you throw it
> into the parts box or would you put it back into circulation? i could
> possibly trade it for something useful if i gave it to a cb nerd. on the
> other hand, it would then be turned into a weapon of mass rf destruction
> and used against innocent hams who are minding their own business. am i
> responsible for the radio wreckage that this cb amp might cause even if
> i am not doing it myself? and if i am then would that outweigh the
> legitimate receiver or something that i might be able to trade for?
>

2529. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 23:39:02 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9bvq3201n2i@news2.newsguy.com>
Source record: 53226

"Jim" <inagaddadavida@webtv.net> wrote in message
news:10559-3AE34A42-19@storefull-116.iap.bryant.webtv.net...
> but now i am asking for just that. as HAMS, and
> knowing that this useless junk has more value
> when used illegally, would you throw it into the
> parts box or would you put it back into circulation?

Personally, I would homebrew an exciter for it, but then that's just me.

Looking more closely at the schematic, it appears it would need to be modified to operate as an amp, but it would make a very dirty transmitter. I can't see where, as a transmitter, this thing could possibly comply with 97.307(d), even at <5 watts. However, as an amp, if not overdriven, it *MAY* just be OK. Hard to tell without testing. Does look a tad dicey, but with hand selected components, as indicated in the schematic, it may just be possible. Of course, this all assumes that, for some strange reason, the schematic is more believable than the specs!

I'd find a local ham with a kilowatt dummy load and some test equipment and see what the thing is actually made of.

If you could put a little filtering in the output, the thing may well make a dandy little CW transmitter. It has the TR switch built in, so it ought to be useable with any sort of receiver. On 10 meters, you rarely need much in the way of selectivity, so a fairly cheap receiver may well get you on the air. Rockbound is kind of a drag, but hey, something is better than nothing.

didleydadidah

2530. Re: Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-22 23:40:56 UTC
From: Bob Headrick <bobh@proaxis.com>
Message-ID: <3ae36e92_2@news.pacifier.com>
Source record: 53224

"Schatzie" <jdwalton@home.com> wrote in message
news:UYeE6.49987$C55.4619367@news1.rdc1.nj.home.com...
> I lost my bookmarks moving to the new computer. Can anyone recall the
> source (vendor) for gears and small parts?

Perhaps Small Parts Inc. at http://www.smallparts.com .

- 73 Bob W7OV

2531. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 00:05:46 UTC
From: Randy <randyap@geocities.delete.com>
Message-ID: <akKE6.6407$0d.2655864@newsrump.sjc.telocity.net>
Source record: 53225

"ham" <h@m.nos.pam> wrote in message news:3AE2F80F.AF61C6F1@m.nos.pam...
> Except their web page says 50 cents shipping charge one place and 75 cents
> another place. Maybe it's really $7.50???
>
> Still better than others charge though.
>
That's handling charge, not total (0.75 on the page I'm currently looking
at). Shipping is billed at additional cost.

Still, not bad.

2532. Re: QST 7/98 GPS ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 01:57:34 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <te73111ve8okd7@corp.supernews.com>
Source record: 53227

whoops..
had the year wrong..
it was july 98
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message
news:te3l69ss54eud8@corp.supernews.com...
> there was an article in QST July 98 to build a unit using GPS to
discipline
> an oscillator...
> has anyone built one that they're interested in selling?
> tnx
> hank wd5jfr
>
>

2533. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 02:16:46 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <j347etsn81u41kbv0erhnf34i5b7ptlsb7@4ax.com>
Source record: 53228

On Sun, 22 Apr 2001 16:16:50 -0500 (EST), inagaddadavida@webtv.net (Jim) wrote:

> and if i am then would that outweigh the
>legitimate receiver or something that i might be able to trade for

---

Trade it for a shift key.

W7TI

2534. Re: Cutting a branch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 03:10:25 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <B2NE6.58063$C55.5590486@news1.rdc1.nj.home.com>
Source record: 53229

You can also buy a wire saw at Home Depot used to cut PVC pipe -- if I
recall correctly it's only about $2

"Allodoxaphobia" <QSB@QRM-QRN.net> wrote in message
news:slrn9e69ir.55s.QSB@animas.frontier.net...
> On Sun, 22 Apr 2001 11:17:52 -0500, John O'Flaherty scribbled:
> > Yesterday I cut off a branch that had been interfering with my wire
> >antenna. It was too high to climb to, and too high for a pole saw, and
> >too unimportant to rent one of those lifts ($100 for just a couple of
> >hours). I used a rope saw, which I made by using a grinder to cut one
> >link of a chain saw chain.
>
> They make a "wire saw" for backpackers and outdoors 'people'.
> It's hard to describe -- sort of a tightly twisted ss band
> with 'chips' of Very Sharp metal bonded to the full length.
> It has two finger rings at either end and is about 19" (50cm)
> long. It would work Quite Well in the lash-up you've described.
>
> Jonesy
> --
> | Marvin L Jones | jonz | W3DHJ | OS/2
> | Gunnison, Colorado | @ | Jonesy | linux __
> | 7,703' -- 2,345m | frontier.net | DM68mn SK

2535. Does this optoisolator exist?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 04:13:59 UTC
From: Arnold Kresse <SKresse@stratos.net>
Message-ID: <3ae3abc7$0$62147$4c5ecdc7@news.erinet.com>
Source record: 53230

I am just trying to simplify and miniaturize a RF remote control receiver of my design with a latched and momentary output. I am now using a 4013 Flip Flop 14 Pin Dip Package. I am looking for a 8 Pin or smaller thru hole or preferably a surface mounted package with a latched output and requiring no external debouncing blackmagic. I cannot use a HOLTEK ic for this application. An optoisolator with a latch on off output would work well .It would also have the added advantage of voltage isolation, noisy mechanical switch input, transistor high and low input, analog or digital input. Does anyone make such a device? If not, I wonder why not.

They could possibly also add a momentary output along with the latched output.

To see a picture of what I am talking about go to the following web site:
http://members.aol.com/skresse13/output.jpg
My picture speaks a thousand words.

2536. Re: R/C interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 08:24:07 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AE3E6A7.5FCE0A94@clifto.com>
Source record: 53232

Tom Becker wrote:
> clifto wrote:
> > ... the project [] is already enough work without acquiring
> development/programming boards and learning their quirks...
>
> The processor is just another designer's tool, albeit a very powerful and
> flexible one. Yes, new tools require time to master, but the monetary costs
> are $200 or so to get an evaluation/prototyping board and a processor or
> three; the programming environment is gratis. A few days later you'll be
> moving an analog signal through the thing and you'll be hooked. If you had
> that tool in your repertoire I'll bet you'd not think twice about
> implementing your PulseWidth:Voltage project in BX-24 code rather than
> holding a linearly-ramped voltage; it's a natural for the part and a good
> starter project.

Believe me, I have nothing against uPs. I helped write an A/D routine for
the 8048 back in 1981, and I've done my share of embedded systems work for
clients. Fact is, I've done enough of that kind of thing to know that
between learning a new instruction set, acquiring the gizmos and learning
the compiler/assembler/linker/loader quirks, I'll add a month to this
project. (Using a BASIC Stamp would almost certainly require using it
solely for this one function, judging by the problems others report with
doing this very function while others are running.)

This is not to say I won't eventually commit to a processor (the PIC looks
neat, cheap and suitable) and get down to brass tacks with it; there are
too many nifty things to be done. It's just that this particular project
doesn't allow me enough time to do it now, and will be eating the budget
that would otherwise pay for the development stuff.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

2537. New project: 17 meter DSB TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 10:02:07 UTC
From: n2cqr@clix.pt
Message-ID: <3ae3fa80.1409924@news.clix.pt>
Source record: 53231

I feel the urge to melt solder. And I want to build a "phone rig." I've always wanted to get on 17 meters (no contests!). I can listen to that band on my Drake 2-B. Here's my plan:

Solid State Doouble side band surpressed carrier TX based on Doug DeMaw's circuits. Very simple. Sort of a direct conversion transmitter. The oscillator will be on the transmit frequency. I think I'll start out with a VXO (I have the rock). Solid State PA. (Another option I considered would be to put the boards on an old DX-60 chassis and rebuild the 6146 PA stage... but I think that might be overkill.)

I'm going to start out just building a transmitter. I'll build the oscillator first, then the DSB generator. Finally (!) the PA. I'm going to leave room in the cabinet for receive circuitry. It would be very easy (and sort of appropriate) to build a matching direct conversion receiver, but I've had bad luck with them and may decide to build a real superhet RX and make the final rig a Transmitter - Receiver (not a transceiver).

I have an old Bud cabinet that's about the right size. I'm thinking of using the Manhattan technique on the circuit boards.

What do you guys think? Anyone out there built this kind of rig?

73 from the Azores.
Bill CU2JL N2CQR

2538. Beware of Richard Gillani Bad buyer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 11:39:57 UTC
From: caddoo@earthlink.net
Message-ID: <3ae914ed.4657437@news.earthlink.net>
Source record: 53235

This person won an ebay auction of mine. Read it below:

Db Products Six Cavity Duplexer VHF I don't know much about this
duplexer, other than what I was told. I got it from a Ham
who said he had it on 146 MHz and it goes from 146 to 174 MHz. And he
said it works fine. It has a manual for it. Being I
don't have equipment to check it, I have to sell as is, so please bid
accordingly. Sorry, Thats all I know and can't answer any
questions, I'm not a tech. Winning bid must pay for within 6 days of
auctions ending with Postal Money Order only. Sorry, I
don't do paypal or anything else. Winng bidder must contact me within
24 hours with mailing address. I ship UPS only. USA
bidders only. Shipping UPS Ground is a fixed price of 30.00 Shipped
And Insured. Thanks and Good Luck To All!

After he wrote numerous emails BEFORE the auction ended, I reassured
this person that I did not know anything about these. That's why the
auction began with a $1 opening bid with no reserve.

I also stressed to him numerous times to PLEASE bid accordingly that
this item is AS IS and I have no further info about them. I told
him that I personally could NOT check them.

He won the bid anyhow, and now has the item and is not happy. He
called me on the phone harrassing me and sent harrassing emails.

On the auction, I also posted several pictures of the duplexers for
bidders to view.

Richard Gillani is a complete nuissance and I would like to warn
others out there that may be selling to him. Watch out. He's a bad
penny. His Email address is: tbolt@ix.netcom.com

This will be my only posting because I will not waste these boards
bickering back and forth. My position has been stated here.

Thanks for reading this.

He goes by one of these two calls AK2K or W3RJG at the same
address which is: 3084 West Seneca Turnpike, Marcellus, NY 13108

Rich KF2GG

2539. Re: Datasheets BF981 and or BF966

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 11:44:38 UTC
From: Jean Paul Mertens <jean.paul@jpmsoft.telenet.be>
Message-ID: <GAUE6.16266$ii.1797438@afrodite.telenet-ops.be>
Source record: 53236

TNX to all who have send the datasheets.

73's

ON1AMI

2540. Re: # 61 ferrite material ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 12:00:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AE41967.B4248F26@eznec.com>
Source record: 53237

Ferrites are ceramics, and I believe there are three common basic ceramic types used -- the 70 series is made from one, the 60 series from another, and type 43 from a third. They have somewhat different properties but all are hard and brittle. Being ceramics, they're all homogeneous, and they're all dark gray in color. The material you're describing from the rod, metal flakes in a rust-colored binder, sounds like powdered iron, not ferrite. But I'd be surprised if powdered iron would be harder than ferrite, and I've never seen powdered iron used for a portable radio antenna. Maybe somebody else has. So I'm mystified by what the rods are made from, and also that you've got something that's noticeably harder than #61 ferrite.

I'm pretty sure portable radio antennas would more likely use 70 series, type 43, or similar ferrites rather than type 61.

Roy Lewallen, W7EL

amdx wrote:
>
> During some experimentation I have turned some #61 ferrite toroids on a
> lathe.
> They turned fairly easy, no problem.
> I pulled the ferrite rod from three different portable radio in an attempt
> to find
> a rod that I could turn with the same ease of the toroids. None of the rods
> seemed
> to be the same, it was a harder material, it turned to a rust color with
> shiny metal
> flecks mixed in.
> I thought #61 was the material choose for most AM loopstick antennas, is
> there sonething I'm missing?
>
> Mike

2541. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 12:03:21 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3AE41A09.4E83DAD0@buttery.org>
Source record: 53238

PDRUNEN wrote:
>
> Is the old issues of QST available on CD?
> I do recall seeing them a few years back but now can not locate them on
> the http://www.arrl.org or amateur electronic supply web site.

You can order them directly from the ARRL:
http://www.arrl.org/catalog/index.php3?category=CD-ROMs Ham
Radio Outlet (http://www.hamradio.com) also sells them; they're
listed on page 47 of their catalog, which you can view online in
PDF form.

The ARRL page mentioned above shows all the ARRL CD-ROMs,
including the QST View series. The QST View CD sets (either three
or four CDs, depending on which years you buy) contain
black-and-white scanned images of five (1960 and later), ten
(before 1960), or fifteen (the 1915-1929 set) years worth of QST.

QST from 1995 and later are on the ARRL Publications CD-ROMs.
Each annual CD contains all the issues of QST, QEX, and NCJ,
including color illustrations, and offer full-text search.
(Unlike the QST View series, they contain the text in electronic
format, rather than scanned images.)

--
Mark J. Dulcey mark@buttery.org
Visit my house's home page: http://www.buttery.org/
Visit my home page: http://www.buttery.org/mark/

2542. Re: German clock reference transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 12:16:26 UTC
From: Hans Summers <HansSummers@HotMail.Com>
Message-ID: <9c16es$bimpf$1@ID-61331.news.dfncis.de>
Source record: 53239

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
news:9c0ud1$us9$2@newsg3.svr.pol.co.uk...
> > In Europe we get these inexpensive clocks that automatically update from
a
> > transmitter somewhere in Germany every hour or so. Does anyone know the
> > frequency and the specifications for these signals?
> > Sverre Holm
> ========================
> The German frequency (from a tx in the Frankfurt a/M area) is 77.5 KHz
>
> In the UK & USA the frequency is 60 kHz , in the UK from a tx at Rugby
> in the Midlands - England
>
If anyone's interested, I built a 60 kHz UK Rugby clock (incl receiver,
decoder, display), see
http://www.hanssummers.com/electronics/clocks/radio/radioclk.htm

---
Hans Summers
http://www.HansSummers.Com

2543. Re: Source for gears and small parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 12:17:09 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AE41D2B.665DD0F8@GTE.net>
Source record: 53240

Schatzie wrote:

> I lost my bookmarks moving to the new computer. Can anyone recall the
> source (vendor) for gears and small parts?
>
> Jack
> exWA8PZL

smallparts.com in Miami

2544. Re: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 12:42:53 UTC
From: Jan Sten <jsten@online.no>
Message-ID: <lrVE6.1627$gX3.71988@news3.oke.nextra.no>
Source record: 53241
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Well, Frank, good luck at your search for sub $11.30 Mullard EL37.

You obviously have _no_ idea about the current "market price" for NOS
Mullard EL37.
Perhaps you should do a quick internet search before you post comments like
these.
In your own words: "at least on this NG or perhaps even better .....not
at all !"

Jan

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
news:9c0uco$us9$1@newsg3.svr.pol.co.uk...
> > I have some EL 37 valves in stock. They are all NOS and obviously made
> > by Mullard. Some of them are branded Haltron and some Mullard, but
> > they are identical so I am pretty sure that the Haltron are just
> > rebranded Mullards. After all, Haltron never made valves, just
> > rebranded and distributed.
> > US$ 113.- each or best offer. I can send a picture.
> > E-mail me if interested
> >
> > Regards,
> >
> > Arnold Goks yr
> >
> > DEMOSTENES - N6899 Balestrand, Norway
> > Tlf. +47 5769 1340 Fax +47 5769 1267
> > http://www.demostenes.no
> ==========
> Normally I don't respond to offers like the above ,but on this occasion I
> feel I have to react.
>
> The EL37 is a pre WW II pentode used in the output stage of domestic
> (broadcast) receivers with an output of up to 11.5 Watts . (Va =250 V ,Ia
=
> 100 mA)
> As far as the asking price is concerned Arnold either made a decimal error
> (we all do from time to time) or he tries to take the amateur community
for
> a ride . Even US$11.30 seems on the high side for this type of
> valve..... Hope that Arnold ,in future,will offer his ware
at
> more realistic prices.....at least on this NG or perhaps even better

> .....not at all !
>
> Frank gm0csz.kn6wh@ukrs.org
>
>
>
>

2545. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 13:06:06 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9c1tt5$3gd$1@news5.svr.pol.co.uk>
Source record: 53246
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

> That's why DSB usage faded away, and I was kind of sorry to see it
> go for one reason: The special PLL detectors could lock onto a DSB
> signal so accurately that the reinjected carrier produced received audio
> which sounded almost identical to that of an AM station.
>
> You still won't find many SSB rigs which can do that.
==========
Listening to a local AM medium wave BC station with a Ten Tec ,Paragon on USB and LSB , provides very clear reception , although the sound quality on LSB is the best (must have something to do with the settings of the side band filter). I often do that on other AM (full carrier)BC stations ,also on the short wave bands.

For home brew projects DSB is ideal ,since with a balanced modulator the carrier can be easily suppressed ,whereas no (costly)sideband suppression circuitry is required .
I agree that in crowded bands DSB is considered anti-social ,but the bands are not always crowded.

My conclusion : DSB is an excellent 'home brew' option especially for QRP operation.
Thought I should post this on the Home Brew NG.

Frank gm0csz.kn6wh@ukrs.org

2546. Re: Cutting a branch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 13:42:41 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3AE43151.893547A4@toast.net>
Source record: 53242

Schatzie wrote:

> You can also buy a wire saw at Home Depot used to cut PVC pipe -- if I
> recall correctly it's only about $2
>
> "Allodoxaphobia" <QSB@QRM-QRN.net> wrote in message
> news:slrn9e69ir.55s.QSB@animas.frontier.net...
> > On Sun, 22 Apr 2001 11:17:52 -0500, John O'Flaherty scribbled:
> > > Yesterday I cut off a branch that had been interfering with my wire
> > >antenna. It was too high to climb to, and too high for a pole saw, and
> > >too unimportant to rent one of those lifts ($100 for just a couple of
> > >hours). I used a rope saw, which I made by using a grinder to cut one
> > >link of a chain saw chain.
> >
> > They make a "wire saw" for backpackers and outdoors 'people'.
> > It's hard to describe -- sort of a tightly twisted ss band
> > with 'chips' of Very Sharp metal bonded to the full length.
> > It has two finger rings at either end and is about 19" (50cm)
> > long. It would work Quite Well in the lash-up you've described.
> >
> > Jonesy
> > --
> > | Marvin L Jones | jonz | W3DHJ | OS/2
> > | Gunnison, Colorado | @ | Jonesy | linux __
> > | 7,703' -- 2,345m | frontier.net | DM68mn SK

I wish I had known- I checked Home Depot tool department but didn't see it. Maybe it's in the plumbing department. In any case, the setup I have should be good for a few more loppings.

john

2547. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 13:55:51 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9c1tte$3gd$2@news5.svr.pol.co.uk>
Source record: 53147

"Jim" <inagaddadavida@webtv.net> wrote in message
news:10559-3AE34A42-19@storefull-116.iap.bryant.webtv.net...
> first, to clear any confusion let it be understood that "babbit" is my
> wifes account. it was still me in an earlier post. the consensus of my
> private e-mail responses leads me to believe that this amp must be
> useless cb junk. i am slightly disappointed but i got what i wanted,
> answers. now let me eat crow here. i said that i didnt need moral input,
> but now i am asking for just that. as HAMS, and knowing that this
> useless junk has more value when used illegally, would you throw it
> into the parts box or would you put it back into circulation? i could
> possibly trade it for something useful if i gave it to a cb nerd. on the
> other hand, it would then be turned into a weapon of mass rf destruction
> and used against innocent hams who are minding their own business. am i
> responsible for the radio wreckage that this cb amp might cause even if
> i am not doing it myself? and if i am then would that outweigh the
> legitimate receiver or something that i might be able to trade for?
==========
I am sure an enthusiastic home brewer would be able to make a good 6 m power amp from this CB kit ,provided the power transistors (perhaps even MOSFETS) would be suitable to operate on 50 MHz.

Frank gm0csz.kn6wh@ukrs.org

2548. How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 16:19:24 UTC
From: Frank Sweeney <fsweeney@mail.com>
Message-ID: <HFYE6.3$gn.1727@nntp0.chicago.il.ameritech.net>
Source record: 53243

Gentlemen,
A few months ago I saw an article on repairing headphones which uses the unsolderable wire with the fiber threads in it (I guess the fiber is makes the cord more flexible). The article I thought was online but I could be wrong talked about using a crimp type of connector which the author was surprised that radio shack still carries that would piece the insulation of the wire making contact and then allowing the pin of the connector to be soldered to the new audio plug. The author even went so far as to give the radio shack catalog number for these connectors.

At this time I thought I would be able to remember where this information was for future reference..but you see that's the problem with getting old.. you think you can still do things and you CAN"T! I should realize that now that I am over 40, I suffer from CRS (Can't Remember Sh%#) and start taking notes. The only problem w this idea is that if I take notes I won't remember where I wrote it..so that wont work either.

If anyone has any ideas on how to put audio connectors on this crappy wire please let me know.

73,
Frank - K9IC
--

2549. Re: Amateur Radio Mobile in a 2001 VW Passat

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 16:31:12 UTC
From: Adam Adkins <km5nNoSpam@earthlink.net>
Message-ID: <MPG.154e1552cc7097fe98968b@news.earthlink.net>
Source record: 53244
Cross-posted to:
rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.autos.makers.vw.watercooled

[This followup was posted to rec.radio.amateur.equipment and a copy was sent to the cited author.]

In article <3ae186b7.2807856@news.compuserve.com>, vwbob59@cs.deletethis.com says...

> Hey Guys - any help on this subject would be greatly appriciated by me
> as well. I do OK on 2 meter (noisy though) but AM is a mess in my 99
> New Beetle 1.8T. Also being an aviation buff I like to listen to 118 -
> 132 mhz AM when I go over to trhe airport (Unicom, Atis, Air Traffic
> Control, etc) This particulat frequency is unuseable in the car...
> sounds to me like Ignition noise.....

The first thing you need to do is determine if the noise is coming from the power source, or is being radiated into the antenna. Unhook the antenna, tune to AM and turn on the rig with the engine running. Vary engine speed and listen. If you still have the noise, and it varies with the engine speed, then you will want to filter your power (which is coming directly from the battery, yes?) This is the easy problem.

If there is no noise when you unplug the antenna, then the real fun starts. Something is radiating RF into your antenna system, so you will have to track down what it is. There are any number of things that might cause it, including fuel pump, spark plug wires, alternator, engine computer, etc. You will just have to isolate and eliminate each one as a possible cause, and go on to the next.
Some of the possible remedies include filters (isolation caps, notch, etc.), wrapping aluminum foil around an offending part, braided mesh over wires, and so on.
The first and best solution, though, is to make absolutely sure your whole system is well bonded to the car. Run a braided strap from the radio to a structural connection (mine goes to a bolt that secures the passenger seat). If necessary, run bonding jumpers from the body panels to other panels, and the frame. Make sure that you are getting your DC direct from the battery through heavy gauge wire. Keep connections short.

If you can find it, the January / February 2000 issue of QEX had a good article about eliminating mobile noise. Let me know if you need it, I can provide you a copy of the article.

73,

Adam Adkins, KM5N
(remove NoSpam to reply)

2550. 3N204 pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 17:52:25 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9e8nnl.4bc.w9wi@linux1.localdomain>
Source record: 53245

I've got an old 2m converter from which a defective 3N204 RF amp transistor was removed. I've got a replacement 3N204, but can't find any reference telling me which lead on this transistor is which. Anyone have any pointers? Thanks!

--

Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2551. Re: How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 18:23:34 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9c3h1u$a06$1@newsg1.svr.pol.co.uk>
Source record: 53164

> If anyone has any ideas on how to put audio connectors on this crappy wire
> please let me know.
> Frank - K9IC
==========
Use AMP or other make crimp connectors. The through crimp connectors are
suitable .
On one side of the connector you can crimp the 'crappy wire' , on the other
side you then crimp a short piece of multi-strand lead to which you solder
the audio connector.
The RED connectors are for approx 2 millimeter (or inch equivalent) wire
,the BLUE
connectors for approx 3 millimeter (preferably multi-strand) wire. In the
UK these are available from
car component outlets . Suggest you use a proper (low cost) crimping tool
,which should only cost a few $$$

I use crimp connectors for many electronic applications . Especially the
fully shrouded 'bullet' type crimp connectors are suitable for various
applications like for a speaker inside a transceiver which might have to be
temporarily disconnected to be able to take off the lid of the enclosure ,
or internal/external power connections , etc.

If you have a problem in finding the crimp 'through' connectors , I'll be
happy to send you a set of BLUE connectors for your headphones application .

73 Frank gm0csz.kn6wh@ukrs.org

2552. Re: Beware of Richard Gillani Bad buyer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 20:06:41 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3ae48b84$0$88186$2c3e98f8@news.voyager.net>
Source record: 53148

yes wonderfull ebay. although i have made a few good deals with some
really decent people there are those that.
1. dont reply to your emails after the deal
2. you have to ride their ass constantly in order for them to ship
anything out
3.and the as is seller who knows damn well that his gear is junk.
although in your case you have made it very clear what condition the
item is in. i finally decided after much hairpulling and 45 day shipment
deals that goodbye ebay and stick with the reflectors for buying and
selling. as far as as is condx if a item dont work when i get it oh well
i either fix it or strip it for parts. good luck in your ventures
ken w8ob

caddoo wrote:
>
> This person won an ebay auction of mine. Read it below:
>
> Db Products Six Cavity Duplexer VHF I don't know much about this
> duplexer, other than what I was told. I got it from a Ham
> who said he had it on 146 MHz and it goes from 146 to 174 MHz. And he
> said it works fine. It has a manual for it. Being I
> don't have equipment to check it, I have to sell as is, so please bid
> accordingly. Sorry, Thats all I know and can't answer any
> questions, I'm not a tech. Winning bid must pay for within 6 days of
> auctions ending with Postal Money Order only. Sorry, I
> don't do paypal or anything else. Winng bidder must contact me within
> 24 hours with mailing address. I ship UPS only. USA
> bidders only. Shipping UPS Ground is a fixed price of 30.00 Shipped
> And Insured. Thanks and Good Luck To All!
>
> After he wrote numerous emails BEFORE the auction ended, I reassured
> this person that I did not know anything about these. That's why the
> auction began with a $1 opening bid with no reserve.
>
> I also stressed to him numerous times to PLEASE bid accordingly that
> this item is AS IS and I have no further info about them. I told
> him that I personally could NOT check them.
>
> He won the bid anyhow, and now has the item and is not happy. He
> called me on the phone harrassing me and sent harrassing emails.
>
> On the auction, I also posted several pictures of the duplexers for
> bidders to view.
>

> Richard Gillani is a complete nuissance and I would like to warn
> others out there that may be selling to him. Watch out. He's a bad
> penny. His Email address is: tbolt@ix.netcom.com
>
> This will be my only posting because I will not waste these boards
> bickering back and forth. My position has been stated here.
>
> Thanks for reading this.
>
> He goes by one of these two calls AK2K or W3RJG at the same
> address which is: 3084 West Seneca Turnpike, Marcellus, NY 13108
>
> Rich KF2GG

2553. Re: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 21:12:24 UTC
From: la8ak@online.no
Message-ID: <3ae496ff.98663488@news.online.no>
Source record: 53149
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Sat, 21 Apr 2001 15:12:12 +0300, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>
>The EL37 is a pre WW II pentode used in the output stage of domestic
>(broadcast) receivers with an output of up to 11.5 Watts . (Va =250 V ,Ia =
>100 mA)
not quite - it is post WW2 item, I could send you some nice joke from
QST about mixing post and pre-war items

JM

2554. Re: How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 22:12:19 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <7N1F6.18208$Ce4.1652877@news1.rdc1.ct.home.com>
Source record: 53150

Easy. Wrap the tinsel wire with very fine copper wire, either stripped
wire-wrap wire or a single strand from an AC line cord. Wind the wire in an
even smooth solenoid layer over the exposed tinsel cord. Heat and tin.
Insert in a phono pin if that is how you are going to terminate them.

Good luck.

Pete

"Frank Sweeney" <fsweeney@mail.com> wrote in message
news:HFYE6.3$gn.1727@nntp0.chicago.il.ameritech.net...
> Gentlemen,
> A few months ago I saw an article on repairing headphones which uses the
> unsolderable wire with the fiber threads in it (I guess the fiber is makes
> the cord more flexible). The article I thought was online but I could be
> wrong talked about using a crimp type of connector which the author was
> surprised that radio shack still carries that would piece the insulation
of
> the wire making contact and then allowing the pin of the connector to be
> soldered to the new audio plug. The author even went so far as to give
the
> radio shack catalog number for these connectors.
>
> At this time I thought I would be able to remember where this information
> was for future reference..but you see that's the problem with getting
old..
> you think you can still do things and you CAN"T! I should realize that
now
> that I am over 40, I suffer from CRS (Can't Remember Sh%#) and start
taking
> notes. The only problem w this idea is that if I take notes I won't
> remember where I wrote it..so that wont work either.
>
> If anyone has any ideas on how to put audio connectors on this crappy wire
> please let me know.
>
> 73,
> Frank - K9IC
> --
>
>

2555. YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 22:38:19 UTC
From: "Public <Anonymous_Account>" <remailer@xganon.com>
Message-ID: <f495b57739237744f103c26da0eaa28c@anon.xg.nu>
Source record: 53152

FUCK YOU PACK OF SOCIALLY INEPT NERDS.
FUCKING PAEDOPHILE BASTARDS.
FUCK YOU ALL YOU DIRTY OLD MEN.

This message did not originate from the Sender address above.
It was posted with the use of anonymizing software at
http://anon.xg.nu

2556. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-23 22:40:18 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AE4AF52.6C13E248@bloomer.net>
Source record: 53151
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi Frank,
I won't dispute that DSB would be fairly easy to implement in homebrew.
As you picked up, I was just commenting on the fact that modifying a
commercial rig to run DSB, and I assume the original poster was using it
in crowded bands, that it was anti-social as you describe.

Scott
N0EDV

Frank Dinger wrote:
>
> > That's why DSB usage faded away, and I was kind of sorry to see it
> > go for one reason: The special PLL detectors could lock onto a DSB
> > signal so accurately that the reinjected carrier produced received audio
> > which sounded almost identical to that of an AM station.
> >
> > You still won't find many SSB rigs which can do that.
> ==========
> Listening to a local AM medium wave BC station with a Ten Tec ,Paragon on
> USB and LSB , provides very clear reception , although the sound quality on
> LSB is the best (must have something to do with the settings of the side
> band filter). I often do that on other AM (full carrier)BC stations ,also
> on the short wave bands.
>
> For home brew projects DSB is ideal ,since with a balanced modulator the
> carrier can be easily suppressed ,whereas no (costly)sideband suppression
> circuitry is required .
> I agree that in crowded bands DSB is considered anti-social ,but the bands
> are not always crowded.
>
> My conclusion : DSB is an excellent 'home brew' option especially for QRP
> operation.
> Thought I should post this on the Home Brew NG.
>
> Frank gm0csz.kn6wh@ukrs.org

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2557. Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 01:05:06 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3ae4d138.1278625@news.sprint.ca>
Source record: 53153
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

I want to attempt to do a calibration to my HP-1722B 275MHz analog scope. According to the service manual the instruments I need which I do not have are a pulse generator and a time mark generator. Is it at all possible to somehow use audio frequencies (for example software used on my computer sound card) to mimic a pulse generator and time mark generator)? If so, does anyone know of shareware available that would run the sound card as pulse and time mark generators?

If not, does anyone out there have any other suggestions as to perhaps a quick and dirty method of scope calibration?

Your assistance would be greatly appreciated. Thanks.

Larry Gagnon VE6MK
****
to send direct email remove "fake" from address

2558. Visit today at - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 01:52:15 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <j%4F6.4096$5t3.320229@newsread1.prod.itd.earthlink.net>
Source record: 53154
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Lots of STUFF to do at www.ab7sl.com such as...

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

2559. Re: How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 02:37:27 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <jlp9et8jcv62j8m065guh8empho4mat7kh@4ax.com>
Source record: 53155

On Mon, 23 Apr 2001 12:19:24 -0400, "Frank Sweeney" <fsweeney@mail.com> wrote:

>If anyone has any ideas on how to put audio connectors on this crappy wire
>please let me know.

I have soldered this stuff by carefully burning out the fiber with a flame and removing the carbon residue. It's not pretty but it can be done.

73, Bill W7TI

2560. Re: EL 37 NOS Mullard

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 02:39:15 UTC
From: jack parr <parrfoo@sympatico.ca>
Message-ID: <nH5F6.622753$Pm2.10439339@news20.bellglobal.com>
Source record: 53156
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

In article <3ae496ff.98663488@news.online.no> , la8ak@online.no (J M Noeding) wrote:

> On Sat, 21 Apr 2001 15:12:12 +0300, "Frank Dinger"
> <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:
>
>>
>>The EL37 is a pre WW II pentode used in the output stage of domestic
>>(broadcast) receivers with an output of up to 11.5 Watts . (Va =250 V ,Ia =
>>100 mA)
> not quite - it is post WW2 item, I could send you some nice joke from
> QST about mixing post and pre-war items
>
> JM

-- JM
YOU ARE CORRECT
MY 1945 LISTING SHOWS THE EL36, & REPLACEMENT TYPE EL35

NO EL37
JACK

2561. Re: How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 03:32:28 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <TC6F6.135559$Vk1.8878667@e420r-sjo2.usenetserver.com>
Source record: 53157

"Bill Turner" <w7ti@jps.net> wrote
> I have soldered this stuff by carefully burning out the
> fiber with a flame and removing the carbon residue.
< It's not pretty but it can be done.

Dittoes.

I've also done my share of dumping the fragile cords and replacing with
something more substantial. On some recent projects, Ive taken to using
4-pin handset mod plugs and plug-in telephone handset cords. Replaceable,
available in different lengths, colors, etc.

RC

2562. SOURCE OF NE-602's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 03:46:52 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <MG6F6.2835$QV4.234842@www.newsranger.com>
Source record: 53158

Probably a basic question, but where can I find some new NE-602 oscillator/mixer linear i.c.s (or equivalent, SK/ NTE part) ?

Thanks for the help, 73,

Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

2563. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 03:53:23 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <CN6F6.177350$lj4.5304668@news6.giganews.com>
Source record: 53159
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Unless someone has monkeyed with the alignment adjustments I wouldn't think it would be necessary to do much more than check the calibration of the gain and time base.

If that is the case, you can use a short wave receiver and any test oscillator to verify the time base at high speeds and the 60 Hz power line at low speeds. The voltage calibrator which is internal to the oscilloscope (I believe there is one) can be set with a voltmeter usually.

73, Bob K6DDX

2564. Re: Beware of Richard Gillani Bad buyer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 03:57:15 UTC
From: Bob Headrick <bobh@proaxis.com>
Message-ID: <3ae4f92f_2@news.pacifier.com>
Source record: 53160

"caddoo" <caddoo@earthlink.net> wrote in message
news:3ae914ed.4657437@news.earthlink.net...
> This person won an ebay auction of mine. Read it below:

So please post feedback in ebay, not spamming every radio newsgroup in sight.

- 73 Bob W7OV

2565. Re: 3N204 pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 06:26:27 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <o19F6.1969$G64.26684@news.inreach.com>
Source record: 53161

Doug:

Looking at the bottom with the leads pointed at you, and the little tab at
the 7 o'clock position;

The drain (D) is at the 9 o'clock position,
Gate 2 is at 12 o'clock,
Gate 1 is at 3 o'clock,
Source is at 6 o'clock,

Good luck,

Roger K6XQ

2566. Need Parts Source-Crystals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 07:30:37 UTC
From: mrhuey@worldnet.att.net
Message-ID: <RJ746oJPM2vV092yn@worldnet.att.net>
Source record: 53162

```
-----BEGIN PGP SIGNED MESSAGE-----

Hi all, I acquired an old Icom IC-22 2 meter crystal tuned transceiver
and am trying to get it restored running. I do have a few crystals that
came with the radio and know it works, but would like to install some of
local frequency pairs for my use. Both Tx & Rx frequencies are crystal
tuned, I just haven't had much luck locating what I need and figure it's
time to ask the masses.

The specs in the manual call for:

High Activity
HC-25/u Holder
0.0025% Calibration
20 pF Load Capacitance
15 ohms or less Load Resistance
18.0000 to 18.5000 mhz for Transmit Fequencies (Tx Freq / 8 )
14.8111 to 15.2555 mhz for Receive Frequencies ( [ Rx - 10.7 mhz ] / 9 )
Cut: "AT" optimum angle +/- 2 min.

Recommendations, links or miracles are welcomed, Thanks in advance.

- --

+---------------------------------------------------------------------------+
| Ramsay D. Seielstad KC2GMW | mrhuey@worldnet.att.net; kc2gmw@arrl.net |
| Schenectady, NY, USA | ~~~~~~~~~~~~~~~~~~~~~~ |
+-=-=-=-=-=-=-=-=-=-=-=-=-=-=+=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-+
| "An average working stiff, A bunch of unrelated hobbyist activities, which |
| have no significant value or use other than to occupy my free time and |
| amuse myself ... and trust me, this ain't my employer's opinion or view. |
+---------------------------------------------------------------------------+

-----BEGIN PGP SIGNATURE-----
Version: PGPfreeware 5.0i OS/2 for non-commercial use
Comment: PGP 5.0 for OS/2
Charset: cp850

wsBVAwUBOuP8q3PnLSU7GuubAQFv9Af8CBEJiNnxFi7ZKO6sMUJvBpjxLa9xmom2
knP5XhlpZSM3B7kqWJuMLf2X+pyOqch8sjbOOde7UAeFPZ10ISWLcPOrrKUUPeK5
v62ZHi2OEtVwBjshH/sYZTd8rOS8wwIQHs1wEM+Vao1eFBv/hDvSgoAenj1v0DSL
HsibOs/YVhq6wkqimtD6KTZyaEyROpp0JqFBPEoibMcGhZdDTE8NamqTHMlkSKzf
pXwyiTWEnFdK9WtmFAVkofR1lzJ1KrwnuWSvskv89GoDFEu6pCR+cz0GvmJ6WlCw
b7G2mxUGsftoPI1mWD4yhja8nN2XYogTZ31C0r6CBFOanUrHMQh21g==
=1jEC
-----END PGP SIGNATURE-----
```

2567. Schematic for Yaesu FTL-2007

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 07:39:11 UTC
From: OZ1BV <oz1bv@vind.gl_AntiSpam>
Message-ID: <9c3aghqql1@news.inet.tele.dk>
Source record: 53163

Dr. OM's

Can anybodu help me with a schematic for an Yaesu FTL-2007 ?

Vy 73 de OZ1BV, Brian

2568. Re: SOURCE OF NE-602's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 11:18:30 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3AE560E3.BF35EBD5@cmcorp.com>
Source record: 53165

I hate to admit it but the commercial version of Radi Shack has these!
And Paul, why don't we hear from you on the 41 repeater any more?

AA1LL wrote:

> Probably a basic question, but where can I find some new NE-602 oscillator/mixer
> linear i.c.s (or equivalent, SK/ NTE part) ?
>
> Thanks for the help, 73,
>
> Paul, AA1LL
> Mason, NH
> http://www.qsl.net/aa1ll
>
> Paul, AA1LL
> Mason, NH
> http://www.qsl.net/aa1ll

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

2569. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 13:22:01 UTC
From: Curtis Scholl <cscholl@izzy.net>
Message-ID: <3AE57DF9.32314A83@izzy.net>
Source record: 53166

I am not against the first amendment. However, this sucks.

Curtis Scholl

"Public " wrote:
>
> FUCK YOU PACK OF SOCIALLY INEPT NERDS.
> FUCKING PAEDOPHILE BASTARDS.
> FUCK YOU ALL YOU DIRTY OLD MEN.
>
> ---
> This message did not originate from the Sender address above.
> It was posted with the use of anonymizing software at
> http://anon.xg.nu
> ---

2570. Re: 3N204 pinouts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 13:24:53 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ease5.7oh.w9wi@linux1.localdomain>
Source record: 53167

On Mon, 23 Apr 2001 23:26:27 -0700, Roger Leone <arleone@inreach.com> wrote:
>Looking at the bottom with the leads pointed at you, and the little tab at
>the 7 o'clock position;
>...

Excellent, thanks!

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2571. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 14:06:18 UTC
From: rcnixon@mindspring.com
Message-ID: <3ae58817.6734900@news.mindspring.com>
Source record: 53168

Curtis Scholl <cscholl@izzy.net> wrote:

>I am not against the first amendment. However, this sucks.
>
>
>Curtis Scholl
>
>"Public " wrote:
>>
>> FUCK YOU PACK OF SOCIALLY INEPT NERDS.
>> FUCKING PAEDOPHILE BASTARDS.
>> FUCK YOU ALL YOU DIRTY OLD MEN.
>>
>> ---
>> This message did not originate from the Sender address above.
>> It was posted with the use of anonymizing software at
>> http://anon.xg.nu
Or from the University of Michigan. Must be nearing finals, the
stress is getting to the weak ones.

Russ

>> ---

2572. VHF signal generator - January 2000 QEX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 15:56:59 UTC
From: Craig <twinsen@removethis.icon.co.za>
Message-ID: <3ae5a32d$0$232@hades.is.co.za>
Source record: 53169

Hi all

I was wondering if anyone has a copy of this article handy?
I know you can get the CD's, but for one project its hardly worth it....

Kind Regards
Craig
ZR6CG

2573. Re: radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 18:00:23 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3AE5BF37.69723DEA@erols.com>
Source record: 53170

Tony,

The major reason behind tube construction rather than any other is strength. A tube will be self-supporting. A tube also gives the largest surface area of any other geometrical shape. There is no reason you can not use a flat strip except for support. If you can figure out a way to support a large structure of strip you will be OK. \

Most of the seminal articles on building and using loops were written in the early 60's. The purchase of a couple of QST CD ROMS from that period will provide you with lots of ideas. Well worth the cast. The individual articles may also be available from ARRL Headquarters for some nominal fee.

Coupling via loop or other method seems to depend on the time of the day and the weather! I have sued both, a "gamma matched" coupling at 2 meters and a loop at HF. Frankly I could not tell the difference!

Also the matter of inside or outside for the capacitor is also an area where your own design will work best. I don't think there is any overwhelming reason to put it in either location.

The antenna should be considered experimental and thus, whatever works will be the best solution for you! Build it an make measurements, even simple field strength measurements will tell you a lot.

73

2574. Re: AM BROADCAST BAND TUNER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 18:01:49 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3AE5BF8D.12080D3A@erols.com>
Source record: 53171

Marvin,

Why not? The only difference between a ground tuner for 80 meters and 200 meters is the size of the components. However, I must ask, why?

73

2575. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 19:03:46 UTC
From: cjX@hth.com
Message-ID: <3ae5ce04.80540211@news.sverige.net>
Source record: 53172
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

2576. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 21:59:09 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AE5F72D.41C67EA6@rupert.tds-az.lmco.com>
Source record: 53182
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Larry Gagnon wrote:
>
> I want to attempt to do a calibration to my HP-1722B 275MHz analog
> scope. According to the service manual the instruments I need which I
> do not have are a pulse generator and a time mark generator. Is it at
> all possible to somehow use audio frequencies (for example software
> used on my computer sound card) to mimic a pulse generator and time
> mark generator)? If so, does anyone know of shareware available that
> would run the sound card as pulse and time mark generators?
>
> If not, does anyone out there have any other suggestions as to perhaps
> a quick and dirty method of scope calibration?
>
> Your assistance would be greatly appreciated. Thanks.
>
> Larry Gagnon VE6MK
> **********
> to send direct email remove "fake" from address

Like Bob, K6DDX, said "Unless someone has monkeyed with the
alignment adjustments I wouldn't think it would be necessary
to do much more than check the calibration of the gain and
time base".

The problem you have is that, even if you were to get a marker
generator and a pulse generator, how do you know how accurate
these instruments are? Where is the reference? When were the
generators calibrated?

Unless some parts were replaced or the alignment controls
were changed, the accuracy of the scope is not going to
drift very much. I have used a lot of HP and Tektronix
scopes and they have always been very stable and accurate.
It will probably stay more accurate than you, or I, can
visually resolve from the screen.

Martin, K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my

memory. Opinions are my own and do not reflect the opinions of my employer.

2577. XR2211*A*

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 22:03:13 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AE5F821.64533B15@clifto.com>
Source record: 53173

I hit the store (Active) and found both XR2211 and XR2211A on the shelf; the A part was 50 cents cheaper. So I hit their data book and it didn't show an A part, much less a distinction. So I bought the A parts anyway.

I just went to their site, which won't give me the datasheet unless I jump through hoops. But I got some confusing data anyway. The leadin page says the A part is good to 25 MEGAhertz (vs. 300 KILOhertz for the non-A); but when you ask for more, the next page says it's 300 KHz. Anyone know which is true? I can think of several uses for a 25 MHz 2211.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

2578. Re: WTB: Heath cabinet paint

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-24 22:53:53 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AE60401.167EB0E7@rupert.tds-az.lmco.com>
Source record: 53184

Joe Hargis wrote:
>
> Anyone selling this type of paint out there, advise, Joe in MO.

Well, you use to be able to get paint from "ALO's Radio Restoration"
at "http://www2.southwind.net/~n0alo/" but that web site comes
up and redirects you to Mike Shelton of Total Electronics at
"http://www.harbach.com/", but that site is under construction.
There is a link to "http://devri.org/shelton" but there isn't
much there. Maybe you can contact Mike directly. He does
specialize in Heathkits. His address is on the last link.

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2579. Re: XR2211*A*

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 00:08:55 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <syoF6.101027$uN3.1805629@e420r-atl1.usenetserver.com>
Source record: 53174

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3AE5F821.64533B15@clifto.com...
> I hit the store (Active) and found both XR2211 and XR2211A on the shelf;
> the A part was 50 cents cheaper. So I hit their data book and it didn't
> show an A part, much less a distinction. So I bought the A parts anyway.
>
> I just went to their site, which won't give me the datasheet unless I
> jump through hoops. But I got some confusing data anyway. The leadin
> page says the A part is good to 25 MEGAhertz (vs. 300 KILOhertz for the
> non-A); but when you ask for more, the next page says it's 300 KHz.
> Anyone know which is true? I can think of several uses for a 25 MHz 2211.

Cliff,

The "A" part is the slightly relaxed specification version. The main
difference is that the 2211 part has better temperature stability (50 PPM)
than the "non-A" part (100 PPM). Both are rated to 300 kHz.

I am sending you the data sheets (Adobe PDF format) in a separate message.

73, Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net

Remove the NO SPAM to reply.

2580. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 01:58:14 UTC
From: arm@helix.nih.gov
Message-ID: <WaqF6.73$Xa.155958@mencken.net.nih.gov>
Source record: 53175

Chris (csnichol@netusa1.net) wrote:
: Most of the commonly avaliable 10GHz stuff is CW doppler
: radar (traffic radar). There have been a lot of responses but I
: guess no one on here is actually doing it.
: Chris
:

I built a ham doppler speed measuring device when I was in high school in the early 1970s. It was a single 5" horn with a "magic tee" coupler. I used a 2K25 reflex klystron (stretched to work in the ham band) and a home brew power supply. The receiver was simply a waveguide with a diode mount and lots of audio gain. I built an audio frequency meter from threshold-crossing detector driving a pulse generator driving a large capacitor across a meter (leaky integrator). The meter was calibrated in MPH. Frequency calibration was with letcher wires (sp?) and speed calibration was with a calibrated audio frequency generator.

QED

Andy Mitz (WA3LTJ)

2581. Eimac SK-400 Air System Socket $23.20 shipped.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 02:29:14 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <teccr6hr11g688@corp.supernews.com>
Source record: 53176

This is the aluminum SK-400 air system socket for 4-400 or
3-500 tubes. Looks unused best I can tell.
I also have a filament xfmr for either one
or two 3-500 if interested. Shipping is to CONUS only.
Other places I will have to compute.

Doug N4IJ

2582. 2n6238 specs...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 03:08:07 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9c6gp3hcs1@dipsy.missouri.edu>
Source record: 53186

I'm wondering if anyone knows of a website that has a datasheet for a 2N6238 or has access to a databook (and could be kind enough to help me). The device is an SCR thyristor with the Motorola stamp on it, but I've had a hard time coming by any specifications. I tried www.on-semi.com, Philips, Fairchild and even Motorola (in the off chance they had an off-site link). The only links I've been able to dig up are price lists, and that's the only spec. I really don't care about. How ironic.

Thanks for any help that comes down the pike...
Pete
ki0eg

2583. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 03:26:20 UTC
From: w4pqwhs@aol.com
Message-ID: <20010424232620.21393.00001075@ng-fh1.aol.com>
Source record: 53177

Larry, does your scope have a square wave test signal output? normally they do and can be used to cal both vert and horiz features ,if not ,you can use a precision vm and an audio gen and counter to cal vert and horiz.of course if you use rms signals you would need to do a bit or arithmatic to convert to peak to peak.scopes are usually no better than about 5%accuracy at best..good luck Harold

2584. Re: Need Parts Source-Crystals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 03:53:13 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <NTrF6.2022$G64.28068@news.inreach.com>
Source record: 53178

Ramsay

Some sources are: Jan Crystals, International Crystals, MH Electronics...there are lots of xtal manufacturers that will be happy to make xtals to your specs. Do a web search and you will find them. You may also look to see if the ham xtal bank is still running...it allowed those with unused xtals to list them for possible use by others...it may have been called the Crystal Swapping Page. I haven't checked it in a while so I don't have a URL for you.

Good luck

Roger K6XQ

2585. test

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 05:15:56 UTC
From: Rod Marsh <rredbeak@ihug.com.au>
Message-ID: <9c5mk1$5lb$1@bugstomper.ihug.com.au>
Source record: 53179

12345

2586. Cheap ham's VHF sig gen

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 05:24:30 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ecklf.c85.w9wi@linux1.localdomain>
Source record: 53180

Thanks to Roger Leone's advice, I was able to repair my MMT144-28 transverter this morning. But after getting the replacement 3N204 in the RF amp & working (and clearing a mystery VCC short...) I had to get the tuned circuits realigned.

Unfortunately, I don't own a VHF signal generator. I could have used a 145.23 repeater about 50 miles away, but continuously kerchunking a repeater for 10-15 minutes probably wouldn't have made me any friends<grin>. Besides, I'd rather this thing peak at 144.2 rather than 145.2.

Tried firing up the hamshack computer & looking for clock harmonics - no luck. I guess the feedline on my 2m antenna is too well shielded...

Then it dawned on me: I've got a programmable scanner. Lessee, what's 144.2-10.7? 133.5. OK, let's put that in the scanner & see what happens. Sure enough, a weak but stable (but with rough modulation!) carrier on 144.2, which allows me to quickly line up the transverter.

I *was* surprised how "dirty" the scanner's LO signal was. Strange that it doesn't impart ugly modulation to received signals.

Those who may wish to duplicate this experiment should be aware that not all scanners use 10.7MHz for the IF; 10.6 and 10.8MHz are also occasionally seen, as is 21.4.

Now, all I have to do is scare up some 2m SSB activity around here!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2587. LOW cost Pre-amp circuit ideas?????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 06:06:25 UTC
From: Jim Bo <jbollit@ix.netcom.com>
Message-ID: <3AE66961.DE19F964@ix.netcom.com>
Source record: 53181

Hello,

I want to build a LOW cost pre-amp that will work from 850 MHz to

870 MHz range. I am concerned about overload of the pre-amp with

cell phone transmissions.

I am going to build a collinear vertical antenna (eight elements)

and put it in a fiberglass "tube" and pot it using epoxy potting
compound.

I want to mount a LOW cost pre-amp right at the feed point of the

collinear antenna, inside the fiberglass tube. The inside
diameter of the tube will be 0.5 inch or less.

I will power the pre-amp through the coax.

Doesanyone have a simple low cost circuit that I could use?

Thanks in advance

Jim

2588. Re: LOW cost Pre-amp circuit ideas?????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 06:42:29 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AE671D5.A600BF12@dioxine.com>
Source record: 53183

Jim Bo wrote:

> Hello,
>
> I want to build a LOW cost pre-amp that will work from 850 MHz to
>
> 870 MHz range.

> Doesanyone have a simple low cost circuit that I could use?

Yeah. Use hardline instead of plastic coax for the feedline.

> Thanks in advance

You're quite welcome.

Dana K6JQ
dana@dioxine.com

2589. Re: XR2211*A*

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 07:50:20 UTC
From: knox_k_NOBS@nemaine.com
Message-ID: <3ae68180.668451@news.nemaine.com>
Source record: 53185

On Tue, 24 Apr 2001 17:03:13 -0500, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>I hit the store (Active) and found both XR2211 and XR2211A on the shelf;
>the A part was 50 cents cheaper. So I hit their data book and it didn't
>show an A part, much less a distinction. So I bought the A parts anyway.

See info at:

http://www.exar.com/products/xr2211.html

and

http://www.exar.com/products/xr2211a.html

2590. Transistor SM 3195 436

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 12:23:59 UTC
From: Ken Ashcroft <ken@g3msw.demon.co.uk>
Message-ID: <siCudJAfHs56Ew$$@g3msw.demon.co.uk>
Source record: 53187

Probably Motorola. Can anyone help with equivalents. Ken
--
Ken Ashcroft

2591. Re: LOW cost Pre-amp circuit ideas?????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 19:32:04 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AE72738.2A85@pop.removethistomailme.net>
Source record: 53188

```
Dana H. Myers wrote:
>
> Jim Bo wrote:
>
> > Hello,
> >
> > I want to build a LOW cost pre-amp that will work from 850 MHz to
> >
> > 870 MHz range.
>
> > Doesanyone have a simple low cost circuit that I could use?
>
> Yeah. Use hardline instead of plastic coax for the feedline.
>

Yeah. That'll be low cost. <g>

-- jm

------------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
------------------------------------------------------
```

2592. Pll loop filter values...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 20:06:23 UTC
From: Kari Back <kba@nic.fi>
Message-ID: <3AE72E3F.52476680@nic.fi>
Source record: 53189

Hello...

Having done experiments with triple loop pll for 906-914kHz final output, and
fine tune reference 106-114kHz and with coarse step 100 kHz, offset VCO runs at
800 kHz.
Kvco is low ~0.25MHz/V, op-amps used after D-FF phase detector.

Both VCO's make lock and seems to be ok, except the locking condition seems to
be too critical... probably fine loop filter constants are not valid...

Can someone give tips please for the fine loop filter values ?
(Before ordered literature arrives from bookstore...)

73 Kari

2593. Re: Pll loop filter values...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 20:20:57 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3AE731A9.BB8AF945@mc.net>
Source record: 53190

You can download the free PLL2 and PLL3 design programs from
my web site at:

http://sites.netscape.net/kd9jq/hamradio/kd9jq.html

The programs and included manual should be helpful in
working up values for 2nd and 3rd Order Loops.

73 Chuck KD9JQ

Kari Back wrote:

> Hello...
>
> Having done experiments with triple loop pll for 906-914kHz final output, and
> fine tune reference 106-114kHz and with coarse step 100 kHz, offset VCO runs at
> 800 kHz.
> Kvco is low ~0.25MHz/V, op-amps used after D-FF phase detector.
>
> Both VCO's make lock and seems to be ok, except the locking condition seems to
> be too critical... probably fine loop filter constants are not valid...
>
> Can someone give tips please for the fine loop filter values ?
> (Before ordered literature arrives from bookstore...)
>
> 73 Kari

2594. WTB: Mini-ferrite beads

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 20:45:37 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <9c7cuconn1@news.hal-pc.org>
Source record: 53191

Need a few mini-ferrite beads with axial leads
for some QRP projects.
About a half dozen would do. If you have any
in your junk box, I'd like to know. Please email
me direct, since I don't always check newsgroups.
Jack, W5EB
jhardin@hal-pc.org

2595. Re: WTB: Mini-ferrite beads

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-25 21:36:28 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AE7435C.3F54BC7E@rupert.tds-az.lmco.com>
Source record: 53192

Jack wrote:
>
> Need a few mini-ferrite beads with axial leads
> for some QRP projects.
> About a half dozen would do. If you have any
> in your junk box, I'd like to know. Please email
> me direct, since I don't always check newsgroups.
> Jack, W5EB
> jhardin@hal-pc.org

Try this place. Lots of ferrite beads and cores. Lots of other
parts too.

Dan's Small Parts and Kit
http://www.fix.net/dans.html

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2596. Re: 2n6238 specs...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 00:04:53 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3AE765F6.DF471CAE@cmcorp.com>
Source record: 53193

2N6238
4 Amps
100V
1V gate trigger
2 us turn on time.

Kind of a wussy device as far a SCRs go...
I have the specs if you need more info.

Bojangle Chicken wrote:

> I'm wondering if anyone knows of a website that has a datasheet for a 2N6238
> or has access to a databook (and could be kind enough to help me). The
> device is an SCR thyristor with the Motorola stamp on it, but I've had a
> hard time coming by any specifications. I tried www.on-semi.com, Philips,
> Fairchild and even Motorola (in the off chance they had an off-site link).
> The only links I've been able to dig up are price lists, and that's the only
> spec. I really don't care about. How ironic.
>
> Thanks for any help that comes down the pike...
> Pete
> ki0eg

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

2597. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 00:45:55 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <7dKF6.1468$A4.133659@newsread2.prod.itd.earthlink.net>
Source record: 53194
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hey Scott,

<more seriously this time>

I reviewed some double sideband material. To summarize:

*It is cheaper to build (for budget homebrewers)
*It does consume and transmit a bit less power (No Carrier)
*The signal to noise numbers are a compromise between Am and Single
Sideband.

Modifying a ssb transmitter to transmit dsb does seem kinda silly. Receivers
that can detect dsb can detect ssb. Its not like we have to transmit dsb to
work the those HB dsb rigs. Like you... I'd just as soon go all the way and
get rid of that extra sideband. Better performance and better manners, too.

Never mind about Nobel... there ain't any new math.

Bill

Scott <acepilot@bloomer.net> wrote in message
news:3ADE3B5B.F070FFF6@bloomer.net...
> Darn, there goes the neighborhood! ;) I guess I just don't see the
> wisdom of modifying the transmitter and transmitting DSB, supressed
> carrier when a flip of the switch can put the rig into AM mode and keep
> the carrier, for 2 interfering signals instead of just one.
>
> Just when I was getting used to that "new" math stuff ;)
>
> Scott
> N0EDV
>
----- earlier traffic deleted -------

2598. Re: SOURCE OF NE-602's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 02:57:57 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <V8MF6.36689$IJ1.3094792@bgtnsc05-news.ops.worldnet.att.net>
Source record: 53195

Future Electronics is a big Signetics distributer. The only catch is that
you have to order 50 at a time, but at a price of $1.26 each, I didn't mind
too much. The 602 is a useful chip. The one that you will probably find
available is the SA602 (same chip).

Pete Gianakopoulos
Chicago, Il.

AA1LL <nospam@newsranger.com> wrote in message
news:MG6F6.2835$QV4.234842@www.newsranger.com...
> Probably a basic question, but where can I find some new NE-602
oscillator/mixer
> linear i.c.s (or equivalent, SK/ NTE part) ?
>
> Thanks for the help, 73,
>
> Paul, AA1LL
> Mason, NH
> http://www.qsl.net/aa1ll
>
> Paul, AA1LL
> Mason, NH
> http://www.qsl.net/aa1ll

2599. Re: 2n6238 specs...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 03:24:21 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9c9070$o8k$1@dipsy.missouri.edu>
Source record: 53196

Yeah, it is kind of wussy, but it's only going to drive a wussy circuit.
I've gotten the specs. from others already, but thank you for responding.

This has got to be one of the most civil newsgroups around...
Pete
ki0eg

Thomas C. Sefranek <tcs@cmcorp.com> wrote in message
news:3AE765F6.DF471CAE@cmcorp.com...
> 2N6238
> 4 Amps
> 100V
> 1V gate trigger
> 2 us turn on time.
>
> Kind of a wussy device as far a SCRs go...
> I have the specs if you need more info.
>
> Bojangle Chicken wrote:
>
> > I'm wondering if anyone knows of a website that has a datasheet for a
2N6238
> > or has access to a databook (and could be kind enough to help me). The
> > device is an SCR thyristor with the Motorola stamp on it, but I've had a
> > hard time coming by any specifications. I tried www.on-semi.com,
Philips,
> > Fairchild and even Motorola (in the off chance they had an off-site
link).
> > The only links I've been able to dig up are price lists, and that's the
only
> > spec. I really don't care about. How ironic.
> >
> > Thanks for any help that comes down the pike...
> > Pete
> > ki0eg
>
> --
> *
> | __O Thomas C. Sefranek tcs@cmcorp.com
> |_-\<,_ Amateur Radio Operator: WA1RHP
> (*)/ (*) Bicycle mobile on 145.41, 448.625 MHz
>
> http://hamradio.cmcorp.com/inventory/Inventory.html
> http://www.harvardrepeater.org
>

>

2600. Swap/Sell Ham Stuff/Home

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 12:50:12 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9c95iijpn1@slb4.atl.mindspring.net>
Source record: 53097

10 acres w/ 150 ft Rohn Twr, 3-2 home, seperate radio bldg, lots of homebrew parts and "Stuff" 68K Sparks P O Box 1195 Hawthorne, FL 32640

2601. test-please ignore

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 16:15:10 UTC
From: Chip Owens <owens@atd.ucar.edu>
Message-ID: <3AE8498E.EE38314@atd.ucar.edu>
Source record: 53099

```
test-pleae ignore
--
Chip Owens (owens@atd.ucar.edu)
```

2602. test-please ignore

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 16:16:42 UTC
From: Chip Owens <owens@atd.ucar.edu>
Message-ID: <3AE849EA.BE8B176B@atd.ucar.edu>
Source record: 53098

```
test-please ignore
--
Chip Owens (owens@atd.ucar.edu)
```

2603. Re: 2n6238 specs...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 17:42:45 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9cakfr$sk9$1@dipsy.missouri.edu>
Source record: 53107

Thanks to all who replied offline...and a special thanks to Kevin M. for sending me the website. That is one of the more useful sites I've come across as far as researching a part goes.

Again, thanks.
Pete

Thomas C. Sefranek <tcs@cmcorp.com> wrote in message news:3AE765F6.DF471CAE@cmcorp.com...
> 2N6238
> 4 Amps
> 100V
> 1V gate trigger
> 2 us turn on time.
>
> Kind of a wussy device as far a SCRs go...
> I have the specs if you need more info.
>
> Bojangle Chicken wrote:
>
> > I'm wondering if anyone knows of a website that has a datasheet for a 2N6238
> > or has access to a databook (and could be kind enough to help me). The
> > device is an SCR thyristor with the Motorola stamp on it, but I've had a
> > hard time coming by any specifications. I tried www.on-semi.com, Philips,
> > Fairchild and even Motorola (in the off chance they had an off-site link).
> > The only links I've been able to dig up are price lists, and that's the only
> > spec. I really don't care about. How ironic.
> >
> > Thanks for any help that comes down the pike...
> > Pete
> > ki0eg
>
> --
> *
> | __O Thomas C. Sefranek tcs@cmcorp.com
> |_-\<,_ Amateur Radio Operator: WA1RHP
> (*)/ (*) Bicycle mobile on 145.41, 448.625 MHz
>
> http://hamradio.cmcorp.com/inventory/Inventory.html
> http://www.harvardrepeater.org
>

>

2604. Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 20:21:51 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <lq%F6.1346$vR1.5593@nntpserver.swip.net>
Source record: 53100

I have built the FM transmitter on this side.

http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm

It is supposed to output 3W, but I have only measured roughly 0.5W-1W. Could anyone please give any tips on what to do to increase the output. Can I change the bias on the power transistors?
Input current is about 250 mADC.
I also tried to mount it in an aluminium box, but with the circuit mounted about 3 mm the power dropped even more.

All tips are appreciated, including the "That transmitter sucks, and you should build *this* one instead" tip! =)

/Anders

2605. Re: SOURCE OF NE-602's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 21:32:27 UTC
From: Michael Melland <w9wis@charter.net>
Message-ID: <teh4v6fucji55c@corp.supernews.com>
Source record: 53101

Ocean State Electronics has NE602's and will sell single pieces at
$2.95..... but order more stuff 'cause shipping is a flat $6 per order.

http://www.oselectronics.com

Regards,
Mike, W9WIS

2606. Re: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-26 23:00:12 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AE8A87C.167EB0E7@rupert.tds-az.lmco.com>
Source record: 53102

Anders wrote:
>
> I have built the FM transmitter on this side.
>
> http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
>
> It is supposed to output 3W, but I have only measured roughly 0.5W-1W. Could
> anyone please give any tips on what to do to increase the output. Can I
> change the bias on the power transistors?
> Input current is about 250 mADC.
> I also tried to mount it in an aluminium box, but with the circuit mounted
> about 3 mm the power dropped even more.
>
> All tips are appreciated, including the "That transmitter sucks, and you
> should build *this* one instead" tip! =)
>
> /Anders

My question to you would be "How are you measuring the output power?".
Measuring the input current doesn't necessarily give you the output
power.

There is nothing inherently wrong with the circuit. The two output
transistors
are wired as an astable multivibrator. The coil and capacitor connected
across
the collectors controlls the frequency at which it oscillates. If one of
the
transistors, T3 or T4, were bad, it wouldn't put out anything at all, so
they
are both operational. This circuit also runs those output transistors
very hard
and they are putting out the most that they can. The only thing that I
can
see that would account for a loss in power would be the coupling to the
antenna. If you are not properly matched, you are going to loose a lot
of
power.

You might be able to increase the power by getting some higher powered
transistors. If I remember correctly the 2N3553 is a 5 Watt device.
However,
at those frequencies I would derate it to probably half that, or more.
I use that same transistor in a QRP transmitter. On 80 meters I can
get about 2 watts RMS out of the transistor. However, as I go up in

frequency
the power starts to drop. On 15 Meters I can only squeeze out about 1.2
Watts.
You are running much higher than that so I would say you are getting
about
all you are going to get.

Also, if your circuit is built like the drawings you will probably
experience
a change in the output, due to near by objects. Most of the problem is
that
there is not a good ground plane to work against. Mounting in a
aluminum
box is a good idea but you will have to re-adjust the output frequency
and the
antenna coupling when you do.

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2607. Poor Man's Cross Band Repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 00:11:30 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.goaway.leavemealone.com>
Message-ID: <9cad4j$6s3$1@bob.news.rcn.net>
Source record: 53103

For some reason, I really don't want to purchase a dual band mobile or base radio with cross band capabilities (guess I'm just cheap) so I have thought of several ideas and would like to hear some input on either the technical or legal aspects of these ideas:

1. Use two "wireless" intercomm systems. The type that plug into the wall. Correct me if I am wrong but I believe some of these use a carrier current type of system to talk back and forth to eachother. Of course I would have to modify one or both with either a VOX or CTCSS operated relay to key the transmitter at the base side. That might be a pain......

2. Use my VX-5, Alinco DJ-C4 and an FM Broadcast band transmitter. The FM transmitter would transmit the recieved audio while the alinco serves as the reciever to carry my transmitted audio from the VX-5 to my base station rig. I could probably do some crazy split VFO operation on the VX-5 to listen on 88-108MHz and transmit on 70cm somewhere. The VX-5 would be setup to transmit a CTCSS tone which would be recieved by the alinco and would then activate a tone decoder and relay.
The only things I find iffy about this setup, or either of them, is the re-transmitting of ham radio transmissions (forgot the rule on that...) and the presence of RF feedback or reciever overload from my 2m transmitter (about 35 watts).

Any ideas, suggestions, precautions, legal advice? Do I have some good ideas or not? Any help is appreciated and welcomed. Thanks and 73!!

2608. Re: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 00:24:40 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AE8BC48.A9BBAF1C@dioxine.com>
Source record: 53105

K7MEM wrote:

> Anders wrote:
> >
> > I have built the FM transmitter on this side.
> >
> > http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
> >
> > It is supposed to output 3W, but I have only measured roughly 0.5W-1W. Could
> > anyone please give any tips on what to do to increase the output. Can I
> > change the bias on the power transistors?
> > Input current is about 250 mADC.
> > I also tried to mount it in an aluminium box, but with the circuit mounted
> > about 3 mm the power dropped even more.
> >
> > All tips are appreciated, including the "That transmitter sucks, and you
> > should build *this* one instead" tip! =)
> >
> > /Anders
>
> My question to you would be "How are you measuring the output power?".
> Measuring the input current doesn't necessarily give you the output
> power.

Yikes, that's a very simple power oscillator circuit. I suspect it's not terribly stable and the output power and frequency will vary pretty considerably with respect to the load. I also suspect it's not particularly clean.

Generally speaking, you want the frequency determining oscillator to operate with a light load, and you want at least a couple of stages of amplification between the oscillator and the power amplifier to isolate the oscillator from variations in frequency and power induced by changing load. This circuit fails to take into account this general wisdom. Further, the spectral purity of the output signal may be poor.

Martin gives good advice, but I'd suggest that this circuit is not suitable as anything except a laboratory curiousity. If you're interested in low-power FM broadcast, alt.radio.pirate tends to be a pretty good resource. Since I'm not familiar with the legal issues of LPFM in Sweden where you seem to be posting from, I won't comment on any potential pitfalls you might encounter there.

Good luck,
Dana

2609. ?RF-Proofing Supplies?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 00:26:17 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.goaway.leavemealone.com>
Message-ID: <9cae0b$ai0$1@bob.news.rcn.net>
Source record: 53104

I have a problem where my attic mounted verticle for 2m (a Cushcraft AR-2) interferes with one of the television sets in my house. Since every bit of cable for TV in my house runs through my attic (CATV and DSS) I want to try and RF-proof these cables. I have heard of wrapping toroid cores around the cable but have some questions about that, snap on toroids, and high pass filters.

Regular toroids, is it a good idea to wrap coax around these for getting rid of interference and if so, what type of material should I be buying? For the snap on kind, are the ones radio shack sells decent? I am looking at a snap on one and one of the split type that you have to wrap the wires around. Are these any good? Where can I get toroids, basically? Palomar engineers sells a kit if I remember.......

High pass filters, I have some of those from Radio Shack. They don't seem to do much except for stop one TV from loosing all its color. Are there any better ones out there? In my attic I have a diplexer for running a TV antenna and a Satellite on the same cable. Should I put the high pass filters on the ins/outs of the diplexer or should I leave the satellite cable alone? I also have CATV up there. It runs to a splitter that takes it to two separate places in the house. Where, if any, should I put high pass filters on there?

I will be using my attic for most of my hamming. I live in a restricted area and actually my antenna mountings are not bad, except for all the interference I cause. Any suggestions are welcome and I thank you for your time and patience. 73 all!!!

PB.

2610. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 01:14:37 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AE8C7FD.99BC8A2D@bloomer.net>
Source record: 53106
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi Bill,

This whole thread has probably gotten a bit out of hand...maybe I over-reacted initially, but it seemed like the original poster was condoning "TRANSMITTING" DSB to provide 2 signals at the other end, with the other station listening to whichever ONE sideband was least interferred with. Just sounded like "I don't care how wide my signal is, as long as my buddy at the other end can hear me" syndrome...the hell with anybody else trying to use the band.

I, like you, prefer to narrow up my signal as much as possible to be a good neighbor. With today's rigs with things such as narrow IF filters, IF Shift, etc., there seems to be a better way than modifying a radio to transmit DSB.

No new math??? Darn, I just learned it the other day ;) Guess I have to forget about that!!!

Scott
N0EDV

Bill Cromwell wrote:
>
> Hey Scott,
>
> <more seriously this time>
>
> I reviewed some double sideband material. To summarize:
>
> *It is cheaper to build (for budget homebrewers)
> *It does consume and transmit a bit less power (No Carrier)
> *The signal to noise numbers are a compromise between Am and Single
> Sideband.
>
> Modifying a ssb transmitter to transmit dsb does seem kinda silly. Receivers
> that can detect dsb can detect ssb. Its not like we have to transmit dsb to
> work the those HB dsb rigs. Like you... I'd just as soon go all the way and
> get rid of that extra sideband. Better performance and better manners, too.
>
> Never mind about Nobel... there ain't any new math.
>
> Bill
>
> Scott <acepilot@bloomer.net> wrote in message
> news:3ADE3B5B.F070FFF6@bloomer.net...

> > Darn, there goes the neighborhood! ;) I guess I just don't see the
> > wisdom of modifying the transmitter and transmitting DSB, supressed
> > carrier when a flip of the switch can put the rig into AM mode and keep
> > the carrier, for 2 interfering signals instead of just one.
> >
> > Just when I was getting used to that "new" math stuff ;)
> >
> > Scott
> > N0EDV
> >
> ----- earlier traffic deleted -------

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2611. Re: SOURCE OF NE-602's?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 02:03:30 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9cak2r01f53@news2.newsguy.com>
Source record: 53108

Not only do they have 602's, but they have 612's as well (a slightly cheaper version of the same part). They have the added advantage of very attractive shipping for small dollar-value orders.

But like Pete says, it's an awful useful chip so it's worth ordering a bunch.

didleydadidah

"Thomas C. Sefranek" <tcs@cmcorp.com> wrote in message news:3AE560E3.BF35EBD5@cmcorp.com...
> I hate to admit it but the commercial version of Radi Shack has these!

2612. Re: ?RF-Proofing Supplies?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 02:25:10 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9calad01gm3@news2.newsguy.com>
Source record: 53109

PB

The first question I would ask is, are you sure you are getting into the wiring? Most modern consumer electronic equipment is built very cheaply and is subject to overload. 2 meters is right up there between the TV channels, so if you are running any amount of power at all, it could be a problem. Your antenna is non-directional, so if it's close to the problem TV, is may be just getting in through the case. Dollars to donuts the case offers no shielding. Another good possibility is on the power wiring.

2 meters is especially problematic because if it is getting in on the cable, you need a notch filter. A high pass filter, which is a common fix for HF TVI, isn't going to touch your 2 meter signal unless it has a cutoff above 2 meters, in which case it's going to do a better job of eliminating channels 2-6 than eliminating the 2 meters. A low pass filter will whack out channels 7 and up.

If you have a problem on a few channels that are spaced widely apart, or just one channel, it is possible that a filter on the transmitter could help. But if it affects all channels, or a bunch of channels close together, then it's probably an overload situation and somehow you will need to reduce the RF getting into the set, which can be a real challenge. The Handbook has a nice chart of the relationship between the TV channels and the ham band harmonics that can be handy.

The main thing toroids do is help keep stuff from following the shield, or the power wiring. It may be worth putting a few on the power wiring right at the TV and see if it does any good at all. You want to wrap the wire a few times through those snap-on ones. And it doesn't hurt to use a few of them. But they want to be as close to the set as possible.

Nothing wrong with the Radio Shack toroids except that they are so expensive. When you are working this sort of problem you end up needing a whole pile of them. A while back I got some cheap at MECI, and I think I saw them at BG Micro cheap more recently.

Hope this helps

didleydadidah

2613. Re: ?RF-Proofing Supplies?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 07:38:34 UTC
From: Mike <m.j.willis@rl.ac.uk>
Message-ID: <9cb7mq$21o4@newton.cc.rl.ac.uk>
Source record: 53110

Frizz <kg4ivt@hotmail.spamsucks.goaway.leavemealone.com> wrote in message news:9cae0b$ai0$1@bob.news.rcn.net...
> I have a problem where my attic mounted verticle for 2m (a Cushcraft AR-2)
> interferes with one of the television sets in my house.

What is a "verticle ?" I will assume it is what we call a vertical in English. Best mounted outside, but sometimes you have no choice.

Anyway, besides that, if it is only interfering with one TV and not others, it might be you need to do something to that TV. Maybe it has a VCR in line with a horrible wideband amplifier ? If so, you are stuck. Otherwise, a simple filter at the TV input might do. Even a 1/4 wave stub tuned to the 2m band.

A really small 5/8 vertical whip on the gutter will hardly be visible and might be a much better performer and cause less TVI than anything in the loft.

2614. info for Icom W2 pinout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 11:54:13 UTC
From: dazzie <dazzie@ihug.co.nz>
Message-ID: <9cbmj3$j1v$1@lust.ihug.co.nz>
Source record: 53111

Looking for the pin out for icom W2A would like to wire up to a tinytrak for APRS

Thank you for you help

Kiely ZL1WPK

2615. Need advice for Johnson KW Matchbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 12:43:53 UTC
From: Adam Adkins <km5nNoSpam@earthlink.net>
Message-ID: <MPG.1553262023242ff498968c@news.earthlink.net>
Source record: 53112
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

I recently came by a Johnson KW Matchbox as part of a package amplifier deal. The device tunes perfectly, but the SWR/power meter didn't work. Upon pulling the cabinet apart, I found that the meter and all of its supporting components are in a sealed can, and that the shielded cable was cut.

I would like to get the meter working again. It seems to be in good shape, and still has free movement, but the original documentation doesn't say much about where to hook it up. If anyone can give me some guidance on where to reattach these wires, I would greatly appreciate it.

Thanks!

73,

Adam Adkins, KM5N
(remove NoSpam to reply)

2616. Re: Need advice for Johnson KW Matchbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 13:04:02 UTC
From: "Edward A. Feustel" <efeustel@ists.dartmouth.edu>
Message-ID: <3AE96E42.2D6748C@ists.dartmouth.edu>
Source record: 53113
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

If I remember correctly ...

The shielded can should have three wires attaching to "tip jacks" at the
rear of the chassis, red black and white. These
"tip jacks" are used to connect a Johnson SWR-coupler that sits in the
coax
line to the meter which is switched forward and reverse.

Regards,
Ed, N5EI

Adam Adkins wrote:
>
> I recently came by a Johnson KW Matchbox as part of a package
> amplifier deal. The device tunes perfectly, but the SWR/power meter
> didn't work. Upon pulling the cabinet apart, I found that the meter and
> all of its supporting components are in a sealed can, and that the
> shielded cable was cut.
>
> I would like to get the meter working again. It seems to be in
> good shape, and still has free movement, but the original documentation
> doesn't say much about where to hook it up. If anyone can give me some
> guidance on where to reattach these wires, I would greatly appreciate it.
>
> Thanks!
>
> 73,
>
> Adam Adkins, KM5N
> (remove NoSpam to reply)

--
Edward A. Feustel Research Associate
efeustel@ists.dartmouth.edu Institute for Security Technology Studies
phone - (603)646-0671 Cybersecurity Research Group
fax - (603)646-0660 Dartmouth College, Hinman Box 6226
http://www.ists.dartmouth.edu Hanover, NH 03755

2617. F.S. NE602AN Signetic IC's (new)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 15:51:14 UTC
From: Douglas Snowden <Douglas.R.Snowden@noaa.gov>
Message-ID: <3AE99572.A7E19F7@noaa.gov>
Source record: 53114

I have 20 NE602AN IC's on static proof foam.
Prefer to sell all at once, but will do smaller
quantity. $35.00 for all + $3.20 postage.
Or $2.00 each + $3.20 postage. I will, of course,
sell all before I split. These are new.

Doug, N4IJ

--
Doug Snowden
Systems Branch
National Climatic Data Center
Asheville, North Carolina

2618. N.O.S. 6JM6 SWEEP TUBES F.S.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 15:59:33 UTC
From: Douglas Snowden <Douglas.R.Snowden@noaa.gov>
Message-ID: <3AE99765.F48C9E08@noaa.gov>
Source record: 53115
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I went overboard on ebay and bought more of these than I think
I can use. The 6JM6 is similar in characteristics to other tubes
like the 6JB6 (Drake rigs) but has the compactron 12 pin base.

I am in the process of building a little 4 tube sweep tube amplifier
with some of these. But I have too many. These are N.O.S. of various
brands.

$3.00 each plus $3.20 postage for one or several.
Let me know how many you want.

Doug N4IJ

--

Doug Snowden
Systems Branch
National Climatic Data Center
Asheville, North Carolina

2619. Re: Need advice for Johnson KW Matchbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 17:24:09 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3AE9AAF7.5E10830F@att.net>
Source record: 53116
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Go to LB Cebik's website for a schematic of the tuner.

http://www.cebik.com

You will have to provide an external directional coupler since the tuner itself contains only the metering circuit for such a device. Frankly, I would not bother with it, but rather would use a more convenient external SWR meter in the coax to the transmitter.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Adam Adkins wrote:
>
> I recently came by a Johnson KW Matchbox as part of a package
> amplifier deal. The device tunes perfectly, but the SWR/power meter
> didn't work. Upon pulling the cabinet apart, I found that the meter and
> all of its supporting components are in a sealed can, and that the
> shielded cable was cut.
>
> I would like to get the meter working again. It seems to be in
> good shape, and still has free movement, but the original documentation
> doesn't say much about where to hook it up. If anyone can give me some
> guidance on where to reattach these wires, I would greatly appreciate it.
>
> Thanks!
>
> 73,
>
> Adam Adkins, KM5N
> (remove NoSpam to reply)

--
72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

2620. Re: AM BROADCAST BAND TUNER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 20:51:29 UTC
From: la8ak@online.no
Message-ID: <3ae8a8bd.14841778@news.online.no>
Source record: 53117

On Tue, 24 Apr 2001 14:01:49 -0400, Bruce Muscolino <w6toy@erols.com>
wrote:

>Marvin,
>
>Why not? The only difference between a ground tuner for 80 meters and 200
>meters is the size of the components. However, I must ask, why?
>
>73
>
the tuner for 200m seems to have low Q inductors, Q=40 for LW as well
as MW measured for osc and RF coils

2621. RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 21:00:29 UTC
From: Richard <Dickus@dial.pipex.com>
Message-ID: <9ccmpa$g54$1@news6.svr.pol.co.uk>
Source record: 53118

I've noticed that most CB rigs have an RF gain control, however this doesn't seem to be common feature on Amature band equipment. Can anyone enlighten me why the difference?

Thanks

Richard

2622. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 21:33:29 UTC
From: rcnixon@mindspring.com
Message-ID: <3ae9e51b.3564455@news.mindspring.com>
Source record: 53119

That's funny, I'm looking at the "RCVR GAIN" control on my Drake and
is shows AF and RF gain. Hmmm. Many newer tranceivers also have the
RF gain down in a menu structure somewhere. Often it's assignable to
a rotary control.

Russ - kf4wxd

"Richard" <Dickus@dial.pipex.com> wrote:

>I've noticed that most CB rigs have an RF gain control, however this doesn't
>seem to be common feature on Amature band equipment. Can anyone enlighten
>me why the difference?
>
>Thanks
>
>Richard
>
>

2623. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 21:40:59 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tejprfdkddib07@corp.supernews.com>
Source record: 53120

> I've noticed that most CB rigs have an RF gain control, however this
doesn't
> seem to be common feature on Amature band equipment

An RF gain control is a *very common* feature on most amateur band HF
equipment.

2624. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 21:58:52 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AE9EB9C.44E2BA60@ix.netcom.com>
Source record: 53121

Hi Richard - except for a few "entry level rigs" all modern and most older ones as well have an RF gain control. A favorite operating technique for DXers and CW ops is to turn RF Gain down somewhat and AF Gain up, and using headphones, allows for much easier copy. Would NOT own a rig without RF Gain myself.

Richard wrote:

> I've noticed that most CB rigs have an RF gain control, however this doesn't
> seem to be common feature on Amature band equipment. Can anyone enlighten
> me why the difference?
>
> Thanks
>
> Richard

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

2625. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:03:23 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AE9ECAA.81A70F8F@ix.netcom.com>
Source record: 53122

I would never buy a rig without a front panel RF gain control, most modern Ham Transceivers do.
A favorite operating technique for DXers and CW ops is to turn RF Gain down somewhat and
AF Gain up, and using headphones, allows for much easier copy. One of the most used controls
on my operations. Don't want mine buried in a menu for sure.

"Russell C. Nixon" wrote:

> That's funny, I'm looking at the "RCVR GAIN" control on my Drake and
> is shows AF and RF gain. Hmmm. Many newer tranceivers also have the
> RF gain down in a menu structure somewhere. Often it's assignable to
> a rotary control.
>
> Russ - kf4wxd
>
> "Richard" <Dickus@dial.pipex.com> wrote:
>
> >I've noticed that most CB rigs have an RF gain control, however this doesn't
> >seem to be common feature on Amature band equipment. Can anyone enlighten
> >me why the difference?
> >
> >Thanks
> >
> >Richard
> >
> >

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

2626. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:06:04 UTC
From: Cboone@Earthlink.net
Message-ID: <3AE9ED28.1A2813D2@Earthlink.net>
Source record: 53123
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Most amateur gear nowadays merely unbalance the balanced modulator
and bypass the filtering to produce lowlevel AM (DSB with carrier)..
sounds like your radio is NOT doing what is it supposed to be..
actually if you could run SSB-RC (singlesideband with Reduced carrier)
you could be still copied by AM stations with no problem..

Chris
WB5ITT

Scott McClements wrote:
>
> Nope, rotating the carrier control to any position doesn't produce any
> carrier. Only when I speak into the mic does it put out power (swings up to
> a full 100 watts just like SSB mode does). The received audio (AM) sounds
> just like a SSB signal.
>
> Scott.

2627. Re: Kenw. TS450 low output on 160M

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:17:30 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3AE9EFFA.EBC12C01@erols.com>
Source record: 53124

Mark,

You didn't say what kind of antenna you are using. A vertical, or longwire with a poor ground can cause this problem. You can try to load them all day but you will never get full output without damaging them! If you need a ground either install one or use a ground tuner.

73

2628. Re: Another Capacitor Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:20:50 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3AE9F0C2.79465645@erols.com>
Source record: 53126
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Mike,

With respect to both of your capacitor questions. Yes you can replace multi-section capacitors with individual units. Just be sure you have room to mount them and respect the polarity shown on the schematic and the capacitor!

73

2629. SV: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:24:30 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <kjmG6.1563$vR1.5905@nntpserver.swip.net>
Source record: 53125

Thank you for all your answers!

First, the output power measuring is done by a combined SWR/Power meter. I have also compared the heat from a 75 ohm resistor (dummy load) when connected to 13,6 vdc source and when connected to the RF output. The difference in heat is remarkable. The first is burning hot and the other is just tepid. Conclusion: My transmitter doesn't output 3W!

Dana: I'm aware of that the spectral purity is questionable. Therefore I have connected a chebychev low pass filter to the output. However, I am not planning to be a radio pirate. It is just for fun, and for the feeling of "I have built a transmitter that reachs to a friend of mine who lives 10 kms from me". That's enough for an electronics geek like me.

Finally, could the lack of ground plane be of significance as suggested by Martin?

More tips of better designs are most welcome!

/Anders

"Dana H. Myers" <dana@dioxine.com> skrev i meddelandet
news:3AE8BC48.A9BBAF1C@dioxine.com...
>
>
> K7MEM wrote:
>
> > Anders wrote:
> > >
> > > I have built the FM transmitter on this side.
> > >
> > > http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
> > >
> > > It is supposed to output 3W, but I have only measured roughly 0.5W-1W.
Could
> > > anyone please give any tips on what to do to increase the output. Can
I
> > > change the bias on the power transistors?
> > > Input current is about 250 mADC.
> > > I also tried to mount it in an aluminium box, but with the circuit
mounted
> > > about 3 mm the power dropped even more.
> > >
> > > All tips are appreciated, including the "That transmitter sucks, and
you
> > > should build *this* one instead" tip! =)

> > >
> > > /Anders
> >
> > My question to you would be "How are you measuring the output power?".
> > Measuring the input current doesn't necessarily give you the output
> > power.
>
> Yikes, that's a very simple power oscillator circuit. I suspect it's not
> terribly stable and the output power and frequency will vary pretty
> considerably with respect to the load. I also suspect it's not
particularly
> clean.
>
> Generally speaking, you want the frequency determining oscillator to
> operate with a light load, and you want at least a couple of stages of
> amplification between the oscillator and the power amplifier to
> isolate the oscillator from variations in frequency and power induced
> by changing load. This circuit fails to take into account this general
> wisdom. Further, the spectral purity of the output signal may be
> poor.
>
> Martin gives good advice, but I'd suggest that this circuit is not
suitable
> as anything except a laboratory curiousity. If you're interested in
low-power
> FM broadcast, alt.radio.pirate tends to be a pretty good resource. Since
I'm not
> familiar with the legal issues of LPFM in Sweden where you seem to be
posting
> from, I won't comment on any potential pitfalls you might encounter there.
>
> Good luck,
> Dana
>
>
>

2630. Re: Want to build a tuner...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 22:25:29 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3AE9F1D9.D8031178@erols.com>
Source record: 53127

Actually you will probably spend less money by buying a commercial tuner, used, at a hamfest. The components for a 100 watt tuner can be had but are often very expensive, while dozens of Drakes, Kenwoods, and even the venerable old Johnson Viking Matchboxes are sitting on display tables for 50 to 200 bucks! I bought my Matchbox, a 275 watt unit about 5 years ago for under 100 dollars. My Drake MN2700, a 275 watt tuner was about 125 dollars and the most expensive of the lot, the Kenwood AT230, bought because it matched a radio was 250 dollars, but it was in pristine condition. I know it sounds like a bad idea, but check ebay!

73

2631. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-27 23:30:34 UTC
From: 2w8ji@akorn.net
Message-ID: <3aea0075.208138113@news.accessunited.com>
Source record: 53128

On Fri, 27 Apr 2001 17:40:59 -0400, "Bob Lewis \(AA4PB\)"
<rlewis@staffnet.com> wrote:

>> I've noticed that most CB rigs have an RF gain control, however this
>doesn't
>> seem to be common feature on Amature band equipment
>
>An RF gain control is a *very common* feature on most amateur band HF
>equipment.

Except the RF gain control is almost never a RF gain control.

It is almost always an IF gain control, or at very best a mix between
IF and RF is some rigs.

The name often isn't what it really is.

73 Tom

2632. Motorola 16 Channel UHF Maxtrac $115.00 Ea

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 03:47:44 UTC
From: "4radiodeals.com" <sales@4radiodeals.com>
Message-ID: <3B11CB0A.3E4E4F61@4radiodeals.com>
Source record: 53130
Cross-posted to: rec.radio.amateur.swap,rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.shortwave,rec.radio.swap

I have several 16 channel Maxtrac mobile radios for sale Model number D34MJA7DA5CK. These radios came from a city Police Department and were all working when taken out of service less than 6 months ago. They come with power cord and microphone. These radios program in the 439 to 470 range. I would rate them at 8 1/2 out of 10. For and extra $10.00 I will throw in an external speaker. I accept Paypal or money orders. Again radio, microphone and power cord $115.00 each.

2633. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 04:07:31 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9cdfmonpn1@nntp9.atl.mindspring.net>
Source record: 53131

>
>Except the RF gain control is almost never a RF gain control.
>
>It is almost always an IF gain control, or at very best a mix between
>IF and RF is some rigs.
>

Aye, and there's a drawback from that... A true RF attenuator,
preferably a passive switched resistor attenuator would help the units
performance against overload and such. It would cut down the interfering
signal BEFORE it reached any active stage.

Manufacturers tend not to offer that type though, it takes more parts and
adds cost to the radio. Hmmm... I wonder how hard it'd be to hack into
my radio and add one....

Jim Pennell
N6BIU

2634. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 05:08:36 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ekgs2.7g6.w9wi@linux1.localdomain>
Source record: 53132

On Fri, 27 Apr 2001 22:00:29 +0100, Richard <Dickus@dial.pipex.com> wrote:
>I've noticed that most CB rigs have an RF gain control, however this doesn't
>seem to be common feature on Amature band equipment. Can anyone enlighten
>me why the difference?

What kind of amateur equipment?

Most shortwave amateur gear *does* have a RF Gain control.

VHF/UHF gear usually doesn't. Years ago, I'd say this was because there
wasn't enough RF floating around on VHF/UHF to worry about front-end
overload. (the primary reason to have a RF Gain control)

Today, front-end overload at VHF/UHF *is* a significant problem for amateurs
- but we still don't have RF gain controls. My guess is that the radios are
so small there simply isn't enough room for another knob!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2635. Re: Transistor SM 3195 436

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 07:48:47 UTC
From: Joe McElvenney <joemac@xic.demon.co.uk>
Message-ID: <VA.000001a9.02974583@xic.demon.co.uk>
Source record: 53133

Hi,

The numbers look like they are SEMELABS.

73 de Joe, G3LLV

2636. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 08:17:27 UTC
From: Doug King <dgking@eurobell.co.uk>
Message-ID: <8MqSIxAXyn66Ew2n@eurobell.co.uk>
Source record: 53134
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

In another life I used to be a repair/calibration engineer, and can tell you the only way to check any instruments calibration, is to have it checked by a specialist calibration company, who use traceable accuracy equipment which itself is calibrated on a regular basis to national standards (UK) you cannot get more accurate that that!

If you only want to know the accuracy i.e. if still in spec? and not have them actually re-calibrate? it will cost a lot less, ask for an error check only price.

Industry have to have all equipment check every 3 months or so? very expensive but necessary, apart for cleaning a cal check and certification rarely need actual adjustment.

If you are a home user and only use it for trouble shooting and monitoring? as others have said if it has not been tweeked and you have no reason to doubt it's accuracy? leave well alone, as you may well upset what is probable a reasonably accurate scope as it is.

Most scopes have good long term stability and when warmer-up (30 mins) are more than good enough for home use, only needing re-calibrating after repair. It is probably more accurate that anything you have at home to check it against.

Hope this helps Doug

>Larry Gagnon wrote:
>>
>> I want to attempt to do a calibration to my HP-1722B 275MHz analog
>> scope. According to the service manual the instruments I need which I
>> do not have are a pulse generator and a time mark generator. Is it at
>> all possible to somehow use audio frequencies (for example software
>> used on my computer sound card) to mimic a pulse generator and time
>> mark generator)? If so, does anyone know of shareware available that
>> would run the sound card as pulse and time mark generators?
>>
>> If not, does anyone out there have any other suggestions as to perhaps
>> a quick and dirty method of scope calibration?
>>
>> Your assistance would be greatly appreciated. Thanks.
>>
>> Larry Gagnon VE6MK
>> **********
>> to send direct email remove "fake" from address
>

>Like Bob, K6DDX, said "Unless someone has monkeyed with the
>alignment adjustments I wouldn't think it would be necessary
>to do much more than check the calibration of the gain and
>time base".
>
>The problem you have is that, even if you were to get a marker
>generator and a pulse generator, how do you know how accurate
>these instruments are? Where is the reference? When were the
>generators calibrated?
>
>Unless some parts were replaced or the alignment controls
>were changed, the accuracy of the scope is not going to
>drift very much. I have used a lot of HP and Tektronix
>scopes and they have always been very stable and accurate.
>It will probably stay more accurate than you, or I, can
>visually resolve from the screen.
>
>Martin, K7MEM
>
>--
>Martin E. Meserve K7MEM
>martin.e.meserve AT lmco.com
>
>I respond to news groups and E-Mail on my own time and therefore
>my responses may not be as timely as you, or I, would like them to
>be. If I seem to be ignoring you, send me another E-Mail to jog my
>memory. Opinions are my own and do not reflect the opinions of my
>employer.

--
Doug

2637. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 09:04:29 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <gfvket0aj83cqh21c3pfvb4aq539dnnrb3@4ax.com>
Source record: 53135

On Fri, 27 Apr 2001 22:00:29 +0100, "Richard" <Dickus@dial.pipex.com>
wrote:

>I've noticed that most CB rigs have an RF gain control, however this doesn't
>seem to be common feature on Amature band equipment. Can anyone enlighten
>me why the difference?

Practically all AM/SSB receivers have automatic gain control (a.g.c.)
in order to produce a constant IF voltage to the detector (which is
very important when a diode envelope detector is used for AM
reception) and thus produce a constant audio level regardless of RF
signal strength.

The a.g.c control voltage is derived from the demodulated audio or
from the IF signal after the narrow band (2/3/9 kHz) filter but before
the detector. This control voltage is used to control the gain of the
IF stages and in some cases the RF gain prior to the first mixer.

This works very well, when there is only a single signal (the desired
signal) coming from the antenna.

In the real world, there is a large number of signal coming from the
antenna, some of them much stronger than the desired signal. In an
ideal world, these strong signal are amplified by the first stages but
then filtered out by the narrow IF filter and only the desired signal
will reach the detector at constant amplitude due to a.g.c.

However, in real world, the strong out of band signals can be
amplified so much that they will overload the mixer or some IF stage
prior to the IF filter, creating all kind of spurious
(intermodulation) products, masking out a weak desired signal. The
mixer is especially prone to generate such spurious signals when
overloaded. Typically increasing the signal level by 10 dB will
increase the spurious signals with 30 dB !!

In portable rigs, in which power consumption is a critical, it is very
hard to build mixers that do not overload.

For this reason, it is generally a good idea to minimise the gain
prior to the narrow IF filter. Amateur transceivers typically have a
low gain preamplifier (if any) in front of a strong SBL-1 style diode
ring mixer with attenuation. On CB, too much RF gain is often used and
weak active NE-602 style mixers are used, generating much more
spurious signals.

In a single signal environment, the RF gain could be set to maximum,
but with strong out of band signals the spurious signals would swamp

the weak signals. Reducing the RF gain by 6 dB will drop the desired signal by 6 dB, but the spurious levels will drop by 18 dB, thus the signal-to-spurious ratio will increase by 12 dB. By adjusting (dropping) the RF gain the spurious signals can be attenuated sufficiently before the desired signal drops into noise.

On high quality receivers the amplitude of out of band signals can be so much higher before spurious signals are generated that an RF control is not required.

Paul OH3LWR

2638. Re: Kenw. TS450 low output on 160M

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 09:57:45 UTC
From: mark <mfvernooij@wanadoo.nl>
Message-ID: <3aea9465$0$1948@reader2>
Source record: 53136

Hi Bruce,

The low output is on a 50ohm dummy load (swr 1:1), so there must be
something wrong with the radio.

Mark.

"Bruce Muscolino" <w6toy@erols.com> schreef in bericht
news:3AE9EFFA.EBC12C01@erols.com...
> Mark,
>
> You didn't say what kind of antenna you are using. A vertical, or
longwire with
> a poor ground can cause this problem. You can try to load them all day
but you
> will never get full output without damaging them! If you need a ground
either
> install one or use a ground tuner.
>
> 73
>

2639. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 11:58:55 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <telc428e8cbga9@corp.supernews.com>
Source record: 53137

> A true RF attenuator, preferably a passive switched
> resistor attenuator would help the units performance
> against overload and such...

Most of the mid to high range amateur receivers have exactly that - a switched resistive attenuator in addition the RF gain control (which generally acts on the AGC circuit). Some even have a means to switch the RF preamp in or out or alter its gain in a couple of steps.

2640. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 13:26:55 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9cegfd02hm1@news2.newsguy.com>
Source record: 53139

"Doug Smith " <w9wi@linux1.localdomain> wrote in message
news:slrn9ekgs2.7g6.w9wi@linux1.localdomain...
> VHF/UHF gear usually doesn't. Years ago, I'd say this was because there
> wasn't enough RF floating around on VHF/UHF to worry about front-end
> overload. (the primary reason to have a RF Gain control)

Most recent Icom VHF and UHF rigs have an RF gain control. The squelch control acts as an RF gain control as well as a squelch. At least this is true of the 2100H and 2800H. This is not true of older rigs, tho. On the 706, the RF gain control works at VHF for CW, RTTY and SSB modes and as a squelch on FM/AM.

I would argue that it takes a lot of parts to implement an RF gain in the RF ... in most modern rigs, the RF gain is merely an input to one of the microprocessors, which in turn controls all the amplifiers. Making it work at RF rather than IF is simply a matter of ones and zeroes. This is true of the relatively complex 706MkII, as well as the very simple K1.

didleydadidah

2641. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 14:45:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <jlAG6.32758$Ce4.2433833@news1.rdc1.ct.home.com>
Source record: 53140
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Just as easy to switch to the opposite sideband, or simply QSY two kHz...
Rather convoluted means to
solve an otherwise simple problem.

"Scott" <acepilot@bloomer.net> wrote in message
news:3AE8C7FD.99BC8A2D@bloomer.net...
> Hi Bill,
>
> This whole thread has probably gotten a bit out of hand...maybe I
> over-reacted initially, but it seemed like the original poster was
> condoning "TRANSMITTING" DSB to provide 2 signals at the other end, with
> the other station listening to whichever ONE sideband was least
> interferred with. Just sounded like "I don't care how wide my signal
> is, as long as my buddy at the other end can hear me" syndrome...the
> hell with anybody else trying to use the band.
>
> I, like you, prefer to narrow up my signal as much as possible to be a
> good neighbor. With today's rigs with things such as narrow IF filters,
> IF Shift, etc., there seems to be a better way than modifying a radio to
> transmit DSB.
>
> No new math??? Darn, I just learned it the other day ;) Guess I have to
> forget about that!!!
>
> Scott
> N0EDV
>
>
> Bill Cromwell wrote:
> >
> > Hey Scott,
> >
> > <more seriously this time>
> >
> > I reviewed some double sideband material. To summarize:
> >
> > *It is cheaper to build (for budget homebrewers)
> > *It does consume and transmit a bit less power (No Carrier)
> > *The signal to noise numbers are a compromise between Am and Single
> > Sideband.
> >
> > Modifying a ssb transmitter to transmit dsb does seem kinda silly.
Receivers

> > that can detect dsb can detect ssb. Its not like we have to transmit dsb
to
> > work the those HB dsb rigs. Like you... I'd just as soon go all the way
and
> > get rid of that extra sideband. Better performance and better manners,
too.
> >
> > Never mind about Nobel... there ain't any new math.
> >
> > Bill
> >
> > Scott <acepilot@bloomer.net> wrote in message
> > news:3ADE3B5B.F070FFF6@bloomer.net...
> > > Darn, there goes the neighborhood! ;) I guess I just don't see the
> > > wisdom of modifying the transmitter and transmitting DSB, supressed
> > > carrier when a flip of the switch can put the rig into AM mode and
keep
> > > the carrier, for 2 interfering signals instead of just one.
> > >
> > > Just when I was getting used to that "new" math stuff ;)
> > >
> > > Scott
> > > N0EDV
> > >
> > ----- earlier traffic deleted -------
>
> --
> --Scott--
> 1986 Corben Junior Ace N3642
> http://corbenflyer.tripod.com/
> RV-4 under construction (tail feathers)
>
> Gotta Fly or Gonna Die!

2642. Re: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:08:31 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <P1BG6.32759$Ce4.2438477@news1.rdc1.ct.home.com>
Source record: 53141

A lot of variables at work here. Did he sell an etched board for this
project?

Emitter lead lengths are critical, operating voltage will make a large
difference, and the coil dimensions are also important. If you simply
breadboarded the circuit, that could be a large portion of you problems.

Pete

"Anders" <anders.gavner@removethis.swipnet.se> wrote in message
news:lq%F6.1346$vR1.5593@nntpserver.swip.net...
> I have built the FM transmitter on this side.
>
> http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
>
> It is supposed to output 3W, but I have only measured roughly 0.5W-1W.
Could
> anyone please give any tips on what to do to increase the output. Can I
> change the bias on the power transistors?
> Input current is about 250 mADC.
> I also tried to mount it in an aluminium box, but with the circuit mounted
> about 3 mm the power dropped even more.
>
> All tips are appreciated, including the "That transmitter sucks, and you
> should build *this* one instead" tip! =)
>
> /Anders
>
>

2643. SV: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:24:02 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <bfBG6.1709$vR1.6615@nntpserver.swip.net>
Source record: 53142

- I etched the board myself. I did not buy it.
- Operating voltage is limited by the 18 VCeo limit in the power transistors, I have already screwed one.
- What do you mean by "simply breadboarded"? Do you mean that it isn't built on a RF board with a ground plane?

Finally, is the circuit on the link below of better design, or rather, should I build it instead?

http://www.aaroncake.net/circuits/3Wfmtran.htm

many thanks

/Anders

"Peter J. Bertini" <commquart@home.com> skrev i meddelandet news:P1BG6.32759$Ce4.2438477@news1.rdc1.ct.home.com...
> A lot of variables at work here. Did he sell an etched board for this
> project?
>
> Emitter lead lengths are critical, operating voltage will make a large
> difference, and the coil dimensions are also important. If you simply
> breadboarded the circuit, that could be a large portion of you problems.
>
> Pete
>
> "Anders" <anders.gavner@removethis.swipnet.se> wrote in message
> news:lq%F6.1346$vR1.5593@nntpserver.swip.net...
> > I have built the FM transmitter on this side.
> >
> > http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
> >
> > It is supposed to output 3W, but I have only measured roughly 0.5W-1W.
> Could
> > anyone please give any tips on what to do to increase the output. Can I
> > change the bias on the power transistors?
> > Input current is about 250 mADC.
> > I also tried to mount it in an aluminium box, but with the circuit mounted
> > about 3 mm the power dropped even more.
> >
> > All tips are appreciated, including the "That transmitter sucks, and you
> > should build *this* one instead" tip! =)
> >
> > /Anders
> >

> >
>
>

2644. Anybody in UK selling a UV box?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:27:28 UTC
From: victor-nelson <victor-nelson@ntlworld.com>
Message-ID: <1zYG6.5373$wO6.939096@news2-win.server.ntlworld.com>
Source record: 53062

[No readable article body recovered]

2645. Re: CB INTERFERENCE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:28:52 UTC
From: victor-nelson <victor-nelson@ntlworld.com>
Message-ID: <mAYG6.5377$wO6.940016@news2-win.server.ntlworld.com>
Source record: 53063
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.cb,us.legal

"_ Lilith_" <no45reply@nor45etun.net> wrote in message
news:h1bD6.3776$TK.377324@news.uswest.net...
>
>
> --
>
> AVoobner <voobner@cotse.com> wrote in message
news:3ad8aeb8$1@news2.mibx.net...
> >
> > If you have ever had your TV interfered with, or heard loud voices
swearing
> > on your stereo or computer speakers, you have been the victim of a
"CBer"
> > using an illegal amplifier. CB radios are permitted only 5 watts of
power
> > output by the FCC.
> >
> > Yet many CBers use illegal RF amplifiers in defiance of the law. These
"outlaw
> > CB" guys think they can get away with it and laugh in the publics face.
> > Here is one of the worst, (below) a fellow who makes a living from
selling
> > these things and promoting their use.
> >
> > If you want to help, send a short note to INFO@FCC.GOV and perhaps copy
this
> > email as reference.
> >
> > Thank you,
> > A. Voobner
>
>
>
> Thanks for the tip, I always wanted one of those amps.
>
>
>
> >
> > Subject: MOBIL AMP SALE
> > Date: Sat, 14 Apr 2001 19:09:40 GMT
> > From: "Train" <cbmods@optonline.net>
> > Newsgroups: rec.radio.cb
> >

> > As a public service to the NG, I will be offering to sell mobil amps to
> > those wishing to buy them. This is not done out of greed but out of
> > necessity to thwart the losers in the NG who think they have taken over
OUR
> > nice little group and can use it to harass and belittle as they see fit.
> > To
> > offer sale of these items is just the thing needed in a public forum to
mess
> > with these nil-minded simpletons. Amps such as Texas Star, Palomar,
Cobra,
> > Messenger, Gray, Galaxy, X-Force and so on. These will be sold for a
limited
> > time and at a VERY small profit IF ANY !
> >
> > This is not a money thing so much as it is an access thing.
> >
> > Since these self appointed radio/computer gods have declared knowledge
an
> > illegal thing also, I might just make the entire Secret CB book series
> > available on CD along with a CD of amplifier schematics for base and
mobil
> > amps. Why is it that when these morons just think they are getting
somewhere
> > in their fight somebody like me comes along and pisses on their parade?
> > BECAUSE THEY NEED IT AND DESERVE IT!!!!!!!!!
> >
> > E-Mail me with your needs......
> > Train
> > tra1n@aol.com
> > train@cbmods.com
> > cbmods@optonline.net
>
>
>
>
>
> "Did you really think we want those laws observed? said Dr. Ferris.
> We WANT them to be broken. You'd better get it straight that it's
> not a bunch of boy scouts you're up against.... We're after power
> and we mean it .... There's no way to rule innocent men. The only
> power any government has is the power to crack down on criminals.
> Well, when there aren't enough criminals one MAKES them. One
> declares so many things to be a crime that it becomes impossible
> for men to live without breaking laws. Who wants a nation of law
> abiding citizens? What's there in that for anyone? But just pass
> the kind of laws that can neither be observed nor enforced or
> objectively interpreted--and you create a nation of law-breakers--
> and then you cash in on guilt. Now that's the system Mr. Reardon,
> that's the game, and once you understand it, you'll be much easier
> to deal with." --Ayn Randrad

>
> GROW UP!

2646. Re: RF Gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:34:01 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <JpBG6.32768$Ce4.2442109@news1.rdc1.ct.home.com>
Source record: 53143

Because most modern amateur rigs do not have an active rf stage--or, at least one that is easily made to be 'variable'. Nor, do they need under most conditions. My vintage SX-28 receivers have RF gain controls, But then again they cascade up to two RF amplifiers at the higher frequencies to achieve reasonable image rejection being single conversion designs.

Pete

"Richard" <Dickus@dial.pipex.com> wrote in message
news:9ccmpa$g54$1@news6.svr.pol.co.uk...
> I've noticed that most CB rigs have an RF gain control, however this
doesn't
> seem to be common feature on Amature band equipment. Can anyone enlighten
> me why the difference?
>
> Thanks
>
> Richard
>
>

2647. Re: SV: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:46:59 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AEAE5F0.F9D94431@dioxine.com>
Source record: 53144

Anders wrote:

> Thank you for all your answers!
>
> First, the output power measuring is done by a combined SWR/Power meter. I
> have also compared the heat from a 75 ohm resistor (dummy load) when
> connected to 13,6 vdc source and when connected to the RF output. The
> difference in heat is remarkable. The first is burning hot and the other is
> just tepid. Conclusion: My transmitter doesn't output 3W!

What kind of 75 ohm resistor? Most of higher-powered resistors
are wire-wound, you have to be careful to get a carbon-composition
resistor, or, this might be a little contentious, even a metal-film resistor.

A wirewound resistor will be quite inductive at VHF frequencies
and act like a low-Q inductor rather than resistive dummy load and
make it impossible to get useful power readings.

The ARRL publishes some interested low-power (QRP) projects,
including power meters, that may be useful as background information
to you.

> Dana: I'm aware of that the spectral purity is questionable. Therefore I
> have connected a chebychev low pass filter to the output.

Given the configuration of this "power oscillator" transmitter, I wouldn't
be surprised if the low-pass filter is perturbing the frequency and power
characteristics of the transmitter.

Dana K6JQ
dana@dioxine.com

2648. Re: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 15:53:21 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <RHBG6.32770$Ce4.2443713@news1.rdc1.ct.home.com>
Source record: 53145

Some hams use a "dead bug" construction style where the parts are simply assembled on a piece of double-side PC board with etchings.

Your success in etching a board depends on whether the original design relied on a large copper ground-plane on the backside of the board, the frequency and placement of the thru-hole grounding points, etc., and to some degree the board thickness and dialectric. At VHF frequencies, any stray inductances, especially in the emitter leads which will be degenerative, may give you power problems. The original schematic did show 12-volts as being the power the source, but I wouldn't be surprised if the builder actually used a more standard 13.8 source during testing. You are also at his mercy regarding power output claims--what did he use for a meter? Did he include harmonic filtering? Directional coupler in-line SWR/power meters are often much more sensitive at higher frequencies, so harmonic energy may have influenced his claimed results. You just don't know, since the design basically relies on the word and skills of the original builder, with no peer review before publication.

There are no easy answers to your questions.

Regards

Peter

"Anders" <anders.gavner@removethis.swipnet.se> wrote in message
news:bfBG6.1709$vR1.6615@nntpserver.swip.net...
> - I etched the board myself. I did not buy it.
> - Operating voltage is limited by the 18 VCeo limit in the power
> transistors, I have already screwed one.
> - What do you mean by "simply breadboarded"? Do you mean that it isn't
> built on a RF board with a ground plane?
>
> Finally, is the circuit on the link below of better design, or rather,
> should I build it instead?
>
> http://www.aaroncake.net/circuits/3Wfmtran.htm
>
> many thanks
>
> /Anders
>
>
>
>
>
> "Peter J. Bertini" <commquart@home.com> skrev i meddelandet

> news:P1BG6.32759$Ce4.2438477@news1.rdc1.ct.home.com...
> > A lot of variables at work here. Did he sell an etched board for this
> > project?
> >
> > Emitter lead lengths are critical, operating voltage will make a large
> > difference, and the coil dimensions are also important. If you simply
> > breadboarded the circuit, that could be a large portion of you
problems.
> >
> > Pete
> >
> > "Anders" <anders.gavner@removethis.swipnet.se> wrote in message
> > news:lq%F6.1346$vR1.5593@nntpserver.swip.net...
> > > I have built the FM transmitter on this side.
> > >
> > > http://www.avlyssning.nu/fmsandare/stationtransmitter/4/index.htm
> > >
> > > It is supposed to output 3W, but I have only measured roughly 0.5W-1W.
> > Could
> > > anyone please give any tips on what to do to increase the output. Can
I
> > > change the bias on the power transistors?
> > > Input current is about 250 mADC.
> > > I also tried to mount it in an aluminium box, but with the circuit
> mounted
> > > about 3 mm the power dropped even more.
> > >
> > > All tips are appreciated, including the "That transmitter sucks, and
you
> > > should build *this* one instead" tip! =)
> > >
> > > /Anders
> > >
> > >
> >
> >
>
>

2649. 17 Meter DSB rig - progress report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 16:12:02 UTC
From: n2cqr@clix.pt
Message-ID: <3aeae9d9.18127337@news.clix.pt>
Source record: 53138

I stopped off at a hardware store yesterday and bought some super glue. This morning I used it to build the first stage of the 17 meter DSB rig: the Variable Crystal Oscillator. I used the circuit from Doug DeMaw's "Barebones superhet" (June 82 QST) Very simple. I used a MPF102 instead of the 40673. The stage went together very quickly - Manhattan style is the way to go! I'd been listening to 17 meter SSB as I worked. It was very satisfying when, at the end of the morning, I connected a 12 volt battery to the circuit board and heard my new oscillator through the receiver. I got very good "swing" in the crystal -- -lloks like > 20 Khz.

I think I'll build a direct conversion RX to go with this rig -- this way I'll be listening to both sidebands at the same time and will be better able to avoid interfering with nearby stations.

73 from the Azores
Bill CU2JL N2CQR

2650. Re: # 61 ferrite material ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 17:48:53 UTC
From: Bob Miller <bmiller@calweb.com>
Message-ID: <3aeb02d7_1@news3.calweb.com>
Source record: 53146

Find a plastic or paper tube or fab one the same diameter as the ferrite rod, wind about 20 turns of small gauge wire on the paper/plastic tube, measure its inductance or find it's resonance with a known capacitor and a GDO. record same and caculate the value of L from 1/2 pi sqr(lc). The wind the same coil on the ferrite core and note Its inductance increase by the privious tests. This will give you the Al of the core and from tables in the ARRL handbook you wil find the core type by mix number. Good Luck, Bob, KE6F

"amdx" <amdx@att.net> wrote in message news:4%zE6.30268$RF1.2522729@bgtnsc06-news.ops.worldnet.att.net...

> During some experimentation I have turned some #61 ferrite toroids on a
> lathe.
> They turned fairly easy, no problem.
> I pulled the ferrite rod from three different portable radio in an attempt
> to find
> a rod that I could turn with the same ease of the toroids. None of the rods
> seemed
> to be the same, it was a harder material, it turned to a rust color with
> shiny metal
> flecks mixed in.
> I thought #61 was the material choose for most AM loopstick antennas, is
> there sonething I'm missing?
>
> Mike
>
>
>

2651. Re: SV: Help needed: Too low output power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 18:17:51 UTC
From: audiofan@hotmail.com
Message-ID: <3aeb0936.1977795@news.pacific.net.sg>
Source record: 53129

On Sat, 28 Apr 2001 00:24:30 +0200, "Anders"
<anders.gavner@removethis.swipnet.se> wrote:

>First, the output power measuring is done by a combined SWR/Power meter. I
>have also compared the heat from a 75 ohm resistor (dummy load) when
>connected to 13,6 vdc source and when connected to the RF output. The
>difference in heat is remarkable. The first is burning hot and the other is
>just tepid. Conclusion: My transmitter doesn't output 3W!

What kind of 75 ohm resistor are you using? IME, most low value
resistors are wire-wound, giving significant inductance when operating
on high freq., and throws your measurements off. For my dummys, I like
to parallel many high-value small-power resistors.

2652. Re: # 61 ferrite material ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 22:06:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AEB3EEE.1F7B785D@eznec.com>
Source record: 53047

The Handbook I have only has information for toroids, not rods, and you can't apply toroid data directly to a rod. When you wind a coil on a ferrite rod, there's a huge air gap in the magnetic path, from one end of the rod to the other. (If not for this, it couldn't function as an antenna.) The air path has a very large effect on the characteristics of the inductor, one of the most notable being a dramatic reduction in the Al value from what you'd get from a toroid of comparable dimensions. The amount of reduction depends on the length/diameter ratio of the rod. Another effect is that the inductance becomes relatively insensitive to the permeability of the material itself. For example, for a rod length/diameter ratio of 10, the effective permeability of a rod with material permeability of 100 is 40. Increasing the material permeability to 1000 increases the effective permeability only to 60, and material permeability of 5000 results in effective permeability of about 70. So it can be hard to tell one rod material from another by a simple inductance measurement. It might be possible, though, depending on how carefully you can make measurements, the length/diameter ratio of the rod, and what types of material you're trying to distinguish between. Go to http://fair-rite.com, select Catalog, then go to page 139 for a graph of relative permeability vs length/diameter ratio for several materials.

Roy Lewallen, W7EL

Bob Miller wrote:
>
> Find a plastic or paper tube or fab one the same diameter as the ferrite
> rod, wind about 20 turns of small gauge wire on the paper/plastic tube,
> measure its inductance or find it's resonance with a known capacitor and a
> GDO. record same and caculate the value of L from 1/2 pi sqr(lc). The wind
> the same coil on the ferrite core and note Its inductance increase by the
> privious tests. This will give you the Al of the core and from tables in
> the ARRL handbook you wil find the core type by mix number. Good Luck, Bob,
> KE6F
> "amdx" <amdx@att.net> wrote in message
> news:4%zE6.30268$RF1.2522729@bgtnsc06-news.ops.worldnet.att.net...
> > During some experimentation I have turned some #61 ferrite toroids on a
> > lathe.
> > They turned fairly easy, no problem.
> > I pulled the ferrite rod from three different portable radio in an
> attempt
> > to find
> > a rod that I could turn with the same ease of the toroids. None of the
> rods
> > seemed
> > to be the same, it was a harder material, it turned to a rust color with

> > shiny metal
> > flecks mixed in.
> > I thought #61 was the material choose for most AM loopstick antennas,
> is
> > there sonething I'm missing?
> >
> > Mike
> >
> >
> >

2653. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-28 23:55:18 UTC
From: jyanikx@kua.net
Message-ID: <9091C50AAjyanikkuanet@209.25.157.130>
Source record: 53048
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

dgking@eurobell.co.uk (Doug King) wrote in
<8MqSIxAXyn66Ew2n@eurobell.co.uk>:

>In another life I used to be a repair/calibration engineer, and can tell
>you the only way to check any instruments calibration, is to have it
>checked by a specialist calibration company, who use traceable accuracy
>equipment which itself is calibrated on a regular basis to national
>standards (UK) you cannot get more accurate that that!
>
>If you only want to know the accuracy i.e. if still in spec? and not
>have them actually re-calibrate? it will cost a lot less, ask for an
>error check only price.
>
>Industry have to have all equipment check every 3 months or so?
>very expensive but necessary, apart for cleaning a cal check and
>certification rarely need actual adjustment.
>
>If you are a home user and only use it for trouble shooting and
>monitoring? as others have said if it has not been tweeked and you have
>no reason to doubt it's accuracy? leave well alone, as you may well
>upset what is probable a reasonably accurate scope as it is.
>
>Most scopes have good long term stability and when warmer-up (30 mins)
>are more than good enough for home use, only needing re-calibrating
>after repair. It is probably more accurate that anything you have at
>home to check it against.
>
>Hope this helps Doug
>
>
>>Larry Gagnon wrote:
>>>
>>> I want to attempt to do a calibration to my HP-1722B 275MHz analog
>>> scope. According to the service manual the instruments I need which I
>>> do not have are a pulse generator and a time mark generator. Is it at
>>> all possible to somehow use audio frequencies (for example software
>>> used on my computer sound card) to mimic a pulse generator and time
>>> mark generator)? If so, does anyone know of shareware available that
>>> would run the sound card as pulse and time mark generators?
>>>
>>> If not, does anyone out there have any other suggestions as to perhaps
>>> a quick and dirty method of scope calibration?
>>>

>>> Your assistance would be greatly appreciated. Thanks.
>>>
>>> Larry Gagnon VE6MK
>>> **********
>>> to send direct email remove "fake" from address
>>
>>Like Bob, K6DDX, said "Unless someone has monkeyed with the
>>alignment adjustments I wouldn't think it would be necessary
>>to do much more than check the calibration of the gain and
>>time base".
>>
>>The problem you have is that, even if you were to get a marker
>>generator and a pulse generator, how do you know how accurate
>>these instruments are? Where is the reference? When were the
>>generators calibrated?
>>
>>Unless some parts were replaced or the alignment controls
>>were changed, the accuracy of the scope is not going to
>>drift very much. I have used a lot of HP and Tektronix
>>scopes and they have always been very stable and accurate.
>>It will probably stay more accurate than you, or I, can
>>visually resolve from the screen.
>>
>>Martin, K7MEM
>>
>>--
>>Martin E. Meserve K7MEM
>>martin.e.meserve AT lmco.com
>>
>>I respond to news groups and E-Mail on my own time and therefore
>>my responses may not be as timely as you, or I, would like them to
>>be. If I seem to be ignoring you, send me another E-Mail to jog my
>>memory. Opinions are my own and do not reflect the opinions of my
>>employer.
>

Actually,cal labs will charge MORE for before data,as opposed to a complete
cal cert without before/after data.The cal cert should list any out of
tolerance ranges.I did cal/cert and repair for TEK for 21.5 years.
--
Jim Yanik,NRA member
remove X to contact me

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2654. WTB: QEX Magazines - Sept 1997, Nov/Dec 1999

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 02:43:06 UTC
From: crabtreejr@aol.com
Message-ID: <20010428224306.05136.00001347@ng-mm1.aol.com>
Source record: 53049

Looking to buy the following issues of QEX magazine
1997 September
1999 November/December
Please contact with condition and price.

Thanks and 73

John KC0GGH
crabtreejr@aol.com

2655. QRP AM modulator circuit using (gasp) tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 03:10:48 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AEB8638.D62597EB@ix.netcom.com>
Source record: 53050

See diagram and discussion at the web page:
http://www.geocities.com/wa2ise/radios/amxmit.htm
Intended for playing favorite music or other audio material
thru antique AM radios, but may be of interest to AMer
hams. It uses a pentagrid converter tube as a modulator
and oscillator. Also has a feedback loop to make for
more linear modulation.

2656. Re: QRP AM modulator circuit using (gasp) tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 03:30:19 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <tj2netgceh6t7jktl3i6q4e99ltvk3jo4k@4ax.com>
Source record: 53051

On Sat, 28 Apr 2001 22:10:48 -0500, in rec.radio.amateur.homebrew you wrote:

>See diagram and discussion at the web page:
>http://www.geocities.com/wa2ise/radios/amxmit.htm
>Intended for playing favorite music or other audio material
>thru antique AM radios, but may be of interest to AMer
>hams. It uses a pentagrid converter tube as a modulator
>and oscillator. Also has a feedback loop to make for
>more linear modulation.

There seem to be a couple of mistakes in the schematic. For one, you have B+ connected to ground in the bottom center of the schematic. For another, the diode is in backwards. With the direction shown, increasing RF output will drive the audio amp cathode negative, causing increased audio, causing increased RF output, etc, etc, a vicious circle.

73, Bill W7TI

2657. MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 03:52:58 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9cg7fteet1@dipsy.missouri.edu>
Source record: 53052

Simple question...

I'm working with a self-designed rf amplifier using an irf530 power mosfet. I've got the amplifier biased and working, sort of. My question is in regards to measuring the output impedance so that I can match the load to the amplifier.

Basically, I was sitting there at the bench thinking of how to model the mosfet using ac analysis when it suddenly hit me that I was wasting my time [I think...that's the root of my question-to-come]. What I did was to replace the load with discrete resistors from about 500 ohms down to about 12 ohms, measure the rms voltage, and then compute the power (Vrms^2/R). I got a peak power around 82 ohms with a dc-blocking capacitor of 1nF...therefore, I have the real part of the load. Correct? Also, I tried several different sizes of capacitor, and 1nF produced the larges rms voltage.

Am I correct in assuming that the [very approximate] output impedance of the amplifier is Z = 82 - j10^9/w ohms? I'm essentially using basic concepts for equal power transfer, but with imaginary components as well. Is there any better way of getting a rough estimate for the output impedance?

Thanks for the help.
Pete
BojangleChicken@yahoo.com

2658. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 06:09:09 UTC
From: Cirip <cirip@yahoo.com>
Message-ID: <01c0d073$7d85a1a0$0300000a@Pent>
Source record: 53053

Hi Pete,

It is not clear if you modelled or played with the actual part.
Also, I am not sure if you want to build a power amplifier, or just a small signal amplifier. What class? What frequency?

Output impedance of the transistor is not of great importance in a power amplifier. You may want to compensate for the reactive components, but the real part has nothing to do with what the device sees from the load. Whether you simulated the PA (it is interesting though if you have the right model) or you just played with it on the bench, the so called optimum load resistor, for peak output power, varies with the device gain, power supply and drive level. The point is that complex conjugated impedances theory does not apply in PA matching. The concept is different. You may want to go to the Motorola (or ON Semiconductors) or Philips web site and read some app notes about how to design a RF PA.

Good luck,
Cirip

Bojangle Chicken <bojanglechicken@yahoo.com> wrote in article <9cg7fteet1@dipsy.missouri.edu>...
> Simple question...

2659. Re: info for Icom W2 pinout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 06:12:41 UTC
From: dazzie <dazzie@ihug.co.nz>
Message-ID: <9cgbal$6g3$1@lust.ihug.co.nz>
Source record: 53054

Found the info at http://freeweb.pdq.net/medcalf/ztx/wire/iw2a.html

Kiely ZL1WPK

2660. Re: QRP AM modulator circuit using (gasp) tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 06:37:55 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AEBB6C2.38F7C875@ix.netcom.com>
Source record: 53055

Bill Turner wrote:

> On Sat, 28 Apr 2001 22:10:48 -0500, in rec.radio.amateur.homebrew you wrote:
>
> >See diagram and discussion at the web page:
> >http://www.geocities.com/wa2ise/radios/amxmit.htm
> >Intended for playing favorite music or other audio material
> >thru antique AM radios, but may be of interest to AMer
> >hams. It uses a pentagrid converter tube as a modulator
> >and oscillator. Also has a feedback loop to make for
> >more linear modulation.
>
> ____
>
> There seem to be a couple of mistakes in the schematic. For another, the
> diode is in backwards. With the direction shown, increasing RF output will
> drive the audio amp cathode negative, causing increased audio, causing increased
> RF output, etc, etc, a vicious circle.
>

The triode is an inverter stage. For a fixed grid voltage, the cathode
going more negative will cause more plate current. That causes the
voltage on the plate to go down (inversion). Assuming the coupling
cap passes the change, this makes G3 voltage drop also. This in
turn reduces the amount of RF that reaches the plate of the pentagrid
tube, where the diode detector is sampling. This decrease is seen
by the cathode going less negative. Thus a negative feedback loop.

2661. Review of VK3XU's new Homebrew book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 08:22:21 UTC
From: Peter Parker <parkerp@alphalink.com.au>
Message-ID: <3aebd017$1@news.alphalink.com.au>
Source record: 53057

A review of Drew Diamond's latest Homebrew Projects for
the Amateur Vol 2 appears below.

http://www.alphalink.com.au/~parkerp/qrpvk3xu.htm

Peter Parker
E-mail: parkerp @ alphalink . com . au

URL: http://www.alphalink.com.au/~parkerp Amateur Radio VK3YE - Melbourne
Transport - Writing

2662. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 10:58:25 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9cgrvg$o68$1@neptunium.btinternet.com>
Source record: 53058

Bojangle Chicken <bojanglechicken@yahoo.com> wrote in message
news:9cg7fteet1@dipsy.missouri.edu...
> Simple question...
>
> I'm working with a self-designed rf amplifier using an irf530
power mosfet.
> I've got the amplifier biased and working, sort of. My question
is in
> regards to measuring the output impedance so that I can match the
load to
> the amplifier.
>
> Basically, I was sitting there at the bench thinking of how to
model the
> mosfet using ac analysis when it suddenly hit me that I was
wasting my time
> [I think...that's the root of my question-to-come]. What I did
was to
> replace the load with discrete resistors from about 500 ohms down
to about
> 12 ohms, measure the rms voltage, and then compute the power
(Vrms^2/R). I
> got a peak power around 82 ohms with a dc-blocking capacitor of
> 1nF...therefore, I have the real part of the load. Correct?
Also, I tried
> several different sizes of capacitor, and 1nF produced the larges
rms
> voltage.
>
> Am I correct in assuming that the [very approximate] output
impedance of the
> amplifier is Z = 82 - j10^9/w ohms? I'm essentially using basic
concepts
> for equal power transfer, but with imaginary components as well.
Is there
> any better way of getting a rough estimate for the output
impedance?
>
> Thanks for the help.
> Pete
> BojangleChicken@yahoo.com
> ==========

Why do you want to know the output (internal) impedance of the transistor? What will you do with that information if you ever get to know it ?

The external load on the transistor is simply calculated from the peak voltage across the transistor and the peak current (supplied by the transistor) flowing through it. R = V / I.

Reg, G4FGQ

2663. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 11:39:41 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <6v3xwsA91$66EAks@ifwtech.com>
Source record: 53059

Reg Edwards wrote:
>
>Why do you want to know the output (internal) impedance of the
>transistor? What will you do with that information if you ever get to
>know it ?
>
Nothing at all! The output matching network for a power transistor is designed according to the manufacturer's datasheet information about the load that need to be PRESENTED TO the transistor - in other words, the load impedance that the transistor "wants to see".

A few year ago, an applications engineer explained on this newsgroup how the optimum load impedance is determined. It is a compromise between several different factors, including: maximum voltage rating, maximum current rating, power output, power dissipation, power gain and (if relevant) linearity. The engineer uses a variable tuner to explore the effects of load impedance on all of these characteristics, and comes up with a recommendation that balances all the different factors involved.

You could do exactly the same, given the equipment, but you would almost certainly come up with a different optimum load impedance, reflecting your own judgement about your own set of priorities.

The internal impedance of the device is irrelevant to any of that, and you don't need to know it.

One point to check is that some device manufacturers specify the actual load impedance, while others specify its conjugate - but that still is not the internal impedance of the device.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2664. Homebrew Web Site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 11:53:54 UTC
From: n2cqr@clix.pt
Message-ID: <3aec002a.9753636@news.clix.pt>
Source record: 53056

On my web site I have articles about my homebrew projects.
There is also a lot of info on Boatanchor radios, satellite
communications, astronomy...

Check it out!

http://planeta.clix.pt/n2cqr/

73 Bill N2CQR CU2JL

2665. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 12:14:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AEC05B5.6D0E9637@eznec.com>
Source record: 53060

Let me add to Ian's summary that a long-used rule of thumb for HF amplifiers is (Vcc^2)/(2*Po) where Po is the output power in watts. If the transistor is driven to saturation and has appreciable Vce(sat), then Vcc-Vce(sat) is often substituted for Vcc in the formula.

You'll find this formula used in Hayward & DeMaw's _Solid State Design for the Radio Amateur_ (ARRL) -- which you definitely should get if you don't already have a copy -- and other publications dealing with RF power amplifiers, such as Motorola's app note AN721, "Impedance Matching Networks Applied to RF Power Transistors".

Roy Lewallen, W7EL

"Ian White, G3SEK" wrote:

> Nothing at all! The output matching network for a power transistor is
> designed according to the manufacturer's datasheet information about the
> load that need to be PRESENTED TO the transistor - in other words, the
> load impedance that the transistor "wants to see".
>
> A few year ago, an applications engineer explained on this newsgroup how
> the optimum load impedance is determined. It is a compromise between
> several different factors, including: maximum voltage rating, maximum
> current rating, power output, power dissipation, power gain and (if
> relevant) linearity. The engineer uses a variable tuner to explore the
> effects of load impedance on all of these characteristics, and comes up
> with a recommendation that balances all the different factors involved.
> . . .

2666. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 16:04:07 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3aec3725.3125544@news.aepnet.org>
Source record: 53061

On Sun, 29 Apr 2001 05:14:45 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Let me add to Ian's summary that a long-used rule of thumb for HF
>amplifiers is (Vcc^2)/(2*Po) where Po is the output power in watts. If
>the transistor is driven to saturation and has appreciable Vce(sat),
>then Vcc-Vce(sat) is often substituted for Vcc in the formula.

The constant "2" in the 2*Po part of the above formula is usual for
class C operation. The ARRL Handbook, using "K" in place of the "2"
says:

"K = a constant that approximates the RMS current to dc current ratio
appropriate for each class (of operation). For the different classes
of operation:

Class A, K = 1.3
Class AB, K = 1.5 --- 1.7
Class B, K = 1.57 --- 1.8
Class C, K = 2 "

Wes Stewart, N7WS

>
>You'll find this formula used in Hayward & DeMaw's _Solid State Design
>for the Radio Amateur_ (ARRL) -- which you definitely should get if you
>don't already have a copy -- and other publications dealing with RF
>power amplifiers, such as Motorola's app note AN721, "Impedance Matching
>Networks Applied to RF Power Transistors".
>
>Roy Lewallen, W7EL
>
>"Ian White, G3SEK" wrote:
>
>> Nothing at all! The output matching network for a power transistor is
>> designed according to the manufacturer's datasheet information about the
>> load that need to be PRESENTED TO the transistor - in other words, the
>> load impedance that the transistor "wants to see".
>>
>> A few year ago, an applications engineer explained on this newsgroup how
>> the optimum load impedance is determined. It is a compromise between
>> several different factors, including: maximum voltage rating, maximum
>> current rating, power output, power dissipation, power gain and (if
>> relevant) linearity. The engineer uses a variable tuner to explore the
>> effects of load impedance on all of these characteristics, and comes up
>> with a recommendation that balances all the different factors involved.

>> . . .

2667. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 16:17:16 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9ci87v$4r4$1@dipsy.missouri.edu>
Source record: 53066

> Why do you want to know the output (internal) impedance of the
> transistor? What will you do with that information if you ever get
> to know it ?

It is not the impedance of the transistor that I care about. It's the impedance of the amplifier that matters to me. I'd like to be able to get a match to it. If the amplifier impedance is 10 ohms and I go sticking a 1kohm resistor across the output, I'm definitely *not* going to get optimum power out.

> The external load on the transistor is simply calculated from the
> peak voltage across the transistor and the peak current (supplied
> by the transistor) flowing through it. R = V / I.

This is pretty much what I did. However, I did not have any books with me at the lab, nor do I have many at my present location (most of them are 2 hours away), so I was just looking at a quick-n-dirty method of finding the approximate impedance that I need the load to be to get near-maximum power out--i.e. I want to get as much of the rf current into the load as I can. I will not using transformers to match the load.

Thanks for the approximations Roy, Ian and Wes.

2668. Re: Speedup games, programs and get more FREE RAM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 21:26:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AEC8705.85817360@eznec.com>
Source record: 53064

I don't know anything about this site or this poster. But I do know that this sort of recommendation and program are a common way to spread a "Trojan horse" -- a virus or other malevolent program disguised as something useful. Use extreme caution! The fact that this poster didn't identify himself in any way, and that hotmail accounts are free should are reasons to be more suspicious.

Roy Lewallen, W7EL

Jhon12@hotmail.com wrote:
>
> I found this cool program you can download it from: www.applicationwarp.com

2669. NiCd Electrolyte

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 21:56:24 UTC
From: "Al Lorona, Jr." <al_lorona@agilent.com>
Message-ID: <3AEC8E08.4E8E76BB@agilent.com>
Source record: 53072

Hi, Everybody,

One of the cells in my wet nicad backup battery in my shack went to zero volts and I couldn't revive it. I had nothing to lose, so today I flushed out all the electrolyte (and debris) and now need to replace it. Then I'll try recharging it. What should I use? I don't even know if the solution was an acid or a base, and an Internet search turned up nothing for me.

For the record, it is an Alcad DLP-6 cell, around 100 A-h or so.

Thanks for any help you can give me.

Regards,

Al W6LX

2670. Please Help, Which Part Should I change to make it more powerfull 4-10w

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-29 22:44:28 UTC
From: Vlad <leeassoc@hotmail.com>
Message-ID: <gP0H6.1625$hP4.267272@typhoon.we.rr.com>
Source record: 53065
Cross-posted to: alt.radio.broadcasting,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,alt.pirate.radio,alt.radio.broadcasting.open,rec.radio.amateur.digital,rec.radio.amateur.swap

Please do reply to (leeassoc@hotmail.com)

At this site:
http://www.aaroncake.net/circuits/3Wfmtran.htm

looks like I've got everything but I need the "parts" that makes it more superior or powerfull up to 5wat.

I am not sure which of this list below would be the one to change for the better to make my fm trans. go beyond 1 mile.

I have a veronica 1w without antenna and had it for years where now looks like the little light is out, and I have to hold it in my hand to even work or add something metallic to it, the 2nd board I have is broken and all it does is change the stations. That seems to be missing one metalic tube on it...

Thanks..

Part Total Qty. Description Substitutions
R1,R4,R14,R15 4 10K 1/4W Resistor
R2,R3 2 22K 1/4W Resistor
R5,R13 2 3.9K 1/4W Resistor
R6,R11 2 680 Ohm 1/4W Resistor
R7 1 150 Ohm 1/4W Resistor
R8,R12 2 100 Ohm 1/4W Resistor
R9 1 68 Ohm 1/4W Resistor
R10 1 6.8K 1/4W Resistor
C1 1 4.7pF Ceramic Disc Capacitor
C2,C3,C4,C5,C7,C11,C12 7 100nF Ceramic Disc Capacitor
C6,C9,C10 3 10nF Ceramic Disc Capacitor
C8,C14 2 60pF Trimmer Capacitor
C13 1 82pF Ceramic Disc Capacitor
C15 1 27pF Ceramic Disc Capacitor
C16 1 22pF Ceramic Disc Capacitor
C17 1 10uF 25V Electrolytic Capacitor
C18 1 33pF Ceramic Disc Capacitor
C19 1 18pF Ceramic Disc Capacitor
C20 1 12pF Ceramic Disc Capacitor
C21,C22,C23,C24 4 40pF Trimmer Capacitor
C25 1 5pF Ceramic Disc Capacitor
L1 1 5 WDG, Dia 6 mm, 1 mm CuAg, Space 1 mm
L2,L3,L5,L7,L9 5 6-hole Ferroxcube Wide band HF Choke (5 WDG)
L4,L6,L8 3 1.5 WDG, Dia 6 mm, 1 mm CuAg, Space 1 mm

L10 1 8 WDG, Dia 5 mm, 1 mm CuAg, Space 1 mm
D1 1 BB405 BB102 or equal (most varicaps with C = 2-20 pF [approx.] will do)

Q1 1 2N3866
Q2,Q4 2 2N2219A
Q3 1 BF115
Q5 1 2N3553
U1 1 7810 Regulator
MIC 1 Electret Microphone
MISC 1 PC Board, Wire For Antenna, Heatsinks

2671. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 00:38:45 UTC
From: la8ak@online.no
Message-ID: <3aecb389.279789051@news.online.no>
Source record: 53067

On Sun, 29 Apr 2001 11:17:16 -0500, "Bojangle Chicken"
<bojanglechicken@yahoo.com> wrote:

>> The external load on the transistor is simply calculated from the
>> peak voltage across the transistor and the peak current (supplied
>> by the transistor) flowing through it. R = V / I.
>
>This is pretty much what I did. However, I did not have any books with me
>at the lab, nor do I have many at my present location (most of them are 2
>hours away), so I was just looking at a quick-n-dirty method of finding the
>approximate impedance that I need the load to be to get near-maximum power
>out--i.e. I want to get as much of the rf current into the load as I can. I
>will not using transformers to match the load.
>
>Thanks for the approximations Roy, Ian and Wes.
>
Thanks to Wes for a good formula explanation, but doesn't a device
have lower impedance on input and output when frequency approaches
maximum freqency, or is it just caused by the fact that voltage swing
and gain is lower?

73
Jan-Martin
LA8AK

2672. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 01:02:00 UTC
From: "FREDRICK L. SNIDER" <leons@worldnet.att.net>
Message-ID: <cQ2H6.4949$kA1.166526@bgtnsc04-news.ops.worldnet.att.net>
Source record: 53068

Just some 14 year old blowing off steam,anonymously.
Incidentally,that must be the medical spelling of pedophile.

2673. Re: 17 Meter DSB rig - progress report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 03:00:46 UTC
From: Bill <Salvia99@iname.com>
Message-ID: <t8lpetcokhoc5qaokprmf16fsce2er5592@4ax.com>
Source record: 53069

What is the Manhattan style of construction?

On Sat, 28 Apr 2001 16:12:02 GMT, n2cqr@clix.pt (Bill Meara) wrote:

>I stopped off at a hardware store yesterday and bought some super
>glue. This morning I used it to build the first stage of the 17 meter
>DSB rig: the Variable Crystal Oscillator. I used the circuit from
>Doug DeMaw's "Barebones superhet" (June 82 QST) Very simple. I used
>a MPF102 instead of the 40673. The stage went together very quickly
>- Manhattan style is the way to go! I'd been listening to 17 meter
>SSB as I worked. It was very satisfying when, at the end of the
>morning, I connected a 12 volt battery to the circuit board and heard
>my new oscillator through the receiver. I got very good "swing" in
>the crystal -- -lloks like > 20 Khz.
>
>I think I'll build a direct conversion RX to go with this rig -- this
>way I'll be listening to both sidebands at the same time and will be
>better able to avoid interfering with nearby stations.
>
>73 from the Azores
>Bill CU2JL N2CQR

2674. Re: radiators for loops

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 03:05:14 UTC
From: aduffy@sprint.ca
Message-ID: <3AECD66A.BBD6DB9@sprint.ca>
Source record: 53070

Thanks for the reply Bruce,

Alot of design plans I've looked over were form QST mags and also different books I've found at the library. I've also spent many hrs on the net doing research as well.

Others have replied about using copper strips and apparently the one major difference is that it increases the efficiency (which modeling also shows) by reducing the "radiation resistance". The downside is that it produces a narrower band width. Other than that the circumference etc. remains the same other than construction of the support mechanism.

For construction purposes I'll be mounting the Cap on top with the drive and coupling. I wasn't sure why there was 2 styles of coupling for loops that's why I was asking. Nothing I had read indicated any reasoning for either of them.

Other than that I have a couple more item to get then construction finally begins (only been two yrs or more since I started looking into a HF antenna... what's awhile longer)

73,
Tony

Bruce Muscolino wrote:

> Tony,
>
> The major reason behind tube construction rather than any other is
> strength. A tube will be self-supporting. A tube also gives the largest
> surface area of any other geometrical shape. There is no reason you can not
> use a flat strip except for support. If you can figure out a way to support
> a large structure of strip you will be OK. \
>
> Most of the seminal articles on building and using loops were written in the
> early 60's. The purchase of a couple of QST CD ROMS from that period will
> provide you with lots of ideas. Well worth the cast. The individual
> articles may also be available from ARRL Headquarters for some nominal fee.
>
> Coupling via loop or other method seems to depend on the time of the day and
> the weather! I have sued both, a "gamma matched" coupling at 2 meters and a
> loop at HF. Frankly I could not tell the difference!
>
> Also the matter of inside or outside for the capacitor is also an area where
> your own design will work best. I don't think there is any overwhelming
> reason to put it in either location.
>

> The antenna should be considered experimental and thus, whatever works will
> be the best solution for you! Build it an make measurements, even simple
> field strength measurements will tell you a lot.
>
> 73

2675. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 03:40:27 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AECDEAB.405AC8C@coqui.net>
Source record: 53071

"FREDRICK L. SNIDER" wrote:
>
> Just some 14 year old blowing off steam,anonymously.
> Incidentally,that must be the medical spelling of pedophile.

Maybe its a 14 year old doctor.
--

Bill Meacham
Vieques, PR

2676. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 07:27:09 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3aed0c71.57737568@news.aepnet.org>
Source record: 53074

On Mon, 30 Apr 2001 00:38:45 GMT, la8ak@online.no (J M Noeding) wrote:

>On Sun, 29 Apr 2001 11:17:16 -0500, "Bojangle Chicken"
><bojanglechicken@yahoo.com> wrote:
>
>
>>> The external load on the transistor is simply calculated from the
>>> peak voltage across the transistor and the peak current (supplied
>>> by the transistor) flowing through it. R = V / I.
>>
>>This is pretty much what I did. However, I did not have any books with me
>>at the lab, nor do I have many at my present location (most of them are 2
>>hours away), so I was just looking at a quick-n-dirty method of finding the
>>approximate impedance that I need the load to be to get near-maximum power
>>out--i.e. I want to get as much of the rf current into the load as I can. I
>>will not using transformers to match the load.
>>
>>Thanks for the approximations Roy, Ian and Wes.
>>
>Thanks to Wes for a good formula explanation, but doesn't a device
>have lower impedance on input and output when frequency approaches
>maximum freqency, or is it just caused by the fact that voltage swing
>and gain is lower?

The formula that Roy first presented and I expanded on computes an
optimum resistive, i.e. non-reactive value for the output load
resistance. In an r-f (or any AC) situation, it normally assumes that
the reactive parts are dealt with by some type of tuning so that the
net reactance is zero.

The formula does not address the input at all, nor does it address the
gain of the device. It simply calculates the value that delivers the
required power output.

In other words, if (sometimes a big if) you can drive the device hard
enough to cause the peak-peak voltage swing to occur at the drain,
collector or anode, then with the calculated load resistance you will
achieve design power output.

To clarify further, this value is the resistance that needs to be
presented to the device output terminal. It is not the resistance
that is presented by the terminal to the outside world.

Wes Stewart, N7WS

>
>73
>Jan-Martin
>LA8AK

2677. Re: NiCd Electrolyte

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 10:01:10 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3AED37B9.E73DEE8C@cmcorp.com>
Source record: 53075

NaOH

"Al Lorona, Jr." wrote:

> Hi, Everybody,
>
> One of the cells in my wet nicad backup battery in my shack went to zero
> volts and I couldn't revive it. I had nothing to lose, so today I
> flushed out all the electrolyte (and debris) and now need to replace it.
> Then I'll try recharging it. What should I use? I don't even know if the
> solution was an acid or a base, and an Internet search turned up nothing
> for me.
>
> For the record, it is an Alcad DLP-6 cell, around 100 A-h or so.
>
> Thanks for any help you can give me.
>
> Regards,
>
> Al W6LX

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

2678. Re: 17 Meter DSB rig - progress report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 10:22:52 UTC
From: n2cqr@clix.pt
Message-ID: <3aed3b8a.2042660@news.clix.pt>
Source record: 53073

Bill: It is a style currently very popular with QRP homebrewers.
You start out with a copper clad board and some scrap copper clad
board. With the scrap, you cut out small "islolation pads" and crazy
glue them to the copper clad board (to the copper). These pads are
used for those junctions that are not at ground. All the ground
connections go to the board. Circuits go together VERY quuickly and
this style makes circuit modification and experimentation very easy.
It is called Manhattan becasue when you look down on the finished
product, you see a pattern that looks like the street pattern of
Manhatan island.

73 Bill N2CQR CU2JL

http://planeta.clix.pt/n2cqr

On Mon, 30 Apr 2001 03:00:46 GMT, Bill <Salvia99@iname.com> wrote:

>What is the Manhattan style of construction?
>
>
>On Sat, 28 Apr 2001 16:12:02 GMT, n2cqr@clix.pt (Bill Meara) wrote:
>
>>I stopped off at a hardware store yesterday and bought some super
>>glue. This morning I used it to build the first stage of the 17 meter
>>DSB rig: the Variable Crystal Oscillator. I used the circuit from
>>Doug DeMaw's "Barebones superhet" (June 82 QST) Very simple. I used
>>a MPF102 instead of the 40673. The stage went together very quickly
>>- Manhattan style is the way to go! I'd been listening to 17 meter
>>SSB as I worked. It was very satisfying when, at the end of the
>>morning, I connected a 12 volt battery to the circuit board and heard
>>my new oscillator through the receiver. I got very good "swing" in
>>the crystal -- -lloks like > 20 Khz.
>>
>>I think I'll build a direct conversion RX to go with this rig -- this
>>way I'll be listening to both sidebands at the same time and will be
>>better able to avoid interfering with nearby stations.
>>
>>73 from the Azores
>>Bill CU2JL N2CQR
>

2679. Re: Kenw. TS450 low output on 160M

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 11:07:09 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AED475D.22321521@bloomer.net>
Source record: 53076

Just out of curiosity, you don't happen to have the AutoTuner button turned on do you? The built in tuner (if you have it installed) doesn't work on 160 and if you have it "on" you can get low output power. Been there, done that on my 690S. Just a thought.

Scott
N0EDV

mark wrote:
>
> Hi Bruce,
>
> The low output is on a 50ohm dummy load (swr 1:1), so there must be
> something wrong with the radio.
>
> Mark.
>
> "Bruce Muscolino" <w6toy@erols.com> schreef in bericht
> news:3AE9EFFA.EBC12C01@erols.com...
> > Mark,
> >
> > You didn't say what kind of antenna you are using. A vertical, or
> longwire with
> > a poor ground can cause this problem. You can try to load them all day
> but you
> > will never get full output without damaging them! If you need a ground
> either
> > install one or use a ground tuner.
> >
> > 73
> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2680. Re: Mini-ferrite beads

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 14:35:20 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <9cjt3f$2aaq$1@news.hal-pc.org>
Source record: 53077

Found some! Thanks to all who replied.
Jack, W5EB

2681. Extinct Radio Technology?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 16:03:57 UTC
From: "R. Hubbard" <hubbard_ron@hotmail.com>
Message-ID: <9ck24f$e6qvl$1@ID-43450.news.dfncis.de>
Source record: 53078

Does anyone know anything about the construction of the old Alexanderson alternator or know its patent number?

Thanks.

2682. Radio mods archive

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 17:59:36 UTC
From: Daniel Hicks <w8mmq-no-spam@email.com>
Message-ID: <3aeda8dd$0$88188$1dc6e903@news.corecomm.net>
Source record: 53079

Check out the W8MMQ Radio mods archive:
http://www.w8mmq.com/mods/

Also, check out the W8MMQ Antique Radio Page:
http://www.w8mmq.com/

If you know of a mod that is not listed in the archive, let me know, and I
will add it. This archive is updated about once a month.

Thanks

Daniel Hicks
W8MMQ
AOL IM: W8MMQ

2683. Downloadable IOTA List - Update 30-Apr-2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 19:05:45 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <dIiH6.2886$eZ2.305833@newsread2.prod.itd.earthlink.net>
Source record: 53080
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Lots of STUFF to do at www.ab7sl.com such as...

Downloadable IOTA List - updated 30-Apr-2001
- on IOTA List Page of site listed above

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Page (downloads)
7.The DX Page (w / Live - DX cluster links)
8.Downloadable IOTA List (updated weekly)
9.W7NH - Elmer Tribute
8.Prescott Arizona Photos
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Many Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

2684. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 19:55:13 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9ckfq0$o5o$1@neptunium.btinternet.com>
Source record: 53081

If you try to obtain maximum power out of a transistor when the external load is adjusted to equal the internal resistance you are certain to blow it up by exceeding the peak voltage rating.

Reg

2685. Yaesu FT50R - RF gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 19:58:21 UTC
From: Richard <Dickus@dial.pipex.com>
Message-ID: <9ckg8piav1@news5.svr.pol.co.uk>
Source record: 53082

Can anyone tell me whether the Yaesu FT50R has an rf gain option?

TIA

Richard

2686. Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 21:04:39 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3aedc557$1@news2.mibx.net>
Source record: 53083

I am posting here because of some of the nasty things I have read in this group and in QRZ discussions regarding freebanders. We who use the frequencies from 27.405 to 28.000 have more in common with hams than you might think. We are good operators and have knowledge of propagation and skip conditions. We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical issues as well or better. However, the attitude of some hams toward us is rude and condescending. We are treated like 2nd class citizens. This should not be. We have the same rights under the constitution as legal hams do. For those that do not wish to be under Uncle Sam's thumb, freebanding is a viable alternative to getting a ham radio license. What I am saying is that maybe the next time you meet a freebander it might be wise to talk with him before you condemn him.

I am QRT and standing by. (No flames answered. Please reply via email)

Unit 2711, Florida

2687. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 21:20:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AEDD72F.C687848@eznec.com>
Source record: 53084

I'd like to add that the formula is generally used only at HF and below,
where the transistor's ft is typically much higher than the operating
frequency. At VHF and above, the transistor's S parameters are usually
used for designing input and output networks.

Roy Lewallen, W7EL

Wes Stewart wrote:
>
> On Mon, 30 Apr 2001 00:38:45 GMT, la8ak@online.no (J M Noeding) wrote:
>
> >On Sun, 29 Apr 2001 11:17:16 -0500, "Bojangle Chicken"
> ><bojanglechicken@yahoo.com> wrote:
> >
> >
> >>> The external load on the transistor is simply calculated from the
> >>> peak voltage across the transistor and the peak current (supplied
> >>> by the transistor) flowing through it. R = V / I.
> >>
> >>This is pretty much what I did. However, I did not have any books with me
> >>at the lab, nor do I have many at my present location (most of them are 2
> >>hours away), so I was just looking at a quick-n-dirty method of finding the
> >>approximate impedance that I need the load to be to get near-maximum power
> >>out--i.e. I want to get as much of the rf current into the load as I can. I
> >>will not using transformers to match the load.
> >>
> >>Thanks for the approximations Roy, Ian and Wes.
> >>
> >Thanks to Wes for a good formula explanation, but doesn't a device
> >have lower impedance on input and output when frequency approaches
> >maximum freqency, or is it just caused by the fact that voltage swing
> >and gain is lower?
>
> The formula that Roy first presented and I expanded on computes an
> optimum resistive, i.e. non-reactive value for the output load
> resistance. In an r-f (or any AC) situation, it normally assumes that
> the reactive parts are dealt with by some type of tuning so that the
> net reactance is zero.
>
> The formula does not address the input at all, nor does it address the
> gain of the device. It simply calculates the value that delivers the
> required power output.
>
> In other words, if (sometimes a big if) you can drive the device hard
> enough to cause the peak-peak voltage swing to occur at the drain,

> collector or anode, then with the calculated load resistance you will
> achieve design power output.
>
> To clarify further, this value is the resistance that needs to be
> presented to the device output terminal. It is not the resistance
> that is presented by the terminal to the outside world.
>
> Wes Stewart, N7WS
>
> >
> >73
> >Jan-Martin
> >LA8AK

2688. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-04-30 23:15:29 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AEDF211.8946ABC8@coqui.net>
Source record: 53085

Twistedhed wrote:
>
> I am posting here because of some of the nasty things I have read in this
> group and in QRZ discussions regarding freebanders. We who use the frequencies
> from 27.405 to 28.000 have more in common with hams than you might think.
> We are good operators and have knowledge of propagation and skip conditions.
> We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
> issues as well or better. However, the attitude of some hams toward us is
> rude and condescending. We are treated like 2nd class citizens. This should
> not be. We have the same rights under the constitution as legal hams do.
> For those that do not wish to be under Uncle Sam's thumb, freebanding is
> a viable alternative to getting a ham radio license. What I am saying is
> that maybe the next time you meet a freebander it might be wise to talk with
> him before you condemn him.
>
> I am QRT and standing by. (No flames answered. Please reply via email)
>
> Unit 2711, Florida

The Constitution doesn't grant the privilege to transmit...the FCC
does. If the free-banders are as 'good' as the hams, then there
should be no problem to get a license and enjoy even more
privileges. Getting a license these days is like a walk in the
park.
-BM

2689. Re: NiCd Electrolyte - Answer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 00:29:36 UTC
From: "Al Lorona, Jr." <al_lorona@agilent.com>
Message-ID: <3AEE0370.AF9C71C3@agilent.com>
Source record: 53001

Answer to my own query, in hopes it will help others:

Alcad has several distributors in the US. Call 203 234 8333 and they will tell you who is the closest distributor. In southern California, that would be Partridge & Associates, 562 802 7345, in Cerritos.

The electrolyte normally never needs to be changed, but over time it may react with the carbon dioxide in the air and the resulting carbonate contamination can weaken the electrolyte and require replacement. I never knew this.

You can buy pre-mixed potassium hydroxide (KOH) electrolyte, in five-gallon jugs, for $50 each. That's enough for roughly 20 cells of the 130 A-h size. The beauty of Nicads is that structurally they will last forever because there's no mechanism for corrosion of the plate structure. With a fresh load of electrolyte, I should have my cell back to normal.

I had to do this with the impending power shortage in California this summer!

R,

Al

2690. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 00:41:01 UTC
From: nx7u@mindspring.com
Message-ID: <3aee05f3.5689931@nntp.mindspring.com>
Source record: 53086

But you *do* have all the respect you deserve...the same respect we
all grant to FELONS, which is what you are, buddy...

On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
wrote:

>
>I am posting here because of some of the nasty things I have read in this
>group and in QRZ discussions regarding freebanders. We who use the frequencies
>from 27.405 to 28.000 have more in common with hams than you might think.
>We are good operators and have knowledge of propagation and skip conditions.
>We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
>issues as well or better. However, the attitude of some hams toward us is
>rude and condescending. We are treated like 2nd class citizens. This should
>not be. We have the same rights under the constitution as legal hams do.
>For those that do not wish to be under Uncle Sam's thumb, freebanding is
>a viable alternative to getting a ham radio license. What I am saying is
>that maybe the next time you meet a freebander it might be wise to talk with
>him before you condemn him.
>
>I am QRT and standing by. (No flames answered. Please reply via email)
>
>Unit 2711, Florida
>

2691. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 00:53:51 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3aee0871_1@newsa.ev1.net>
Source record: 53087

Plain and simple, YOU and all your friends are in violation of the LAW,
period!
"If your not part of the solution, YOU are part of the problem."

Twistedhed <twistedhed@webtv.net> wrote in message
news:3aedc557$1@news2.mibx.net...
>
> I am posting here because of some of the nasty things I have read in this
> group and in QRZ discussions regarding freebanders. We who use the
frequencies
> from 27.405 to 28.000 have more in common with hams than you might think.
> We are good operators and have knowledge of propagation and skip
conditions.
> We use Yasus, Kenwoods and Icomm radios just like you do, so we know
technical
> issues as well or better. However, the attitude of some hams toward us is
> rude and condescending. We are treated like 2nd class citizens. This
should
> not be. We have the same rights under the constitution as legal hams do.
> For those that do not wish to be under Uncle Sam's thumb, freebanding is
> a viable alternative to getting a ham radio license. What I am saying is
> that maybe the next time you meet a freebander it might be wise to talk
with
> him before you condemn him.
>
> I am QRT and standing by. (No flames answered. Please reply via email)
>
> Unit 2711, Florida
>

2692. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 01:14:01 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <t5oH6.6131$Aj1.2992766@typhoon2.ba-dsg.net>
Source record: 53088

I don't see what this poor guy did to incur the wrath you're showering him with. He's pleading the rights of honest law abiding CB'ers. There are such people.

You chose to become a ham because you wanted a little more, and you were able and willing to go an extra step to get what you wanted. He chose to invoke a basic legal privilege that gives him the satisfaction he wants. Everybody should be satisfied that they got what they needed in this arrangement, but that's not good enough for you. You have to prove your own self-worth by dragging him through the mud.

I've been a ham for over 35 years, and I'm proud of that. Most of the people I've met in this hobby are intelligent, thoughtful & tolerant. I'm proud to know them. There is, however, a small but vocal redneck element that makes me feel like the stereotype social-misfit propeller-head nerd that many people think hams are. You, my friend, fall in the latter group.

I'm not too proud that you're one of my hobby peers.

Joe
W3JDR

"Scott Townley" <nx7u@mindspring.com> wrote in message
news:3aee05f3.5689931@nntp.mindspring.com...

> But you *do* have all the respect you deserve...the same respect we
> all grant to FELONS, which is what you are, buddy...
>
>
> On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> wrote:
>
> >
> >I am posting here because of some of the nasty things I have read in this
> >group and in QRZ discussions regarding freebanders. We who use the
frequencies
> >from 27.405 to 28.000 have more in common with hams than you might think.
> >We are good operators and have knowledge of propagation and skip
conditions.
> >We use Yasus, Kenwoods and Icomm radios just like you do, so we know
technical
> >issues as well or better. However, the attitude of some hams toward us is
> >rude and condescending. We are treated like 2nd class citizens. This
should
> >not be. We have the same rights under the constitution as legal hams do.
> >For those that do not wish to be under Uncle Sam's thumb, freebanding is

> >a viable alternative to getting a ham radio license. What I am saying is
> >that maybe the next time you meet a freebander it might be wise to talk
with
> >him before you condemn him.
> >
> >I am QRT and standing by. (No flames answered. Please reply via email)
> >
> >Unit 2711, Florida
> >
>

2693. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 01:24:07 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AEE1120.3E19@pop.removethistomailme.net>
Source record: 53089

W3JDR wrote:
>
> I don't see what this poor guy did to incur the wrath you're showering him
> with. He's pleading the rights of honest law abiding CB'ers. There are such
> people.

Yes, and he's not one of them. Read the subject line. "Freeband"
refers to the area between 10 and 11 meters unallocated to either
service.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

2694. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 02:08:41 UTC
From: alice@kramden.moon
Message-ID: <JUoH6.869$OS1.115681@news1.iquest.net>
Source record: 53090

Is that you, Doogie Howser?

In article <3AECDEAB.405AC8C@coqui.net>, NOSPAMexray@coqui.net was of the opinion...
>
>"FREDRICK L. SNIDER" wrote:
>>
>> Just some 14 year old blowing off steam,anonymously.
>> Incidentally,that must be the medical spelling of pedophile.
>
>Maybe its a 14 year old doctor.
>--
>---
>Bill Meacham
>Vieques, PR
>

2695. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 02:24:21 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AEE1E55.C5D519A@clifto.com>
Source record: 53091

Twistedhed wrote:
> I am posting here because of some of the nasty things I have read in this
> group and in QRZ discussions regarding freebanders. We who use the frequencies
> from 27.405 to 28.000 have more in common with hams than you might think.
> We are good operators and have knowledge of propagation and skip conditions.

GoAT

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

2696. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 02:26:24 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AEE1ED0.75DC8150@clifto.com>
Source record: 53092

W3JDR wrote:
> "Scott Townley" <nx7u@mindspring.com> wrote
> > > We who use the frequencies
> > > from 27.405 to 28.000 have more in common with hams than you might think.
> > > We are good operators and have knowledge of propagation and skip
>
> I don't see what this poor guy did to incur the wrath you're showering him
> with. He's pleading the rights of honest law abiding CB'ers. There are such
> people.

I think you missed the part where he specifically said they are NOT
abiding by the law.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

2697. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 03:03:11 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <PHpH6.1904$Ch5.324888@dfiatx1-snr1.gtei.net>
Source record: 53093

"W3JDR" <j.r@usa.com> wrote in message
news:t5oH6.6131$Aj1.2992766@typhoon2.ba-dsg.net...
> I don't see what this poor guy did to incur the wrath you're showering
him
> with. He's pleading the rights of honest law abiding CB'ers.

No he's not. He's trying to justify operating unlawfully outside of the
legal CB channels.

> There are such people.
>
> SNIP

Sure, but those folks - by your definition - are not the people using the
"free band" and parts of 10 meters.

73 de W6DKN

2698. Re: YOU ARE ALL A PACK OF SOCIALLY INEPT PAEDOPHILES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 03:16:11 UTC
From: Irv Finkleman <finkirvNOSPAM@home.com>
Message-ID: <3AEE2A67.6B56EF71@home.com>
Source record: 53094

One good thing about ham radio is that it keeps us "dirty old
men" off the streets at night! :-)

"Public " wrote:

> FUCK YOU PACK OF SOCIALLY INEPT NERDS.
> FUCKING PAEDOPHILE BASTARDS.
> FUCK YOU ALL YOU DIRTY OLD MEN.
>
> ---
> This message did not originate from the Sender address above.
> It was posted with the use of anonymizing software at
> http://anon.xg.nu
> ---

--

Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

Please delete NOSPAM from my e-mail address when replying.
Thanks!

2699. Re: WTB: QEX Magazines - Sept 1997, Nov/Dec 1999

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 03:20:11 UTC
From: arm@helix.nih.gov
Message-ID: <LXpH6.91$Xa.218820@mencken.net.nih.gov>
Source record: 53096

I have had good luck purchasing them from the ARRL. You might
check with them. www.arrl.org

-- andy

John Crabtree (crabtreejr@aol.com) wrote:
: Looking to buy the following issues of QEX magazine
: 1997 September
: 1999 November/December
: Please contact with condition and price.
:
: Thanks and 73
:
: John KC0GGH
: crabtreejr@aol.com

--

Andrew R. Mitz, Biomedical Engineer arm@helix.nih.gov
Laboratory of Systems Neuroscience
Section on Neurophysiology
National Institute of Mental Health
Bethesda, Maryland 20892-4401

2700. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 03:21:19 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AEE2BAF.A31B742F@zylay.com>
Source record: 53095

W6DKN wrote:

> "W3JDR" <j.r@usa.com> wrote in message
> news:t5oH6.6131$Aj1.2992766@typhoon2.ba-dsg.net...
> > I don't see what this poor guy did to incur the wrath you're showering
> him
> > with. He's pleading the rights of honest law abiding CB'ers.
>
> No he's not. He's trying to justify operating unlawfully outside of the
> legal CB channels.
>

Law-abiding CBers operating illegally. Now there's an oxymoron for ya!

2701. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 04:46:14 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9clg08$1e6$1@dipsy.missouri.edu>
Source record: 52999

If only things were as simple as black and white...

Do the airwaves care if you transmit on 14,040MHz or 150,015MHz? Of course they don't. What about lightning? It transmits on all frequencies? Let's start a petition to legally limit lightning transmission...

This is 100% ridiculous. Why are people getting worked up over something that someone else is doing that has no bearing on their lives? Does it really matter if Joe Schmoe is transmitting on 27,405MHz with 20kW? As long as it doesn't interfere with your signal, it's none of your business.

By the same token, does it matter what we hams think of Twisthed's kind? Of course not. Unless we're willing to do something about it. Since that's not the case, enough already.

This was fun.
ki0eg
Pete
Matt Erickson <kk5dr@hotmail.com> wrote in message
news:3aee0871_1@newsa.ev1.net...
> Plain and simple, YOU and all your friends are in violation of the LAW,
> period!
> "If your not part of the solution, YOU are part of the problem."
>
> Twistedhed <twistedhed@webtv.net> wrote in message
> news:3aedc557$1@news2.mibx.net...
> >
> > I am posting here because of some of the nasty things I have read in
this
> > group and in QRZ discussions regarding freebanders. We who use the
> frequencies
> > from 27.405 to 28.000 have more in common with hams than you might
think.
> > We are good operators and have knowledge of propagation and skip
> conditions.
> > We use Yasus, Kenwoods and Icomm radios just like you do, so we know
> technical
> > issues as well or better. However, the attitude of some hams toward us
is
> > rude and condescending. We are treated like 2nd class citizens. This
> should
> > not be. We have the same rights under the constitution as legal hams do.
> > For those that do not wish to be under Uncle Sam's thumb, freebanding is
> > a viable alternative to getting a ham radio license. What I am saying is
> > that maybe the next time you meet a freebander it might be wise to talk

> with
> > him before you condemn him.
> >
> > I am QRT and standing by. (No flames answered. Please reply via email)
> >
> > Unit 2711, Florida
> >
>
>

2702. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 04:55:37 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9esd7v.qvr.w9wi@linux1.localdomain>
Source record: 52997

On 30 Apr 2001 21:04:39 GMT, Twistedhed <twistedhed@webtv.net> wrote:
>I am posting here because of some of the nasty things I have read in this
>group and in QRZ discussions regarding freebanders. We who use the frequencies
>from 27.405 to 28.000 have more in common with hams than you might think.
>We are good operators and have knowledge of propagation and skip conditions.
>We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
>issues as well or better. However, the attitude of some hams toward us is
>rude and condescending. We are treated like 2nd class citizens. This should
>not be. We have the same rights under the constitution as legal hams do.

Certainly, you have the same rights as licensed hams.

Those rights do not include the right to transmit in 27.405-28.0. (neither you nor I have that right) Legal means exist for you to carry out the type of communications you're carrying out in that band. Indeed, the legal means that exist use exactly the same type of equipment you're using, and the expense involved in getting a legal license is miniscule.

A very iffy case can be made to suggest the broadcasting service regulations infringe on free speech rights. None of those arguments hold any water with regard to amateur-type communications, which are accessible to any American at reasonable cost.

Understand also, that your type of communications is causing significant problems for licensed hams. Firstly, because not all freebanders are technically qualified - and those with no interest in the radio hobbies can't tell the difference between a freebander and a licensed ham. Us hams are blamed for the interference caused by poorly-designed amplifiers used by unqualified freebanders.

Secondly, because not all freebanders stay below 28MHz. The ones that find their way into our band are causing SEVERE interference. Those operators are most assuredly not welcome.

>For those that do not wish to be under Uncle Sam's thumb, freebanding is
>a viable alternative to getting a ham radio license. What I am saying is
>that maybe the next time you meet a freebander it might be wise to talk with
>him before you condemn him.

Actually, this much is true. The first part, unfortunately. The second part, because it is not at all impossible to "reform" freebanders. It will probably become easier as the sunspot cycle declines and the 10.5-meter band becomes less and less useful.

Personally, I don't get bent too horribly far out of shape over freebanding, PROVIDED that they stay below 28MHz. Those who find their way above the border are welcome to the full wrath of the FCC.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2703. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 04:57:19 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9clg08$1e6$2@dipsy.missouri.edu>
Source record: 52998

S-parameters are something that I'm going to become familiar with in the very near future...I can almost 'see' it.

By the way, using the method that I originally described (the ki0eg method) I obtained about 80 ohms resistive. According to the calculations, this is about right. Also, measuring the voltage (rms) transfer, I found the output to be related to the input by a factor of 5.1. For the entire measured range, the Vout/Vin plot was a straight line (very straight). I made the assumption (I know it's not realistic) that the voltage transfer worked at any voltage, which allowed me to calculate an output power of 20W. I've got a 10W 80ohm load that gets unbearably hot dissipating the output signal, so I'm quite sure that I'm getting more than 10W, but probably less than 20W.

The point of all this is that when I decreased the load resistance by a factor of 2 (i.e. Rload = 40ohms) I got an increase in output power that roughly corresponds to somewhere between Class AB and Class B using the Rload = Vdd^2/(kPo), where k is variable between 1 and 2. This means that, although the formula seems to be off by a constant in my case, it's roughly correct. It's nice to see the 'theory' work out in practice (although I'd be willing to bet that this formula was found experimentally, sorta).

Thanks to those who responded. The amplifier that I came up with works just fine [as tested] into any load between 40 and 80 ohms (producing between 10 and 20 watts over the range of loads). It's really comforting to see a "design from scratch" work outright. I guess I chose the right major afterall!

Thanks.
Pete
ki0eg

2704. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 06:35:21 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <s1TU2xApkl76EAui@ifwtech.com>
Source record: 53000

Bojangle Chicken wrote:
>S-parameters are something that I'm going to become familiar with in the
>very near future...I can almost 'see' it.
>
- though probably not for PA design. S-parameters are generally only used for small-signal design, where linear behavior can be assumed. In other words, only for class A.

>Thanks to those who responded. The amplifier that I came up with works just
>fine [as tested] into any load between 40 and 80 ohms (producing between 10
>and 20 watts over the range of loads).

This is a slightly unusual application, where the load can vary so widely. As previously mentioned, for an amplifier designed to work into 50 ohms you should use the device manufacturer's recommended load impedance Z_load. They also state a design value for input impedance Z_in.

Having said all that, the techniques that you'd use to design the input and output networks are pretty much the same for both S-parameters and Z_in/Z_load so you don't have to learn two different sets of skills.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2705. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 11:45:36 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9cn70c$j7i$1@dipsy.missouri.edu>
Source record: 53012

> >S-parameters are something that I'm going to become familiar with in the
> >very near future...I can almost 'see' it.
> >
> - though probably not for PA design. S-parameters are generally only
> used for small-signal design, where linear behavior can be assumed. In
> other words, only for class A.

I understand that part. Someone mentioned s parameters...that's just something that I'd like to be able to use. Most of my designs up to this point have demanded linearity, also, which means that s-parameters work. Do you think that the s-parameter approach would give approximately correct results, even for large-signal analysis?

> >Thanks to those who responded. The amplifier that I came up with works
just
> >fine [as tested] into any load between 40 and 80 ohms (producing between
10
> >and 20 watts over the range of loads).
>
> This is a slightly unusual application, where the load can vary so
> widely. As previously mentioned, for an amplifier designed to work into
> 50 ohms you should use the device manufacturer's recommended load
> impedance Z_load. They also state a design value for input impedance
> Z_in.

That's the beautiful thing...it was my design goal to have at least 10W output into a "load." When I asked what the load had to be, I was simply told "just make it output 10W" (up to 25W max). The amp is being used by a graduate student at my school for [he hopes] his thesis project, which involves ionizing a flash tube. The amp will basically be operating into an inductor, coiled around the tube. I imagine he's going to need impedance matching for proper transfer.

I will consider the thoughts presented more carefully when designing more mainstream rf systems, but approximations and good-enoughs were fine for this project. Thanks to those who replied once again.

Pete
ki0eg

2706. 10 MHZ CRYSTAL CLOCK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 13:49:06 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3AEEBF77.30EB4364@sympatico.ca>
Source record: 53002

Greetings!

Does any one know of a construction project on the WEB for a precision
10 Mhz crystal
oscillator of high precision? Thanks! VE2AUC

2707. F.S. S&S Digital VFO Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 13:53:30 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3AEEBFB2.4683C671@GTE.net>
Source record: 53003

I have a new in the box S&S Digital VFO Kit. Freq 1Hz-54MHz w/ 1 Hz res.

Selling for $150 shipped CONUS
Details at http://www.sseng.com
Dale W4OP

2708. Re: 10 MHZ CRYSTAL CLOCK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 15:42:52 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <qNAH6.2539$vR1.8383@nntpserver.swip.net>
Source record: 53004

GPS disciplined frequency standard by Brooks Shera:
http://www.rt66.com/~shera/

/sm6pxj

>Does any one know of a construction project on the WEB for a precision
>10 Mhz crystal
>oscillator of high precision? Thanks! VE2AUC

2709. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 18:08:50 UTC
From: k4yz@aol.com
Message-ID: <20010501140850.26864.00003127@ng-fi1.aol.com>
Source record: 53005

>Subject: Re: Respect For Freebanders
>From: "W3JDR" j.r@usa.com
>Date: 04/30/01 9:14 PM Eastern Daylight Time

>I don't see what this poor guy did to incur the wrath you're showering him
>with. He's pleading the rights of honest law abiding CB'ers. There are such
>people.

I respectfully disagree. This is why:

>>I am posting here because of some of the nasty things I have read in this
group and in QRZ >>discussions regarding freebanders. We who use the
frequencies from 27.405 to 28.000 have >>more in common with hams than you
might think.

The last I checked, the frequencies between 27.405mHz and 28.000mHz are
allocated to services OTHER than CB. There is no US or international allocation
known as "freeband".

While I do not argue the point that there are many "freebanders" that do
share many commonalities with Amateurs, one of them they DON'T share is
LEGALITY.

>He chose to
>invoke a basic legal privilege that gives him the satisfaction he wants.

Which "legal priviledge" was that, Joe? He can, of course, express his
opinions in USENET all day long and be completely "legal".

If he operates a "CB" radio or an Amateur Radio transmitter on the cited
frequencies, he is breaking the law.

>Everybody should be satisfied that they got what they needed in this
>arrangement, but that's not good enough for you. You have to prove your own
>self-worth by dragging him through the mud.

He did that himself, Joe, when he admitted that he's operating on
frequencies he's not licensed for.

>There is, however, a small but vocal redneck element that makes
>me feel like the stereotype social-misfit propeller-head nerd that many
>people think hams are. You, my friend, fall in the latter group.

He may have been verbose, but he's essentially correct.

I comment seperately:

>"Scott Townley" <nx7u@mindspring.com> wrote

>> But you *do* have all the respect you deserve...the same respect we
>> all grant to FELONS, which is what you are, buddy...

Not until he's convicted, but I agree with the spirit of the comment.

>> On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
>> wrote:

>>>I am posting here because of some of the nasty things I have read in this
>>>group and in QRZ discussions regarding freebanders. We who use the
>>>frequencies from 27.405 to 28.000 have more in common with hams than you
might think.
>>>We are good operators and have knowledge of propagation and skip
>>>conditions.

What you don't have is knowledge or respect for is the law. And what you
DON'T have in common with Amateurs (or CBers, for that matter...) is approval
of law to operate. And in breaking that law, you not only flaunt the
"legality" matters, you cause interference to me and others, which is
demonstration of YOUR disrespect and contempt for us.

>>>We use Yasus, Kenwoods and Icomm radios just like you do, so we know
technical
>>>issues as well or better.

Use of the equipment does NOT necessarily make you technically competent
or UNDERSTANDING of the "issues". Yes, there are some very technically
competent non-Amatuers out there just as there are some INcompetent Amateurs.
But again, just because you can spin the dial does NOT make you competent,
proficient OR legal.

>>>However, the attitude of some hams toward us is rude and condescending.

How would YOU react to someone who drives through your neighborhood with a
bad muffler and the music at 140dB...??? That's how I view Freebanders and
CBers who refuse to operate legally. If you are breaking the law, YOU expect
to be treated with teh same dignity that I would extend to a LEGAL
operator...?!?!

>>>We are treated like 2nd class citizens.

Then don't break the law.

>>>This should not be.

Sure it should.

I should respect shoplifters? They take something they did not "pay" for
too. I should respect someone who disrupts my neighborhood with loud noise and
raucous behaviour? Not likely!

>>>We have the same rights under the constitution as legal hams do.

Sure you do.

And just in case you get caught doing "your thing", the Federal Marshal who handcuffs you will remind you of them. It's called "The Miranda Warning".

>>>For those that do not wish to be under Uncle Sam's thumb, freebanding is >>>a viable alternative to getting a ham radio license.

Breaking the law is a viable alternative to complying with the law?

Hot Flash, Hot Rod, but YOU are more "under Uncle Sam's thumb" than I ever was. I have legal access to spectrum from the medium frequencies all the way through laser-length, and at power levels that in some cases exceed commercial radio stations.

The FCC's rules and regulations are NOT that restrictive nor are they that hard to follow.

Don't intentionally interfere with others. Don't use more power than is necessary to effect reliable communications. Observe the few band restrictions they require. Identify at certain intervals. Give right of way to emergency communications.

You, on the otherhand, have to be looking over your shoulder. You can't prudently give your real name of accurate address on the air lest you be directly visited by that very same Uncle Sam.

Every time you key the mike you face fines in the thousands of dollars if the FCC wanted to be really ugly about it. They can confiscate your equipment just because you have it if they find non-type accepted equipment in your possession and make YOU spend the money on lawyers to prove you are NOT operating illegally.

You do NOT have the protection of certain STATE laws that ALLOW Amateurs to have "scanners" or other radio receivers capable of receiving police frequencies in your car, and in some cases, handheld receivers.

You do NOT have the protection of certain federal laws against unreasonable construction of antenna structures from restrictive zonings.

This is fun? This is a liberating "viable alternative"...?!?!

>>>What I am saying is that maybe the next time you meet a freebander it might be wise to >>>talk with him before you condemn him.

What I can do is point out the same points I just made and suggest he cease what he is doing and "get legal" at the earliest opportunity.

And I reiterate my earlier comment: In breaking the law, ESPECIALLY wherein it involves incursion to Amatuer Radio allocations, YOU demonstrate your "condem(nation)" of Amateurs. You expect respect in return?

I think not.

>>>I am QRT and standing by. (No flames answered. Please reply via email)

No flames. Just facts.

>>>Unit 2711, Florida

What's your name? What community do you live in? A "unit" of what?

See my point...???

Spend a few hours with your nose in any one of the several dozen "license guides", get a license and "get legal". It's liberating.

73

Steve Robeson, LPN
K4YZ

"An America Not Prepared For War In Peacetime Will Not Know Peace In Any Time."

http://hometown.aol.com/hanggldgpilot/myhomepage/profile.html

2710. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 19:04:23 UTC
From: k4yz@aol.com
Message-ID: <20010501150423.26864.00003147@ng-fi1.aol.com>
Source record: 53007

>Subject: Re: Respect For Freebanders
>From: "Twistedhed" twistedhed@webtv.net
>Date: 05/01/01 3:42 PM Eastern Daylight Time

>Perhaps this article will help set things straight.

It sets nothing straight.

You break the law, you break the law. It IS "that simple".

73 and "good luck"

Steve, K4YZ

"An America Not Prepared For War In Peacetime Will Not Know Peace In Any Time."

http://hometown.aol.com/hanggldgpilot/myhomepage/profile.html

2711. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 19:09:03 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AEF09CF.5EBDFA6B@clifto.com>
Source record: 53008

```
Twistedhed wrote:
> http://sporadic1.tripod.com/page7.html
>
> Perhaps this article will help set things straight.

So what you seem to be saying is that since some of the sociopaths have
shat in the bands, the other sociopaths are right to shit elsewhere.

--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

2712. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 19:11:25 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AEF0A5D.89C08E6@clifto.com>
Source record: 53009

Bojangle Chicken wrote:
> I've got
> a 10W 80ohm load that gets unbearably hot dissipating the output signal, so
> I'm quite sure that I'm getting more than 10W, but probably less than 20W.

Considering your knowledge, it seems silly to ask, but... you're sure the
80 ohm load isn't inductive, right?

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

2713. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 19:40:09 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AEF1119.7B53AC96@clifto.com>
Source record: 53010
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Doug King wrote:
> In another life I used to be a repair/calibration engineer, and can tell
> you the only way to check any instruments calibration, is to have it
> checked by a specialist calibration company, who use traceable accuracy
> equipment which itself is calibrated on a regular basis to national
> standards (UK) you cannot get more accurate that that!

Many years ago I was stuck with an old Telequipment scope whose vertical calibration was obviously way off. Not liking the Telequipments anyway, and knowing the worst that could happen was that after I tweaked it, it would still need calibration, I went in.

I forget exactly what it was I rigged up, but it was such that I did the calibration around a *ratio* of voltages rather than the absolute voltages themselves. The idea was that given three resistors in series, no matter what voltage was put across the network, the ratio of voltage drops across the resistors would always be *exactly* the same (regulated DC, 1% metal-film resistors, etc.). So I had four unknown, but *exactly* related, voltages to calibrate from. It was surprising to me how obvious the miscalibration became, and there was only one point of adjustment where the ratios showed up anywhere near correct on the scope.

When I was satisfied, I told the shop chief that I had roughed it in enough to use for work purposes. He threw a hissy fit and immediately got the scope out for recalibration, bitching about what an idiot I was to touch it, ranting, raving, etc.

When the scope came back, he didn't say anything to me; the scope just appeared in my area. When I pushed him enough, he finally admitted that my homebrew calibration method left the scope off by an officially measured 0.2%.

I maintain that with ingenuity, lots of time and patience, and willingness to try, any piece of test equipment can be home-calibrated well within the needs of the home experimenter, and danged close to factory specs. The point of lugging it in for professional calibration comes when the equipment needs (and can be expected to give) exceptional accuracy, at least for my money.

Besides, whenever any piece of gear goes away, I end up spending most of my time obsessing over when it will be back and over all the things I could be doing with that piece at any given moment. :)

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+-+

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| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

2714. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 19:42:05 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3aef037d$1@news2.mibx.net>
Source record: 53006

http://sporadic1.tripod.com/page7.html

Perhaps this article will help set things straight.

RS 1175
FLA

2715. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 20:09:28 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AEF17F8.F7041355@coqui.net>
Source record: 53011

Twistedhed wrote:
>
> http://sporadic1.tripod.com/page7.html
>
> Perhaps this article will help set things straight.
>
> RS 1175
> FLA

I don't get it.

Seriously, Unit. Look into getting a ham license. The ham bands aren't always pretty either but having a license will certainly give you some better options...and a legitimate platform from which to gripe.

Good luck to you.
--

Bill Meacham WX4A
Vieques, PR

2716. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 20:54:32 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9cnv6bgtb1@dipsy.missouri.edu>
Source record: 53032

```
I'm using carbon coposition resistors (40 of them, at 1.6k and 0.5W apiece)
for the load. They are all in parallel. I have absolutely no doubt in my
mind that the load is not purely resistive. I'd be more surprised to find
that it didn't have stray inductance (and especially capacitance) than to
find that it did have those qualities. However, the blocking capacitor that
I used should shift the phase enough to present a nearly resistive load the
output. I basically designed the load by measuring peak power to the load
(Vrms^2/R). Once I had the load, I chose the blocking capacitor for maximum
power transfer (again). In this way, I figure I got close enough.

Pete

Clifton T. Sharp Jr. <clifto@clifto.com> wrote in message
news:3AEF0A5D.89C08E6@clifto.com...
> Bojangle Chicken wrote:
> > I've got
> > a 10W 80ohm load that gets unbearably hot dissipating the output signal,
so
> > I'm quite sure that I'm getting more than 10W, but probably less than
20W.
>
> Considering your knowledge, it seems silly to ask, but... you're sure the
> 80 ohm load isn't inductive, right?
>
> --
>
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
+-+
> | Cliff Sharp | Hate spam? Take the Boulder Pledge!
|
> | WA9PDM |
http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
>
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
+-+
```

2717. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:01:49 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3aef1fa2.268517163@news.aepnet.com>
Source record: 53013

On Tue, 1 May 2001 07:35:21 +0100, "Ian White, G3SEK" <G3SEK@ifwtech.com> wrote:

>Bojangle Chicken wrote:
>>S-parameters are something that I'm going to become familiar with in the
>>very near future...I can almost 'see' it.
>>
> - though probably not for PA design. S-parameters are generally only
>used for small-signal design, where linear behavior can be assumed. In
>other words, only for class A.

Generally true. While I've left the industry, I still have a few trade magazines dribbling in. I don't study them as intently as when I was working, but I have noted that there are now available computer-controlled tuners used to make high-power (relatively speaking) load pull measurements, that in conjunction with a lot of calculations can deliver "high power" s-parameters.

Maury Microwave is one company that has info on this.

Wes Stewart N7WS

2718. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:17:11 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <KC8tLGBXfy76EA4C@ifwtech.com>
Source record: 53015

Bojangle Chicken wrote:
>> >S-parameters are something that I'm going to become familiar with in the
>> >very near future...I can almost 'see' it.
>> >
>> - though probably not for PA design. S-parameters are generally only
>> used for small-signal design, where linear behavior can be assumed. In
>> other words, only for class A.
>
>I understand that part. Someone mentioned s parameters...that's just
>something that I'd like to be able to use. Most of my designs up to this
>point have demanded linearity, also, which means that s-parameters work. Do
>you think that the s-parameter approach would give approximately correct
>results, even for large-signal analysis?
>
Only as a starting-point. How approximately will depend on the device
and how far it departs from the small-signal regime.

>> >Thanks to those who responded. The amplifier that I came up with works
>just
>> >fine [as tested] into any load between 40 and 80 ohms (producing between
>10
>> >and 20 watts over the range of loads).
>>
>> This is a slightly unusual application, where the load can vary so
>> widely. As previously mentioned, for an amplifier designed to work into
>> 50 ohms you should use the device manufacturer's recommended load
>> impedance Z_load. They also state a design value for input impedance
>> Z_in.
>
>That's the beautiful thing...it was my design goal to have at least 10W
>output into a "load." When I asked what the load had to be, I was simply
>told "just make it output 10W" (up to 25W max). The amp is being used by a
>graduate student at my school for [he hopes] his thesis project, which
>involves ionizing a flash tube. The amp will basically be operating into an
>inductor, coiled around the tube. I imagine he's going to need impedance
>matching for proper transfer.
>
Been there, done that, but only with tubes. The impedance matching
problems for that application are horrible, because the load is
completely different before/after ionization. I hope the devices have
good VSWR withstanding capability.

>I will consider the thoughts presented more carefully when designing more
>mainstream rf systems, but approximations and good-enoughs were fine for
>this project. Thanks to those who replied once again.

>
>Pete
>ki0eg
>
>

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2719. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:21:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <zivjzSBZjy76EA9C@ifwtech.com>
Source record: 53016

Wes Stewart wrote:
>On Tue, 1 May 2001 07:35:21 +0100, "Ian White, G3SEK" <G3SEK@ifwtech.com> wrote:
>
>>Bojangle Chicken wrote:
>>>S-parameters are something that I'm going to become familiar with in the
>>>very near future...I can almost 'see' it.
>>>
>> - though probably not for PA design. S-parameters are generally only
>>used for small-signal design, where linear behavior can be assumed. In
>>other words, only for class A.
>
>Generally true. While I've left the industry, I still have a few trade
>magazines dribbling in. I don't study them as intently as when I was working,
>but I have noted that there are now available computer-controlled tuners used to
>make high-power (relatively speaking) load pull measurements, that in
>conjunction with a lot of calculations can deliver "high power" s-parameters.
>
>Maury Microwave is one company that has info on this.

The same kind of thing is available for low-level applications such as exploring noise figure contours versus the load supplied to the input.

The problem for high-level applications is that the resulting S-parameters are both frequency- and power-dependant. This presents something of a network design problem...

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

2720. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:46:38 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3aef24df.269857670@news.aepnet.com>
Source record: 53017

On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net> wrote:

Looks like a troll to me, but I'll bite anyway.
>
>I am posting here because of some of the nasty things I have read in this
>group and in QRZ discussions regarding freebanders. We who use the frequencies
>from 27.405 to 28.000 have more in common with hams than you might think.
>We are good operators and have knowledge of propagation and skip conditions.
>We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
>issues as well or better.

Well, hams use Yaesu, Kenwood and Icom (among others) so we obviously use
different equipment.

If knowing how to spell the name of the manuracturer that built your equipment
is a "technical issue" then you get an "F".

>However, the attitude of some hams toward us is
>rude and condescending.

I won't be rude and condescending, I will just look upon you with distain.

>We are treated like 2nd class citizens. This should
>not be.

You know what fella, some people *are* second-class citizens. The jails and
prisons are full of them. When they get out, they are still second-class
citizens; they can't vote, they can't legally own firearms, the military doesn't
want them, etc. Keep it up and you really can be a second-class citizen.

>We have the same rights under the constitution as legal hams do.

Certainly you have many Constitutional rights. Requiring you to be licensed in
order to use the airways doesn't infringe upon any of them.

Your (and my) beloved constitution allows the federal government to regulate
interstate commerce. While I would agree that the federal government has
stretched this authority beyond belief at times, nevertheless it has been
determined constitutional for the FCC to control the airways, whether you and
your cronies approve or not.

>For those that do not wish to be under Uncle Sam's thumb, freebanding is
>a viable alternative to getting a ham radio license.

I suppose by your reasoning that not paying your income tax is another "viable
alternative" to being under Uncle Sam's thumb too.

I think the speed limit on interstate highways should be 125 mph instead of the asinine 75 mph. I have been known to test this limit, but if I get caught, I don't believe that I'll be using any "constitutional-right-to-speed" defense as a "viable alternative" to paying the fine.

>What I am saying is
>that maybe the next time you meet a freebander it might be wise to talk with
>him before you condemn him.

Right. Next time I meet a freebander, I ask whether he's quit beating his wife since he went on the air. (Don't panic, Unit, it's a trick question. I don't have any proof that you beat your wife. You're safe for now)

>
>I am QRT and standing by. (No flames answered. Please reply via email)

Isn't that "a big QRT?"
>
>Unit 2711, Florida
>

2721. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:50:18 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3AEF2FB2.9529B7AC@earthlink.net>
Source record: 53018

RS1175---

> I must admit I am shocked by some of the responses to my original
> post.

Perhaps, then, you should not have posted your diatribe on a ham radio newsgroup. For the most part, Amateur Radio Operators are sticklers for communication law, and the concept of ``freebanding'', or operating in an unauthorized albeit unallocated frequency range, is an anethema.

I can understand your desire to talk DX. I can understand you enjoying the communication hobby. But why risk it? In all honesty, if certain folks (the FCC included) were to take notice of your freebanding activities, or even if you happened to operate with more than 5W out of a CB rig, they would not hesitate to track you down by your own radio signal, and drop a hefty Notice of Apparent Liability in your lap.

Is it really worth losing your entire shack, a large chunk of money, a significant number of years of your life, and your reputation just to operate?

If you really enjoy what you do, it is not that terribly difficult to get an Amateur Radio license. It took me two weeks---a week with the book, and a week with Morse Academy, to get my Tech+ license. It shouldn't take more than a month to be able to go from no license to a General (which gives you a hefty HF allocation). Another two to four weeks of study would get you your Extra, opening _everything_ available to the US Amateur to you.

If you are as courteous on the freeband as you say you are, then your operating habits should be acceptable in the Ham bands. Come on over, we'd be happy to have another courteous, well-versed op. That's not even mentioning the fun of public service events, digital modes, TV modes, microwave experimentation, homebrewing, and all the other facets that make up the hobby.

If you're really serious about communication hobbies, then PLEASE consider becoming a ham. Unless you bash the government, give out State secrets, or habitually play music or use foul language on the air, the only real difference should be the ID requirement. Considering you label yourself "RS1175", I'd say you already do that, too. The rules are simple to follow. You don't have to drop your legal CB activities, and an entire new world of communication will open up to you.

Listen to the music of the Code. :)

Good Luck,

Henry C. Gernhardt, III
KE4PIB/AG

The
> group of hams that frequent rec.radio.cb are so much more open-minded and
> progressive!
>
> RS1175
> FLA

2722. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 21:53:31 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AEF305B.3747BDBE@coqui.net>
Source record: 53019

Wes Stewart wrote:
>

> Well, hams use Yaesu, Kenwood and Icom (among others) so we obviously use
> different equipment.
>
> If knowing how to spell the name of the manuracturer that built your equipment
> is a "technical issue" then you get an "F".
>
> >However, the attitude of some hams toward us is
> >rude and condescending.
>
> I won't be rude and condescending, I will just look upon you with distain.

Dis-what, Wes?

"F"

Bill Meacham
Vieques, PR

2723. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 22:05:55 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3aef2533$1@news2.mibx.net>
Source record: 53014

I must admit I am shocked by some of the responses to my original post. The group of hams that frequent rec.radio.cb are so much more open-minded and progressive!

RS1175
FLA

2724. KW R2000- anybody got a circuit/manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 22:16:13 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3aef34d2.2029542@news.xtra.co.nz>
Source record: 53020

Hi, thanks for checking this out. Got a rogue R2000 that will only work in AM and FM mode. The display only shows 8's and the set goes into alarm mode when I try to change bands. All the LO's are working, and the display works momentarily when first switched on.

Thanks, Renfred ZL1BDL
Remove x from signature

2725. Re: Cheap ham's VHF sig gen

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 23:32:02 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9cngrd$n5t$1@neptunium.btinternet.com>
Source record: 53021

> Then it dawned on me: I've got a programmable scanner. Lessee, what's
> 144.2-10.7? 133.5. OK, let's put that in the scanner & see what happens.
> Sure enough, a weak but stable (but with rough modulation!) carrier on
> 144.2, which allows me to quickly line up the transverter.

I've seen a similar technique mentioned somewhere using a 2m hand-held.

73, Leon

2726. Re: Anybody in UK selling a UV box?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-01 23:34:07 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9cngv9nif1@neptunium.btinternet.com>
Source record: 53022

I just got a couple of UV tubes and made my own.

73, Leon

2727. DDS Key Parts Needed..also SWAP 2 boards possible.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 00:11:26 UTC
From: earlve3ab@igs.net
Message-ID: <3aef4f7e.93854956@news.igs.net>
Source record: 53023

Hi Gang. I have 4 DDS boards by NOVATECH..DDS Synthesizer Boards (real nice)..I would part with 1 or 2 of them for some key components I require to build these units up. The main DDS IC Q2220 i -50n and MC10322 a Motorola Video DAC (now discontinued). The hardest one for me to get (economically will probably be the Q2220i chip. Any help. The other parts are pretty standard so they should present no problems to get. ALSO/..DID anyone build one of these up yet??? 73 Earl VE3AB

2728. AT&T Model 882 Phone Schematic Wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 00:19:02 UTC
From: Norm & Mary Freidin <nfreidin@cgocable.net>
Message-ID: <WnIH6.41174$HF.9499276@news4.rdc1.on.home.com>
Source record: 53024

I have an AT & T Model 882 2 Line Phone that has a small problem.
If you have a schmatic, I would be pleased to pay for a copy. Or if
someone has had a similar problem, which is: after phone being plugged
into Wall Wart for 2 days, the handset Mic Audio goes Dead! Hands Free Mic
audio is OK.
Pull the Wall Wart for 10 minutes, plug it in again...all works for about
2 days, then Handset Audio goes Dead!
Any Technical comments or assistance appreciated.
Thank You
Norm

2729. Re: How do you repair headphones w fiber/wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 01:00:42 UTC
From: Norm & Mary Freidin <nfreidin@cgocable.net>
Message-ID: <__IH6.41582$HF.9567768@news4.rdc1.on.home.com>
Source record: 53027

Frank:
Motorola has a connector that you lay the fibre wire, also called tinsel wire, into a groove, that has metal pins from the bottom of the groove, you just fold the connector over the wire and crimp into the wire. There is a short piece of metal, like a wire produding, and it is this wire that you solder onto what ever you want to connect to.
Soldering to the tinsel wire is very, very, difficult and unreliable.
The Motorola Part Number "used" to be a PDK-13 Tinsel Cord Repair Kit but you should be able to buy the crimp sleeves on thier own...but not sure what the Part Number is. Maybe our Motorola Techs can help!
Hope this adds to your line of information
73...Norm VE3CZI

Frank Sweeney <fsweeney@mail.com> wrote in message
news:HFYE6.3$gn.1727@nntp0.chicago.il.ameritech.net...
> Gentlemen,
> A few months ago I saw an article on repairing headphones which uses the
> unsolderable wire with the fiber threads in it (I guess the fiber is makes
> the cord more flexible). The article I thought was online but I could be
> wrong talked about using a crimp type of connector which the author was
> surprised that radio shack still carries that would piece the insulation
of
> the wire making contact and then allowing the pin of the connector to be
> soldered to the new audio plug. The author even went so far as to give
the
> radio shack catalog number for these connectors.
>
> At this time I thought I would be able to remember where this information
> was for future reference..but you see that's the problem with getting
old..
> you think you can still do things and you CAN"T! I should realize that
now
> that I am over 40, I suffer from CRS (Can't Remember Sh%#) and start
taking
> notes. The only problem w this idea is that if I take notes I won't
> remember where I wrote it..so that wont work either.
>
> If anyone has any ideas on how to put audio connectors on this crappy wire
> please let me know.
>
> 73,
> Frank - K9IC
> --
>

>

2730. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 01:22:10 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3aef5332$1@news2.mibx.net>
Source record: 53025

Well, some of what you put forth certainly has merit. I do not advocate squatting on any hammie band. I haven't listened to 10 meter in so long, so I'm not aware if the problem you allude to is so prevalent. I'm gonna take myself a listen tonight and see if hear anything. I'm not comparing hammies to cbers, YOU are. I have friends that are both. Bad operating procedures are not limited to either party. What I do see and hear all
quite oftenly, is the hammie with his modded big rig, NOT on the
freeband, but on the cb band. But you know what? We don't care. We'll talk to him just the same. This is extremely common where I reside and I live in one of the most active cb metros in the country. I've lived all over the country when I was younger and still do a great amount of traveling, and I can state without predjudice that I have heard many more hammies on freeband AND cb bands than I have heard squatters on hammie bands. Part of the problem, as you say, is the rules are wrong. Plain and simple. Not all of them mind you, but some of them. They are outdated (no dx) and make lawbreakers out of unintentional and unwitting
ops. The crux of my argument here, is that if an op is shooting DX on a frequency that a hammie is not permitted on, why the hell should that hammie give two sh*ts? If two hammies are on frequency in the 10 meter band, in the same town, each running 100 watts, (happens all the time, I can point you to a net right now where this takes place daily) what justification do you have to cry about it when 2 cbers do it on an "off" frequency other than the "I got my ticket so you should have to also"
mentality that seems to prevail among the freebanders biggest critics?

2731. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 01:39:00 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AEF6534.B0BD16C8@coqui.net>
Source record: 53028

Twistedhed wrote:
>
> Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
> >RS1175---
> >
> >> I must admit I am shocked by some of the responses to my original
> >> post.
> >
> >Perhaps, then, you should not have posted your diatribe on a ham radio
> >newsgroup.
>
> I thought the homebrew newsgroup was where I'd find a sympathetic ear since
> this is where the hammies discuss techncal details of all their mods out
> of band stuff and hi power amps which you know can't be striclty legal.

I can't say that I've ever seen discussion here about
over-powered, out-of-band equipment. I'm sure we all know
somebody with a 10kw amp, or have heard such a war-story.
Thing is, Unit, that when you have all the legal options for
different bands and a kilowatt, there's not much point in creating
some uber-illegal station because its not gonna get you any better
results than a legal one.
Shoot, I've done my share of freebanding. Ten meters as quiet as
a mouse, but 27 Mhz full of Australian and Pacific DX...but I
obviously wouldn't go down there saying I'm a ham or using my
call. I know what you're talking about. I made alot of friends
and later found out many were hams. DX is big, even SSTV is big
on the "freeband" and thats a real dis-incentive for upgrading to
getting a real license.
In four or five years from now, that part of the spectrum will
again be as dead as a stone and there's nuthin left other than the
truckers on the closest interstate to chat with...while the hams
are still working DX on the lower freqs.
Many of my best ham buddies are ex-CB types. Way back when, one
fella, who was notorious in our area for his big signal, came to
my shack with a friend. He had a complete Drake C-line, Moonraker
at 80 feet, and probably more countries confirmed than I had with
my measly boat-anchor set up. He had the same attitude about hams
as you, and I had the same attitude about 'freebanders'.
As you indicate, it was amazing we had in common. He wanted to
upgrade to something better than 27 Mhz. He had the equipment, he
had the intelligence, there was no reason NOT to upgrade himself
to become a legal operator. In the long run, he ended up whoopin
my butt on CW speed, contest scores, DXCC.

Maybe you could do the same.

Bill Meacham WX4A
Vieques, PR

2732. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 01:44:23 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <teupjoqihukob3@corp.supernews.com>
Source record: 53029

Perhaps you should read the story about the situation Mr. Flippo has gotten himself into by operating 10M and 2M without a license. It really is easier and safer to get a license. It might also save you from dragging your family into bankrupcy.

http://www.remote.arrl.org/news/stories/2001/05/01/6/?nc=1

2733. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 01:46:32 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3aef58e8$1@news2.mibx.net>
Source record: 53026

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
>RS1175---
>
>> I must admit I am shocked by some of the responses to my original
>> post.
>
>Perhaps, then, you should not have posted your diatribe on a ham radio
>newsgroup.

I thought the homebrew newsgroup was where I'd find a sympathetic ear since this is where the hammies discuss techncal details of all their mods out of band stuff and hi power amps which you know can't be striclty legal.

2734. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 02:21:11 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3AEF6F17.1D4FDF0A@ix.netcom.com>
Source record: 53030

Twistedhed wrote:

> Well, some of what you put forth certainly has merit. I do not advocate squatting
> on any hammie band. I haven't listened to 10 meter in so long, so I'm not
> aware if the problem you allude to is so prevalent. I'm gonna take myself
> a listen tonight and see if hear anything.

You have to listen on 10m in the daytime. That's when propagation for long distance (DX) occurs. It's gone at night (usually).

2735. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 02:44:29 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9cnsbm$ho2$1@slb4.atl.mindspring.net>
Source record: 53031

Twistedhed wrote:
>
>
>
>I thought the homebrew newsgroup was where I'd
>find a sympathetic ear since this is where the
>hammies discuss techncal details of all their mods out
>of band stuff and hi power amps which you know can't be
>striclty legal.
>

==========

Hmmm... You might want to read the group's messages for awhile. I haven't seen ANY that discuss ways to make ham equipment operate out of the legal bands, or with illegal power.

In general, hams find that their LEGAL frequencies and power levels are more than enough to satisfy any urge to be able to communicate.

I used to work at a company called SBE and I did occasionally modify a CB rig up to the amateur radio frequencies. BUT with the my ham ticket that was quite legal for me to do provided that only licensed hams used the transmitter.

Please don't confuse that sort of thing with illegal frequency operation.

==========

If a "freebander" were to apply himself to a minor amount of study, get a ham ticket and then use the equipment properly than that person would earn my respect.

One that continues to operate illegally, and creates interference with the legitimate users of that frequency range tend to be viewed as a felon and worthy of fines and jail time.

I find it strange that those "freebanders" don't make the effort to get a ham license. it isn't all THAT hard to do.

Jim
N6BIU

2736. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 03:51:26 UTC
From: 2w8ji@akorn.net
Message-ID: <3aef8214.569055881@news.accessunited.com>
Source record: 53033

On 2 May 2001 01:46:32 GMT, "Twistedhed" <twistedhed@webtv.net> wrote:

>
>Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
>>RS1175---
>>
>>> I must admit I am shocked by some of the responses to my original
>>> post.
>>
>>Perhaps, then, you should not have posted your diatribe on a ham radio
>>newsgroup.
>
>I thought the homebrew newsgroup was where I'd find a sympathetic ear since
>this is where the hammies discuss techncal details of all their mods out
>of band stuff and hi power amps which you know can't be striclty legal.

Actually the people on channel six make better Hams and are more
respected than those who operate outside the CB band.

HFers....or "Freebanders"...are the bottom-feeders of the radio-world.

Sort of like the Jeep and pick-up truck drivers who go off-road, and
tear up property that isn't theirs.

Real horse's rears who don't respect what isn't theirs to ruin , if
you know what I mean.

I bet if you took a survey, you'd see most Ham's have more respect for
a "brother" who runs 20 kW on channel six than a 5 watt "Freebander"
who operates on 27.995 USB.

Personally, I think all Freebanders need to spend some quality time in
jail.

2737. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 05:15:36 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3aef73e5.7392866@news.aepnet.org>
Source record: 53034

On Tue, 01 May 2001 17:53:31 -0400, Bill Meacham
<NOSPAMexray@coqui.net> wrote:

You obviously need a (or more comprehensive) dictionary.

N7WS

Your grade for poor research: "F"

>>
>> I won't be rude and condescending, I will just look upon you with distain.
>
>Dis-what, Wes?
>
>"F"
>
>
>---
>Bill Meacham
>Vieques, PR
>

2738. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 05:16:36 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3AEF9834.9081A49B@inreach.com>
Source record: 53035

The reason is that good amateur radio operators stay within the law, and
dont advocate anyone breaking the law, ham or not.
For those hams that break the law, properly operating hams are self
policing and will try to correct the situation.
Also, people illegally operating, whether they consider themselves
cbers, hams or anything else, reflect poorly on hams, cbers, and
everyone else, in the public eye. That is why a ham cares even though it
is outside the band.

Twistedhed wrote:
>
> Well, some of what you put forth certainly has merit. I do not advocate squatting
> on any hammie band. I haven't listened to 10 meter in so long, so I'm not
> aware if the problem you allude to is so prevalent. I'm gonna take myself
> a listen tonight and see if hear anything. I'm not comparing hammies to cbers,
> YOU are. I have friends that are both. Bad operating procedures are not limited
> to either party. What I do see and hear all
> quite oftenly, is the hammie with his modded big rig, NOT on the
> freeband, but on the cb band. But you know what? We don't care. We'll talk
> to him just the same. This is extremely common where I reside and I live
> in one of the most active cb metros in the country. I've lived all over the
> country when I was younger and still do a great amount of traveling, and
> I can state without predjudice that I have heard many more hammies on freeband
> AND cb bands than I have heard squatters on hammie bands. Part of the problem,
> as you say, is the rules are wrong. Plain and simple. Not all of them mind
> you, but some of them. They are outdated (no dx) and make lawbreakers out
> of unintentional and unwitting
> ops. The crux of my argument here, is that if an op is shooting DX on a frequency
> that a hammie is not permitted on, why the hell should that hammie give two
> sh*ts? If two hammies are on frequency in the 10 meter band, in the same
> town, each running 100 watts, (happens all the time, I can point you to a
> net right now where this takes place daily) what justification do you have
> to cry about it when 2 cbers do it on an "off" frequency other than the "I
> got my ticket so you should have to also"
> mentality that seems to prevail among the freebanders biggest critics?

2739. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 05:18:23 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3AEF989F.9516CED9@inreach.com>
Source record: 53036

amateur radio operators do homebrew high power amps, we are allowed up
to 1500 watts output.
What you thought was wrong, guess you have more to learn than you
thought.

Twistedhed wrote:
>
> Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
> >RS1175---
> >
> >> I must admit I am shocked by some of the responses to my original
> >> post.
> >
> >Perhaps, then, you should not have posted your diatribe on a ham radio
> >newsgroup.
>
> I thought the homebrew newsgroup was where I'd find a sympathetic ear since
> this is where the hammies discuss techncal details of all their mods out
> of band stuff and hi power amps which you know can't be striclty legal.

2740. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 06:42:36 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AEFAC5C.7BDD61D5@coqui.net>
Source record: 53037

Wes Stewart wrote:
>
> On Tue, 01 May 2001 17:53:31 -0400, Bill Meacham
> <NOSPAMexray@coqui.net> wrote:
>
> You obviously need a (or more comprehensive) dictionary.
>
> N7WS
>
> Your grade for poor research: "F"
>
> >>
> >> I won't be rude and condescending, I will just look upon you with distain.
> > >
> > >Dis-what, Wes?
> > >
> > >"F"
> > >
> > >
> > >---
> > >Bill Meacham
> > >Vieques, PR
> > >

As in, I hold in disdain your level of education and your
proclivity to fart with your send key.
-BM

Searching for: "disdain"
Found 3 hit(s).

Disdain (Page: 423)

Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
desdaing, F. dï¿½dain, fr. the verb. See Disdain, v. t.]

1. A feeling of contempt and aversion; the regarding anything as
unworthy of or beneath one; scorn.

How my soul is moved with just disdain! Pope.

Often implying an idea of haughtiness.

Disdain and scorn ride sparkling in her eyes. Shak.

2. That which is worthy to be disdained or regarded with contempt
and aversion. [Obs.]

Most loathsome, filthy, foul, and full of vile disdain.
Spenser.

3. The state of being despised; shame. [Obs.] Shak. Syn. --
Haughtiness; scorn; contempt; arrogance; pride. See Haughtiness.

Disdain (Page: 423)

Dis*dain" (?; 277), v. t. [imp. & p. p. Disdained (?); p. pr. &
vb. n. Disdaining.] [OE. disdainen, desdainen, OF.
desdeigner, desdaigner, F. dï¿½daigner; des- (L. dis-) + daigner to
deign, fr. L. dignari to deem worthy. See Deign.]

1. To think unworthy; to deem unsuitable or unbecoming; as, to
disdain to do a mean act.

Disdaining . . . that any should bear the armor of the best
knight living. Sir P. Sidney.

2. To reject as unworthy of one's self, or as not deserving one's
notice; to look with scorn upon; to scorn, as base acts,
character, etc.

When the Philistine . . . saw Dawid, he disdained him; for he
was but a youth. 1 Sam. xvii. 42.

'T is great, 't manly to disdain disguise. Young.

Syn. -- To contemn; despise; scorn. See Contemn.

Disdain (Page: 423)

Dis*dain", v. i. To be filled with scorn; to feel contemptuous
anger; to be haughty.

And when the chief priests and scribes saw the marvels that
he did . . . they disdained. Genevan Testament (Matt.
xxi. 15).

Searching for: "distain"
Found 1 hit(s).

Distain (Page: 433)

Dis*tain" (?), v. t. [imp. & p. p. Distained (?); p. pr. & vb. n.
Distaining.] [OE. desteinen, OF. desteindre to take
away the color, F. dï¿½teindre; pref. des- (L. dis-) + F. teindre to
tinge, dye, L. tingere. See Tinge, and cf. Stain.] To tinge with a
different color from the natural or proper one; to stain; to
discolor; to sully; to tarnish; to defile; -- used chiefly in
poetry.
Distained with dirt and blood." Spenser.

[She] hath . . . distained her honorable blood. Spenser.

The worthiness of praise distains his worth. Shak.

Yours truly,

Bill Meacham
Vieques, PR

2741. OT: Re: Respect For Freebanders (Flippo?)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 12:06:13 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <aLSH6.5104$j76.147257@news1.atl>
Source record: 53038

"Bob Lewis (AA4PB)" wrote
>Perhaps you should read the story about the situation Mr. Flippo has
> gotten himself into by operating 10M and 2M without a license. It
> really is easier and safer to get a license. It might also save you
> from dragging your family into bankrupcy.
>
> http://www.remote.arrl.org/news/stories/2001/05/01/6/?nc=1

Whoa!!! The judge suspended Flippo's constitutional right to bear firearms without being convicted of any crime?

As Paul Harvey might say, "What's the rest of the story?"

2742. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 15:34:22 UTC
From: twistedhed@webtv.net
Message-ID: <24384-3AF028FE-13@storefull-123.iap.bryant.webtv.net>
Source record: 53039

Three licensed amateurs:

Leland C. Scott KC8LDO AKA "Punisha of keyclowns, keyclown killa, etc.

Doug Adair N8wwm AKA: Too many to list

Glenn Sparks KI5GY AKA "Sparky"

.have been almost entirely responsible for the hate, discontent,
forges, and trouble in rec.radio.cb.

Leland has forged me for months. I exposed him last month and he has
been filled with rage ever since. I post nowhere except in
rec.radio.cb., except when a licensed hammie lets me know I am being
forged in a forum where I do ot post, then I will post one time showing
the headers. I invite all who are interested to stop in and peruse the
archives through google and see for yourselves who the troublemakers are
in our cb ng.. Watch the headers at all times. I thought leland had
slowed, but for some unknown reason, I am finding he crossposted the
above which he forged and attached my nic. He tried this in alt.ham
vhf/uhf, but a regular there saw what he was up to, emailed me, and I
posted his headers. He got no bites on his troll there so figured he
would try another ng. Note how he "Suddenly" appeared and tried to
attribute the post to me in the uhf room.. This is exactly how this all
started, by Leland forging me in rec.radio.amateur.policy, and a
licensed amateur pointed out to Leland it wasn't me but a forgerie, then
leland attacked HIM for his credibiliy. Anyone wanting these posts,
Email me. When I posted in the room showing the headers Also, almost
every post that appears to lend credibility to himself is by himself, or
Doug or Sparks, usually through ynn. mail (anonymous), home.com via
earthlink or through supernews and/or is phony..they are always phony,
even some in here, again..look at the headers. If one watches the
headers, one will see that he rapidly traverses back and forth between
mediaone (his ISP) and supernews to post when he is not forging. This is
done only for one reason..
These three waged this smear campaign against me when one of them ran
across an old article I wrote on freebanding in a magazine and posted it
to rec.radio.cb. Appears that these misguided souls can not get past the
mindset that since one writes about a subject, one must be absolutely
guilty of their subjects crimes as well. Thank you all for taking the
time to allow me to explain what took place here. Anyone wishing further
dialogue, please email me, as any other posts are forged. Have a good
day.

To: Subject:
Forwarded message:

From: "Twistedhed" <twistedhed@webtv.net> Sender: "Twistedhed" <twistedhed@webtv.net> Reply to: "Twistedhed" <twistedhed@webtv.net> Subject: Respect For Freebanders Group: rec.radio.amateur.homebrew X-User-Info: 64.12.105.28 64.12.105.28 Date: Mon, Apr 30, 2001, 9:04pm (EDT+4) X-Trace: 30 Apr 2001 21:04:39 GMT, pro55a.wfarm.ynn.com

I am posting here because of some of the nasty things I have read in this group and in QRZ discussions regarding freebanders. We who use the frequencies from 27.405 to 28.000 have more in common with hams than you might think. We are good operators and have knowledge of propagation and skip conditions. We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical issues as well or better. However, the attitude of some hams toward us is rude and condescending. We are treated like 2nd class citizens. This should not be. We have the same rights under the constitution as legal hams do. For those that do not wish to be under Uncle Sam's thumb, freebanding is a viable alternative to getting a ham radio license. What I am saying is that maybe the next time you meet a freebander it might be wise to talk with him before you condemn him.
I am QRT and standing by. (No flames answered. Please reply via email)

2743. Community Project - Thanks for the help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 15:42:33 UTC
From: ZL4PY <ZL4PY@mail.com>
Message-ID: <3af02a9a@clear.net.nz>
Source record: 53040

Several months ago I had discussions here concerning a large community project analogue clock with digital temperature display for over-street mounting in a rural town. Several people here kindly came up with various technical suggestions for the temp display in particular.

Well the whole project is a finished reality now, looks great, works good and they are delighted. The mayor has been there to officially open it, everybody has taken credit for it and the local press are running a competition to prove that their town is warmer than the official statistics suggest. People bring their kids at weekends to gaze up at it in awe. (oh well ...)

I had two technical problems which may be of interest. I designed it to use electronic trasnformers to save on size, weight and heating effects. These run about 20-30Khz as opposed to 50Hz and accordingly are soft start and really small in size. On the workbench it all worked perfectly but when we installed it on site the elctronic transformers failed to light the segment lamps. We had used about 30 feet of hd data cable to switch the segments from ground level. This cable worked OK in free air but was run inside a metal conduit at the site which created an unforseen impedance problem for the electronic transformers which then remained in soft start mode and failed to switch up to full power. The problem could not be solved and we had to revert to a conventional 50Hz transformer (500VA). This meant mounting an additional waterproofed electrical box to house the transformer which in turn upset the airflow around the base of the structure and we then had to find a new temperature sensing position as the transformer core runs at 51.8 degrees C by design.

The other technical problem was I just could not get the LM335z to track linear through the full temp range so in the end tossed it and used a strapped BC548C from out of the junk box which proved accurate to half a degree C over the desired range (ratio divide by two as opposed to by ten for the LM335z)

So thanks to all those who helped with ideas. Nice one guys.

2744. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 16:54:54 UTC
From: la8ak@online.no
Message-ID: <3aef3a46.445379351@news.online.no>
Source record: 53041

On Tue, 1 May 2001 22:17:11 +0100, "Ian White, G3SEK"
<G3SEK@ifwtech.com> wrote:

>Only as a starting-point. How approximately will depend on the device
>and how far it departs from the small-signal regime.
>
>
data books often shows a Smith Chart presentations of R+jX (G+jB) for
input and output, but I am curious if this is available for a mosfet
device like IRF630 on the HF bands? Suppose the device is designed for
power supplies, but may perform well at least on 40-160m bands. I have
some hundred devices and would like to try some experiments

73
Jan-Martin

2745. Re: KW R2000- anybody got a circuit/manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 17:16:14 UTC
From: Ken Ashcroft <ken@g3msw.demon.co.uk>
Message-ID: <oaHvDIAeDE86EwUy@g3msw.demon.co.uk>
Source record: 52979

Try posting to uk.amateur.radio. There are many KW fans here.
In article <3aef34d2.2029542@news.xtra.co.nz>, Renfred
<xrenfredm@xtra.co.nz> writes
>Hi, thanks for checking this out. Got a rogue R2000 that will only
>work in AM and FM mode. The display only shows 8's and the set goes
>into alarm mode when I try to change bands. All the LO's are working,
>and the display works momentarily when first switched on.
>
> Thanks, Renfred ZL1BDL
>Remove x from signature

--
Ken Ashcroft

2746. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 17:26:14 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3af04153.342689196@news.aepnet.com>
Source record: 53043

On Wed, 02 May 2001 02:42:36 -0400, Bill Meacham <NOSPAMexray@coqui.net> wrote:

>Wes Stewart wrote:
>>
>> On Tue, 01 May 2001 17:53:31 -0400, Bill Meacham
>> <NOSPAMexray@coqui.net> wrote:
>>
>> You obviously need a (or more comprehensive) dictionary.
>>
>> N7WS
>>
>> Your grade for poor research: "F"
>>
>> >>
>> >> I won't be rude and condescending, I will just look upon you with distain.
>> >
>> >Dis-what, Wes?
>> >
>> >"F"
>> >
>> >
>> >---
>> >Bill Meacham
>> >Vieques, PR
>> >
>
>As in, I hold in disdain your level of education and your
>proclivity to fart with your send key.
>-BM

Tsk tsk, Bill. I gave you a little push to help you improve yourself by
learning a new word, and that is the best you can do. Too bad.

But you see how simple it is to learn something new. Just a tiny bit of effort
and you can achieve your goal.

Too bad "freebanders" don't put out the tiny bit of effort necessary to earn a
ham ticket. Until they do, I will continue to view their illegal activities
with distain.

N7WS
>
>
>
>Searching for: "disdain"
>Found 3 hit(s).

>
>Disdain (Page: 423)
>
>Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
>desdaing, F. d&#65533;dain, fr. the verb. See Disdain, v. t.]
>
>1. A feeling of contempt and aversion; the regarding anything as
>unworthy of or beneath one; scorn.
>
> How my soul is moved with just disdain! Pope.
>
>Often implying an idea of haughtiness.
>
> Disdain and scorn ride sparkling in her eyes. Shak.
>
>2. That which is worthy to be disdained or regarded with contempt
>and aversion. [Obs.]
>
> Most loathsome, filthy, foul, and full of vile disdain.
>Spenser.
>
>3. The state of being despised; shame. [Obs.] Shak. Syn. --
>Haughtiness; scorn; contempt; arrogance; pride. See Haughtiness.
>
>
>Disdain (Page: 423)
>
>Dis*dain" (?; 277), v. t. [imp. & p. p. Disdained (?); p. pr. &
>vb. n. Disdaining.] [OE. disdainen, desdainen, OF.
>desdeigner, desdaigner, F. d&#65533;daigner; des- (L. dis-) + daigner to
>deign, fr. L. dignari to deem worthy. See Deign.]
>
>1. To think unworthy; to deem unsuitable or unbecoming; as, to
>disdain to do a mean act.
>
> Disdaining . . . that any should bear the armor of the best
>knight living. Sir P. Sidney.
>
>2. To reject as unworthy of one's self, or as not deserving one's
>notice; to look with scorn upon; to scorn, as base acts,
>character, etc.
>
> When the Philistine . . . saw Dawid, he disdained him; for he
>was but a youth. 1 Sam. xvii. 42.
>
> 'T is great, 't manly to disdain disguise. Young.
>
>Syn. -- To contemn; despise; scorn. See Contemn.
>

>
>Disdain (Page: 423)
>
>Dis*dain", v. i. To be filled with scorn; to feel contemptuous
>anger; to be haughty.
>
> And when the chief priests and scribes saw the marvels that
>he did . . . they disdained. Genevan Testament (Matt.
> xxi. 15).
>
>
>
>
>Searching for: "distain"
>Found 1 hit(s).
>
>Distain (Page: 433)
>
>Dis*tain" (?), v. t. [imp. & p. p. Distained (?); p. pr. & vb. n.
>Distaining.] [OE. desteinen, OF. desteindre to take
>away the color, F. d&#65533;teindre; pref. des- (L. dis-) + F. teindre to
>tinge, dye, L. tingere. See Tinge, and cf. Stain.] To tinge with a
>different color from the natural or proper one; to stain; to
>discolor; to sully; to tarnish; to defile; -- used chiefly in
>poetry.
>Distained with dirt and blood." Spenser.
>
> [She] hath . . . distained her honorable blood. Spenser.
>
> The worthiness of praise distains his worth. Shak.
>
>
>Yours truly,
>---
>Bill Meacham
>Vieques, PR
>

2747. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 17:41:28 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3AF046C8.57E0D4FB@grove.iup.edu>
Source record: 53044
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott wrote:

> .. but it seemed like the original poster was
> condoning "TRANSMITTING" DSB to provide 2 signals at the other end...

No - the orginal poster (me) asked why / how his used FT-890 was transmitting DSB.

2748. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 18:04:21 UTC
From: Twistedhed <twistedhed@webtv.net>
Message-ID: <3af03e15$1@news2.mibx.net>
Source record: 53042

Please read. This will clarify.

http://sporadic1.tripod.com/page7.html

2749. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 18:09:31 UTC
From: mulveyr@zippy.aa2ys.ampr.org
Message-ID: <slrn9f0it3.176.mulveyr@zippy.aa2ys.ampr.org>
Source record: 53045

On Wed, 02 May 2001 17:26:14 GMT, Wes Stewart <nospam_n7ws@arrl.net> wrote:
>Tsk tsk, Bill. I gave you a little push to help you improve yourself by
>learning a new word, and that is the best you can do. Too bad.
>
>But you see how simple it is to learn something new. Just a tiny bit of effort
>and you can achieve your goal.
>
>Too bad "freebanders" don't put out the tiny bit of effort necessary to earn a
>ham ticket. Until they do, I will continue to view their illegal activities
>with distain.

It's just a guess, but I wouldn't be surprised if Bill's response was
prompted by your unique usage of a transitive verb in your comments, and
your subsequent attempt to justify it.

Does the incorrect use of a valid word make you morally superior?

- Rich

2750. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 19:20:59 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3af05cc9_2@newsfeeds>
Source record: 53046

There are some CBer's out there who operate legally. I did for a few years before getting my ticket. The enmity is not directed at them, but at 'freebanders' and CBer's pushing enough power for a small town. Those are the ones who need to be shut down.

JWheeler
kd5bcu
Gene <webmaster@zylay.com> wrote in message
news:3AEE2BAF.A31B742F@zylay.com...
> W6DKN wrote:

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2751. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 19:28:14 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3af05e7c$1_1@newsfeeds>
Source record: 52947

You don't have to be open-minded when you are right. If you are breaking
the law, you don't deserve respect, and you are not likely to get it here.

JWheeler
kd5bcu
Twistedhed <twistedhed@webtv.net> wrote in message
news:3aef2533$1@news2.mibx.net...
>
> I must admit I am shocked by some of the responses to my original post.
The
> group of hams that frequent rec.radio.cb are so much more open-minded and
> progressive!
>
> RS1175
> FLA

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2752. Re: Cheap ham's VHF sig gen

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 20:28:13 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <y1jMQCAd3G86Ew0r@g3ohx.demon.co.uk>
Source record: 52948

In article <9cngrd$n5t$1@neptunium.btinternet.com>, Leon Heller
<leon_heller@hotmail.com> writes
>> Then it dawned on me: I've got a programmable scanner. Lessee, what's
>> 144.2-10.7? 133.5. OK, let's put that in the scanner & see what happens.
>> Sure enough, a weak but stable (but with rough modulation!) carrier on
>> 144.2, which allows me to quickly line up the transverter.
>
>I've seen a similar technique mentioned somewhere using a 2m hand-held.
>
>73, Leon
>
>
I've used a battery-operated electric razor as a source of wideband
noise (for peaking up a VHF receiver RF and IF stages).
Ian.

2753. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 20:44:52 UTC
From: ard@p850ug1.demon.co.uk
Message-ID: <9cprk4$tm@p850ug1.demon.co.uk>
Source record: 52952
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

Clifton T. Sharp Jr. (clifto@clifto.com) wrote:
: I maintain that with ingenuity, lots of time and patience, and willingness
: to try, any piece of test equipment can be home-calibrated well within
: the needs of the home experimenter, and danged close to factory specs.
: The point of lugging it in for professional calibration comes when the
: equipment needs (and can be expected to give) exceptional accuracy, at
: least for my money.

I would certainly agree with that. I'm a somewhat serious hobbyist, and I think I could calibrate everything I own to within the factory spec, with one exception. The exception is a very nice, old, HP counter -- I doubt I could get a 1 part in 10^8 or so frequency standard that's needed to do that properly.

Going back to the 'scope for a moment. How accurately can you read voltage or time on a 'scope screen ? 1% ? (that's 1mm in 10cm). Perhaps 0.01% if you have calibrated delayed sweep or calibrated backing-off voltages (one of my Tekky's does).

Now how accurately can you calibrate a crystal oscillator, say by zero-beating it to a standard frequency transmission. A lot better than 1% I can assure you. Heck, one of those 4 pin oscillator cans will do better than that, off the shelf with no calibration (or at least every one I've ever tested bas been a lot better than 1% at normal room temperature). How accurate a bandgap voltage reference can you easily buy from, say, Maxim. Again, a lot better than 1%.

There are your standards. They're not 'traceable', but they're easily good enough for home work.

There are many advantages to being able to calibrate your own instruments, or at least being able to check the calibration. For one thing, if you mske a measurement and it's way off what you expected, you'll be able to check the insturment is telling the truth. And you won't take a whole series of measurements and then find the instrument was out of calibration and that you have to repeat them.

No, there's only one person I trust to calibrate my test gear -- me.

-tony

2754. Re: NiCd Electrolyte - Answer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 20:47:04 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <cn_H6.41812$Ce4.3157953@news1.rdc1.ct.home.com>
Source record: 52949

Make sure you read the MSDS sheets for that
chemical.

Peter

"Al Lorona, Jr." <al_lorona@agilent.com> wrote in message
news:3AEE0370.AF9C71C3@agilent.com...
>
> Answer to my own query, in hopes it will help others:
>
> Alcad has several distributors in the US. Call 203 234 8333 and they
> will tell you who is the closest distributor. In southern California,
> that would be Partridge & Associates, 562 802 7345, in Cerritos.
>
> The electrolyte normally never needs to be changed, but over time it may
> react with the carbon dioxide in the air and the resulting carbonate
> contamination can weaken the electrolyte and require replacement. I
> never knew this.
>
> You can buy pre-mixed potassium hydroxide (KOH) electrolyte, in
> five-gallon jugs, for $50 each. That's enough for roughly 20 cells of
> the 130 A-h size. The beauty of Nicads is that structurally they will
> last forever because there's no mechanism for corrosion of the plate
> structure. With a fresh load of electrolyte, I should have my cell back
> to normal.
>
> I had to do this with the impending power shortage in California this
> summer!
>
> R,
>
> Al

2755. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 23:01:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AF091D4.99F2E597@eznec.com>
Source record: 52950

I don't know whether you can get S parameter data for these devices, but it's likely you can find a SPICE model. What I've done is build a SPICE model that imitates an S parameter measurement setup and use it to get the S parameters. In fact, for one microwave transistor, I found pretty bad disagreement between the SPICE-derived S parameters and the published S parameter values -- and using the SPICE-derived values gave circuit modeling results which were closer to actual performance. I'd think this would be unusual, though, since S parameters are measured pretty directly, while SPICE parameters are inferred from other measurements. I imagine that the manufacturer's S parameter test fixture was defective, improperly calibrated, or improperly used.

Roy Lewallen, W7EL

J M Noeding wrote:
>
> On Tue, 1 May 2001 22:17:11 +0100, "Ian White, G3SEK"
> <G3SEK@ifwtech.com> wrote:
>
> >Only as a starting-point. How approximately will depend on the device
> >and how far it departs from the small-signal regime.
> >
> >
> data books often shows a Smith Chart presentations of R+jX (G+jB) for
> input and output, but I am curious if this is available for a mosfet
> device like IRF630 on the HF bands? Suppose the device is designed for
> power supplies, but may perform well at least on 40-160m bands. I have
> some hundred devices and would like to try some experiments
>
> 73
> Jan-Martin

2756. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 23:12:50 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF09472.61953347@coqui.net>
Source record: 52951

Wes Stewart wrote:
>

> >As in, I hold in disdain your level of education and your
> >proclivity to fart with your send key.
> >-BM
>
> Tsk tsk, Bill. I gave you a little push to help you improve yourself by
> learning a new word, and that is the best you can do. Too bad.
>
> But you see how simple it is to learn something new. Just a tiny bit of effort
> and you can achieve your goal.
>
> Too bad "freebanders" don't put out the tiny bit of effort necessary to earn a
> ham ticket. Until they do, I will continue to view their illegal activities
> with distain.
>
> N7WS

No amount of back-pedalling will eliminate your linguistic faux
pas, but I'll raise your grade because you were clever enough to
convert it to a worthwhile point.

Bill Meacham
Vieques, PR

2757. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 23:37:01 UTC
From: Bob <bob@bob.com>
Message-ID: <3AF09A1D.1F7C4E45@bob.com>
Source record: 52953
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Ok, Mr. Letter of the Law.

And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed, you would take the right approach to speeding legally - because, hey man, you do EVERYTHING right. You would put your mind to becoming a race car driver and do your speeding on the track where it belongs. You would follow the proper steps to becoming a race car driver:

1. Learn to ride a unicycle, because that's how it all started, man. Our forefather's rode unicycles before fast cars were around, so must you learn.
2. Learn everything there is to know about cars - including memorizing the answers to questions about walking, unicycles, horse and carriage, boats, planes, etc.
3. If you skip the step on learning to ride a unicycle, prepare to be chastised by old-timers that had to learn how to ride it and by some who love the unicycle and can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people from becoming race car drivers.
4. Prepare to spend some money. Your standard car won't do - it doesn't fit race car specs! And every race track requires a different car and tire combination.

Is becoming a race car driver what you should do because you like to take those 15 turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe its a bit of an extreme commitment for some. Hey, I can operate my equipment and make sure that it complies with the same rules the FCC mandates for hams. I can operate it responsibly. I can operate it courteously . I can use the minimum amount of power necessary for a contact.

Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A crime against humanity? Absolutely not. To me - speeding in your car is a far more worse crime.

BTW, I do not condone operating on ham bands or intentionally interfering with any service that I am aware of. Yes, I know there are (very few, non essential) services allocated between 27.405 and 28Mhz. I support operations on 27.405 - 27.855 Mhz that follow the same regulations that hams follow.

Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal, yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and white.

Bob.

Scott Townley wrote:

> But you *do* have all the respect you deserve...the same respect we
> all grant to FELONS, which is what you are, buddy...

>
> On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> wrote:
>
> >
> >I am posting here because of some of the nasty things I have read in this
> >group and in QRZ discussions regarding freebanders. We who use the frequencies
> >from 27.405 to 28.000 have more in common with hams than you might think.
> >We are good operators and have knowledge of propagation and skip conditions.
> >We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
> >issues as well or better. However, the attitude of some hams toward us is
> >rude and condescending. We are treated like 2nd class citizens. This should
> >not be. We have the same rights under the constitution as legal hams do.
> >For those that do not wish to be under Uncle Sam's thumb, freebanding is
> >a viable alternative to getting a ham radio license. What I am saying is
> >that maybe the next time you meet a freebander it might be wise to talk with
> >him before you condemn him.
> >
> >I am QRT and standing by. (No flames answered. Please reply via email)
> >
> >Unit 2711, Florida
> >

2758. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 23:49:11 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <X11I6.1360$aR4.401482@paloalto-snr1.gtei.net>
Source record: 52954
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

No amount of self justification will erase the simple fact that what you are doing is a crime. That makes you a criminal, and therefore not worthy of respect. You sound like the gang bangers in LA bitching because they are treated like hoodlums.

By the way, I do have a cherry 1974 427 FI ' Vette that I take out to LA County Raceway when I want to speed (it turns low 12's with street tires). When I am driving my Blazer on city streets, I obey the traffic laws. That's what honest people do...

73 de W6DKN

"Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> you would take the right approach to speeding legally - because, hey man, you do
> EVERYTHING right. You would put your mind to becoming a race car driver and do your
> speeding on the track where it belongs. You would follow the proper steps to
> becoming a race car driver:
>
> 1. Learn to ride a unicycle, because that's how it all started, man. Our
> forefather's rode unicycles before fast cars were around, so must you learn.
> 2. Learn everything there is to know about cars - including memorizing the answers
> to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
> old-timers that had to learn how to ride it and by some who love the unicycle and
> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
> from becoming race car drivers.
> 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
> car specs! And every race track requires a different car and tire combination.
>

> Is becoming a race car driver what you should do because you like to take
those 15
> turns of Bear Mountain road at an faster than the posted speed? Well, ham
radio IS
> NOT a replacement for the "freeband" either. Ham radio doesn't fit
everybody. Maybe
> its a bit of an extreme commitment for some. Hey, I can operate my
equipment and
> make sure that it complies with the same rules the FCC mandates for hams.
I can
> operate it responsibly. I can operate it courteously . I can use the
minimum amount
> of power necessary for a contact.
>
> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
immoral? A
> crime against humanity? Absolutely not. To me - speeding in your car is a
far more
> worse crime.
>
> BTW, I do not condone operating on ham bands or intentionally interfering
with any
> service that I am aware of. Yes, I know there are (very few, non
essential)
> services allocated between 27.405 and 28Mhz. I support operations on
27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.
>
> Hopefully this metaphor can crack the thick skull of the "yes, but it's
illegal,
> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
black and
> white.
>
> Bob.
>
>
> Scott Townley wrote:
>
> > But you *do* have all the respect you deserve...the same respect we
> > all grant to FELONS, which is what you are, buddy...
> >

2759. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-02 23:58:18 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ua1l6.41876$Ce4.3186846@news1.rdc1.ct.home.com>
Source record: 52955
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> Ok, Mr. Letter of the Law.
Hey, I can operate my equipment and
> make sure that it complies with the same rules the FCC mandates for hams.

FCC rules mandates amateurs operate on frequencies
authorized by their their class of license. How do you
manage to comply with FCC laws when:
]
1: operating out of band?
2: operating without a license?
3: operating non type accepted equipment?

2760. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 00:06:25 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF0A101.CD48E752@IEEE.org>
Source record: 52956
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6DKN wrote:
> No amount of self justification will erase the simple fact that what you
> are doing is a crime.

Are there any victims or is it like the crime of oral sex?
--
http://www.mindspring.com/~w6rca

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
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2761. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 00:12:59 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9cq7onqpr1@slb4.atl.mindspring.net>
Source record: 52957
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Look dumbass...you ain't going to convince the people that have a license.
So quite trying to explain what you think is alright. The bottom line is
YOU ARE ILLEGAL. PERIOD.

Dan/W4NTI

"Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to
speed,
> you would take the right approach to speeding legally - because, hey man,
you do
> EVERYTHING right. You would put your mind to becoming a race car driver
and do your
> speeding on the track where it belongs. You would follow the proper steps
to
> becoming a race car driver:
>
> 1. Learn to ride a unicycle, because that's how it all started, man. Our
> forefather's rode unicycles before fast cars were around, so must you
learn.
> 2. Learn everything there is to know about cars - including memorizing the
answers
> to questions about walking, unicycles, horse and carriage, boats, planes,
etc.
> 3. If you skip the step on learning to ride a unicycle, prepare to be
chastised by
> old-timers that had to learn how to ride it and by some who love the
unicycle and
> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad
people
> from becoming race car drivers.
> 4. Prepare to spend some money. Your standard car won't do - it doesn't
fit race
> car specs! And every race track requires a different car and tire
combination.
>
> Is becoming a race car driver what you should do because you like to take
those 15
> turns of Bear Mountain road at an faster than the posted speed? Well, ham
radio IS
> NOT a replacement for the "freeband" either. Ham radio doesn't fit
everybody. Maybe

> its a bit of an extreme commitment for some. Hey, I can operate my
equipment and
> make sure that it complies with the same rules the FCC mandates for hams.
I can
> operate it responsibly. I can operate it courteously . I can use the
minimum amount
> of power necessary for a contact.
>
> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
immoral? A
> crime against humanity? Absolutely not. To me - speeding in your car is a
far more
> worse crime.
>
> BTW, I do not condone operating on ham bands or intentionally interfering
with any
> service that I am aware of. Yes, I know there are (very few, non
essential)
> services allocated between 27.405 and 28Mhz. I support operations on
27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.
>
> Hopefully this metaphor can crack the thick skull of the "yes, but it's
illegal,
> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
black and
> white.
>
> Bob.
>
>
> Scott Townley wrote:
>
> > But you *do* have all the respect you deserve...the same respect we
> > all grant to FELONS, which is what you are, buddy...
> >
> > On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> > wrote:
> >
> > >
> > >I am posting here because of some of the nasty things I have read in
this
> > >group and in QRZ discussions regarding freebanders. We who use the
frequencies
> > >from 27.405 to 28.000 have more in common with hams than you might
think.
> > >We are good operators and have knowledge of propagation and skip
conditions.
> > >We use Yasus, Kenwoods and Icomm radios just like you do, so we know
technical

> > >issues as well or better. However, the attitude of some hams toward us
is
> > >rude and condescending. We are treated like 2nd class citizens. This
should
> > >not be. We have the same rights under the constitution as legal hams
do.
> > >For those that do not wish to be under Uncle Sam's thumb, freebanding
is
> > >a viable alternative to getting a ham radio license. What I am saying
is
> > >that maybe the next time you meet a freebander it might be wise to talk
with
> > >him before you condemn him.
> > >
> > >I am QRT and standing by. (No flames answered. Please reply via email)
> > >
> > >Unit 2711, Florida
> > >
>

2762. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 00:26:38 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF0A5BE.486CBDA9@coqui.net>
Source record: 52958
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6RCecilA wrote:
>
> W6DKN wrote:
> > No amount of self justification will erase the simple fact that what you
> > are doing is a crime.
>
> Are there any victims or is it like the crime of oral sex?
> --
> http://www.mindspring.com/~w6rca

Well, if allowing this renegade swatch of the social fabric to
choose not to obey laws is any example of where we are headed, I
guess we are all victims.
-BM

2763. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 00:58:54 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <u6b1ftk8t9tphhc8thm9hc1qvt8kln6n8q@4ax.com>
Source record: 52959

On Wed, 02 May 2001 16:01:40 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I don't know whether you can get S parameter data for these devices, but
>it's likely you can find a SPICE model. What I've done is build a SPICE
>model that imitates an S parameter measurement setup and use it to get
>the S parameters. In fact, for one microwave transistor, I found pretty
>bad disagreement between the SPICE-derived S parameters and the
>published S parameter values -- and using the SPICE-derived values gave
>circuit modeling results which were closer to actual performance. I'd
>think this would be unusual, though, since S parameters are measured
>pretty directly, while SPICE parameters are inferred from other
>measurements. I imagine that the manufacturer's S parameter test fixture
>was defective, improperly calibrated, or improperly used.
>
>Roy Lewallen, W7EL

Hmmm...
Just for future reference, can you tell us what that microwave
transistor was?

-Rex, KK6MK

2764. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:02:18 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AF0AE1A.2BCF97E0@bloomer.net>
Source record: 52960
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Actually, there was someone else (who I called the original poster) who
was telling people it was easy to modify a Kenwood HF rig to transmit
DSB who went by the name Skipp and then reamed on me about how long I've
been licensed but wouldn't give me his call when asked, to find out how
long He'd been licensed.

Scott
N0EDV

Scott McClements wrote:
>
> Scott wrote:
>
> > > .. but it seemed like the original poster was
> > > condoning "TRANSMITTING" DSB to provide 2 signals at the other end...
>
> No - the orginal poster (me) asked why / how his used FT-890 was transmitting DSB.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2765. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:08:51 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <Dc2I6.4688$2_.1227138@news3.rdc1.on.home.com>
Source record: 52961
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> BTW, I do not condone operating on ham bands or intentionally interfering
with any
> service that I am aware of. Yes, I know there are (very few, non
essential)
> services allocated between 27.405 and 28Mhz. I support operations on
27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.

Hams don't break the law ... hams learned what they needed to know to get
where they are ... you took it ... you demean their effort ... go back on cb
(and trust me you aren't any more of a techie if you say 11m)

2766. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:13:43 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3af0b064.371125978@news.aepnet.com>
Source record: 52962

On Wed, 02 May 2001 18:09:31 GMT, mulveyr@zippy.aa2ys.ampr.org (Richard Mulvey) wrote:

[snip]

> It's just a guess, but I wouldn't be surprised if Bill's response was
>prompted by your unique usage of a transitive verb in your comments, and
>your subsequent attempt to justify it.
>
> Does the incorrect use of a valid word make you morally superior?

From Bill's previous post:

"Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein, desdaing, F. d&#65533;dain, fr. the verb. See Disdain, v. t.]

1. A feeling of contempt and aversion; the regarding anything as unworthy of or beneath one; scorn. "

Looks like a noun to me. Appropriate too.

>
>- Rich
>

2767. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:19:51 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF0B237.6672F147@IEEE.org>
Source record: 52963
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

```
Bill Meacham wrote:
>
> W6RCecilA wrote:
> >
> > W6DKN wrote:
> > > No amount of self justification will erase the simple fact that what you
> > > are doing is a crime.
> >
> > Are there any victims or is it like the crime of oral sex?
>
> Well, if allowing this renegade swatch of the social fabric to
> choose not to obey laws is any example of where we are headed, I
> guess we are all victims.

How have we been hurt? Not implying anything, just questioning.
--
http://www.mindspring.com/~w6rca

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2768. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:21:14 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF0B28A.63A33E25@IEEE.org>
Source record: 52964
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Rob St.Denis" wrote:
> Hams don't break the law ...

Maybe you should change that to: Most hams don't break the law.
--
http://www.mindspring.com/~w6rca

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2769. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:33:14 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF0B55A.29FD8A09@coqui.net>
Source record: 52965

Wes Stewart wrote:
>
> On Wed, 02 May 2001 18:09:31 GMT, mulveyr@zippy.aa2ys.ampr.org (Richard Mulvey)
> wrote:
>
> [snip]
>
> > It's just a guess, but I wouldn't be surprised if Bill's response was
> >prompted by your unique usage of a transitive verb in your comments, and
> >your subsequent attempt to justify it.
> >
> > Does the incorrect use of a valid word make you morally superior?
>
> From Bill's previous post:
>
> "Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
> desdaing, F. dï¿½dain, fr. the verb. See Disdain, v. t.]
>
> 1. A feeling of contempt and aversion; the regarding anything as
> unworthy of or beneath one; scorn. "
>
> Looks like a noun to me. Appropriate too.
>
> >
> >- Rich
> >

I'm getting real confused here. You didn't say disdain. You said
"distain".

Bill Meacham
Vieques, PR

2770. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:53:58 UTC
From: mulveyr@zippy.aa2ys.ampr.org
Message-ID: <slrn9f1e7m.1tk.mulveyr@zippy.aa2ys.ampr.org>
Source record: 52966

On Thu, 03 May 2001 01:13:43 GMT, Wes Stewart <nospam_n7ws@arrl.net> wrote:
>On Wed, 02 May 2001 18:09:31 GMT, mulveyr@zippy.aa2ys.ampr.org (Richard Mulvey)
>wrote:
>
>[snip]
>
>> It's just a guess, but I wouldn't be surprised if Bill's response was
>>prompted by your unique usage of a transitive verb in your comments, and
>>your subsequent attempt to justify it.
>>
>> Does the incorrect use of a valid word make you morally superior?
>
>From Bill's previous post:
>
>"Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
>desdaing, F. dï¿½dain, fr. the verb. See Disdain, v. t.]
>
>1. A feeling of contempt and aversion; the regarding anything as
>unworthy of or beneath one; scorn. "
>
>Looks like a noun to me. Appropriate too.

Sure - disdain is a noun. Distain, the word you used, isn't.
And thus the definition of disdain has nothing to do with your
comment to Bill.

- Rich

2771. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 01:57:15 UTC
From: mulveyr@zippy.aa2ys.ampr.org
Message-ID: <slrn9f1edr.1tk.mulveyr@zippy.aa2ys.ampr.org>
Source record: 52967

On Wed, 02 May 2001 21:33:14 -0400, Bill Meacham <NOSPAMexray@coqui.net> wrote:
>Wes Stewart wrote:
>>
>> On Wed, 02 May 2001 18:09:31 GMT, mulveyr@zippy.aa2ys.ampr.org (Richard Mulvey)
>> wrote:
>>
>> [snip]
>>
>> > It's just a guess, but I wouldn't be surprised if Bill's response was
>> >prompted by your unique usage of a transitive verb in your comments, and
>> >your subsequent attempt to justify it.
>> >
>> > Does the incorrect use of a valid word make you morally superior?
>>
>> From Bill's previous post:
>>
>> "Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
>> desdaing, F. dï¿½dain, fr. the verb. See Disdain, v. t.]
>>
>> 1. A feeling of contempt and aversion; the regarding anything as
>> unworthy of or beneath one; scorn. "
>>
>> Looks like a noun to me. Appropriate too.
>>
>> >
>> >- Rich
>> >
>
>I'm getting real confused here. You didn't say disdain. You said
>"distain".

I don't think you're the one getting confused. :-)

- Rich

2772. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 02:05:11 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <r13I6.4872$2_.1379222@news3.rdc1.on.home.com>
Source record: 52968
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

A ham by definition does not break the law ... a freebander does

--
Rob St.Denis

"W6RCecilA" <Cecil.A.Moore@IEEE.org> wrote in message
news:3AF0B28A.63A33E25@IEEE.org...
> "Rob St.Denis" wrote:
> > Hams don't break the law ...
>
> Maybe you should change that to: Most hams don't break the law.
> --
> http://www.mindspring.com/~w6rca
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2773. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 03:36:58 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <3AF0D25A.910@bellsouth.net>
Source record: 52969
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bob,

Yours is the kind of misunderstanding that, try as people might, just can't seem to be overcome. I know FIRSTHAND that there are agencies that are assigned frequencies above and below the 11 meter CB band. Tell me, what is "unessential" about forest rangers. What is "unessential" about military comms? The difference is the type and duration of commercial and military comms as opposed to civilians who are there just to talk, often as much as possible, to as many people as possible. Business or military comms are short and to the point.

I know the regulars get tired of reading this example, but it is a perfect example of why NOT to "freeband". Some years ago, I was acting as communications officer for Civil Air Patrol on a live search for a light plane that disappeared during a storm. We planned to use a frequency near 11 meters which is a USAF frequency assigned to CAP. Like many rescue agencies, both civilian and military, we use our assigned frequencies so as to separate various kinds of traffic, take advantage of atmospherics (time of day), and keep from "interfering" with ourselves--air to ground on one freq., mobile to base on another, and yet another for "incidental comms" such as flight line, safety, or even sending out for food for the searchers. Another reason for choosing the low power 26 MHZ band was to prevent news hounds, ambulance chasers, and even possibly the family of the pilot from hearing adverse news via scanner. *Most* scanners don't deal too well with SSB. We quickly discovered that there was a "freebander" on that frequency calling, "BREAK, BREAK, skipland", etc with a linear that made it difficult or impossible to use this frequency forcing a lot of incidental traffic onto VHF. I was LIVID! There was NO excuse for this person operating on that frequency whatsoever. He was interfering with an active USAF authorized mission, a real emergency where a life was hanging in the balance. In the following week after the mission was suspended, I began to DF this pirate, determined to put a stop to his outlaw operations. One evening, I happened to be in a nearby town, and absently switched on one of my radios in the car not expecting to hear anything. The guy was pegging my meter and almost busted my speaker. On my way out of town, I made a screeching U-turn and went back into town, stopping at the town PD to ask if they recognized that voice. Yup, they knew the fella and where he lived. I drove to his house and confirmed the location. Outlaw was reported to FCC field office, and was busted for out-of-band operation AND interfering with emergency communications--a serious Federal offense. Betcha he got tired of eating beans from a .10 can!

There IS no excuse for operating on unauthorized frequencies. You might *think* these freqs are unoccupied and that the agencies thereto assigned are "non-essential". That is not for individuals to decide. Just because *you* don't hear anyone doesn't mean they aren't there and that there is no traffic being passed that you could hinder.

Finally, let's say I, or you, rent/lease a piece of property with a nice lake on it. Intending to do a little fishing, you stock that lake with a variety of game fish--bass, crappy, catfish, perch, or whatever. You are busy and don't get out to your lake real often, but one day you decide it would be a good day to go fishing; remember, it's "your" lake by virtue of your lease to use as you see fit within the guidelines of your agreement with the owner. When you arrive, you discover a large group of people on your property, at YOUR lake, catching the fish YOU stocked--in spite of the fact there are No Trespassing signs all over-even right where the trespassers are fishing. I'd be angry and I'd bring charges against each and every one that trespassed on my land. It doesn't make any difference if I don't come to the lake every day, it is STILL property assigned to me by virtue of rent or lease and nobody has any business on it without permission.

"Freebanders" don't have "permission" (license) to operate on frequencies outside the 11 meter band. They are trespassing just as surely as those people I cited in the above paragraph. And when they DO trespass, it pisses off those who are legitimately assigned said frequencies for their exclusive use and it don't make ANY difference if they "visit" (use) their "property" (frequency) once a minute or once a year--the "freebanders" are trespassing just as surely as if they just walked into your/my house uninvited. There is no respect due, and none forthcoming for trespassers, "freebanders", or outlaw radio ops.

Jerry
K4KWH

Bob wrote:
>
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> you would take the right approach to speeding legally - because, hey man, you do
> EVERYTHING right. You would put your mind to becoming a race car driver and do your
> speeding on the track where it belongs. You would follow the proper steps to
> becoming a race car driver:
>
> 1. Learn to ride a unicycle, because that's how it all started, man. Our
> forefather's rode unicycles before fast cars were around, so must you learn.
> 2. Learn everything there is to know about cars - including memorizing the answers
> to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
> old-timers that had to learn how to ride it and by some who love the unicycle and
> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
> from becoming race car drivers.

> 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
> car specs! And every race track requires a different car and tire combination.
>
> Is becoming a race car driver what you should do because you like to take those 15
> turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS
> NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe
> its a bit of an extreme commitment for some. Hey, I can operate my equipment and
> make sure that it complies with the same rules the FCC mandates for hams. I can
> operate it responsibly. I can operate it courteously . I can use the minimum amount
> of power necessary for a contact.
>
> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
> crime against humanity? Absolutely not. To me - speeding in your car is a far more
> worse crime.
>
> BTW, I do not condone operating on ham bands or intentionally interfering with any
> service that I am aware of. Yes, I know there are (very few, non essential)
> services allocated between 27.405 and 28Mhz. I support operations on 27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.
>
> Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal,
> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and
> white.
>
> Bob.

> > >

2774. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 03:50:48 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <3AF0D598.1734@bellsouth.net>
Source record: 52970
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Cecil,

If it were YOU on an international flight from London, and an outlaw operator decided to operate on 6.628 MHZ one of the HF aviation frequencies or even a tower frequency of 118.1 MHZ causing your plane to misread instructions, stray into the path of another plane and crash, would that hurt YOU? Of course. Operating on any frequency not assigned to an individual carries the risk of causing loss of lives or property--forest rangers attempting to determine, for example, the direction of a fire's travel in order to evacuate people from its path. US Forest Rangers DO operate above 27 MHZ. Would you want YOUR home destroyed or you life put at risk because somebody thought his hobby was more important than your life? Simply because there was someone with a "leen-yar" covering up fire comms keeping the fire fighters from getting the right instructions?

THAT is the potential harm. That is the reason it is illegal--not because FCC is trying to mess up somebody's fun.

73

Jerry
K4KWH

W6RCecilA wrote:
>
> Bill Meacham wrote:
> >
> > W6RCecilA wrote:
> > >
> > > W6DKN wrote:
> > > > No amount of self justification will erase the simple fact that what you
> > > > are doing is a crime.
> > >
> > > Are there any victims or is it like the crime of oral sex?
> >
> > Well, if allowing this renegade swatch of the social fabric to
> > choose not to obey laws is any example of where we are headed, I
> > guess we are all victims.
>
> How have we been hurt? Not implying anything, just questioning.
> --
> http://www.mindspring.com/~w6rca
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----

> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2775. Re: MOSFET output impedance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 03:58:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AF0D74C.8413787@eznec.com>
Source record: 52971

It was a Siemens BFR183W. I also found the model worked better with package parasitics furnished by NEC for their comparable package than the ones furnished by Siemens. More recently, I discovered that Siemens had made some pretty substantial changes in their package parasitic model, and the new ones work much better. I don't know if they've redone the S parameters.

The accuracy of the various models was based on how well the model agreed with actual operation characteristics in a particular application.

Roy Lewallen, W7EL

Rex Allers wrote:
>
> On Wed, 02 May 2001 16:01:40 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >I don't know whether you can get S parameter data for these devices, but
> >it's likely you can find a SPICE model. What I've done is build a SPICE
> >model that imitates an S parameter measurement setup and use it to get
> >the S parameters. In fact, for one microwave transistor, I found pretty
> >bad disagreement between the SPICE-derived S parameters and the
> >published S parameter values -- and using the SPICE-derived values gave
> >circuit modeling results which were closer to actual performance. I'd
> >think this would be unusual, though, since S parameters are measured
> >pretty directly, while SPICE parameters are inferred from other
> >measurements. I imagine that the manufacturer's S parameter test fixture
> >was defective, improperly calibrated, or improperly used.
> >
> >Roy Lewallen, W7EL
>
> Hmmm...
> Just for future reference, can you tell us what that microwave
> transistor was?
>
> -Rex, KK6MK

2776. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 04:23:08 UTC
From: ccom2@socket.net
Message-ID: <3af0dcb3.3549117@news.socket.net>
Source record: 52972
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Preach it Brother
It could not have been said any better.

FreeBanders are bottom feeding scum.
That should have all their equipment taken away.
Mike
AB0IV

Jerry Oxendine <joxendi@bellsouth.net> wrote:

>Bob,
>
>Yours is the kind of misunderstanding that, try as people might, just
>can't seem to be overcome. I know FIRSTHAND that there are agencies
>that are assigned frequencies above and below the 11 meter CB band.
>Tell me, what is "unessential" about forest rangers. What is "unessen-
>tial" about military comms? The difference is the type and duration of
>commercial and military comms as opposed to civilians who are there just
>to talk, often as much as possible, to as many people as possible. Busi-
>ness or military comms are short and to the point.
>
>I know the regulars get tired of reading this example, but it is a per-
>fect example of why NOT to "freeband". Some years ago, I was acting
>as communications officer for Civil Air Patrol on a live search for a
>light plane that disappeared during a storm. We planned to use a freq-
>uency near 11 meters which is a USAF frequency assigned to CAP. Like
>many rescue agencies, both civilian and military, we use our assigned
>frequencies so as to separate various kinds of traffic, take advantage
>of atmospherics (time of day), and keep from "interfering" with our-
>selves--air to ground on one freq., mobile to base on another, and yet
>another for "incidental comms" such as flight line, safety, or even
>sending out for food for the searchers. Another reason for choosing the
>low power 26 MHZ band was to prevent news hounds, ambulance chasers,
>and even possibly the family of the pilot from hearing adverse news via
>scanner. *Most* scanners don't deal too well with SSB. We quickly dis-
>covered that there was a "freebander" on that frequency calling, "BREAK,
>BREAK, skipland", etc with a linear that made it difficult or impossible
>to use this frequency forcing a lot of incidental traffic onto VHF. I
>was LIVID! There was NO excuse for this person operating on that freq-
>uency whatsoever. He was interfering with an active USAF authorized
>mission, a real emergency where a life was hanging in the balance. In
>the following week after the mission was suspended, I began to DF this
>pirate, determined to put a stop to his outlaw operations. One evening,
>I happened to be in a nearby town, and absently switched on one of my

>radios in the car not expecting to hear anything. The guy was pegging
>my meter and almost busted my speaker. On my way out of town, I made
>a screeching U-turn and went back into town, stopping at the town PD to
>ask if they recognized that voice. Yup, they knew the fella and where he
>lived. I drove to his house and confirmed the location. Outlaw was
>reported to FCC field office, and was busted for out-of-band operation
>AND interfering with emergency communications--a serious Federal
>offense. Betcha he got tired of eating beans from a .10 can!
>
>There IS no excuse for operating on unauthorized frequencies. You might
>*think* these freqs are unoccupied and that the agencies thereto assign-
>ed are "non-essential". That is not for individuals to decide. Just
>because *you* don't hear anyone doesn't mean they aren't there and that
>there is no traffic being passed that you could hinder.
>
>Finally, let's say I, or you, rent/lease a piece of property with a nice
>lake on it. Intending to do a little fishing, you stock that lake with
>a variety of game fish--bass, crappy, catfish, perch, or whatever. You
>are busy and don't get out to your lake real often, but one day you
>decide it would be a good day to go fishing; remember, it's "your" lake
>by virtue of your lease to use as you see fit within the guidelines of
>your agreement with the owner. When you arrive, you discover a large
>group of people on your property, at YOUR lake, catching the fish YOU
>stocked--in spite of the fact there are No Trespassing signs all over-
>even right where the trespassers are fishing. I'd be angry and I'd bring
>charges against each and every one that trespassed on my land. It
>doesn't make any difference if I don't come to the lake every day, it
>is STILL property assigned to me by virtue of rent or lease and nobody
>has any business on it without permission.
>
>"Freebanders" don't have "permission" (license) to operate on frequen-
>cies outside the 11 meter band. They are trespassing just as surely
>as those people I cited in the above paragraph. And when they DO tres-
>pass, it pisses off those who are legitimately assigned said frequencies
>for their exclusive use and it don't make ANY difference if they "visit"
>(use) their "property" (frequency) once a minute or once a year--the
>"freebanders" are trespassing just as surely as if they just walked into
>your/my house uninvited. There is no respect due, and none forthcoming
>for trespassers, "freebanders", or outlaw radio ops.
>
>Jerry
>K4KWH
>
>
>Bob wrote:
>>
>> Ok, Mr. Letter of the Law.
>>
>> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
>> you would take the right approach to speeding legally - because, hey man, you do

>> EVERYTHING right. You would put your mind to becoming a race car driver and do your
>> speeding on the track where it belongs. You would follow the proper steps to
>> becoming a race car driver:
>>
>> 1. Learn to ride a unicycle, because that's how it all started, man. Our
>> forefather's rode unicycles before fast cars were around, so must you learn.
>> 2. Learn everything there is to know about cars - including memorizing the answers
>> to questions about walking, unicycles, horse and carriage, boats, planes, etc.
>> 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
>> old-timers that had to learn how to ride it and by some who love the unicycle and
>> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
>> from becoming race car drivers.
>> 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
>> car specs! And every race track requires a different car and tire combination.
>>
>> Is becoming a race car driver what you should do because you like to take those 15
>> turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS
>> NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe
>> its a bit of an extreme commitment for some. Hey, I can operate my equipment and
>> make sure that it complies with the same rules the FCC mandates for hams. I can
>> operate it responsibly. I can operate it courteously . I can use the minimum amount
>> of power necessary for a contact.
>>
>> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
>> crime against humanity? Absolutely not. To me - speeding in your car is a far more
>> worse crime.
>>
>> BTW, I do not condone operating on ham bands or intentionally interfering with any
>> service that I am aware of. Yes, I know there are (very few, non essential)
>> services allocated between 27.405 and 28Mhz. I support operations on 27.405 -
>> 27.855 Mhz that follow the same regulations that hams follow.
>>
>> Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal,
>> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and
>> white.
>>
>> Bob.
>
>> > >

2777. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 05:23:44 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9f1nl6.5c7.w9wi@linux1.localdomain>
Source record: 52973
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Wed, 02 May 2001 20:19:51 -0500, W6RCecilA <Cecil.A.Moore@IEEE.org> wrote:
>How have we been hurt? Not implying anything, just questioning.

In most cases, we aren't.

The most apparent case of damage is when freebanders get above 28MHz.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2778. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 06:00:15 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3af0f2f2.388167100@news.aepnet.com>
Source record: 52974

On Wed, 02 May 2001 21:33:14 -0400, Bill Meacham <NOSPAMexray@coqui.net> wrote:

>Wes Stewart wrote:
>>
>> On Wed, 02 May 2001 18:09:31 GMT, mulveyr@zippy.aa2ys.ampr.org (Richard Mulvey)
>> wrote:
>>
>> [snip]
>>
>> > It's just a guess, but I wouldn't be surprised if Bill's response was
>> >prompted by your unique usage of a transitive verb in your comments, and
>> >your subsequent attempt to justify it.
>> >
>> > Does the incorrect use of a valid word make you morally superior?
>>
>> From Bill's previous post:
>>
>> "Dis*dain" (?; 277), n. [OE. desdain, disdein, OF. desdein,
>> desdaing, F. d&#65533;dain, fr. the verb. See Disdain, v. t.]
>>
>> 1. A feeling of contempt and aversion; the regarding anything as
>> unworthy of or beneath one; scorn. "
>>
>> Looks like a noun to me. Appropriate too.
>>
>> >
>> >- Rich
>> >
>
>I'm getting real confused here. You didn't say disdain. You said
>"distain".

No, you're not confused. I just realized I mistyped the word the first time and
never caught it. Mea culpa.

I gotta quit using the 12" screen laptop without wearing my glasses.

Wes Stewart N7WS
>---
>Bill Meacham
>Vieques, PR
>

2779. Re: Respect For Freebanders Response

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 08:23:38 UTC
From: Arf! Arf! <DoggieDaze@Liberal.comz>
Message-ID: <9cr4i5ale0@pita.alt.net>
Source record: 52975
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Gee whiz! When you guys gonna learn to keep your responses short and to the point? Don't write a darn book....nobody reads past the first two paragraphs anyway.
If you can't say it in a few sentences, nobody cares.
Save your editorializing for the New York Times....

<ccom2@socket.net> wrote in message news:3af0dcb3.3549117@news.socket.net...
> Preach it Brother
> It could not have been said any better.
>
> FreeBanders are bottom feeding scum.
> That should have all their equipment taken away.
> Mike
> AB0IV
>
> Jerry Oxendine <joxendi@bellsouth.net> wrote:
>
> >Bob,
> >
> >Yours is the kind of misunderstanding that, try as people might, just
> >can't seem to be overcome. I know FIRSTHAND that there are agencies
> >that are assigned frequencies above and below the 11 meter CB band.
> >Tell me, what is "unessential" about forest rangers. What is "unessen-
> >tial" about military comms? The difference is the type and duration of
> >commercial and military comms as opposed to civilians who are there just
> >to talk, often as much as possible, to as many people as possible. Busi-
> >ness or military comms are short and to the point.
> >
> >I know the regulars get tired of reading this example, but it is a per-
> >fect example of why NOT to "freeband". Some years ago, I was acting
> >as communications officer for Civil Air Patrol on a live search for a
> >light plane that disappeared during a storm. We planned to use a freq-
> >uency near 11 meters which is a USAF frequency assigned to CAP. Like
> >many rescue agencies, both civilian and military, we use our assigned
> >frequencies so as to separate various kinds of traffic, take advantage
> >of atmospherics (time of day), and keep from "interfering" with our-
> >selves--air to ground on one freq., mobile to base on another, and yet
> >another for "incidental comms" such as flight line, safety, or even
> >sending out for food for the searchers. Another reason for choosing the
> >low power 26 MHZ band was to prevent news hounds, ambulance chasers,
> >and even possibly the family of the pilot from hearing adverse news via
> >scanner. *Most* scanners don't deal too well with SSB. We quickly dis-
> >covered that there was a "freebander" on that frequency calling, "BREAK,

> >BREAK, skipland", etc with a linear that made it difficult or impossible
> >to use this frequency forcing a lot of incidental traffic onto VHF. I
> >was LIVID! There was NO excuse for this person operating on that freq-
> >uency whatsoever. He was interfering with an active USAF authorized
> >mission, a real emergency where a life was hanging in the balance. In
> >the following week after the mission was suspended, I began to DF this
> >pirate, determined to put a stop to his outlaw operations. One evening,
> >I happened to be in a nearby town, and absently switched on one of my
> >radios in the car not expecting to hear anything. The guy was pegging
> >my meter and almost busted my speaker. On my way out of town, I made
> >a screeching U-turn and went back into town, stopping at the town PD to
> >ask if they recognized that voice. Yup, they knew the fella and where he
> >lived. I drove to his house and confirmed the location. Outlaw was
> >reported to FCC field office, and was busted for out-of-band operation
> >AND interfering with emergency communications--a serious Federal
> >offense. Betcha he got tired of eating beans from a .10 can!
> >
> >There IS no excuse for operating on unauthorized frequencies. You might
> >*think* these freqs are unoccupied and that the agencies thereto assign-
> >ed are "non-essential". That is not for individuals to decide. Just
> >because *you* don't hear anyone doesn't mean they aren't there and that
> >there is no traffic being passed that you could hinder.
> >
> >Finally, let's say I, or you, rent/lease a piece of property with a nice
> >lake on it. Intending to do a little fishing, you stock that lake with
> >a variety of game fish--bass, crappy, catfish, perch, or whatever. You
> >are busy and don't get out to your lake real often, but one day you
> >decide it would be a good day to go fishing; remember, it's "your" lake
> >by virtue of your lease to use as you see fit within the guidelines of
> >your agreement with the owner. When you arrive, you discover a large
> >group of people on your property, at YOUR lake, catching the fish YOU
> >stocked--in spite of the fact there are No Trespassing signs all over-
> >even right where the trespassers are fishing. I'd be angry and I'd bring
> >charges against each and every one that trespassed on my land. It
> >doesn't make any difference if I don't come to the lake every day, it
> >is STILL property assigned to me by virtue of rent or lease and nobody
> >has any business on it without permission.
> >
> >"Freebanders" don't have "permission" (license) to operate on frequen-
> >cies outside the 11 meter band. They are trespassing just as surely
> >as those people I cited in the above paragraph. And when they DO tres-
> >pass, it pisses off those who are legitimately assigned said frequencies
> >for their exclusive use and it don't make ANY difference if they "visit"
> >(use) their "property" (frequency) once a minute or once a year--the
> >"freebanders" are trespassing just as surely as if they just walked into
> >your/my house uninvited. There is no respect due, and none forthcoming
> >for trespassers, "freebanders", or outlaw radio ops.
> >
> >Jerry
> >K4KWH

> >
> >
> >Bob wrote:
> >>
> >> Ok, Mr. Letter of the Law.
> >>
> >> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted
to speed,
> >> you would take the right approach to speeding legally - because, hey
man, you do
> >> EVERYTHING right. You would put your mind to becoming a race car driver
and do your
> >> speeding on the track where it belongs. You would follow the proper
steps to
> >> becoming a race car driver:
> >>
> >> 1. Learn to ride a unicycle, because that's how it all started, man.
Our
> >> forefather's rode unicycles before fast cars were around, so must you
learn.
> >> 2. Learn everything there is to know about cars - including memorizing
the answers
> >> to questions about walking, unicycles, horse and carriage, boats,
planes, etc.
> >> 3. If you skip the step on learning to ride a unicycle, prepare to be
chastised by
> >> old-timers that had to learn how to ride it and by some who love the
unicycle and
> >> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
bad people
> >> from becoming race car drivers.
> >> 4. Prepare to spend some money. Your standard car won't do - it doesn't
fit race
> >> car specs! And every race track requires a different car and tire
combination.
> >>
> >> Is becoming a race car driver what you should do because you like to
take those 15
> >> turns of Bear Mountain road at an faster than the posted speed? Well,
ham radio IS
> >> NOT a replacement for the "freeband" either. Ham radio doesn't fit
everybody. Maybe
> >> its a bit of an extreme commitment for some. Hey, I can operate my
equipment and
> >> make sure that it complies with the same rules the FCC mandates for
hams. I can
> >> operate it responsibly. I can operate it courteously . I can use the
minimum amount
> >> of power necessary for a contact.
> >>

> >> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
> >> crime against humanity? Absolutely not. To me - speeding in your car is a far more
> >> worse crime.
> >>
> >> BTW, I do not condone operating on ham bands or intentionally interfering with any
> >> service that I am aware of. Yes, I know there are (very few, non essential)
> >> services allocated between 27.405 and 28Mhz. I support operations on 27.405 -
> >> 27.855 Mhz that follow the same regulations that hams follow.
> >>
> >> Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal,
> >> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and
> >> white.
> >>
> >> Bob.
> >
> >> > >
>

2780. Re: Oscilloscope calibration pulse & time generators?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 08:39:59 UTC
From: davem@cs.ubc.ca
Message-ID: <9cr5gv$q7k$1@lily.cs.ubc.ca>
Source record: 52976
Cross-posted to: sci.electronics.repair,rec.radio.amateur.homebrew

ard@p850ug1.demon.co.uk (Tony Duell) writes:

>Now how accurately can you calibrate a crystal oscillator, say by
>zero-beating it to a standard frequency transmission. A lot better than
>1% I can assure you. Heck, one of those 4 pin oscillator cans will do
>better than that, off the shelf with no calibration (or at least every
>one I've ever tested bas been a lot better than 1% at normal room
>temperature).

A really cheap canned oscillator is probably specified to be
within 100 PPM - or 0.01%. That's fine for adjusting the timebase
on an analog scope, where you're probably aiming for 1% or worse.
If, for some reason, you need better than this, pick up an old
analog cellphone and tear it apart. Inside, you'll likely find a
nice temperature compensated crystal oscillator that's probably
accurate to within a couple PPM.

Dave

2781. Re: Respect For Freebanders Response

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 09:19:11 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <jo9l6.2816$aR4.814387@paloalto-snr1.gtei.net>
Source record: 52977
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Arf! Arf!" <DoggieDaze@Liberal.comz> wrote in message
news:9cr4i5ale0@pita.alt.net...
> Gee whiz! When you guys gonna learn to keep your responses short and to
the
> point? Don't write a darn book....nobody reads past the first two
paragraphs
> anyway.
> If you can't say it in a few sentences, nobody cares.
> Save your editorializing for the New York Times....

And how did you make these determinations? Did you take a poll of everybody who reads these newsgroups in order to validate your statements, or did you just make an assumption based on your own habits - in which case your statements are only a personal opinion (often referred to as an editorial) ? :>)

73 de W6DKN

2782. amplifier schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 10:23:59 UTC
From: Christian Schaathun <chrsch@online.no>
Message-ID: <_fal6.3423$Ty6.61589@news1.oke.nextra.no>
Source record: 52978

does anyone have scematics for an Hf amp (10 - 12 M) I need something like
50 W ..
PLEASE help me, I have been looking for this for ages.

CS

2783. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 11:53:34 UTC
From: scooter <scooter9@richnet.net>
Message-ID: <3af14658$0$88188$6d5eecc5@news.eurekanet.com>
Source record: 52980
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Excellent! I agree totally.

Chris Van Hesteren
KB8ZHW
AEC Ashland County ARES

"Jerry Oxendine" <joxendi@bellsouth.net> wrote in message
news:3AF0D25A.910@bellsouth.net...
> Bob,
>
> Yours is the kind of misunderstanding that, try as people might, just
> can't seem to be overcome. I know FIRSTHAND that there are agencies
> that are assigned frequencies above and below the 11 meter CB band.
> Tell me, what is "unessential" about forest rangers. What is "unessen-
> tial" about military comms? The difference is the type and duration of
> commercial and military comms as opposed to civilians who are there just
> to talk, often as much as possible, to as many people as possible. Busi-
> ness or military comms are short and to the point.
>
> I know the regulars get tired of reading this example, but it is a per-
> fect example of why NOT to "freeband". Some years ago, I was acting
> as communications officer for Civil Air Patrol on a live search for a
> light plane that disappeared during a storm. We planned to use a freq-
> uency near 11 meters which is a USAF frequency assigned to CAP. Like
> many rescue agencies, both civilian and military, we use our assigned
> frequencies so as to separate various kinds of traffic, take advantage
> of atmospherics (time of day), and keep from "interfering" with our-
> selves--air to ground on one freq., mobile to base on another, and yet
> another for "incidental comms" such as flight line, safety, or even
> sending out for food for the searchers. Another reason for choosing the
> low power 26 MHZ band was to prevent news hounds, ambulance chasers,
> and even possibly the family of the pilot from hearing adverse news via
> scanner. *Most* scanners don't deal too well with SSB. We quickly dis-
> covered that there was a "freebander" on that frequency calling, "BREAK,
> BREAK, skipland", etc with a linear that made it difficult or impossible
> to use this frequency forcing a lot of incidental traffic onto VHF. I
> was LIVID! There was NO excuse for this person operating on that freq-
> uency whatsoever. He was interfering with an active USAF authorized
> mission, a real emergency where a life was hanging in the balance. In
> the following week after the mission was suspended, I began to DF this
> pirate, determined to put a stop to his outlaw operations. One evening,
> I happened to be in a nearby town, and absently switched on one of my
> radios in the car not expecting to hear anything. The guy was pegging
> my meter and almost busted my speaker. On my way out of town, I made

> a screeching U-turn and went back into town, stopping at the town PD to
> ask if they recognized that voice. Yup, they knew the fella and where he
> lived. I drove to his house and confirmed the location. Outlaw was
> reported to FCC field office, and was busted for out-of-band operation
> AND interfering with emergency communications--a serious Federal
> offense. Betcha he got tired of eating beans from a .10 can!
>
> There IS no excuse for operating on unauthorized frequencies. You might
> *think* these freqs are unoccupied and that the agencies thereto assign-
> ed are "non-essential". That is not for individuals to decide. Just
> because *you* don't hear anyone doesn't mean they aren't there and that
> there is no traffic being passed that you could hinder.
>
> Finally, let's say I, or you, rent/lease a piece of property with a nice
> lake on it. Intending to do a little fishing, you stock that lake with
> a variety of game fish--bass, crappy, catfish, perch, or whatever. You
> are busy and don't get out to your lake real often, but one day you
> decide it would be a good day to go fishing; remember, it's "your" lake
> by virtue of your lease to use as you see fit within the guidelines of
> your agreement with the owner. When you arrive, you discover a large
> group of people on your property, at YOUR lake, catching the fish YOU
> stocked--in spite of the fact there are No Trespassing signs all over-
> even right where the trespassers are fishing. I'd be angry and I'd bring
> charges against each and every one that trespassed on my land. It
> doesn't make any difference if I don't come to the lake every day, it
> is STILL property assigned to me by virtue of rent or lease and nobody
> has any business on it without permission.
>
> "Freebanders" don't have "permission" (license) to operate on frequen-
> cies outside the 11 meter band. They are trespassing just as surely
> as those people I cited in the above paragraph. And when they DO tres-
> pass, it pisses off those who are legitimately assigned said frequencies
> for their exclusive use and it don't make ANY difference if they "visit"
> (use) their "property" (frequency) once a minute or once a year--the
> "freebanders" are trespassing just as surely as if they just walked into
> your/my house uninvited. There is no respect due, and none forthcoming
> for trespassers, "freebanders", or outlaw radio ops.
>
> Jerry
> K4KWH
>
>
> Bob wrote:
> >
> > Ok, Mr. Letter of the Law.
> >
> > And I bet you ALWAYS obey the maximum posted speed limit. If you wanted
to speed,
> > you would take the right approach to speeding legally - because, hey
man, you do

> > EVERYTHING right. You would put your mind to becoming a race car driver and do your
> > speeding on the track where it belongs. You would follow the proper steps to
> > becoming a race car driver:
> >
> > 1. Learn to ride a unicycle, because that's how it all started, man. Our
> > forefather's rode unicycles before fast cars were around, so must you learn.
> > 2. Learn everything there is to know about cars - including memorizing the answers
> > to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> > 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
> > old-timers that had to learn how to ride it and by some who love the unicycle and
> > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
> > from becoming race car drivers.
> > 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
> > car specs! And every race track requires a different car and tire combination.
> >
> > Is becoming a race car driver what you should do because you like to take those 15
> > turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS
> > NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe
> > its a bit of an extreme commitment for some. Hey, I can operate my equipment and
> > make sure that it complies with the same rules the FCC mandates for hams. I can
> > operate it responsibly. I can operate it courteously . I can use the minimum amount
> > of power necessary for a contact.
> >
> > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
> > crime against humanity? Absolutely not. To me - speeding in your car is a far more
> > worse crime.
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> > BTW, I do not condone operating on ham bands or intentionally interfering with any
> > service that I am aware of. Yes, I know there are (very few, non essential)
> > services allocated between 27.405 and 28Mhz. I support operations on

27.405 -
> > 27.855 Mhz that follow the same regulations that hams follow.
> >
> > Hopefully this metaphor can crack the thick skull of the "yes, but it's
illegal,
> > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
black and
> > white.
> >
> > Bob.
>
> > > >

2784. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 12:00:23 UTC
From: David Robbins <k1ttt@berkshire.net>
Message-ID: <3AF14857.4AF91BFB@berkshire.net>
Source record: 52984
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

why do those who break the law always assume that everyone else does also and use that to justify what they do? this argument goes right around in a circle and shows how hypocritical these freebanders are... if you chastise someone by assuming that he is speeding and then tell him to go become a race car driver to do it legally, why don't you get down to work and learn how to be a legal ham so you can speed on the legal ham bands properly instead of slinking around illegally.

Bob wrote:
>
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> you would take the right approach to speeding legally - because, hey man, you do
> EVERYTHING right. You would put your mind to becoming a race car driver and do your
> speeding on the track where it belongs. You would follow the proper steps to
> becoming a race car driver:

--
David Robbins K1TTT
e-mail: mailto://k1ttt@berkshire.net
web: http://www.berkshire.net/~robbins/k1ttt.html or http://www.k1ttt.net
AR-Cluster node: 145.69MHz or telnet://k1ttt.net

2785. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 12:16:42 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF14C2A.F037A8F2@IEEE.org>
Source record: 52981
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Rob St.Denis" wrote:
> A ham by definition does not break the law ... a freebander does

You mean those ARRL newsletter reports of hams breaking the law
and being fined are just a hoax?
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2786. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 12:43:47 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <7ocl6.7010$2_.2644273@news3.rdc1.on.home.com>
Source record: 52982
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

What I mean is that the definition of a ham does is not indicative of
breaking the law ... albeit some do. A freebander by definition is breaking
the law when they operate.

--
Rob St.Denis

"W6RCecilA" <Cecil.A.Moore@IEEE.org> wrote in message
news:3AF14C2A.F037A8F2@IEEE.org...
> "Rob St.Denis" wrote:
> > A ham by definition does not break the law ... a freebander does
>
> You mean those ARRL newsletter reports of hams breaking the law
> and being fined are just a hoax?
> --
> http://www.mindspring.com/~w6rca
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2787. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:01:14 UTC
From: ? & The Mysterians <nospam@clearsail.net>
Message-ID: <3AF1569A.CA7116C@clearsail.net>
Source record: 52983
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

SOME hams may break the law, ALL freebanders break the law. Both need a spanking.

W6RCecilA wrote:

> "Rob St.Denis" wrote:
> > A ham by definition does not break the law ... a freebander does
>
> You mean those ARRL newsletter reports of hams breaking the law
> and being fined are just a hoax?
> --
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2788. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:08:09 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF15839.FE40D1AC@spam.me.not>
Source record: 52986
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

So when a freebander is transmitting with legal power levels on the
legal 40 they're still breaking the law?

I'm a CB'er (not for long. I take my written tests early this month),
and I, unfortunately, get sneered at for not having my ticket, simply
because there are those who DO choose to violate FCC rules.

I don't condone violations of FCC rules. However, I would like to see a
sideband only band above channel 40, but below 27.800, with a 50 watt
limit, for CB'ers to DX on... The frequencies allocated for this could
"go around" the currently allocated forestry, etc, frequencies, much in
the same way the CB frequencies skip over the RC freq's.

Just my two cents, here... Of course, your mileage may vary.

-SSB

"Rob St.Denis" wrote:
>
> What I mean is that the definition of a ham does is not indicative of
> breaking the law ... albeit some do. A freebander by definition is breaking
> the law when they operate.
>
> --
> Rob St.Denis
>
> "W6RCecilA" <Cecil.A.Moore@IEEE.org> wrote in message
> news:3AF14C2A.F037A8F2@IEEE.org...
> > "Rob St.Denis" wrote:
> > > A ham by definition does not break the law ... a freebander does
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> > --
> > http://www.mindspring.com/~w6rca
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> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2789. Kenwood TS 130 S RIT freq.,

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:08:22 UTC
From: lenmart@zfree.co.nz
Message-ID: <3af1583e.40e.0@zfree.co.nz>
Source record: 52985

I have a Kenwood TS 130 S and would like to extend the RIT freq., from 1.5Khz to
5 or even 10 Khz so I can work Split when working DX. Can anybody help please.

_____
Advertise with ZFREE - to find out more click below
http://www.zfree.co.nz/about-us/advert.html

--
Posted from 203.167.150.213 by way of fep4-orange.clear.net.nz [203.97.32.4]
via Mailgate.ORG Server - http://www.Mailgate.ORG

2790. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:19:51 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <XVcI6.7318$2_.2687013@news3.rdc1.on.home.com>
Source record: 52987
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF15839.FE40D1AC@spam.me.not...
> So when a freebander is transmitting with legal power levels on the
> legal 40 they're still breaking the law?

No when you transmit of the 40 channels you are authorised to use you are a cb'er. As soon as you turn up the power passed the 4/12 or go outside those channels you are breaking the law

> I'm a CB'er (not for long. I take my written tests early this month),
> and I, unfortunately, get sneered at for not having my ticket, simply
> because there are those who DO choose to violate FCC rules.

I have no problem with cb'ers ... I was one when I was a kid too ... I do however have problems with people taking what I had to work for.

> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on... The frequencies allocated for this could
> "go around" the currently allocated forestry, etc, frequencies, much in
> the same way the CB frequencies skip over the RC freq's.

Why? I regularily work world wide on 10m with as little as 10watts on ssb (min required for the autotuner to work) and that is from the car.

Rob

2791. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:31:36 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF15DB8.DA352212@spam.me.not>
Source record: 52988
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Comments below:

"Rob St.Denis" wrote:

<snip>

>
> Why? I regularily work world wide on 10m with as little as 10watts on ssb
> (min required for the autotuner to work) and that is from the car.
>
> Rob

Because most HAM's know how to run their radios, and MOST CB'ers dont. A majority of CB'ers think that turning the modulation up past 100%, using negative peak modulation compression, and other "tricks" makes them louder. In reality, it makes for a noisy band. I know better... My GrantXL, with the 2 watt carrier, at 99% modulation, sounds better than most of the "export" radios in the trucks out there, and "walks" over them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson Silver Load antennae, over and under), tuned properly, so I'm probably radiating more than they are, but hey, it works.

At any rate, a band for those who do know how to run a radio would be nice... It's a pipe dream... one I won't have to worry about later this month, hopefully, but still.. it would be nice.

-SSB

2792. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:49:05 UTC
From: K0HB <k0hb@qwest.net>
Message-ID: <lldl6.8274$SZ5.678754@www.newsranger.com>
Source record: 52989
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband says:

>At any rate, a band for those who do know how to run a radio would be
>nice...

There are several bands like that. They're called "Amateur Radio" bands.

73, Hans, K0HB

2793. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 13:58:06 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF163EE.796F9016@coqui.net>
Source record: 52990
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>

>
> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on... The frequencies allocated for this could
> "go around" the currently allocated forestry, etc, frequencies, much in
> the same way the CB frequencies skip over the RC freq's.
>
> Just my two cents, here... Of course, your mileage may vary.

There already is one. 10 meters. You just have to get a
license. Whats the point in creating another special band for
people who don't want to get a license? You already have channels
1-40 and it got messed up. So now you've got FRS...It doesn't
make sense to just creating bands for people to use in a manner
inconsistent with the intent. Any unlicensed band is going to be
bedlam. Do you think if the FCC legislated a "freebander band"
from 27.455 to 27.800 that it would be any different? Would the
guys turn off the lean-yars and start using legitimate callsigns?

Bill Meacham
Vieques, PR

2794. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:29:40 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9f2nkr.71k.w9wi@linux1.localdomain>
Source record: 52991
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not> wrote:
>them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson

Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is 1/4 wave,
so a 5/8 wave would be a bit more than 17 feet long.

(you should try a 102" whip, I think you're likely to find it more effective
than the twin four-footers. Because you won't have loading-coil losses.
Mine worked *fantastically* well on 10 meters with a converted SSB CB.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2795. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:39:08 UTC
From: JR <jr@some.net>
Message-ID: <3AF15F1B.CE0AE130@some.net>
Source record: 52992
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>
> So when a freebander is transmitting with legal power levels on the
> legal 40 they're still breaking the law?

That isn't freebanding, that is operating on the cb channels legally.

>
> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on... The frequencies allocated for this could
> "go around" the currently allocated forestry, etc, frequencies, much in
> the same way the CB frequencies skip over the RC freq's.
>

Why should there be a need for that? If anyone wants to operate SSB at
50 watts or more and work DX legally, get a ham license.

2796. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:40:38 UTC
From: JR <jr@some.net>
Message-ID: <3AF15F7F.D36B7314@some.net>
Source record: 52993
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Try and argue the point all you want, but there will never be any
respect for illegal freebanding except maybe from other illegal
freebanders. If you want respect do something that deserves respect.

Bob wrote:
>
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> you would take the right approach to speeding legally - because, hey man, you do
> EVERYTHING right. You would put your mind to becoming a race car driver and do your
> speeding on the track where it belongs. You would follow the proper steps to
> becoming a race car driver:
>
> 1. Learn to ride a unicycle, because that's how it all started, man. Our
> forefather's rode unicycles before fast cars were around, so must you learn.
> 2. Learn everything there is to know about cars - including memorizing the answers
> to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
> old-timers that had to learn how to ride it and by some who love the unicycle and
> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
> from becoming race car drivers.
> 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
> car specs! And every race track requires a different car and tire combination.
>
> Is becoming a race car driver what you should do because you like to take those 15
> turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS
> NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe
> its a bit of an extreme commitment for some. Hey, I can operate my equipment and
> make sure that it complies with the same rules the FCC mandates for hams. I can
> operate it responsibly. I can operate it courteously . I can use the minimum amount
> of power necessary for a contact.
>
> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
> crime against humanity? Absolutely not. To me - speeding in your car is a far more
> worse crime.
>
> BTW, I do not condone operating on ham bands or intentionally interfering with any
> service that I am aware of. Yes, I know there are (very few, non essential)
> services allocated between 27.405 and 28Mhz. I support operations on 27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.
>
> Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal,

> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and
> white.
>
> Bob.
>
> Scott Townley wrote:
>
> > But you *do* have all the respect you deserve...the same respect we
> > all grant to FELONS, which is what you are, buddy...
> >
> > On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> > wrote:
> >
> > >
> > > >I am posting here because of some of the nasty things I have read in this
> > > >group and in QRZ discussions regarding freebanders. We who use the frequencies
> > > >from 27.405 to 28.000 have more in common with hams than you might think.
> > > >We are good operators and have knowledge of propagation and skip conditions.
> > > >We use Yasus, Kenwoods and Icomm radios just like you do, so we know technical
> > > >issues as well or better. However, the attitude of some hams toward us is
> > > >rude and condescending. We are treated like 2nd class citizens. This should
> > > >not be. We have the same rights under the constitution as legal hams do.
> > > >For those that do not wish to be under Uncle Sam's thumb, freebanding is
> > > >a viable alternative to getting a ham radio license. What I am saying is
> > > >that maybe the next time you meet a freebander it might be wise to talk with
> > > >him before you condemn him.
> > > >
> > > >I am QRT and standing by. (No flames answered. Please reply via email)
> > > >
> > > >Unit 2711, Florida
> > > >

2797. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:48:28 UTC
From: JR <jr@some.net>
Message-ID: <3AF16151.24AD1ECF@some.net>
Source record: 52994
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

These "freeband" morons think that if they listen to a frequency and
they don't hear anyone, it is OK for them to use it. That's why so many
are now moving up to 10 meters. It simply amazes me how anyone can think
that just because they don't hear any communications on a frequency it
must be OK for them to transmit on it. Typical of the cb mentality.

Jerry Oxendine wrote:
>
> Bob,
>
> Yours is the kind of misunderstanding that, try as people might, just
> can't seem to be overcome. I know FIRSTHAND that there are agencies
> that are assigned frequencies above and below the 11 meter CB band.
> Tell me, what is "unessential" about forest rangers. What is "unessen-
> tial" about military comms? The difference is the type and duration of
> commercial and military comms as opposed to civilians who are there just
> to talk, often as much as possible, to as many people as possible. Busi-
> ness or military comms are short and to the point.

> Jerry
> K4KWH
>
> Bob wrote:
> >
> > Ok, Mr. Letter of the Law.
> >
> > And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> > you would take the right approach to speeding legally - because, hey man, you do
> > EVERYTHING right. You would put your mind to becoming a race car driver and do your
> > speeding on the track where it belongs. You would follow the proper steps to
> > becoming a race car driver:
> >
> > 1. Learn to ride a unicycle, because that's how it all started, man. Our
> > forefather's rode unicycles before fast cars were around, so must you learn.
> > 2. Learn everything there is to know about cars - including memorizing the answers
> > to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> > 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by
> > old-timers that had to learn how to ride it and by some who love the unicycle and
> > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad people
> > from becoming race car drivers.
> > 4. Prepare to spend some money. Your standard car won't do - it doesn't fit race
> > car specs! And every race track requires a different car and tire combination.
> >
> > Is becoming a race car driver what you should do because you like to take those 15

> > turns of Bear Mountain road at an faster than the posted speed? Well, ham radio IS
> > NOT a replacement for the "freeband" either. Ham radio doesn't fit everybody. Maybe
> > its a bit of an extreme commitment for some. Hey, I can operate my equipment and
> > make sure that it complies with the same rules the FCC mandates for hams. I can
> > operate it responsibly. I can operate it courteously . I can use the minimum amount
> > of power necessary for a contact.
> >
> > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it immoral? A
> > crime against humanity? Absolutely not. To me - speeding in your car is a far more
> > worse crime.
> >
> > BTW, I do not condone operating on ham bands or intentionally interfering with any
> > service that I am aware of. Yes, I know there are (very few, non essential)
> > services allocated between 27.405 and 28Mhz. I support operations on 27.405 -
> > 27.855 Mhz that follow the same regulations that hams follow.
> >
> > Hopefully this metaphor can crack the thick skull of the "yes, but it's illegal,
> > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't black and
> > white.
> >
> > Bob.
>
> > > >

2798. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:55:30 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AF17162.15FB7483@rupert.tds-az.lmco.com>
Source record: 52898
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott wrote:
>
> Actually, there was someone else (who I called the original
> poster) who was telling people it was easy to modify a
> Kenwood HF rig to transmit DSB who went by the name Skipp
> and then reamed on me about how long I've been licensed
> but wouldn't give me his call when asked, to find out how
> long He'd been licensed.
>
> Scott
> N0EDV

This make me curious. How do you tell how long someone has
been licensed, just from his call sign? If I look up my own
call sign it shows:

Effective: 23 May 2000 Expires: 23 May 2010

But that's only when I was granted a vanity call sign. I have
been license for over 35 years. I thought you could only find
out the latest upgrade, renewal, or callsign allocation.

Oh well, just curious.

Martin, K7MEM

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2799. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 14:58:16 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF17208.6E97B535@spam.me.not>
Source record: 52995
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Doug:

Hit Wilson's site and read up on what a Wilson Silver Load is....

Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
have said 1 1/4 wave dipole?

-SSB

Doug Smith wrote:
>
> On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not> wrote:
> >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
>
> Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is 1/4 wave,
> so a 5/8 wave would be a bit more than 17 feet long.
>
> (you should try a 102" whip, I think you're likely to find it more effective
> than the twin four-footers. Because you won't have loading-coil losses.
> Mine worked *fantastically* well on 10 meters with a converted SSB CB.)
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com

2800. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 15:00:11 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AF17278.D9B33D81@dioxine.com>
Source record: 52996
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Rob St.Denis" wrote:

> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF15839.FE40D1AC@spam.me.not...
> > So when a freebander is transmitting with legal power levels on the
> > legal 40 they're still breaking the law?
>
> No when you transmit of the 40 channels you are authorised to use you are a
> cb'er. As soon as you turn up the power passed the 4/12 or go outside those
> channels you are breaking the law

A technicality overlooked by many is that Part 95 operation on 27MHz,
better known as CB, not only sets a maximum legal power level, it also
requires the use of a 'type accepted' transmitter/transceiver. So, even
if you turn the power down on an amateur transceiver and stick the CB
channels, it's still not legal. The law is that CB radios are used on CB.

Not that it functionally makes that much of a difference, but that's the
law.

Dana

2801. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 15:01:24 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF172C4.E40DD7AE@spam.me.not>
Source record: 52897
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bill:

Apparently I shouldn't have voiced my opinion. With a few taps of your keycaps I've been crammed in with the freebanders. Perhaps I should go out and get an 800W linear, run at 130% modulation, start calling CQ on 28.085 AM, and forget about taking my Tech and General written exams next week?

What do you think?

-SSB

Bill Meacham wrote:
>
> Sideband wrote:
> >
>
> >
> > I don't condone violations of FCC rules. However, I would like to see a
> > sideband only band above channel 40, but below 27.800, with a 50 watt
> > limit, for CB'ers to DX on... The frequencies allocated for this could
> > "go around" the currently allocated forestry, etc, frequencies, much in
> > the same way the CB frequencies skip over the RC freq's.
> >
> > Just my two cents, here... Of course, your mileage may vary.
>
> There already is one. 10 meters. You just have to get a
> license. Whats the point in creating another special band for
> people who don't want to get a license? You already have channels
> 1-40 and it got messed up. So now you've got FRS...It doesn't
> make sense to just creating bands for people to use in a manner
> inconsistent with the intent. Any unlicensed band is going to be
> bedlam. Do you think if the FCC legislated a "freebander band"
> from 27.455 to 27.800 that it would be any different? Would the
> guys turn off the lean-yars and start using legitimate callsigns?
> ---
> Bill Meacham
> Vieques, PR

2802. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 15:29:40 UTC
From: Ryan KC8PMX <kc8pmx@tm.net>
Message-ID: <EPeI6.6458$Uu6.590927@monger.newsread.com>
Source record: 52899

"W3JDR" <j.r@usa.com> wrote in message
news:t5oH6.6131$Aj1.2992766@typhoon2.ba-dsg.net...
> I don't see what this poor guy did to incur the wrath you're showering him
> with. He's pleading the rights of honest law abiding CB'ers. There are
such
> people.

How is FREEBANDING legal "law abiding" behavior??? Legal operation of a CB
is 4watts AM or 12watts SSB within the frequency ranges of 26.965Mhz thru
27.405Mhz. Any operation above or below those ranges is illegal,
PERIOD!!!!!!!!!!!

> You chose to become a ham because you wanted a little more, and you were
> able and willing to go an extra step to get what you wanted.

Many more legal bands with the EARNED privileges!!! :)

He chose to
> invoke a basic legal privilege that gives him the satisfaction he wants.

Legal if he isn't freebanding and adhering to above limitations.

> Everybody should be satisfied that they got what they needed in this
> arrangement, but that's not good enough for you.You have to prove your own
> self-worth by dragging him through the mud.

Hmmm..... making a statement like he did in a Ham radio newsgroup??? Gee,
let me guess, he expects also that if he points a gun at a cop, that he
won't get shot either.....

>
> I've been a ham for over 35 years, and I'm proud of that.

Congratulations!!! :) Hope you have taken the time to share your
experience training new hams. We definitely need more properly trained
operators in our ranks...

Most of the people
> I've met in this hobby are intelligent, thoughtful & tolerant. I'm proud
to
> know them. There is, however, a small but vocal redneck element that makes
> me feel like the stereotype social-misfit propeller-head nerd that many
> people think hams are. You, my friend, fall in the latter group.
>
> I'm not too proud that you're one of my hobby peers.
>
> Joe

> W3JDR
>
>
>

Well, I would agree with the red-neck element, but like in most any social group, organization or hobby, I guess that is something we will always have to put up with. Even though I disagree with your statements, I do respect you and am glad that you are among our ranks!

73's,

Ryan KC8PMX

> "Scott Townley" <nx7u@mindspring.com> wrote in message
> news:3aee05f3.5689931@nntp.mindspring.com...
>
>
> > But you *do* have all the respect you deserve...the same respect we
> > all grant to FELONS, which is what you are, buddy...
> >
> >
> > On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> > wrote:
> >
> > >
> > >I am posting here because of some of the nasty things I have read in
this
> > >group and in QRZ discussions regarding freebanders. We who use the
> frequencies
> > >from 27.405 to 28.000 have more in common with hams than you might
think.
> > >We are good operators and have knowledge of propagation and skip
> conditions.
> > >We use Yasus, Kenwoods and Icomm radios just like you do, so we know
> technical
> > >issues as well or better. However, the attitude of some hams toward us
is
> > >rude and condescending. We are treated like 2nd class citizens. This
> should
> > >not be. We have the same rights under the constitution as legal hams
do.
> > >For those that do not wish to be under Uncle Sam's thumb, freebanding
is
> > >a viable alternative to getting a ham radio license. What I am saying
is
> > >that maybe the next time you meet a freebander it might be wise to talk
> with
> > >him before you condemn him.
> > >
> > >I am QRT and standing by. (No flames answered. Please reply via email)

> > >
> > >Unit 2711, Florida
> > >
> >
>
>

2803. Re: Respect For Freebanders----TOPIC CHANGE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 15:29:40 UTC
From: Ryan KC8PMX <kc8pmx@tm.net>
Message-ID: <EPeI6.6459$Uu6.590927@monger.newsread.com>
Source record: 52900

> Listen to the music of the Code. :)

Hmmm..... wonder if this is a training option for learning code??? (Somehow using music to relate to the morse code???) Or better yet, find someone to make "subliminal" tapes or CD's??? Even better yet, receive training while under hypnosis??? Just a crazy thought or two or three..... :)

Ryan KC8PMX

2804. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 15:40:47 UTC
From: Steve <ai7w@NoSpam.com>
Message-ID: <9cs1ml$208$1@slb3.atl.mindspring.net>
Source record: 52911
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bob,
Over the years I've discovered that when someone defends an obviously
illegal activity, they usually have some ulterior motive. What is your
motive?
Do you operate outside the amateur bands?
Why in the world would you defend those who flaunt the laws that make
amateur
radio (and the other radio services) possible?
Steve

Bob <bob@bob.com> wrote in message news:3AF183FF.2EB4C568@bob.com...
> Good work, Sherlock - you've pointed out it's illegal, *again*. We've
> established that.
>
> How serious a crime is it? Your assignment - think of all the crimes you
can,
> where does freebanding fit it? Maybe you should go spend your time
protesting
> real crimes (I can provide a list if you need one, where do I start...how
about
> NAFTA).
>
> And, of course you don't speed. You're a decent, upstanding citizen - who
turns
> in your neighbor for digging without a permit - thanks for making the
world a
> better, safer place.
>
> Bob.
>
>
>
> W6DKN wrote:
>
> > No amount of self justification will erase the simple fact that what you
> > are doing is a crime. That makes you a criminal, and therefore not
worthy
> > of respect. You sound like the gang bangers in LA bitching because they
are
> > treated like hoodlums.
> >
> > By the way, I do have a cherry 1974 427 FI ' Vette that I take out to LA
> > County Raceway when I want to speed (it turns low 12's with street

tires).
> > When I am driving my Blazer on city streets, I obey the traffic laws.
> > That's what honest people do...
> >
> > 73 de W6DKN
> >
> > "Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> > > Ok, Mr. Letter of the Law.
> > >
> > > And I bet you ALWAYS obey the maximum posted speed limit. If you
wanted
> > to speed,
> > > you would take the right approach to speeding legally - because, hey
man,
> > you do
> > > EVERYTHING right. You would put your mind to becoming a race car
driver
> > and do your
> > > speeding on the track where it belongs. You would follow the proper
steps
> > to
> > > becoming a race car driver:
> > >
> > > 1. Learn to ride a unicycle, because that's how it all started, man.
Our
> > > forefather's rode unicycles before fast cars were around, so must you
> > learn.
> > > 2. Learn everything there is to know about cars - including memorizing
> > the answers
> > > to questions about walking, unicycles, horse and carriage, boats,
planes,
> > etc.
> > > 3. If you skip the step on learning to ride a unicycle, prepare to be
> > chastised by
> > > old-timers that had to learn how to ride it and by some who love the
> > unicycle and
> > > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
bad
> > people
> > > from becoming race car drivers.
> > > 4. Prepare to spend some money. Your standard car won't do - it
doesn't
> > fit race
> > > car specs! And every race track requires a different car and tire
> > combination.
> > >
> > > Is becoming a race car driver what you should do because you like to
take
> > those 15
> > > turns of Bear Mountain road at an faster than the posted speed? Well,

ham
> > radio IS
> > > NOT a replacement for the "freeband" either. Ham radio doesn't fit
> > everybody. Maybe
> > > its a bit of an extreme commitment for some. Hey, I can operate my
> > equipment and
> > > make sure that it complies with the same rules the FCC mandates for
hams.
> > I can
> > > operate it responsibly. I can operate it courteously . I can use the
> > minimum amount
> > > of power necessary for a contact.
> > >
> > > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is
it
> > immoral? A
> > > crime against humanity? Absolutely not. To me - speeding in your car
is a
> > far more
> > > worse crime.
> > >
> > > BTW, I do not condone operating on ham bands or intentionally
interfering
> > with any
> > > service that I am aware of. Yes, I know there are (very few, non
> > essential)
> > > services allocated between 27.405 and 28Mhz. I support operations on
> > 27.405 -
> > > 27.855 Mhz that follow the same regulations that hams follow.
> > >
> > > Hopefully this metaphor can crack the thick skull of the "yes, but
it's
> > illegal,
> > > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
> > black and
> > > white.
> > >
> > > Bob.
> > >
> > >
> > > Scott Townley wrote:
> > >
> > > > But you *do* have all the respect you deserve...the same respect we
> > > > all grant to FELONS, which is what you are, buddy...
> > > >
>

2805. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:05:08 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF181B4.A5E988EF@coqui.net>
Source record: 52901
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>
> Bill:
>
> Apparently I shouldn't have voiced my opinion. With a few taps of your
> keycaps I've been crammed in with the freebanders. Perhaps I should go
> out and get an 800W linear, run at 130% modulation, start calling CQ on
> 28.085 AM, and forget about taking my Tech and General written exams
> next week?
>
> What do you think?
>
> -SSB

I don't know how you extracted that defense out of what I said,
but I have no problem with you voicing your opinion. I just don't
agree with the concept of a special band for illegal operators.
Maybe you were just being sarcastic, I dunno.
I support your studying and taking the exams and upgrading. Thats
very commendable. Check out some antenna theory on the side and
you'll also better understand some of the merchandising
terminology referred to in your other post.
Good luck to you. I hope you accomplish your goals.
>
-BM

2806. Re: Respect For Freebanders----TOPIC CHANGE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:09:52 UTC
From: rcnixon@mindspring.com
Message-ID: <3af18272.1354916@news.mindspring.com>
Source record: 52902

There is a hypnosis method for the code. It's called "CW Mental
Blockbuster II". Check out <http://www.qth.com/cweasy/>

Russ - kf4wxd
"Ryan KC8PMX" <kc8pmx@tm.net> wrote:

>
>> Listen to the music of the Code. :)
>
>
>Hmmm..... wonder if this is a training option for learning code??? (Somehow
>using music to relate to the morse code???) Or better yet, find someone to
>make "subliminal" tapes or CD's??? Even better yet, receive training while
>under hypnosis??? Just a crazy thought or two or three..... :)
>
>Ryan KC8PMX
>
>
>
>

2807. HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:10:34 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <ig03ft01nfepitnugqnijil7eul3uibln4@4ax.com>
Source record: 52903

Has anybody successfully used the relatively inexpensive Int'l Rectifier HexFet series of devices at the 5 to 15 watt range on 6 or 2 meters? If not IR, are there other inexpensive mosfet devices that you've used?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

2808. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:14:56 UTC
From: Bob <bob@bob.com>
Message-ID: <3AF183FF.2EB4C568@bob.com>
Source record: 52904
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Good work, Sherlock - you've pointed out it's illegal, *again*. We've established that.

How serious a crime is it? Your assignment - think of all the crimes you can, where does freebanding fit it? Maybe you should go spend your time protesting real crimes (I can provide a list if you need one, where do I start...how about NAFTA).

And, of course you don't speed. You're a decent, upstanding citizen - who turns in your neighbor for digging without a permit - thanks for making the world a better, safer place.

Bob.

W6DKN wrote:

> No amount of self justification will erase the simple fact that what you
> are doing is a crime. That makes you a criminal, and therefore not worthy
> of respect. You sound like the gang bangers in LA bitching because they are
> treated like hoodlums.
>
> By the way, I do have a cherry 1974 427 FI ' Vette that I take out to LA
> County Raceway when I want to speed (it turns low 12's with street tires).
> When I am driving my Blazer on city streets, I obey the traffic laws.
> That's what honest people do...
>
> 73 de W6DKN
>
> "Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> > Ok, Mr. Letter of the Law.
> >
> > And I bet you ALWAYS obey the maximum posted speed limit. If you wanted
> to speed,
> > you would take the right approach to speeding legally - because, hey man,
> you do
> > EVERYTHING right. You would put your mind to becoming a race car driver
> and do your
> > speeding on the track where it belongs. You would follow the proper steps
> to
> > becoming a race car driver:
> >
> > 1. Learn to ride a unicycle, because that's how it all started, man. Our
> > forefather's rode unicycles before fast cars were around, so must you
> learn.
> > 2. Learn everything there is to know about cars - including memorizing

> the answers
> > to questions about walking, unicycles, horse and carriage, boats, planes,
> etc.
> > 3. If you skip the step on learning to ride a unicycle, prepare to be
> chastised by
> > old-timers that had to learn how to ride it and by some who love the
> unicycle and
> > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad
> people
> > from becoming race car drivers.
> > 4. Prepare to spend some money. Your standard car won't do - it doesn't
> fit race
> > car specs! And every race track requires a different car and tire
> combination.
> >
> > Is becoming a race car driver what you should do because you like to take
> those 15
> > turns of Bear Mountain road at an faster than the posted speed? Well, ham
> radio IS
> > NOT a replacement for the "freeband" either. Ham radio doesn't fit
> everybody. Maybe
> > its a bit of an extreme commitment for some. Hey, I can operate my
> equipment and
> > make sure that it complies with the same rules the FCC mandates for hams.
> I can
> > operate it responsibly. I can operate it courteously . I can use the
> minimum amount
> > of power necessary for a contact.
> >
> > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
> immoral? A
> > crime against humanity? Absolutely not. To me - speeding in your car is a
> far more
> > worse crime.
> >
> > BTW, I do not condone operating on ham bands or intentionally interfering
> with any
> > service that I am aware of. Yes, I know there are (very few, non
> essential)
> > services allocated between 27.405 and 28Mhz. I support operations on
> 27.405 -
> > 27.855 Mhz that follow the same regulations that hams follow.
> >
> > Hopefully this metaphor can crack the thick skull of the "yes, but it's
> illegal,
> > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
> black and
> > white.
> >
> > Bob.

> >
> >
> > Scott Townley wrote:
> >
> > > But you *do* have all the respect you deserve...the same respect we
> > > all grant to FELONS, which is what you are, buddy...
> > >

2809. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:20:50 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9cs0f8pt1@slb0.atl.mindspring.net>
Source record: 52905
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Why? To accomidate a bunch of LAZY illegal fools? You must be a liberal. I bet you support dropping the standards of a SAT just to accomidate some lazy bum that cant pass it...right?

Dan/W4NTI

"Sideband" <sideband@spam.me.not> wrote in message news:3AF15839.FE40D1AC@spam.me.not...
> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on... The frequencies allocated for this could
> "go around" the currently allocated forestry, etc, frequencies, much in
> the same way the CB frequencies skip over the RC freq's.
>
> Just my two cents, here... Of course, your mileage may vary.
>
> -SSB
>

2810. Re: Auto-Tune Algorithm

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:23:25 UTC
From: Stewart Bryant <stbryant@cisco.com>
Message-ID: <3AF185FD.69071C3B@cisco.com>
Source record: 52906
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

> For SSB, automatic tuning is more challenging. With ACSB (amplitude
> compandored sideband), a pilot carrier makes it easy. For general SSB,
> I'd lean toward speech compressing algorithms to extract the speech
> parameters and try to determine the tuning offset from there.

The method that I have seen attempted in the past is to look
for harmonic content which maximises when you correctly resolve the
original.

Stewart G3YSX

2811. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:30:35 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF187AB.44CC02EB@spam.me.not>
Source record: 52907
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Dan:

I honestly don't know how to respond to this. Your post below is so thick with sarcasm I fail to see your point. Perhaps you could tone it back a few notches and provide some facts (if you can find any) to back up your assertion that (1) I'm a liberal, (2) I'm lazy, (3) that I've operated illegally, and (4) Just what the SAT's have to do with it.

After you've done that, I may consider explaining my reasoning behind my opinion so that you might understand it.

Again, I caution you, do not include me amongst the freebanders; I'm neither one of them, nor do I condone what they do (as I stated in the very first sentence of the quote you so vitriously lambasted.)

-SSB

W4NTI wrote:
>
> Why? To accomidate a bunch of LAZY illegal fools? You must be a liberal. I
> bet you support dropping the standards of a SAT just to accomidate some lazy
> bum that cant pass it...right?
>
> Dan/W4NTI
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF15839.FE40D1AC@spam.me.not...
> > I don't condone violations of FCC rules. However, I would like to see a
> > sideband only band above channel 40, but below 27.800, with a 50 watt
> > limit, for CB'ers to DX on... The frequencies allocated for this could
> > "go around" the currently allocated forestry, etc, frequencies, much in
> > the same way the CB frequencies skip over the RC freq's.
> >
> > Just my two cents, here... Of course, your mileage may vary.
> >
> > -SSB
> >

2812. Re: Respect For Freebanders Response

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:33:00 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9cs163dkb1@slb2.atl.mindspring.net>
Source record: 52908
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Yeah yourn right, I stopped reading yours after the Ge Whiz!...bark bark.

Dan/W4NTI
"Arf! Arf!" <DoggieDaze@Liberal.comz> wrote in message
news:9cr4i5ale0@pita.alt.net...
> Gee whiz! When you guys gonna learn to keep your responses short and to
the
> point? Don't write a darn book....nobody reads past the first two
paragraphs
> anyway.
> If you can't say it in a few sentences, nobody cares.
> Save your editorializing for the New York Times....
>
> <ccom2@socket.net> wrote in message
news:3af0dcb3.3549117@news.socket.net...
> > Preach it Brother
> > It could not have been said any better.
> >
> > FreeBanders are bottom feeding scum.
> > That should have all their equipment taken away.
> > Mike
> > AB0IV
> >
> > Jerry Oxendine <joxendi@bellsouth.net> wrote:
> >
> > >Bob,
> > >
> > >Yours is the kind of misunderstanding that, try as people might, just
> > >can't seem to be overcome. I know FIRSTHAND that there are agencies
> > >that are assigned frequencies above and below the 11 meter CB band.
> > >Tell me, what is "unessential" about forest rangers. What is "unessen-
> > >tial" about military comms? The difference is the type and duration of
> > >commercial and military comms as opposed to civilians who are there
just
> > >to talk, often as much as possible, to as many people as possible.
Busi-
> > >ness or military comms are short and to the point.
> > >
> > >I know the regulars get tired of reading this example, but it is a per-
> > >fect example of why NOT to "freeband". Some years ago, I was acting
> > >as communications officer for Civil Air Patrol on a live search for a
> > >light plane that disappeared during a storm. We planned to use a freq-
> > >uency near 11 meters which is a USAF frequency assigned to CAP. Like

> > >many rescue agencies, both civilian and military, we use our assigned
> > >frequencies so as to separate various kinds of traffic, take advantage
> > >of atmospherics (time of day), and keep from "interfering" with our-
> > >selves--air to ground on one freq., mobile to base on another, and yet
> > >another for "incidental comms" such as flight line, safety, or even
> > >sending out for food for the searchers. Another reason for choosing
the
> > >low power 26 MHZ band was to prevent news hounds, ambulance chasers,
> > >and even possibly the family of the pilot from hearing adverse news via
> > >scanner. *Most* scanners don't deal too well with SSB. We quickly
dis-
> > >covered that there was a "freebander" on that frequency calling,
"BREAK,
> > >BREAK, skipland", etc with a linear that made it difficult or
impossible
> > >to use this frequency forcing a lot of incidental traffic onto VHF. I
> > >was LIVID! There was NO excuse for this person operating on that freq-
> > >uency whatsoever. He was interfering with an active USAF authorized
> > >mission, a real emergency where a life was hanging in the balance. In
> > >the following week after the mission was suspended, I began to DF this
> > >pirate, determined to put a stop to his outlaw operations. One
evening,
> > >I happened to be in a nearby town, and absently switched on one of my
> > >radios in the car not expecting to hear anything. The guy was pegging
> > >my meter and almost busted my speaker. On my way out of town, I made
> > >a screeching U-turn and went back into town, stopping at the town PD to
> > >ask if they recognized that voice. Yup, they knew the fella and where
he
> > >lived. I drove to his house and confirmed the location. Outlaw was
> > >reported to FCC field office, and was busted for out-of-band operation
> > >AND interfering with emergency communications--a serious Federal
> > >offense. Betcha he got tired of eating beans from a .10 can!
> > >
> > >There IS no excuse for operating on unauthorized frequencies. You might
> > >*think* these freqs are unoccupied and that the agencies thereto
assign-
> > >ed are "non-essential". That is not for individuals to decide. Just
> > >because *you* don't hear anyone doesn't mean they aren't there and that
> > >there is no traffic being passed that you could hinder.
> > >
> > >Finally, let's say I, or you, rent/lease a piece of property with a
nice
> > >lake on it. Intending to do a little fishing, you stock that lake with
> > >a variety of game fish--bass, crappy, catfish, perch, or whatever. You
> > >are busy and don't get out to your lake real often, but one day you
> > >decide it would be a good day to go fishing; remember, it's "your" lake
> > >by virtue of your lease to use as you see fit within the guidelines of
> > >your agreement with the owner. When you arrive, you discover a large
> > >group of people on your property, at YOUR lake, catching the fish YOU
> > >stocked--in spite of the fact there are No Trespassing signs all over-

> > >even right where the trespassers are fishing. I'd be angry and I'd
bring
> > >charges against each and every one that trespassed on my land. It
> > >doesn't make any difference if I don't come to the lake every day, it
> > >is STILL property assigned to me by virtue of rent or lease and nobody
> > >has any business on it without permission.
> > >
> > >"Freebanders" don't have "permission" (license) to operate on frequen-
> > >cies outside the 11 meter band. They are trespassing just as surely
> > >as those people I cited in the above paragraph. And when they DO tres-
> > >pass, it pisses off those who are legitimately assigned said
frequencies
> > >for their exclusive use and it don't make ANY difference if they
"visit"
> > >(use) their "property" (frequency) once a minute or once a year--the
> > >"freebanders" are trespassing just as surely as if they just walked
into
> > >your/my house uninvited. There is no respect due, and none forthcoming
> > >for trespassers, "freebanders", or outlaw radio ops.
> > >
> > >Jerry
> > >K4KWH
> > >
> > >
> > >Bob wrote:
> > >>
> > >> Ok, Mr. Letter of the Law.
> > >>
> > >> And I bet you ALWAYS obey the maximum posted speed limit. If you
wanted
> to speed,
> > >> you would take the right approach to speeding legally - because, hey
> man, you do
> > >> EVERYTHING right. You would put your mind to becoming a race car
driver
> and do your
> > >> speeding on the track where it belongs. You would follow the proper
> steps to
> > >> becoming a race car driver:
> > >>
> > >> 1. Learn to ride a unicycle, because that's how it all started, man.
> Our
> > >> forefather's rode unicycles before fast cars were around, so must you
> learn.
> > >> 2. Learn everything there is to know about cars - including
memorizing
> the answers
> > >> to questions about walking, unicycles, horse and carriage, boats,
> planes, etc.
> > >> 3. If you skip the step on learning to ride a unicycle, prepare to be

> chastised by
> > >> old-timers that had to learn how to ride it and by some who love the
> unicycle and
> > >> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
> bad people
> > >> from becoming race car drivers.
> > >> 4. Prepare to spend some money. Your standard car won't do - it
doesn't
> fit race
> > >> car specs! And every race track requires a different car and tire
> combination.
> > >>
> > >> Is becoming a race car driver what you should do because you like to
> take those 15
> > >> turns of Bear Mountain road at an faster than the posted speed? Well,
> ham radio IS
> > >> NOT a replacement for the "freeband" either. Ham radio doesn't fit
> everybody. Maybe
> > >> its a bit of an extreme commitment for some. Hey, I can operate my
> equipment and
> > >> make sure that it complies with the same rules the FCC mandates for
> hams. I can
> > >> operate it responsibly. I can operate it courteously . I can use the
> minimum amount
> > >> of power necessary for a contact.
> > >>
> > >> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is
it
> immoral? A
> > >> crime against humanity? Absolutely not. To me - speeding in your car
is
> a far more
> > >> worse crime.
> > >>
> > >> BTW, I do not condone operating on ham bands or intentionally
> interfering with any
> > >> service that I am aware of. Yes, I know there are (very few, non
> essential)
> > >> services allocated between 27.405 and 28Mhz. I support operations on
> 27.405 -
> > >> 27.855 Mhz that follow the same regulations that hams follow.
> > >>
> > >> Hopefully this metaphor can crack the thick skull of the "yes, but
it's
> illegal,
> > >> yes, but it's illegal, yes, but it's illegal" ham. This is issue
isn't
> black and
> > >> white.
> > >>

> > >> Bob.
> > >
> > >> > >
> >
>
>

2813. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:34:03 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <%Lfl6.7806$2_.2901741@news3.rdc1.on.home.com>
Source record: 52910
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

So you are telling me theres no such thing as a pile up on a ham band ...
where there may be hundreds of people talking at the same time ? Happens on
them too ... my 10 does fine ... more is irrelevant.

--
Rob St.Denis

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF15DB8.DA352212@spam.me.not...
> Comments below:
>
> "Rob St.Denis" wrote:
>
> <snip>
>
> >
> > Why? I regularily work world wide on 10m with as little as 10watts on
ssb
> > (min required for the autotuner to work) and that is from the car.
> >
> > Rob
>
> Because most HAM's know how to run their radios, and MOST CB'ers dont. A
> majority of CB'ers think that turning the modulation up past 100%, using
> negative peak modulation compression, and other "tricks" makes them
> louder. In reality, it makes for a noisy band. I know better... My
> GrantXL, with the 2 watt carrier, at 99% modulation, sounds better than
> most of the "export" radios in the trucks out there, and "walks" over
> them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> Silver Load antennae, over and under), tuned properly, so I'm probably
> radiating more than they are, but hey, it works.
>
> At any rate, a band for those who do know how to run a radio would be
> nice... It's a pipe dream... one I won't have to worry about later this
> month, hopefully, but still.. it would be nice.
>
> -SSB

2814. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:34:12 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9cs189$4j1$1@slb2.atl.mindspring.net>
Source record: 52909
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

You heard 20 phone lately? Same mentality.

Dan/W4NTI
"JR" <jr@some.net> wrote in message news:3AF16151.24AD1ECF@some.net...
> These "freeband" morons think that if they listen to a frequency and
> they don't hear anyone, it is OK for them to use it. That's why so many
> are now moving up to 10 meters. It simply amazes me how anyone can think
> that just because they don't hear any communications on a frequency it
> must be OK for them to transmit on it. Typical of the cb mentality.
>
> Jerry Oxendine wrote:
> >
> > Bob,
> >
> > Yours is the kind of misunderstanding that, try as people might, just
> > can't seem to be overcome. I know FIRSTHAND that there are agencies
> > that are assigned frequencies above and below the 11 meter CB band.
> > Tell me, what is "unessential" about forest rangers. What is "unessen-
> > tial" about military comms? The difference is the type and duration of
> > commercial and military comms as opposed to civilians who are there just
> > to talk, often as much as possible, to as many people as possible. Busi-
> > ness or military comms are short and to the point.
>
> > Jerry
> > K4KWH
> >
> > Bob wrote:
> > >
> > > Ok, Mr. Letter of the Law.
> > >
> > > And I bet you ALWAYS obey the maximum posted speed limit. If you
wanted to speed,
> > > you would take the right approach to speeding legally - because, hey
man, you do
> > > EVERYTHING right. You would put your mind to becoming a race car
driver and do your
> > > speeding on the track where it belongs. You would follow the proper
steps to
> > > becoming a race car driver:
> > >
> > > 1. Learn to ride a unicycle, because that's how it all started, man.
Our
> > > forefather's rode unicycles before fast cars were around, so must you

learn.
> > > 2. Learn everything there is to know about cars - including memorizing
the answers
> > > to questions about walking, unicycles, horse and carriage, boats,
planes, etc.
> > > 3. If you skip the step on learning to ride a unicycle, prepare to be
chastised by
> > > old-timers that had to learn how to ride it and by some who love the
unicycle and
> > > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
bad people
> > > from becoming race car drivers.
> > > 4. Prepare to spend some money. Your standard car won't do - it
doesn't fit race
> > > car specs! And every race track requires a different car and tire
combination.
> > >
> > > Is becoming a race car driver what you should do because you like to
take those 15
> > > turns of Bear Mountain road at an faster than the posted speed? Well,
ham radio IS
> > > NOT a replacement for the "freeband" either. Ham radio doesn't fit
everybody. Maybe
> > > its a bit of an extreme commitment for some. Hey, I can operate my
equipment and
> > > make sure that it complies with the same rules the FCC mandates for
hams. I can
> > > operate it responsibly. I can operate it courteously . I can use the
minimum amount
> > > of power necessary for a contact.
> > >
> > > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is
it immoral? A
> > > crime against humanity? Absolutely not. To me - speeding in your car
is a far more
> > > worse crime.
> > >
> > > BTW, I do not condone operating on ham bands or intentionally
interfering with any
> > > service that I am aware of. Yes, I know there are (very few, non
essential)
> > > services allocated between 27.405 and 28Mhz. I support operations on
27.405 -
> > > 27.855 Mhz that follow the same regulations that hams follow.
> > >
> > > Hopefully this metaphor can crack the thick skull of the "yes, but
it's illegal,
> > > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
black and
> > > white.

> > >
> > > Bob.
> >
> > > > >

2815. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 16:54:49 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF18D59.70E3DCBD@spam.me.not>
Source record: 52912
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bill Meacham wrote:

<snip>

> I just don't
> agree with the concept of a special band for illegal operators.

The point I was trying to make, Bill, is this: If the frequencies get "thick" on a particular HAM band, HAMs have a multitude of other frequencies and bands to go to. Not to mention the fact that if the FCC would allocate a sideband-only band in the area I suggested for unlicensed CB, the people running on that band wouldn't be illegals. They would be transmitting in accordance with FCC rules.

> Maybe you were just being sarcastic, I dunno.

Only a little. I suggested the FCC allocate a new band for CB for sideband transmissions. Yes, it would be thick, but it would make the regular 40 less crowded, and give a spot for sidebanders to transmit without (hopefully) being interfered with by AM carriers and the like.

I did not suggest this to help support freebanding; quite the opposite. I suggested it as a way to give those CBers who enjoy transmitting on sideband (like I do) to do so with less interference from the riffraff who run dirty, over-modulated, noise-toy filled, echo-boxed, over-reverb'ed, export trash radios.

> I support your studying and taking the exams and upgrading. Thats
> very commendable. Check out some antenna theory on the side and
> you'll also better understand some of the merchandising
> terminology referred to in your other post.
> Good luck to you. I hope you accomplish your goals.
> >
> -BM

-SSB

2816. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 17:08:56 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF190A8.F319F677@IEEE.org>
Source record: 52913
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bob wrote:
> How serious a crime is it? Your assignment - think of all the crimes you can,
> where does freebanding fit it?

That's a pretty good question. Unless I'm missing something, I would
rank it right up there with driving on the shoulder of the road where
such is illegal.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2817. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 17:29:37 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3AF19581.8E84CD40@uci.edu>
Source record: 52915
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6RCecilA wrote:

> Bob wrote:
> > How serious a crime is it? Your assignment - think of all the crimes you can,
> > where does freebanding fit it?

> That's a pretty good question. Unless I'm missing something, I would
> rank it right up there with driving on the shoulder of the road where
> such is illegal.

That's pretty good. Or maybe it's like throwing beer bottles and
McDonalds wrappers out the window on the highway, or driving really slow
in the ultrafast lane, or parking in handicapped spaces. Ya know,
something Dennis Leary would sing about.

ac6xg

2818. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 17:31:43 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF195FE.1EE44C4E@coqui.net>
Source record: 52914
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

SSB-
I think I'm giving you the same answer that the FCC would. If you want radio communications as a hobby, get an amateur license. Allocating HF spectrum is an international concern, and really the FCC can't arbitrarily choose to do that. The only reason CB was able to be implemented back in the 50's, is because that spectrum was taken away from hams. The intent was "personal communications" for small business or those who had personal needs, and had no other good two-way radio option at the time. It never was intended to be a band for radio hobbyists and AFAIK, the FCC still looks at it that way.
They gave up trying to license operators on the Citizens Band many years ago, which to a lot of minds, was like throwing their hands up at the problem...and future concerns. To dodge the fact that their 27 Mhz creation became hopelessly useless for what it was intended for, they set up FRS to continue giving back the desired basic two-way service to the public.
I don't think they would be interested in cycling backwards. They have a place for hobbyists, and they have a place for 'personal business' communications. Nothing more is justifiable.

-Bill WX4A

Sideband wrote:
>
> Bill Meacham wrote:
>
> <snip>
>
> > I just don't
> > agree with the concept of a special band for illegal operators.
>
> The point I was trying to make, Bill, is this: If the frequencies get
> "thick" on a particular HAM band, HAMs have a multitude of other
> frequencies and bands to go to. Not to mention the fact that if the FCC
> would allocate a sideband-only band in the area I suggested for
> unlicensed CB, the people running on that band wouldn't be illegals.
> They would be transmitting in accordance with FCC rules.
>
> > Maybe you were just being sarcastic, I dunno.
>
> Only a little. I suggested the FCC allocate a new band for CB for
> sideband transmissions. Yes, it would be thick, but it would make the
> regular 40 less crowded, and give a spot for sidebanders to transmit

> without (hopefully) being interfered with by AM carriers and the like.
>
> I did not suggest this to help support freebanding; quite the opposite.
> I suggested it as a way to give those CBers who enjoy transmitting on
> sideband (like I do) to do so with less interference from the riffraff
> who run dirty, over-modulated, noise-toy filled, echo-boxed,
> over-reverb'ed, export trash radios.
>
> > I support your studying and taking the exams and upgrading. Thats
> > very commendable. Check out some antenna theory on the side and
> > you'll also better understand some of the merchandising
> > terminology referred to in your other post.
> > Good luck to you. I hope you accomplish your goals.
> > >
> > -BM
>
> -SSB

2819. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 17:32:03 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <3AF19612.2DD4@bellsouth.net>
Source record: 52916
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

SSB,

I'm not arguing with your points here, but there is something that many
people are not aware of. Quite a bit of that spectrum, either above or
below, is not within FCC's power to give or even regulate--except in
the cases of unlicensed operators. Much of those areas are under
an agency called NTIA--National Telecommunications Information Agency.
They have more "pull" than FCC, and that spectrum is mainly under their
jurisdiction. NTIA assigns and regulates US Gov't frequencies includ-
ing US Forestry, and military, for example. The remainder IS assigned
to forest products and various state forestry/fire agencies. IOW, there
is no spectrum for FCC to give because what areas they do control are
assigned, the rest isn't theirs to "give". I hope that sheds light on
your proposal.

73

Jerry
K4KWH

Sideband wrote:
>
> Bill Meacham wrote:
>
> <snip>
>
> > I just don't
> > agree with the concept of a special band for illegal operators.
>
> The point I was trying to make, Bill, is this: If the frequencies get
> "thick" on a particular HAM band, HAMs have a multitude of other
> frequencies and bands to go to. Not to mention the fact that if the FCC
> would allocate a sideband-only band in the area I suggested for
> unlicensed CB, the people running on that band wouldn't be illegals.
> They would be transmitting in accordance with FCC rules.
>
> > Maybe you were just being sarcastic, I dunno.
>
> Only a little. I suggested the FCC allocate a new band for CB for
> sideband transmissions. Yes, it would be thick, but it would make the
> regular 40 less crowded, and give a spot for sidebanders to transmit
> without (hopefully) being interfered with by AM carriers and the like.
>
> I did not suggest this to help support freebanding; quite the opposite.

> I suggested it as a way to give those CBers who enjoy transmitting on
> sideband (like I do) to do so with less interference from the riffraff
> who run dirty, over-modulated, noise-toy filled, echo-boxed,
> over-reverb'ed, export trash radios.
>
> > I support your studying and taking the exams and upgrading. Thats
> > very commendable. Check out some antenna theory on the side and
> > you'll also better understand some of the merchandising
> > terminology referred to in your other post.
> > Good luck to you. I hope you accomplish your goals.
> > >
> > -BM
>
> -SSB

2820. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 17:51:23 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <rq5sc9.68e.ln@localhost.localdomain>
Source record: 52925
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Bob wrote:

> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit.....

Do we really need this on r.r.a.homebrew? Please don't cross-post
this to a 'homebrew' discussion group.

Followup set to: rec.radio.amateur.misc

73, Ed. EI9GQ.

--
Remove 'X' to reply.

Linux 2.4.4
http://www.qsl.net/ei9gq

2821. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 18:10:21 UTC
From: kelly@nospam.dvol.com
Message-ID: <3af19c6f.79380617@news2.dvol.com>
Source record: 52917
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Wed, 02 May 2001 23:50:48 -0400, Jerry Oxendine
<joxendi@bellsouth.net> wrote:

>
>THAT is the potential harm. That is the reason it is illegal--not be-
>cause FCC is trying to mess up somebody's fun.
>
Right on the button Jerry. What we're dealing with here is a severly
underfunded federal regulatory agency who has lost it's teeth and
would rather roll over and play dead and surrender to anarchy rather
than make a stink. Some day somewhere some people will die, there will
be CYA "congressional investigations", yeah, right: Too late as usual.

>
>73
>
>Jerry
>K4KWH
>
w3rv

2822. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 18:35:59 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <jyhI6.4387$O71.254545@paloalto-snr1.gtei.net>
Source record: 52918
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF15839.FE40D1AC@spam.me.not...
> So when a freebander is transmitting with legal power levels on the
> legal 40 they're still breaking the law?
>

No, by definition this is not "free banding". There is no "legal" anything
if freebanding. If you are operating properly as a CB'er on the allocated
frequencies using authorized equipment and power levels, your not breaking
the law.

If your asking if your only a criminal while operating in the "free band",
I would ask is a person only a bank robber while committing the act, or are
they still a bank robber afterwards?

73 de W6DKN

2823. Re: Respect For Freebanders Response

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 18:47:50 UTC
From: kelly@nospam.dvol.com
Message-ID: <3af1a5de.81796205@news2.dvol.com>
Source record: 52919
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 3 May 2001 03:23:38 -0500, "Arf! Arf!"
<DoggieDaze@Liberal.comz> wrote:

>Gee whiz! When you guys gonna learn to keep your responses short and to the
>point? Don't write a darn book....nobody reads past the first two paragraphs
>anyway.
>If you can't say it in a few sentences, nobody cares.
>Save your editorializing for the New York Times....
>
We all know about your lame attention spans and lack of intellectual
acuity so to make it simple enough for you dullard outlaws to perhaps
understand be advised that Riley wants your ass on his platter tonite.
>
Billy the Kid had an IQ of around 75. You're next.
>
w3rv
Licensed . . .

2824. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 18:59:45 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tf3al3maot952a@corp.supernews.com>
Source record: 52920
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF15839.FE40D1AC@spam.me.not...
>
> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on...

Yeah, they are call Ham Radio Bands, and all they need is a Ham Radio License like the one your getting. If CBers want to shoot skip, then let them get a license too. I doubt you had any big problem getting your license. The written exams up to a General are easy, and for those who want H.F. the 5 wpm code test is a reasonable speed until the requirement is eliminated.

What you propose to do is if the FCC can't enforce the rules, then heck, lets just make it legal, just like the folks who want to legalize drugs. The only problem with that is where does it stop? Today 26.965 -27.405, tomorrow 26.965 - 27.800, ? 26.965 -29.700, 12m - 10m, ..., you get the idea. 8-))

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"I am a bomb technician. If you see
me running, try to keep up. "

2825. Re: Yaesu FT50R - RF gain

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 19:09:48 UTC
From: n8blk@aol.com
Message-ID: <20010503150948.18977.00000716@nso-fa.aol.com>
Source record: 52921

In article <9ckg8piav1@news5.svr.pol.co.uk>, "Richard"
<Dickus@dial.pipex.com> writes:

>Can anyone tell me whether the Yaesu FT50R has an rf gain option?
>

The short answer is that like most HT's it's unlikely it does. I certainly never found any option to drop the gain or horror of horrors increase it on an FT-50RD, and while it might be a nice item to have, not even commercial HTs have that option.
-art clemons-

2826. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 19:21:14 UTC
From: 2w8ji@akorn.net
Message-ID: <3af1ad63.5038854@news.accessunited.com>
Source record: 52922
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 03 May 2001 10:29:37 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:

>W6RCecilA wrote:
>
>> Bob wrote:
>> > How serious a crime is it? Your assignment - think of all the crimes you can,
>> > where does freebanding fit it?
>
>> That's a pretty good question. Unless I'm missing something, I would
>> rank it right up there with driving on the shoulder of the road where
>> such is illegal.
>
>That's pretty good. Or maybe it's like throwing beer bottles and
>McDonalds wrappers out the window on the highway, or driving really slow
>in the ultrafast lane, or parking in handicapped spaces. Ya know,
>something Dennis Leary would sing about.
>
>ac6xg

There is a major difference between something that is simply
unsightly, and something that is dangerous.

Freebanding is closer to the example of driving on the shoulder of the
road...or the wrong way on a one-way street....or driving without a
license...than it is to littering.

If you don't think it has caused problems, look at virtually ALL of
the HF amateur bands and many commercial bands. The free-band idiots
have ruined commercial services above and below 27 MHz, and are now
working on all other frequencies. It ranges from 160 meters up into
the two-way land mobile bands.

This is where enforcement come in. What we need to do, is catch a few
of them and fine them. If we find a few who fail to comply after
repeated warnings, we need to send them to jail. If that fails, we
need to execute them...and if that fails, we need to force them to
live with N1IR for a week. Eventually they will get the message.

2827. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 20:24:43 UTC
From: CW <cmagers@sprynet.com>
Message-ID: <9csf6h$h25$1@slb6.atl.mindspring.net>
Source record: 52923
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

So you're saying that its up to each individual to decide which laws they
should obay?
If you can't see a problem with that then a jail cell is probably going to
be your next place of residence.
--
CW
KC7NOD
"Bob" <bob@bob.com> wrote in message news:3AF183FF.2EB4C568@bob.com...
> Good work, Sherlock - you've pointed out it's illegal, *again*. We've
> established that.
>
> How serious a crime is it? Your assignment - think of all the crimes you
can,
> where does freebanding fit it? Maybe you should go spend your time
protesting
> real crimes (I can provide a list if you need one, where do I start...how
about
> NAFTA).
>
> And, of course you don't speed. You're a decent, upstanding citizen - who
turns
> in your neighbor for digging without a permit - thanks for making the
world a
> better, safer place.
>
> Bob.
>
>
>
> W6DKN wrote:
>
> > No amount of self justification will erase the simple fact that what you
> > are doing is a crime. That makes you a criminal, and therefore not
worthy
> > of respect. You sound like the gang bangers in LA bitching because they
are
> > treated like hoodlums.
> >
> > By the way, I do have a cherry 1974 427 FI ' Vette that I take out to LA
> > County Raceway when I want to speed (it turns low 12's with street
tires).
> > When I am driving my Blazer on city streets, I obey the traffic laws.
> > That's what honest people do...

> >
> > 73 de W6DKN
> >
> > "Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> > > Ok, Mr. Letter of the Law.
> > >
> > > And I bet you ALWAYS obey the maximum posted speed limit. If you
wanted
> > to speed,
> > > you would take the right approach to speeding legally - because, hey
man,
> > you do
> > > EVERYTHING right. You would put your mind to becoming a race car
driver
> > and do your
> > > speeding on the track where it belongs. You would follow the proper
steps
> > to
> > > becoming a race car driver:
> > >
> > > 1. Learn to ride a unicycle, because that's how it all started, man.
Our
> > > forefather's rode unicycles before fast cars were around, so must you
> > learn.
> > > 2. Learn everything there is to know about cars - including memorizing
> > the answers
> > > to questions about walking, unicycles, horse and carriage, boats,
planes,
> > etc.
> > > 3. If you skip the step on learning to ride a unicycle, prepare to be
> > chastised by
> > > old-timers that had to learn how to ride it and by some who love the
> > unicycle and
> > > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
bad
> > people
> > > from becoming race car drivers.
> > > 4. Prepare to spend some money. Your standard car won't do - it
doesn't
> > fit race
> > > car specs! And every race track requires a different car and tire
> > combination.
> > >
> > > Is becoming a race car driver what you should do because you like to
take
> > those 15
> > > turns of Bear Mountain road at an faster than the posted speed? Well,
ham
> > radio IS
> > > NOT a replacement for the "freeband" either. Ham radio doesn't fit

> > everybody. Maybe
> > > its a bit of an extreme commitment for some. Hey, I can operate my
> > equipment and
> > > make sure that it complies with the same rules the FCC mandates for
hams.
> > I can
> > > operate it responsibly. I can operate it courteously . I can use the
> > minimum amount
> > > of power necessary for a contact.
> > >
> > > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is
it
> > immoral? A
> > > crime against humanity? Absolutely not. To me - speeding in your car
is a
> > far more
> > > worse crime.
> > >
> > > BTW, I do not condone operating on ham bands or intentionally
interfering
> > with any
> > > service that I am aware of. Yes, I know there are (very few, non
> > essential)
> > > services allocated between 27.405 and 28Mhz. I support operations on
> > 27.405 -
> > > 27.855 Mhz that follow the same regulations that hams follow.
> > >
> > > Hopefully this metaphor can crack the thick skull of the "yes, but
it's
> > illegal,
> > > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
> > black and
> > > white.
> > >
> > > Bob.
> > >
> > >
> > > Scott Townley wrote:
> > >
> > > > But you *do* have all the respect you deserve...the same respect we
> > > > all grant to FELONS, which is what you are, buddy...
> > > >
>

2828. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 20:52:22 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF1B69C.4A28673E@mailcity.com>
Source record: 52924
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

You live in town but you purchased 20 acres of land out in the boonies with the idea of maybe moving there when you retire in the future. I come along and see your land and I don't see a house or anyone using the land. I observe this for a short while and come to the conclusion that no one is using this land. So I build a little shack there, plant my garden, run a cow or two. Is that OK with you? Don't I have a right to do that? After all, you aren't using it. Maybe I am doing something illegal, but after all, why should you object, you aren't using the land and I am apparently hurting no one and there are others committing much more horrendous crimes. Maybe instead of coming out and trying to get me off your land that you aren't using, you should spend you time protesting real crimes.

Bob wrote:
>
> Good work, Sherlock - you've pointed out it's illegal, *again*. We've
> established that.
>
> How serious a crime is it? Your assignment - think of all the crimes you can,
> where does freebanding fit it? Maybe you should go spend your time protesting
> real crimes (I can provide a list if you need one, where do I start...how about
> NAFTA).
>
> And, of course you don't speed. You're a decent, upstanding citizen - who turns
> in your neighbor for digging without a permit - thanks for making the world a
> better, safer place.
>
> Bob.
>

2829. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 21:10:18 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF1BAD4.AA7CD86D@mailcity.com>
Source record: 52926
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

As Charlie Brown would say, "good grief". There is always someone who spouts this to try to compare the ham bands to cb. Have you listened to such and such band, such and such frequency? No one argues that there are morons on the ham bands who act like cbers and on certain frequencies you can find them, but on 99.99 percent of the other frequencies you find hams obeying the rules and engaging in courteous communication. Even with the few morons on the ham bands, there is no comparison between ham radio and cb. It's like comparing apples to a sewer pit.

W4NTI wrote:
>
> You heard 20 phone lately? Same mentality.
>
>

2830. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 21:26:32 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AF1CD08.41C67EA6@rupert.tds-az.lmco.com>
Source record: 52927
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Eamon Skelton wrote:
>
> Bob wrote:
>
> > Ok, Mr. Letter of the Law.
> >
> > And I bet you ALWAYS obey the maximum posted speed limit.....
>
> Do we really need this on r.r.a.homebrew? Please don't cross-post
> this to a 'homebrew' discussion group.
>
> Followup set to: rec.radio.amateur.misc
>
> 73, Ed. EI9GQ.
>
> --
> Remove 'X' to reply.
>
> Linux 2.4.4
> http://www.qsl.net/ei9gq

Fact is, it wasn't cross-posted to r.r.a.homebrew, it started
in r.r.a.homebrew. You are right that it has nothing to do
with r.r.a.homebrew, but this is a unmoderated NG and you just
have to learn to ignore some of the postings. Somewhere down
the line, one of the participants in this discussion decided to
include a few other NGs.

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

2831. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 22:21:10 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.gcrx3b2.pminews@or.news.verio.net>
Source record: 52928
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 03 May 2001 19:21:14 GMT, Tom W8JI wrote:

>This is where enforcement come in. What we need to do, is catch a few
>of them and fine them. If we find a few who fail to comply after
>repeated warnings, we need to send them to jail.

El Presidente has announced that he intends to split the INS into
two agencies - one that deals with immigration and naturalization
paperwork and the other that does enforcement (the Border Patrol).

Those of us in FCC field enforcement have advocated that sort
of split for the FCC for decades. Once freed from the "who gets
a license and which non-technical rules apply to whom" political
mess (which is the only "FCC" that The Congress can comprehend),
real enforcement can be done when the technical standards and
enforcement functions and people are absorbed into NTIA which has
scads of funds. The Canadians did that several years back when the
functions of the Ministry of Communications were split between
Industry Canada (the equivalentof the Department of Commerce, home
of NTIA) and the Canadian Radio and Television Commission (CRTC).

>If that fails, we need to execute them...

You are certainly making the jest, eh????

>and if that fails, we need to force them to
>live with N1IR for a week. Eventually they will get the message.

Hey, Richard Burton in Southern Cal has been prosecuted six
times, spent time in jail three times, and still operates on
ham radio without a license whenever he gets out.

When is HE going to learn?

--
73 de Phil Kane - K2ASP

2832. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 22:28:04 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AF1DB74.B149BD16@bloomer.net>
Source record: 52929
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Well, true, but since the FCC quit renewing licenses automatically
whenever a change was sent in, you can get some idea if someone was
licensed within the last few years anyways. My point when I asked him
for his callsign was really to find out if he actually had one and since
he never replied, I'll assume not.

Scott
N0EDV for darn near 20 years ;)

K7MEM wrote:
>
> Scott wrote:
> >
> > Actually, there was someone else (who I called the original
> > poster) who was telling people it was easy to modify a
> > Kenwood HF rig to transmit DSB who went by the name Skipp
> > and then reamed on me about how long I've been licensed
> > but wouldn't give me his call when asked, to find out how
> > long He'd been licensed.
> >
> > Scott
> > N0EDV
>
> This make me curious. How do you tell how long someone has
> been licensed, just from his call sign? If I look up my own
> call sign it shows:
>
> Effective: 23 May 2000 Expires: 23 May 2010
>
> But that's only when I was granted a vanity call sign. I have
> been license for over 35 years. I thought you could only find
> out the latest upgrade, renewal, or callsign allocation.
>
> Oh well, just curious.
>
> Martin, K7MEM
>
> --
> Martin E. Meserve K7MEM
> martin.e.meserve AT lmco.com
>
> I respond to news groups and E-Mail on my own time and therefore
> my responses may not be as timely as you, or I, would like them to
> be. If I seem to be ignoring you, send me another E-Mail to jog my

> memory. Opinions are my own and do not reflect the opinions of my
> employer.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2833. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 22:30:04 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3AF1DBEC.FF7BB77@uci.edu>
Source record: 52930
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:

> Freebanding is closer to the example of driving on the shoulder of the
> road...or the wrong way on a one-way street....or driving without a
> license...than it is to littering.

I take it you haven't heard the Dennis Leary song. It's called "The
A$$hole Song."

ac6xg

2834. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:21:32 UTC
From: AlMorris <wb8feq@bellsouth.net>
Message-ID: <pKII6.6552$j76.215693@news1.atl>
Source record: 52931

Twistedhed <twistedhed@webtv.net> wrote in message
news:3af03e15$1@news2.mibx.net...
>
> Please read. This will clarify.
>
> http://sporadic1.tripod.com/page7.html

I read enough. Lets step back in time (and even before mine). The 27MHz band once was part of the ham bands and was taken from that service to create and "inexpensive business band" for small mom & pop type of businesses who could not afford to undergo the expense of professional 2-way providors. Remember that a lot (and I agree not all) of the operators on that band did operate illegally as it was not intended to be a means of casual communications between ANY owner of CB equipment but between units of the same license. The reason the casual communications between any owners of CB equipment is more or less legal today at all is because it was easier for the FCC to change the rules than lock up 1/3 the country (OK so that may be exagerating considerably) and because the manufactures had (financial) influence to allow it.

The free banders have absolutely NOTHING in common with me. I submitted for legal testing in front of the FCC to obtain my license and I could still pass any code test the FCC ever had. In addition to that my technical tests were not primarily centered around operating practices but on technical topics many of which are not even considered by todays operators (of any service). Granted there were many ex-CBers who have moved into the ham ranks and I helped train many of them while associated with my old ham club. Those I do applaud for taking INITIATIVE in finding a way to operate in a fashion they wanted leagally.

One last word and I am off this soapbox. My 13 year old daughter can handle a 5 speed with the best of them (on private property) but do you think I should turn her loose on public highways simply because she does not want to wait until she can get a license? I din't think so any more than you think we should allow rampant unlicensed hand gun ownership (I know not quite the same topic but hey it too is not legal). The point is - If you are not inside the law I don't have any respect for you.

I am off my soapbox now - WB8FEQ - licensed continuously for 32 years since the age of 14 and proud of it.!

2835. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:23:12 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9csp7imvu1@slb5.atl.mindspring.net>
Source record: 52932
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Did you not suggest a band be set aside just for the illegal idiots? They
you should be able to figure out my response.

The SATs having to do with it is....the lowering of the bar. The reduction
of standards to accomidate some person and/or group that is unable, too
ignorant, or just STUPID. See my point?

Also there ALREADY exists plenty of places to work DX and have fun. Its
called Amateur Radio. Unfortunatly without a valid callsign you will be
attacked much worse than here.

Dan/W4NTI

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF187AB.44CC02EB@spam.me.not...
> Dan:
>
> I honestly don't know how to respond to this. Your post below is so
> thick with sarcasm I fail to see your point. Perhaps you could tone it
> back a few notches and provide some facts (if you can find any) to back
> up your assertion that (1) I'm a liberal, (2) I'm lazy, (3) that I've
> operated illegally, and (4) Just what the SAT's have to do with it.
>
> After you've done that, I may consider explaining my reasoning behind my
> opinion so that you might understand it.
>
> Again, I caution you, do not include me amongst the freebanders; I'm
> neither one of them, nor do I condone what they do (as I stated in the
> very first sentence of the quote you so vitriously lambasted.)
>
> -SSB
>
> W4NTI wrote:
> >
> > Why? To accomidate a bunch of LAZY illegal fools? You must be a
liberal. I
> > bet you support dropping the standards of a SAT just to accomidate some
lazy
> > bum that cant pass it...right?
> >
> > Dan/W4NTI
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF15839.FE40D1AC@spam.me.not...

> > > I don't condone violations of FCC rules. However, I would like to see
a
> > > sideband only band above channel 40, but below 27.800, with a 50 watt
> > > limit, for CB'ers to DX on... The frequencies allocated for this could
> > > "go around" the currently allocated forestry, etc, frequencies, much
in
> > > the same way the CB frequencies skip over the RC freq's.
> > >
> > > Just my two cents, here... Of course, your mileage may vary.
> > >
> > > -SSB
> > >

2836. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:33:15 UTC
From: "Dennis P. Stahr" <irfutures@earthlink.net>
Message-ID: <%UII6.6071$Cq3.588332@newsread1.prod.itd.earthlink.net>
Source record: 52933
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

People like you still suck!!!!

You are the "gimme" generation and have no respect for what others have worked for.

What you are to stupid or lazy to earn, you take for free...

I proudly repeat.... People like you still suck!

Dennis Stahr

--

****
Investment Reference

Phone - 858.538.6345 Fax - 858.484.3484
Sites: http://www.irfutures.com or if the ISP is down:
http://home.earthlink.net/~irfutures

email: irfutures@earthlink.net

"Teacher and Consultant to the futures Industry since 1983"
****
"Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> Ok, Mr. Letter of the Law.
>
> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted to speed,
> you would take the right approach to speeding legally - because, hey man, you do
> EVERYTHING right. You would put your mind to becoming a race car driver and do your
> speeding on the track where it belongs. You would follow the proper steps to
> becoming a race car driver:
>
> 1. Learn to ride a unicycle, because that's how it all started, man. Our
> forefather's rode unicycles before fast cars were around, so must you learn.
> 2. Learn everything there is to know about cars - including memorizing the answers
> to questions about walking, unicycles, horse and carriage, boats, planes, etc.
> 3. If you skip the step on learning to ride a unicycle, prepare to be chastised by

> old-timers that had to learn how to ride it and by some who love the
unicycle and
> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps bad
people
> from becoming race car drivers.
> 4. Prepare to spend some money. Your standard car won't do - it doesn't
fit race
> car specs! And every race track requires a different car and tire
combination.
>
> Is becoming a race car driver what you should do because you like to take
those 15
> turns of Bear Mountain road at an faster than the posted speed? Well, ham
radio IS
> NOT a replacement for the "freeband" either. Ham radio doesn't fit
everybody. Maybe
> its a bit of an extreme commitment for some. Hey, I can operate my
equipment and
> make sure that it complies with the same rules the FCC mandates for hams.
I can
> operate it responsibly. I can operate it courteously . I can use the
minimum amount
> of power necessary for a contact.
>
> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
immoral? A
> crime against humanity? Absolutely not. To me - speeding in your car is a
far more
> worse crime.
>
> BTW, I do not condone operating on ham bands or intentionally interfering
with any
> service that I am aware of. Yes, I know there are (very few, non
essential)
> services allocated between 27.405 and 28Mhz. I support operations on
27.405 -
> 27.855 Mhz that follow the same regulations that hams follow.
>
> Hopefully this metaphor can crack the thick skull of the "yes, but it's
illegal,
> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
black and
> white.
>
> Bob.
>
>
> Scott Townley wrote:
>
> > But you *do* have all the respect you deserve...the same respect we

> > all grant to FELONS, which is what you are, buddy...
> >
> > On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> > wrote:
> >
> > >
> > > >I am posting here because of some of the nasty things I have read in
this
> > > >group and in QRZ discussions regarding freebanders. We who use the
frequencies
> > > >from 27.405 to 28.000 have more in common with hams than you might
think.
> > > >We are good operators and have knowledge of propagation and skip
conditions.
> > > >We use Yasus, Kenwoods and Icomm radios just like you do, so we know
technical
> > > >issues as well or better. However, the attitude of some hams toward us
is
> > > >rude and condescending. We are treated like 2nd class citizens. This
should
> > > >not be. We have the same rights under the constitution as legal hams
do.
> > > >For those that do not wish to be under Uncle Sam's thumb, freebanding
is
> > > >a viable alternative to getting a ham radio license. What I am saying
is
> > > >that maybe the next time you meet a freebander it might be wise to talk
with
> > > >him before you condemn him.
> > > >
> > > >I am QRT and standing by. (No flames answered. Please reply via email)
> > > >
> > > >Unit 2711, Florida
> > > >
>
>

2837. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:34:35 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF1EB0B.A0C35093@IEEE.org>
Source record: 52934
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

CW wrote:
> So you're saying that its up to each individual to decide which laws they
> should obey?

That's exactly the way it is. Everyone decides which laws they should obey.
Lot's of people decide to obey them all assuming they know about them all.
Some people decide that they shouldn't obey the speed laws. Have you
ever driven faster than the speed limit? I personally don't like and
rarely wear a seat belt even though it is illegal to do so. Technically,
I am also in violation of the Texas motorcycle helmet law.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2838. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:40:46 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF1EC7E.D997F2B6@IEEE.org>
Source record: 52935
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

GG wrote:
> You live in town but you purchased 20 acres of land out in the boonies
> with the idea of maybe moving there when you retire in the future. I
> come along and see your land and I don't see a house or anyone using the
> land. I observe this for a short while and come to the conclusion that
> no one is using this land. So I build a little shack there, plant my
> garden, run a cow or two. Is that OK with you? Don't I have a right to
> do that? After all, you aren't using it.

You picked a bad analogy. A person did just that on some land in my
home county of Madison in Texas. Nobody noticed him living there.
After N number of years he was discovered. The case went to court
and the trespasser was awarded the property under the Texas homestead
laws. So you better keep an eye on your property or some homesteader
will wind up owning it. Homesteading is a good description of what the
freebanders have done between the CB band and the ham band. Time was
when amateur radio operators homesteaded the radio frequencies.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2839. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:55:35 UTC
From: 2w8ji@akorn.net
Message-ID: <3af1ee63.21682008@news.accessunited.com>
Source record: 52936
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 03 May 2001 22:21:10 GMT, "Phil Kane" <Phil.Kane@nospam.spam>
wrote:
>
>>If that fails, we need to execute them...
>
> You are certainly making the jest, eh????
>
>>and if that fails, we need to force them to
>>live with N1IR for a week. Eventually they will get the message.
>
> Hey, Richard Burton in Southern Cal has been prosecuted six
> times, spent time in jail three times, and still operates on
> ham radio without a license whenever he gets out.
>
> When is HE going to learn?

Some people like jail. For those people, we send them to Boston and
let them build Fractal antennas under the direct supervision of Dr.
Nathan Cohen, pHd.

2840. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-03 23:56:21 UTC
From: 2w8ji@akorn.net
Message-ID: <3af1efce.22044118@news.accessunited.com>
Source record: 52937
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 03 May 2001 15:30:04 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:

>Tom W8JI wrote:
>
>> Freebanding is closer to the example of driving on the shoulder of the
>> road...or the wrong way on a one-way street....or driving without a
>> license...than it is to littering.
>
>I take it you haven't heard the Dennis Leary song. It's called "The
>A$$hole Song."
>
>ac6xg

Never heard it. Is he related to Tim Leary?

2841. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 00:00:26 UTC
From: 2w8ji@akorn.net
Message-ID: <3af1f030.22142745@news.accessunited.com>
Source record: 52938
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 03 May 2001 20:52:22 GMT, GG <nbc_red@mailcity.com> wrote:

>You live in town but you purchased 20 acres of land out in the boonies
>with the idea of maybe moving there when you retire in the future. I
>come along and see your land and I don't see a house or anyone using the
>land. I observe this for a short while and come to the conclusion that
>no one is using this land. So I build a little shack there, plant my
>garden, run a cow or two. Is that OK with you? Don't I have a right to
>do that? After all, you aren't using it. Maybe I am doing something
>illegal, but after all, why should you object, you aren't using the land
>and I am apparently hurting no one and there are others committing much
>more horrendous crimes. Maybe instead of coming out and trying to get me
>off your land that you aren't using, you should spend you time
>protesting real crimes.

The problem with your logic is you are using land that is being used.
Freebanders are screwing things up for licensed services, and have
been for years.

They are just to stupid or uneducated to understand that.

Sorta like the mentality that thinks it is OK to "borrow" things, like
someone's property or land, without asking because "they aren't using
it".

2842. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 00:27:25 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9cu4io$7k3$1@dipsy.missouri.edu>
Source record: 52872

I don't know which series you're talking about, however, looking through the specs of a couple IRF HEXFETs I've got on hand, the IRF530 (N channel) and IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd = 50V, Id = 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would doubt that they would work much above 20-25MHz. If these are the series of HEXFETs you're talking about, I've experienced that they work much better for about 5MHz and down--i.e. power switching devices.

Your milage may vary, but not much.
Good evening.
Pete
ki0eg

Jim Weir <jim@rst-engr.com> wrote in message news:ig03ft01nfepitnugqnijil7eul3uibln4@4ax.com...
> Has anybody successfully used the relatively inexpensive Int'l Rectifier HexFet
> series of devices at the 5 to 15 watt range on 6 or 2 meters? If not IR, are
> there other inexpensive mosfet devices that you've used?
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

2843. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 00:55:14 UTC
From: Bill Aycock <baycock@hiwaay.net>
Message-ID: <3AF1FDF2.DFEBDF11@hiwaay.net>
Source record: 52940
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:

> need to execute them...and if that fails, we need to force them to
> live with N1IR for a week. Eventually they will get the message.

Tom- that's going TOO far- making one live with N1IR is Sadism, and
"cruel and Unusual" punishment.
How could you?

2844. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 01:13:26 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF1F3C9.19DF1A6C@mailcity.com>
Source record: 52941
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:
>>
> The problem with your logic is you are using land that is being used.
>
>
Read it again, I said I did not observe the land being used, so assumed
it would be OK if I used it.

> They are just to stupid or uneducated to understand that.
>
> Sorta like the mentality that thinks it is OK to "borrow" things, like
> someone's property or land, without asking because "they aren't using
> it".

The logic of my post, I assumed I could "borrow" the property without
asking because it was apparent that "they aren't using it".

2845. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 01:17:06 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF1F495.4387880D@mailcity.com>
Source record: 52942
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I picked a good analogy, I have no right to use his property just
because I observe it does not appear to be in use by the owner.

W6RCecilA wrote:
>
>
> You picked a bad analogy. A person did just that on some land in my
> home county of Madison in Texas. Nobody noticed him living there.
> After N number of years he was discovered. The case went to court
> and the trespasser was awarded the property under the Texas homestead
> laws. So you better keep an eye on your property or some homesteader
> will wind up owning it. Homesteading is a good description of what the
> freebanders have done between the CB band and the ham band. Time was
> when amateur radio operators homesteaded the radio frequencies.
> --
> http://www.mindspring.com/~w6rca
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2846. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 01:26:04 UTC
From: 2w8ji@akorn.net
Message-ID: <3af203ab.27130215@news.accessunited.com>
Source record: 52943
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 04 May 2001 01:13:26 GMT, GG <nbc_red@mailcity.com> wrote:

>The logic of my post, I assumed I could "borrow" the property without
>asking because it was apparent that "they aren't using it".

Borrowing something that isn't yours without asking the owner is
called "theft", but I guess we all have different morals.

Take a listen to ten meters, and tell me freebanders haven't cause a
big problem. Not only have they driven legitiment users off the
commercial areas around 27 MHz, and ruiened things for the R/C people
who used to use adjacent-to-CB channel frequencies, they are now
ruining ten meters.

They are also spreading to all other frequencies in the HF spectrum.

2847. A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 01:35:22 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF2075A.A566FBDB@spam.me.not>
Source record: 52944
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Dan:

Well, apparently you missed the point; or is it that you choose to ignore it? Either way, your attitude towards me on this is a bit disconcerting. I'll state this again just in case it didn't get through the first time" I'm not a freebander, nor do I encourage ANYONE to violate FCC rules.

I'm sorry to hear about your mood disorder.

The point was this: Set aside another band for sideband transmissions only, to help alleviate some of the congestion on CM (they have no other place to go), and perhaps the encroachment on 10M frequencies would tone down; perhaps those frequencies between 27.405 and 28.000 that are allocated to other services won't be interfered with people calling CQ, and perhaps sideband operators on CB's won't get interfered with as much by AM carriers.

I'm not proposing a reduction in standards. Personally, I feel when the FCC removed the licensing requirement from CB they made a BIG mistake. I'm proposing a broadening of bandwidth to help alleviate the congestion on CB that causes people who don't know any better to venture onto the HAM bands and interfere with licensed operators. If the bands weren't so congested, CB'ers might not feel the need to run an amp, because they'd be able to make contacts on much less power.

If you're so shortsighted that you don't see the potential good this could do, then I'm sorry you feel that way.

Will some idiots out there still run illegal power? Probably. Will people who don't know any better still venture out onto bands and frequencies where they don't belong? Probably. Unfortunately, without a licensing requirement, the lack of knowledge by CB'ers helps cause this problem.

This is just my opinion. Your mileage may vary

W4NTI wrote:
>
> Did you not suggest a band be set aside just for the illegal idiots? They
> you should be able to figure out my response.
>
> The SATs having to do with it is....the lowering of the bar. The reduction
> of standards to accomidate some person and/or group that is unable, too
> ignorant, or just STUPID. See my point?
>

> Also there ALREADY exists plenty of places to work DX and have fun. Its
> called Amateur Radio. Unfortunatly without a valid callsign you will be
> attacked much worse than here.
>
> Dan/W4NTI
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF187AB.44CC02EB@spam.me.not...
> > Dan:
> >
> > I honestly don't know how to respond to this. Your post below is so
> > thick with sarcasm I fail to see your point. Perhaps you could tone it
> > back a few notches and provide some facts (if you can find any) to back
> > up your assertion that (1) I'm a liberal, (2) I'm lazy, (3) that I've
> > operated illegally, and (4) Just what the SAT's have to do with it.
> >
> > After you've done that, I may consider explaining my reasoning behind my
> > opinion so that you might understand it.
> >
> > Again, I caution you, do not include me amongst the freebanders; I'm
> > neither one of them, nor do I condone what they do (as I stated in the
> > very first sentence of the quote you so vitriously lambasted.)
> >
> > -SSB
> >
> > W4NTI wrote:
> > >
> > > Why? To accomidate a bunch of LAZY illegal fools? You must be a
> liberal. I
> > > bet you support dropping the standards of a SAT just to accomidate some
> lazy
> > > bum that cant pass it...right?
> > >
> > > Dan/W4NTI
> > >
> > > "Sideband" <sideband@spam.me.not> wrote in message
> > > news:3AF15839.FE40D1AC@spam.me.not...
> > > > I don't condone violations of FCC rules. However, I would like to see
> a
> > > > sideband only band above channel 40, but below 27.800, with a 50 watt
> > > > limit, for CB'ers to DX on... The frequencies allocated for this could
> > > > "go around" the currently allocated forestry, etc, frequencies, much
> in
> > > > the same way the CB frequencies skip over the RC freq's.
> > > >
> > > > Just my two cents, here... Of course, your mileage may vary.
> > > >
> > > > -SSB
> > > >

2848. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 01:42:36 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF2090C.2C9DD715@spam.me.not>
Source record: 52945
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Leland:

"Leland C. Scott" wrote:
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF15839.FE40D1AC@spam.me.not...
> >
> > I don't condone violations of FCC rules. However, I would like to see a
> > sideband only band above channel 40, but below 27.800, with a 50 watt
> > limit, for CB'ers to DX on...
>
> Yeah, they are call Ham Radio Bands, and all they need is a Ham Radio
> License like the one your getting. If CBers want to shoot skip, then let
> them get a license too.

So you're saying that HAMs are licensed to operate between 27.405 and
28.000? Wow! When did that happen? News to me. ::grimace::

> I doubt you had any big problem getting your
> license. The written exams up to a General are easy, and for those who want
> H.F. the 5 wpm code test is a reasonable speed until the requirement is
> eliminated.

Actually, I don't have my license yet. I go for my written tests next
week. I've been studying code for over two years (see the other thread:
Ticket test suggestions for more info on this) without much result. I
won't go into that rigmarole again here. It's already in that other
thread.

> What you propose to do is if the FCC can't enforce the rules, then heck,
> lets just make it legal, just like the folks who want to legalize drugs. The
> only problem with that is where does it stop? Today 26.965 -27.405, tomorrow
> 26.965 - 27.800, ? 26.965 -29.700, 12m - 10m, ..., you get the idea. 8-))
>

That's a bit reactionary, Leland. I don't think legalizing drugs is an
option. I don't see the connection between the two.

I'm proposing additional bandwidth for a particular mode of operation in
order to help alleviate some of the congestion on an already overtaxed
and overused band, which may just help to reduce the encroachment by
unlicensed radio operators on HAM bands.
> --
> Leland C. Scott
> KC8LDO

>
> Saw this on a Tee-shirt:
>
> "I am a bomb technician. If you see
> me running, try to keep up. "

Again, It's just my opinion. Your mileage may vary.

-SSB

2849. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 02:23:10 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3af212aa$0$18886$1dc6e903@news.corecomm.net>
Source record: 52946
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Someone transmitting with legal power levels on the legal 40 are not
breaking the law they are also not freebanding. They are operating in a
proper and legal manner as prescribed in the regulations. Any other
operation is illegal without FCC/NTIA authorization. No more no less.

Dave WD9BDZ

Sideband wrote:
>
> So when a freebander is transmitting with legal power levels on the
> legal 40 they're still breaking the law?
>
> I'm a CB'er (not for long. I take my written tests early this month),
> and I, unfortunately, get sneered at for not having my ticket, simply
> because there are those who DO choose to violate FCC rules.
>
> I don't condone violations of FCC rules. However, I would like to see a
> sideband only band above channel 40, but below 27.800, with a 50 watt
> limit, for CB'ers to DX on... The frequencies allocated for this could
> "go around" the currently allocated forestry, etc, frequencies, much in
> the same way the CB frequencies skip over the RC freq's.
>
> Just my two cents, here... Of course, your mileage may vary.
>
> -SSB
>
> "Rob St.Denis" wrote:
> >
> > What I mean is that the definition of a ham does is not indicative of
> > breaking the law ... albeit some do. A freebander by definition is breaking
> > the law when they operate.
> >
> > --
> > Rob St.Denis
> >
> > "W6RCecilA" <Cecil.A.Moore@IEEE.org> wrote in message
> > news:3AF14C2A.F037A8F2@IEEE.org...
> > > "Rob St.Denis" wrote:
> > > > A ham by definition does not break the law ... a freebander does
> > >
> > > You mean those ARRL newsletter reports of hams breaking the law
> > > and being fined are just a hoax?
> > > --
> > > http://www.mindspring.com/~w6rca

> > >
> > >
> > > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2850. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 02:29:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3af21425$0$18886$1dc6e903@news.corecomm.net>
Source record: 52847
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

One of the objectives of the creation of the GMRS Class D (i.e. Citizens Band) radio service was to provide low cost licensed radio communications for small businesses and family communications. This service was to be limited to 50 miles from the transmitting station and to a maximum power input of 5 watts. This was later changed to, I believe, 3 watts output. Modulation started out as AM phone only and changed to include SSB. For a special channel to be assigned which allows the use of more than 3/5 watts would be in violation of this principle.

Dave WD9BDZ

Bill Meacham wrote:
>
> Sideband wrote:
> >
>
> >
> > I don't condone violations of FCC rules. However, I would like to see a
> > sideband only band above channel 40, but below 27.800, with a 50 watt
> > limit, for CB'ers to DX on... The frequencies allocated for this could
> > "go around" the currently allocated forestry, etc, frequencies, much in
> > the same way the CB frequencies skip over the RC freq's.
> >
> > Just my two cents, here... Of course, your mileage may vary.
>
> There already is one. 10 meters. You just have to get a
> license. Whats the point in creating another special band for
> people who don't want to get a license? You already have channels
> 1-40 and it got messed up. So now you've got FRS...It doesn't
> make sense to just creating bands for people to use in a manner
> inconsistent with the intent. Any unlicensed band is going to be
> bedlam. Do you think if the FCC legislated a "freebander band"
> from 27.455 to 27.800 that it would be any different? Would the
> guys turn off the lean-yars and start using legitimate callsigns?
> ---
> Bill Meacham
> Vieques, PR

2851. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 02:31:46 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF21492.23260143@spam.me.not>
Source record: 52848
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sheesh! I should probably have two cups of coffee before I start posting
after waking up... a few typo's in here:

Sideband wrote:
>
> Dan:
>
> Well, apparently you missed the point; or is it that you choose to
> ignore it? Either way, your attitude towards me on this is a bit
> disconcerting. I'll state this again just in case it didn't get through
> the first time" I'm not a freebander, nor do I encourage ANYONE to

s/"/:

> violate FCC rules.
>
> I'm sorry to hear about your mood disorder.
>
> The point was this: Set aside another band for sideband transmissions
> only, to help alleviate some of the congestion on CM (they have no other

s/CM/CB

> place to go), and perhaps the encroachment on 10M frequencies would tone
> down; perhaps those frequencies between 27.405 and 28.000 that are
> allocated to other services won't be interfered with people calling CQ,
> and perhaps sideband operators on CB's won't get interfered with as much
> by AM carriers.
>
> I'm not proposing a reduction in standards. Personally, I feel when the
> FCC removed the licensing requirement from CB they made a BIG mistake.
> I'm proposing a broadening of bandwidth to help alleviate the congestion
> on CB that causes people who don't know any better to venture onto the
> HAM bands and interfere with licensed operators. If the bands weren't so
> congested, CB'ers might not feel the need to run an amp, because they'd
> be able to make contacts on much less power.
>
> If you're so shortsighted that you don't see the potential good this
> could do, then I'm sorry you feel that way.
>
> Will some idiots out there still run illegal power? Probably. Will
> people who don't know any better still venture out onto bands and
> frequencies where they don't belong? Probably. Unfortunately, without a
> licensing requirement, the lack of knowledge by CB'ers helps cause this
> problem.

>
> This is just my opinion. Your mileage may vary
>
> W4NTI wrote:
> >
> > Did you not suggest a band be set aside just for the illegal idiots? They
> > you should be able to figure out my response.
> >
> > The SATs having to do with it is....the lowering of the bar. The reduction
> > of standards to accomidate some person and/or group that is unable, too
> > ignorant, or just STUPID. See my point?
> >
> > Also there ALREADY exists plenty of places to work DX and have fun. Its
> > called Amateur Radio. Unfortunatly without a valid callsign you will be
> > attacked much worse than here.
> >

Additional comment:

Will a tester come out to an invalid's house in order to test them? If not, how would someone who cannot leave the house get tested to attain their license?

I've heard the "if you want to DX and run power, get a license" argument ad nauseum. Some people are incapable of passing a code test due to dyslexia or other disorders. Some people are incapable of even leaving their house. How do those people attain their license?

-SSB

2852. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 02:34:34 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3af21556$0$18896$1dc6e903@news.corecomm.net>
Source record: 52849
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
make a dipole composed of two 5/8 wave loaded antenna's. This
configuration will not make a truly efficient antenna. Read up on
collinear antenna's and dipole antenna's. You will see that what you
have is nothing. However for you sake I do hope it works to your
satisfaction. I prefer something else...

Dave WD9BDZ

Sideband wrote:
>
> Doug:
>
> Hit Wilson's site and read up on what a Wilson Silver Load is....
>
> Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> have said 1 1/4 wave dipole?
>
> -SSB
>
> Doug Smith wrote:
> >
> > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not> wrote:
> > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> >
> > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is 1/4 wave,
> > so a 5/8 wave would be a bit more than 17 feet long.
> >
> > (you should try a 102" whip, I think you're likely to find it more effective
> > than the twin four-footers. Because you won't have loading-coil losses.
> > Mine worked *fantastically* well on 10 meters with a converted SSB CB.)
> > --
> > Doug Smith W9WI
> > Pleasant View (Nashville), TN EM66
> > http://www.w9wi.com

2853. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:04:01 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.gcsaki0.pminews@or.news.verio.net>
Source record: 52850
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 03 May 2001 18:40:46 -0500, W6RCecilA wrote:

>GG wrote:
>> You live in town but you purchased 20 acres of land out in the boonies
>> with the idea of maybe moving there when you retire in the future. I
>> come along and see your land and I don't see a house or anyone using the
>> land. I observe this for a short while and come to the conclusion that
>> no one is using this land. So I build a little shack there, plant my
>> garden, run a cow or two. Is that OK with you? Don't I have a right to
>> do that? After all, you aren't using it.
>
>You picked a bad analogy. A person did just that on some land in my
>home county of Madison in Texas. Nobody noticed him living there.
>After N number of years he was discovered. The case went to court
>and the trespasser was awarded the property under the Texas homestead
>laws. So you better keep an eye on your property or some homesteader
>will wind up owning it. Homesteading is a good description of what the
>freebanders have done between the CB band and the ham band. Time was
>when amateur radio operators homesteaded the radio frequencies.

This is a classic case of "adverse possession", a gem of
Anglo-American real property law. After X number of years of
use of the property without the owner objecting or otherwise
attempting to oust them, the user gains ownership of the
property. The number of years varies from state to state, and
there's a bunch of loopholes if the owner is unable to inspect
the property for a number of reasons.

"Homesteading" is something else, starting with lawful
occupancy.

--
73 de Phil Kane - K2ASP

2854. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:04:03 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.gcsarb1.pminews@or.news.verio.net>
Source record: 52851
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Fri, 04 May 2001 01:26:04 GMT, Tom W8JI wrote:

>Borrowing something that isn't yours without asking the owner is
>called "theft", but I guess we all have different morals.

In Anglo-American common law, theft requires an intent on the
part of the thief to deprive the rightful owner of the
property in question. If there's no such intent, it's called
misappropriation or unlawful possession.

--
73 de Phil Kane - K2ASP

2855. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:15:06 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF21EBA.25225B14@IEEE.org>
Source record: 52852
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

GG wrote:
> I picked a good analogy, I have no right to use his property just
> because I observe it does not appear to be in use by the owner.

Don't know about other states, but in Texas you have every right
to use property that does not appear to be in use by the owner.
If you use it long enough, it legally belongs to you.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2856. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:23:10 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF220B5.AA57121D@mailcity.com>
Source record: 52853
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:

> On Fri, 04 May 2001 01:13:26 GMT, GG <nbc_red@mailcity.com> wrote:
>
> >The logic of my post, I assumed I could "borrow" the property without
> >asking because it was apparent that "they aren't using it".
>
> Borrowing something that isn't yours without asking the owner is

> called "theft", but I guess we all have different morals.
>
.

Exactly, my "borrowing" would be nothing more than theft. Just like the freebanders "steal" what they called unused frequencies. It is beyond me how they can expect anyone to have respect for what they do..

>
>
>
> Take a listen to ten meters, and tell me freebanders haven't cause a
> big problem. Not only have they driven legitiment users off the
> commercial areas around 27 MHz, and ruiened things for the R/C people
> who used to use adjacent-to-CB channel frequencies, they are now
> ruining ten meters.
>
> They are also spreading to all other frequencies in the HF spectrum.

Yep, freebanders (illegal operators) have intruded into the 10 meter band, and other frequencies, and are causing problems. I on occasion have caught an illegal operator on 10 and when challenged often the response is, "well, we didn't hear anyone on this channel so what does it hurt?" Typical of my analogy... no one is using it so I guess I have a right to take it.

2857. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:29:11 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.gcsb872.pminews@or.news.verio.net>
Source record: 52855
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 03 May 2001 21:29:28 -0500, David G. Nagel wrote:

>One of the objectives of the creation of the GMRS Class D (i.e. Citizens
>Band) radio service was to provide low cost licensed radio
>communications for small businesses and family communications. This
>service was to be limited to 50 miles from the transmitting station and
>to a maximum power input of 5 watts. This was later changed to, I
>believe, 3 watts output.

"Close" only counts in hand grenades and horseshoes.

The maximum distance figure was (and for all intents and
purposes still is) 150 miles.

The transmitter power was originally defined as 5 watts DC
input (AM). This was later redefined to 4 watts carrier
output (AM), 12 watts PEP (SSB). No change for all intents
and purposes.

--
73 de Phil Kane - K2ASP

2858. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:29:12 UTC
From: Phil Kane <Phil.Kane@nospam.spam>
Message-ID: <cuvyxnansvbet.gcsbum4.pminews@or.news.verio.net>
Source record: 52854
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 03 May 2001 22:31:46 -0400, Sideband wrote:

>Will a tester come out to an invalid's house in order to test them? If
>not, how would someone who cannot leave the house get tested to attain
>their license?

The answer is yes. Even back when the tests were only given
at FCC examination points, special arrangements were always
made for folks who could not travel or who were blind or
partially deaf.

--
73 de Phil Kane - K2ASP

2859. Re: N.O.S. 6JM6 SWEEP TUBES F.S.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:35:29 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tf3u6n11fvi621@corp.supernews.com>
Source record: 52939
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I just finished my amplifier. I built it for 40m only. It runs
about 800w input and about 450 rf out on cw. By the way,
don't mistake these for the 6MJ6, which is used in (I think)
a Dentron sweep tube amp. Also, I have mostly Sylvania
and can match them for you is you want. I have a large
enough qty to get good matches.

Doug N4IJ

Douglas Snowden <Douglas.R.Snowden@noaa.gov> wrote in message
news:3AE99765.F48C9E08@noaa.gov...
> I went overboard on ebay and bought more of these than I think
> I can use. The 6JM6 is similar in characteristics to other tubes
> like the 6JB6 (Drake rigs) but has the compactron 12 pin base.
>
> I am in the process of building a little 4 tube sweep tube amplifier
> with some of these. But I have too many. These are N.O.S. of various
> brands.
>
> $3.00 each plus $3.20 postage for one or several.
> Let me know how many you want.
>
>
> Doug N4IJ
>
>
>
>
> --
>
>
> Doug Snowden
> Systems Branch
> National Climatic Data Center
> Asheville, North Carolina

2860. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:41:09 UTC
From: Bob <bob@bob.com>
Message-ID: <3AF224D5.15801421@bob.com>
Source record: 52856
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:

>
> They are just to stupid or uneducated to understand that.

You mean "too stupid"?

2861. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 03:42:30 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3af2252c$0$14451$1dc6e903@news.corecomm.net>
Source record: 52857
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

If you really want to know the answer. Yes the Examiners will be more
than happy to go to an invalids house to administer an Amateur exam.
This is what amateur radio is also about. Helping anyone become a Ham.
Ham's will even go to the invalid's house and give them instruction in
order to gain the knowledge needed to pass the tests and become Ham's.
I should qualify the above to state that I would require the invalid to
be a long term invalid and not just have a cold.
Dave WD9BDZ
>
> Additional comment:
>
> Will a tester come out to an invalid's house in order to test them? If
> not, how would someone who cannot leave the house get tested to attain
> their license?
>
> I've heard the "if you want to DX and run power, get a license" argument
> ad nauseum. Some people are incapable of passing a code test due to
> dyslexia or other disorders. Some people are incapable of even leaving
> their house. How do those people attain their license?
>
> -SSB

2862. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 04:01:36 UTC
From: Bob <bob@bob.com>
Message-ID: <3AF2299F.AD0CFBF0@bob.com>
Source record: 52858
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Dennis P. Stahr" wrote:

> What you are to stupid

You mean "too stupid"? Sounds like you and Tom, W8JI, shouldn't be calling anybody stupid. I can understand taking cheap swings when you really have nothing to say, though.

2863. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 04:03:13 UTC
From: HelmutSweenie <helmutsweenie@youranus.com>
Message-ID: <5Spl6.46277$B22.11646129@news1.rdc2.pa.home.com>
Source record: 52859
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

What you are saying Sideband is You are asking for a band that is set aside
for SSB only use, between certain freqs And you think this might help the
congestion, well this band already exists(27.405-27.999)and people are using
hundreds of watts with rules and regulations already in place and they are
not respected and are ignored, They already have this band yet they still
come on 10m. What will be any different then. We should be thankful the FCC
hasn't pulled the plug on 11m it is more trouble than what its worth. One
day they will cut their losses and axe 11m.
"Sideband" <sideband@spam.me.not> wrote in message
news:3AF2075A.A566FBDB@spam.me.not...
> Dan:
>
> Well, apparently you missed the point; or is it that you choose to
> ignore it? Either way, your attitude towards me on this is a bit
> disconcerting. I'll state this again just in case it didn't get through
> the first time" I'm not a freebander, nor do I encourage ANYONE to
> violate FCC rules.
>
> I'm sorry to hear about your mood disorder.
>
> The point was this: Set aside another band for sideband transmissions
> only, to help alleviate some of the congestion on CM (they have no other
> place to go), and perhaps the encroachment on 10M frequencies would tone
> down; perhaps those frequencies between 27.405 and 28.000 that are
> allocated to other services won't be interfered with people calling CQ,
> and perhaps sideband operators on CB's won't get interfered with as much
> by AM carriers.
>
> I'm not proposing a reduction in standards. Personally, I feel when the
> FCC removed the licensing requirement from CB they made a BIG mistake.
> I'm proposing a broadening of bandwidth to help alleviate the congestion
> on CB that causes people who don't know any better to venture onto the
> HAM bands and interfere with licensed operators. If the bands weren't so
> congested, CB'ers might not feel the need to run an amp, because they'd
> be able to make contacts on much less power.
>
> If you're so shortsighted that you don't see the potential good this
> could do, then I'm sorry you feel that way.
>
> Will some idiots out there still run illegal power? Probably. Will
> people who don't know any better still venture out onto bands and
> frequencies where they don't belong? Probably. Unfortunately, without a
> licensing requirement, the lack of knowledge by CB'ers helps cause this

> problem.
>
> This is just my opinion. Your mileage may vary
>
> W4NTI wrote:
> >
> > Did you not suggest a band be set aside just for the illegal idiots?
They
> > you should be able to figure out my response.
> >
> > The SATs having to do with it is....the lowering of the bar. The
reduction
> > of standards to accomidate some person and/or group that is unable, too
> > ignorant, or just STUPID. See my point?
> >
> > Also there ALREADY exists plenty of places to work DX and have fun. Its
> > called Amateur Radio. Unfortunatly without a valid callsign you will be
> > attacked much worse than here.
> >
> > Dan/W4NTI
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF187AB.44CC02EB@spam.me.not...
> > > Dan:
> > >
> > > I honestly don't know how to respond to this. Your post below is so
> > > thick with sarcasm I fail to see your point. Perhaps you could tone it
> > > back a few notches and provide some facts (if you can find any) to
back
> > > up your assertion that (1) I'm a liberal, (2) I'm lazy, (3) that I've
> > > operated illegally, and (4) Just what the SAT's have to do with it.
> > >
> > > After you've done that, I may consider explaining my reasoning behind
my
> > > opinion so that you might understand it.
> > >
> > > Again, I caution you, do not include me amongst the freebanders; I'm
> > > neither one of them, nor do I condone what they do (as I stated in the
> > > very first sentence of the quote you so vitriously lambasted.)
> > >
> > > -SSB
> > >
> > > W4NTI wrote:
> > > >
> > > > Why? To accomidate a bunch of LAZY illegal fools? You must be a
> > liberal. I
> > > > bet you support dropping the standards of a SAT just to accomidate
some
> > lazy
> > > > bum that cant pass it...right?

> > > >
> > > > Dan/W4NTI
> > > >
> > > > "Sideband" <sideband@spam.me.not> wrote in message
> > > > news:3AF15839.FE40D1AC@spam.me.not...
> > > > > I don't condone violations of FCC rules. However, I would like to
see
> > a
> > > > > sideband only band above channel 40, but below 27.800, with a 50
watt
> > > > > limit, for CB'ers to DX on... The frequencies allocated for this
could
> > > > > "go around" the currently allocated forestry, etc, frequencies,
much
> > in
> > > > > the same way the CB frequencies skip over the RC freq's.
> > > > >
> > > > > Just my two cents, here... Of course, your mileage may vary.
> > > > >
> > > > > -SSB
> > > > >

2864. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 05:00:12 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9f4al2.phd.w9wi@linux1.localdomain>
Source record: 52860
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

>Sideband wrote:
>>
>> Doug:
>>
>> Hit Wilson's site and read up on what a Wilson Silver Load is....
>>
>> Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
>> top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
>> have said 1 1/4 wave dipole?

Be careful how seriously you take claims on an antenna manufacturer's site. The major ham magazine QST no longer accepts claims of antenna gain in advertising, as there were too many attempts to compare apples & oranges.

We may have a difference in definitions.

In amateur radio, loading coils don't count when explaining how long an antenna is. It's the whip that actually does the radiating; loading coils serve to make the impedance of the antenna reasonably close to 50 ohms resistive, to keep the transmitter happy. (an important function certainly, but a very different one from that of the whip. If you redesigned the transmitter and feedline to accomodate the non-resonant load, the loading coil would be completely unnecessary and the antenna would radiate exactly as well and in the same directions.)

Amateurs often use 5/8 wavelength antennas for the 2-meter VHF band. 5/8 of a wavelength at 2 meters is approximately 125cm, or roughly 50". I just measured the one on my truck, it's 47" long. (well within the tolerance of my non-calculator-enhanced math!) There is a coil in the bottom of the antenna, but its sole purpose is to match the antenna to the transmitter.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2865. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 05:25:08 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF23D4F.161058C@mailcity.com>
Source record: 52861
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sorry, but in Texas if the owner is paying the taxes on the property, it doesn't matter if he never uses it, it still belongs to him and no one can claim ownership by just using it. I have some pasture land in west Texas that hasn't been used in some years, but I pay the taxes on it every year. You go and try to use it and claim it as yours and see how far you get. If however I fail to pay the taxes for a period of time and you come along and pay the taxes for a number of years (I don't off hand recall just how many years are required), then you may have claim.

W6RCecilA wrote:

> GG wrote:
> > I picked a good analogy, I have no right to use his property just
> > because I observe it does not appear to be in use by the owner.
>
> Don't know about other states, but in Texas you have every right
> to use property that does not appear to be in use by the owner.
> If you use it long enough, it legally belongs to you.
> --
> http://www.mindspring.com/~w6rca
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2866. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 05:36:46 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3AF23FA5.9DDDC691@sccoast.net>
Source record: 52862
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6RCecilA wrote:
>
> Bob wrote:
> > How serious a crime is it? Your assignment -
> > think of all the crimes you can, where does
> > freebanding fit it?
>
> That's a pretty good question. Unless I'm
> missing something, I would rank it right up
> there with driving on the shoulder of the
> road where such is illegal.

Can I move next door to you and operate an illegal CB radio with an old 250 watt tube linear? After about a week of hearing me on your television, stereo, telephone, and who knows what else, I doubt you will consider it such a minor problem. But, don't get excited, I'm only going to be your neighbor for the rest of your life (or until you're forced to move).

And don't think for a moment you're going to filter your equipment to get rid of the problem - my over modulated radio, and my old tube type linear, are so dirty it will take a dozen filters just to cut some of the problem on your television (after that you can worry about all the other stuff you own). Besides, don't waste your effort - a friend has a 600 watt tube type linear that I want and it is in even worse shape then the one I have now.

Cecil, only a person who has never lived next door to one of these "freebanders," or a person running an illegal setup himself, would attempt to minimize the problem like you did above. Since I don't believe you're running an illegal setup, I can only assume that you've never lived next door to one of these fools.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

2867. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 06:04:01 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3AF245FF.D57915AF@sccoast.net>
Source record: 52863
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>
> So when a freebander is transmitting with
> legal power levels on the legal 40 they're
> still breaking the law?

If they're using the same radio they use to "freeband" with, yes.
The radio is either not approved for CB use or has been illegally
modified to operate outside the CB frequencies.

> I don't condone violations of FCC rules.
> However, I would like to see a sideband
> only band above channel 40, but below
> 27.800, with a 50 watt limit, for CB'ers
> to DX on... The frequencies allocated
> for this could "go around" the currently
> allocated forestry, etc, frequencies,
> much in the same way the CB frequencies
> skip over the RC freq's.

And what are you going to do with all of the users those frequencies
are already assigned to? I've seen a list of government frequencies
(especially military) and there is very little free space available
between the CB band and the 10-meter ham band. They all seem to be
special use (used under specific circumstances), but they are assigned
none the less.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

2868. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 06:19:57 UTC
From: Bob <bob@bob.com>
Message-ID: <3AF24A0D.156C452C@bob.com>
Source record: 52864
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:

> They are also spreading to all other frequencies in the HF spectrum.

You really are "out of the know". Do you really think Freebanding CBers are getting smarter and they are all spreading out over the entire HF band? 99% don't even know anything other than "40 below" and "40 above". HF? Multiband antennas? Yeah right.

Most of the interference I hear on HF is cause by spanish speaking stations from Central and South America. I have no problem working around interference, with DSP and my highly tuned directional antennas. Perhaps you should upgrade from that G5RV and maybe come up with some ways to deal with interference, you know try to advance the technology or your operating skills. Nahhh....I would rather listen to you bitch on this newsgroup.

Bob.

2869. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 06:26:08 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3AF24B28.8139C70@sccoast.net>
Source record: 52865
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>
> I honestly don't know how to respond to
> this. Your post below is so thick with
> sarcasm I fail to see your point. Perhaps
> you could tone it back a few notches and
> provide some facts (if you can find any)
> to back up your assertion that (1) I'm a
> liberal, (2) I'm lazy, (3) that I've
> operated illegally, and (4) Just what
> the SAT's have to do with it.

Sideband, since Dan was talking about your suggestion of a new band for "freebanders," I think he was referring to "freebanders" when he said "a bunch of LAZY illegal fools." Since you insist you're not a "freebander," why would you get so offended by that? And he said you "must" be a liberal, not that you "are" a liberal. There is a slight difference.

Take the chip off your shoulder and you might not be so offended by what others are saying. You've raised a touchy issue in the ham radio community, so you should not be overly surprised that you're hearing a lot of strong opinions on the matter.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

2870. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 06:40:44 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3AF24E92.F1F20B41@sccoast.net>
Source record: 52866
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

GG wrote:
>
> W4NTI wrote:
> >
> > You heard 20 phone lately? Same mentality.
>
>
> As Charlie Brown would say, "good grief".
> There is always someone who spouts this to
> try to compare the ham bands to cb. Have you
> listened to such and such band, such and such
> frequency? No one argues that there are morons
on the ham bands who act like cbers and on certain
> frequencies you can find them, but on 99.99
> percent of the other frequencies you find hams
> obeying the rules and engaging in courteous
> communication. Even with the few morons on the
> ham bands, there is no comparison between ham
> radio and cb. It's like comparing apples to a
> sewer pit.

Hear! Hear! I've listened to 20 meters many times and have never
heard anything close to the garbage I hear all the time on the local
CB frequencies. I have the obligatory CB radio in my SUV and I'm
actually embarrassed to even turn it on while passengers are in the
vehicle. Even the worst of ham radio does not compare to CB.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

2871. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 07:17:27 UTC
From: Arf! Arf! <DoggieDaze@Liberal.comz>
Message-ID: <9ctl1vle0@pita.alt.net>
Source record: 52867
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Dwight Stewart" <stewartx@sccoast.net> wrote in message
news:3AF24E92.F1F20B41@sccoast.net...
> GG wrote:
> >
> > W4NTI wrote:
> > >
> > > You heard 20 phone lately? Same mentality.

The bottom line here is that "freebanders" are running illegally. No ifs, no ands, and no buts about it. Illegal is just that....illegal. Now go take on the day.

2872. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 07:50:15 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF25F37.669914B6@spam.me.not>
Source record: 52868
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
so I must have done something right.

::shrug::

-SSB

"David G. Nagel" wrote:
>
> No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> make a dipole composed of two 5/8 wave loaded antenna's. This
> configuration will not make a truly efficient antenna. Read up on
> collinear antenna's and dipole antenna's. You will see that what you
> have is nothing. However for you sake I do hope it works to your
> satisfaction. I prefer something else...
>
> Dave WD9BDZ
>
> Sideband wrote:
> >
> > Doug:
> >
> > Hit Wilson's site and read up on what a Wilson Silver Load is....
> >
> > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> > have said 1 1/4 wave dipole?
> >
> > -SSB
> >
> > Doug Smith wrote:
> > >
> > > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not> wrote:
> > > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> > >
> > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is 1/4 wave,
> > > so a 5/8 wave would be a bit more than 17 feet long.
> > >
> > > (you should try a 102" whip, I think you're likely to find it more effective
> > > than the twin four-footers. Because you won't have loading-coil losses.
> > > Mine worked *fantastically* well on 10 meters with a converted SSB CB.)
> > > --
> > > Doug Smith W9WI
> > > Pleasant View (Nashville), TN EM66

> > > http://www.w9wi.com

2873. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 09:53:59 UTC
From: Richard McCollum <rmccollOMA@worldnet.att.net>
Message-ID: <X_ul6.4415$4f7.313003@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52869
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF21492.23260143@spam.me.not...
> Will a tester come out to an invalid's house in order to test them? If
> not, how would someone who cannot leave the house get tested to attain
> their license?
>
> I've heard the "if you want to DX and run power, get a license" argument
> ad nauseum. Some people are incapable of passing a code test due to
> dyslexia or other disorders. Some people are incapable of even leaving
> their house. How do those people attain their license?
>
> -SSB

For what it is worth, in my VE days in Wausau WI I went up to Merrill to administer an exam to a housebound man who for reasons known only unto him wanted DXCC before he died. I and my partners read an Extra to a blind man after a regular testing session in Wisconsin Rapids at about -35 degrees costing me a few bucks to get moving again.

I have a friend of many years standing who tried to learn code as both a left and right-handed activity at the same time and ran into a brutal 'hump' at about 6wpm. We had to literally tie his left hand in his belt, pump code into the right ear only, and such things to get him to do it only one way. As he holds an Advanced, it must have worked. This is not dyslexia by any means but 5wpm can be worked around.

I have long advocated the eventual outlawing of AM on CB freqs simply because it is nitro in the hands of children. To do this, it would seem that setting up a truckers band (FM, PL, the whole enchilada) to prevent these 'opinion leaders' into ownership mode instead of wandering farther afield would make sense. Adding a sideband segment might fit into this. Marine freqs are also plagued by this sort of thing. The early phone companies did not view pointless babbling and time wasting as valid activities either and lived to regret it. If your point is that we are making the same mistake I tend to agree.

Some years ago a university I happened to be attending built a new library. They installed a few paved paths in obvious places to get to it and waited a few years to pave the paths the students made. This was a simple and practical approach as opposed to putting them in right away and planting landmines to keep the students on the paths. As Flaubert, a French poobah, once said of taxation, the object of plucking a goose is maximum feathers with minimum hissing.

Dick N&#65533;BK

2874. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 10:59:33 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <pYvl6.13260$2_.4726857@news3.rdc1.on.home.com>
Source record: 52870
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Not to mention most ve's did testing at thte testee's (that doesn't sound
quite right ...) house ...

--
Rob St.Denis

"Phil Kane" <Phil.Kane@nospam.spam> wrote in message
news:cuvyxnansvbet.gcsbum4.pminews@or.news.verio.net...
> On Thu, 03 May 2001 22:31:46 -0400, Sideband wrote:
>
> >Will a tester come out to an invalid's house in order to test them? If
> >not, how would someone who cannot leave the house get tested to attain
> >their license?
>
> The answer is yes. Even back when the tests were only given
> at FCC examination points, special arrangements were always
> made for folks who could not travel or who were blind or
> partially deaf.
>
> --
> 73 de Phil Kane - K2ASP
>
>
>
>
>
>

2875. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 11:18:26 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF29002.97AB689C@spam.me.not>
Source record: 52871
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Comments within:

Richard McCollum wrote:
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF21492.23260143@spam.me.not...
> > Will a tester come out to an invalid's house in order to test them? If
> > not, how would someone who cannot leave the house get tested to attain
> > their license?
> >
> > I've heard the "if you want to DX and run power, get a license" argument
> > ad nauseum. Some people are incapable of passing a code test due to
> > dyslexia or other disorders. Some people are incapable of even leaving
> > their house. How do those people attain their license?
> >
> > -SSB
>
> For what it is worth, in my VE days in Wausau WI I went up to Merrill to
> administer an exam to a housebound man who for reasons known only unto him
> wanted DXCC before he died. I and my partners read an Extra to a blind man
> after a regular testing session in Wisconsin Rapids at about -35 degrees
> costing me a few bucks to get moving again.

I didn't know this went on. Kudos to you, Dick. Highly commendable.

> I have a friend of many years standing who tried to learn code as both a
> left and right-handed activity at the same time and ran into a brutal 'hump'
> at about 6wpm. We had to literally tie his left hand in his belt, pump code
> into the right ear only, and such things to get him to do it only one way.
> As he holds an Advanced, it must have worked. This is not dyslexia by any
> means but 5wpm can be worked around.

And I'm still trying to work around it, only my "hump" is right at about
2 WPM.

> I have long advocated the eventual outlawing of AM on CB freqs simply
> because it is nitro in the hands of children. To do this, it would seem
> that setting up a truckers band (FM, PL, the whole enchilada) to prevent
> these 'opinion leaders' into ownership mode instead of wandering farther
> afield would make sense. Adding a sideband segment might fit into this.
> Marine freqs are also plagued by this sort of thing. The early phone
> companies did not view pointless babbling and time wasting as valid
> activities either and lived to regret it. If your point is that we are
> making the same mistake I tend to agree.

Actually, Dick, you just reminded me of this precise point, which I had wanted to make, yet had forgotten to.

AM is a volatile emission mode, IMHO. Of course, FM isn't much better; if the deviation is turned up too high, it "bleeds over" just as badly as over modulation and carrier instabilities bleed over on AM. I prefer sideband for a multitude of reasons. This is one of them.

> Some years ago a university I happened to be attending built a new library.
> They installed a few paved paths in obvious places to get to it and waited a
> few years to pave the paths the students made. This was a simple and
> practical approach as opposed to putting them in right away and planting
> landmines to keep the students on the paths. As Flaubert, a French poobah,
> once said of taxation, the object of plucking a goose is maximum feathers
> with minimum hissing.

If you're speaking of Calvin College, in Grand Rapids, MI, I attended the same School. Escher started this trend when the school was designed and first built, in keeping with his ideals of letting his buildings flow with nature as much as possible.

>
> Dick Nï¿½BK

Basically, CB needs to be revamped. CB'ers need to be educated about what's "loud" and what causes interference, what "gets out" and what bleeds over. Modes need to change, and bandwidth needs to be reallocated. Leave 1-40 for the AM'ers, and set aside a band for FM and a band for SSB either above 40 or below 1. There are some unallocated frequencies there, I'm sure. I DO NOT want to make HAMs give up any more bandwidth, and I don't want to take seldom used emergency frequencies from other services, but the whole of 27.405-27.800 can't be allocated.... at least I've never seen a chart that shows anything allocated in that area. (Maybe someone has a URL to a chart/page that lists all allocated frequencies?)

-SSB

2876. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:09:43 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <b_wl6.13720$2_.4816958@news3.rdc1.on.home.com>
Source record: 52873
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I regularily do simplex on the bike from more than that with a 2m ht with 1/2 watt out ... big deal. I drive to the fiancee's place 50miles from where I sit and chit chat back and forth with my father on 10m with 10w output on ssb ... so what? I use a 1/4 wave antenna mounted on the trunk of my car ...

--
Rob St.Denis

"Sideband" <sideband@spam.me.not> wrote in message news:3AF25F37.669914B6@spam.me.not...
> Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> so I must have done something right.
>
> ::shrug::
>
> -SSB

2877. Transistor "CTC CD2545" from Atlas 210x HF Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:18:42 UTC
From: Andreas Weller <weller@andreas-weller.de>
Message-ID: <3AF29E22.6F3C97FC@andreas-weller.de>
Source record: 52874
Cross-posted to:
alt.ham-radio.hf,sci.electronics.misc,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.components

Hi!

I need some help with a strange transistor found in an Atlas 210x
amateur radio transmitter.
It's printed with "CTC CD2545" does anyone know a referring type or
where to obtain this transistor?

Thank you.

Andreas Weller [DM2PAW]

--
PGP Key available: mail to get.pgp-key@andreas-weller.de
or download it at: http://www.andreas-weller.de/key.asc
verify Fingerprint: EB0A1D57AE264791F4A3 F0DF6405122DF8CA9E46

2878. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:38:04 UTC
From: 2w8ji@akorn.net
Message-ID: <3af2a15c.67505698@news.accessunited.com>
Source record: 52875
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 04 May 2001 04:03:13 GMT, "HelmutSweenie"
<helmutsweenie@youranus.com> wrote:

>What you are saying Sideband is You are asking for a band that is set aside
>for SSB only use, between certain freqs And you think this might help the
>congestion, well this band already exists(27.405-27.999)and people are using
>hundreds of watts with rules and regulations already in place and they are
>not respected and are ignored, They already have this band yet they still
>come on 10m. What will be any different then. We should be thankful the FCC
>hasn't pulled the plug on 11m it is more trouble than what its worth. One
>day they will cut their losses and axe 11m.

Ten emeters is already ruined, for the most part. There are SSB
operators and truck drivers all over the low end.

It is happening on 160 meters through ten meters, and even in the
two-way land mobile bands.

We don't need to reduce code requirements, or expand bands. The idiots
operating "freeband" are taking care of it all on their own. They have
no respect for anyone else, and demand we accept them and respect them
for ruining whatever frquencies they choose. And the SSB ops are the
worse of the lot.

What a joke.

2879. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:38:23 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9cu7rv$6ar$0@208.207.71.168>
Source record: 52876
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Brian Kelly, w3rv" wrote:
>
> On Wed, 02 May 2001 23:50:48 -0400, Jerry Oxendine
> <joxendi@bellsouth.net> wrote:
>
> >
> >THAT is the potential harm. That is the reason it is illegal--not be-
> >cause FCC is trying to mess up somebody's fun.
> >
> Right on the button Jerry. What we're dealing with here is a severly
> underfunded federal regulatory agency who has lost it's teeth and
> would rather roll over and play dead and surrender to anarchy rather
> than make a stink.

Reality is that they don't have much choice, other than to incurr the
wrath of the people holding not only the purse but also the
hammer....Yell, and you flush your carreer...

> Some day somewhere some people will die, there will
> be CYA "congressional investigations", yeah, right: Too late as usual.

Yet again...

2880. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:58:34 UTC
From: 2w8ji@akorn.net
Message-ID: <3af2a5cd.68642498@news.accessunited.com>
Source record: 52877
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 04 May 2001 02:19:57 -0400, Bob <bob@bob.com> wrote:

T
>Most of the interference I hear on HF is cause by spanish speaking
>stations from Central and South America. I have no problem working around
>interference, with DSP and my highly tuned directional antennas. Perhaps
>you should upgrade from that G5RV and maybe come up with some ways to deal
>with interference, you know try to advance the technology or your
>operating skills. Nahhh....I would rather listen to you bitch on this
>newsgroup.
>
>Bob.

What a laugh. You think a DSP filter will remove SSB or AM from over
CW?

Get a clue about how filters work.

A narrow signal can be removed from a wide one without affecting the
wide signal much, so a very strong CW signal can be removed from a
weak SSB signal with little ill effect on the SSB . The converse is
not true.

As for your "higly directive antennas" that doesn't work unless the
direction of the signals is quite diferent.

The point is the free banders are causing problems, and it is getting
worse year by year. Most people who operate HF legally, especially CW,
know that.

BTW, what is you callsign?

73 Tom

2881. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 12:59:36 UTC
From: 2w8ji@akorn.net
Message-ID: <3af2a75b.69041133@news.accessunited.com>
Source record: 52878
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Thu, 03 May 2001 23:41:09 -0400, Bob <bob@bob.com> wrote:

>
>
>Tom W8JI wrote:
>
>>
>> They are just to stupid or uneducated to understand that.
>
>You mean "too stupid"?
Yes, like you. Also or more
than enough.

2882. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 13:00:24 UTC
From: 2w8ji@akorn.net
Message-ID: <3af2a79d.69106999@news.accessunited.com>
Source record: 52879
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 04 May 2001 00:01:36 -0400, Bob <bob@bob.com> wrote:

>
>
>"Dennis P. Stahr" wrote:
>
>> What you are to stupid
>
>You mean "too stupid"? Sounds like you and Tom, W8JI, shouldn't be calling
>anybody stupid. I can understand taking cheap swings when you really have
>nothing to say, though.
Like you do Bob?

2883. Re: Transistor "CTC CD2545" from Atlas 210x HF Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 13:16:20 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3af2ab65.7917158@news.cantech.net.au>
Source record: 52880
Cross-posted to:
alt.ham-radio.hf,sci.electronics.misc,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.components

On Fri, 04 May 2001 14:18:42 +0200, Andreas Weller
<weller@andreas-weller.de> wrote:

>Hi!
>
>I need some help with a strange transistor found in an Atlas 210x
>amateur radio transmitter.
>It's printed with "CTC CD2545" does anyone know a referring type or
>where to obtain this transistor?

CTC are (or at least WERE) a significant manuf of SOE HF/VHF/UHF power
transistors. They shouldn't be too hard to locate if they still
exist.

2884. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 13:25:22 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF2ADC2.1A363751@IEEE.org>
Source record: 52882
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

GG wrote:
> Sorry, but in Texas if the owner is paying the taxes on the property,
> it doesn't matter if he never uses it, it still belongs to him and no
> one can claim ownership by just using it. I have some pasture land in
> west Texas that hasn't been used in some years, but I pay the taxes on
> it every year. You go and try to use it and claim it as yours and see
> how far you get.

If you allow me to nest for a certain number of years without protest,
and it is I and not you who does improvements to the property, I can
go to court and obtain ownership of the property. Certain conditions
must be meet and your property becomes mine.
--
http://www.mindspring.com/~w6rca

2885. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 13:41:54 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF2B1A2.4F40AE5E@IEEE.org>
Source record: 52883
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Dwight Stewart wrote:
>
> W6RCecilA wrote:
> > That's a pretty good question. Unless I'm
> > missing something, I would rank it right up
> > there with driving on the shoulder of the
> > road where such is illegal.
>
> Can I move next door to you and operate an illegal CB radio with an
> old 250 watt tube linear? After about a week of hearing me on your
> television, stereo, telephone, and who knows what else, I doubt you
> will consider it such a minor problem.

What gave you the idea that I consider it a minor problem? I don't consider illegally driving on the shoulder of the road to be a minor problem, do you? Bicyclists can die because of that problem. Do you care about the RF emissions of freebanders more than the lives of bicyclists?

> Cecil, only a person who has never lived next door to one of these
> "freebanders," or a person running an illegal setup himself, would
> attempt to minimize the problem like you did above.

On a scale of crimes, is freebanding a minimum offense compared to rape and murder? If you shoot the freebander, who would be in the worst trouble? I am not attempting to minimize the problem, Dwight. I am attempting to put it in perspective.

Seems you are the one who has minimized the problem of people illegally driving on the shoulders of roads, putting bicyclists' lives at risk.
--
http://www.mindspring.com/~w6rca

2886. Re: Transistor "CTC CD2545" from Atlas 210x HF Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 13:53:14 UTC
From: paul <paul@greenrover.demon.co.uk>
Message-ID: <NmhDEVAKRr86Ewio@greenrover.demon.co.uk>
Source record: 52884
Cross-posted to:
alt.ham-radio.hf,sci.electronics.misc,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.components

In article <3AF29E22.6F3C97FC@andreas-weller.de>, Andreas Weller
<weller@andreas-weller.de> writes
>Hi!
>
>I need some help with a strange transistor found in an Atlas 210x
>amateur radio transmitter.
>It's printed with "CTC CD2545" does anyone know a referring type or
>where to obtain this transistor?
>
>Thank you.
>
>
>Andreas Weller [DM2PAW]
>
Hi Andreas

I have this listed as an MRF450

Specified 12.5V 30Mhz 50W 11db gain

Vceo 20V
Vcbo 40V
Vebo 4.0 V
Ic 7.5 A
Pd 115 W
Cob 200pF
Hfe 10

Hope this helps

Regards
--
Paul G8IZR IO83RM
GW8IZR IO73TI

2887. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 14:05:56 UTC
From: "Dennis P. Stahr" <irfutures@earthlink.net>
Message-ID: <8Hyl6.205$M6.37643@newsread1.prod.itd.earthlink.net>
Source record: 52885
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I stand corrected. Thanks for the cheap swing Bob.

Dennis

>
>
> "Dennis P. Stahr" wrote:
>
> > What you are to stupid
>
> You mean "too stupid"? Sounds like you and Tom, W8JI, shouldn't be calling
> anybody stupid. I can understand taking cheap swings when you really have
> nothing to say, though.
>
>

2888. FA/FS: Magnetic Card Reader / Check Reader

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 14:21:37 UTC
From: Tom Gootee <tomg@fullnet.com>
Message-ID: <01c0d49d$6bdeee60$01eaa8c0@hp.gootee>
Source record: 52881

at http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1233594412

I also have several more of these CheckMate CMR400M (dual) magnetic credit card and check readers. They have serial interfaces. They were removed from service, working, when a Builders Square store closed, last year. See picture and description at the above URL. I also have the handheld laser bar-code scanners.

These might be fun for a hobbyist, or for parts, or, could be used in a retail point-of-sale application.

Price is negotiable, but VERY cheap! And I take Paypal, plus M.O, personal checks, et al.

I also have lots of good used Tektronix and HP (and other) TEST EQUIPMENT for sale, at:

http://www.fullnet.com/u/tomg/gooteesu.htm

(Check my ebay feedback comments, through the URL at the top, and you'll know I'm good...)

Thanks!

Tom

"I never give them hell. I just tell them the truth, and they think it IS hell." - Harry S. Truman

2889. RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 14:30:54 UTC
From: John <hydro@fx2.com>
Message-ID: <11zI6.254$Tf2.1058@newsfeed.slurp.net>
Source record: 52886

Hi
I need the part number to a easy to get PIN diode that will switch
about 100 watts of RF..... anyone help ??

John

2890. Re: RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 14:41:55 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3af2be76.64249234@news.aepnet.com>
Source record: 52887

On Fri, 4 May 2001 10:30:54 -0400, "John" <hydro@fx2.com> wrote:

>Hi
> I need the part number to a easy to get PIN diode that will switch
>about 100 watts of RF..... anyone help ??

Microsemi UM9401 $3.95 at RF Parts

Wes Stewart N7WS
>
>John
>

2891. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 15:24:29 UTC
From: kelly@nospam.dvol.com
Message-ID: <3af2c890.156220179@news2.dvol.com>
Source record: 52888
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Fri, 04 May 2001 04:03:13 GMT, "HelmutSweenie"
<helmutsweenie@youranus.com> wrote:

>We should be thankful the FCC
>hasn't pulled the plug on 11m it is more trouble than what its worth. One
>day they will cut their losses and axe 11m.
>
Wait until maybe five years from now when the spots are down, Mother
Nature will do a much better job of shutting 11m down than the FCC
can.
>
w3rv

2892. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 15:35:55 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9cui70tng1@slb6.atl.mindspring.net>
Source record: 52889
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I see you say you don't support a position, then go on to do just that. In anycase this will be my last on this one......you can not reward outlaw behavior by giving them more frequencies.

Based on the obvious dis-regard and dis-respect for regulations, already in effect, I see no possibility that the rag tag bunch you refere to would obey any new ones.

End of discussion.

Dan/W4NTI

"Sideband" <sideband@spam.me.not> wrote in message news:3AF2075A.A566FBDB@spam.me.not...
> Dan:
>
> Well, apparently you missed the point; or is it that you choose to
> ignore it? Either way, your attitude towards me on this is a bit
> disconcerting. I'll state this again just in case it didn't get through
> the first time" I'm not a freebander, nor do I encourage ANYONE to
> violate FCC rules.
>
> I'm sorry to hear about your mood disorder.
>
> The point was this: Set aside another band for sideband transmissions
> only, to help alleviate some of the congestion on CM (they have no other
> place to go), and perhaps the encroachment on 10M frequencies would tone
> down; perhaps those frequencies between 27.405 and 28.000 that are
> allocated to other services won't be interfered with people calling CQ,
> and perhaps sideband operators on CB's won't get interfered with as much
> by AM carriers.
>
> I'm not proposing a reduction in standards. Personally, I feel when the
> FCC removed the licensing requirement from CB they made a BIG mistake.
> I'm proposing a broadening of bandwidth to help alleviate the congestion
> on CB that causes people who don't know any better to venture onto the
> HAM bands and interfere with licensed operators. If the bands weren't so
> congested, CB'ers might not feel the need to run an amp, because they'd
> be able to make contacts on much less power.
>
> If you're so shortsighted that you don't see the potential good this
> could do, then I'm sorry you feel that way.
>
> Will some idiots out there still run illegal power? Probably. Will

> people who don't know any better still venture out onto bands and
> frequencies where they don't belong? Probably. Unfortunately, without a
> licensing requirement, the lack of knowledge by CB'ers helps cause this
> problem.
>
> This is just my opinion. Your mileage may vary
>
> W4NTI wrote:
> >
> > Did you not suggest a band be set aside just for the illegal idiots?
They
> > you should be able to figure out my response.
> >
> > The SATs having to do with it is....the lowering of the bar. The
reduction
> > of standards to accomidate some person and/or group that is unable, too
> > ignorant, or just STUPID. See my point?
> >
> > Also there ALREADY exists plenty of places to work DX and have fun. Its
> > called Amateur Radio. Unfortunatly without a valid callsign you will be
> > attacked much worse than here.
> >
> > Dan/W4NTI
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF187AB.44CC02EB@spam.me.not...
> > > Dan:
> > >
> > > I honestly don't know how to respond to this. Your post below is so
> > > thick with sarcasm I fail to see your point. Perhaps you could tone it
> > > back a few notches and provide some facts (if you can find any) to
back
> > > up your assertion that (1) I'm a liberal, (2) I'm lazy, (3) that I've
> > > operated illegally, and (4) Just what the SAT's have to do with it.
> > >
> > > After you've done that, I may consider explaining my reasoning behind
my
> > > opinion so that you might understand it.
> > >
> > > Again, I caution you, do not include me amongst the freebanders; I'm
> > > neither one of them, nor do I condone what they do (as I stated in the
> > > very first sentence of the quote you so vitriously lambasted.)
> > >
> > > -SSB
> > >
> > > W4NTI wrote:
> > > >
> > > > Why? To accomidate a bunch of LAZY illegal fools? You must be a
> > liberal. I
> > > > bet you support dropping the standards of a SAT just to accomidate

some
> > lazy
> > > > bum that cant pass it...right?
> > > >
> > > > Dan/W4NTI
> > > >
> > > > "Sideband" <sideband@spam.me.not> wrote in message
> > > > news:3AF15839.FE40D1AC@spam.me.not...
> > > > > I don't condone violations of FCC rules. However, I would like to
see
> > a
> > > > > sideband only band above channel 40, but below 27.800, with a 50
watt
> > > > > limit, for CB'ers to DX on... The frequencies allocated for this
could
> > > > > "go around" the currently allocated forestry, etc, frequencies,
much
> > in
> > > > > the same way the CB frequencies skip over the RC freq's.
> > > > >
> > > > > Just my two cents, here... Of course, your mileage may vary.
> > > > >
> > > > > -SSB
> > > > >

2893. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 15:43:33 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <3af2ce42$0$18887$1dc6e903@news.corecomm.net>
Source record: 52890
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Phil:
Thank you for correcting my mistakes. You are correct in you numbers. It
has been a very long time since I have visited Part 19.
Dave

Phil Kane wrote:
>
> On Thu, 03 May 2001 21:29:28 -0500, David G. Nagel wrote:
>
> >One of the objectives of the creation of the GMRS Class D (i.e. Citizens
> >Band) radio service was to provide low cost licensed radio
> >communications for small businesses and family communications. This
> >service was to be limited to 50 miles from the transmitting station and
> >to a maximum power input of 5 watts. This was later changed to, I
> >believe, 3 watts output.
>
> "Close" only counts in hand grenades and horseshoes.
>
> The maximum distance figure was (and for all intents and
> purposes still is) 150 miles.
>
> The transmitter power was originally defined as 5 watts DC
> input (AM). This was later redefined to 4 watts carrier
> output (AM), 12 watts PEP (SSB). No change for all intents
> and purposes.
>
> --
> 73 de Phil Kane - K2ASP

2894. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 17:11:20 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <3AF2E2B8.79908566@uci.edu>
Source record: 52891
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Tom W8JI wrote:
>
> On Thu, 03 May 2001 15:30:04 -0700, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
> >Tom W8JI wrote:

> >> Freebanding is closer to the example of driving on the shoulder of the
> >> road...or the wrong way on a one-way street....or driving without a
> >> license...than it is to littering.

> >I take it you haven't heard the Dennis Leary song. It's called "The
> >A$$hole Song."

> Never heard it. Is he related to Tim Leary?

I have no idea. He does have a prime time television show on ABC
however.
It's a JOKE Tom. Go buy a sense of humor.

2895. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 18:47:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AF2F92F.7EAA3C29@eznec.com>
Source record: 52892

The real killer in my opinion is the extremely high, and voltage
variable, capacitances, especially for low Rds(on) devices. These are
very hard to deal with at high frequencies. If nothing else, you end up
eating a lot of power in the driver stage trying to pump charge in and
out of the input C. I have a rig using the IRF510 (Ciss = 180 pF,
Rds(on) = 0.54 ohms) in class C at 15 meters, and it's hard to drive at
that frequency. If I had to make a 6 or 2 meter transmitter with a
HEXFET, I'd probably resign myself to having a high voltage supply. Then
I could use one of the higher voltage devices that have high Rds(on) but
lower C.

The high capacitances, incidentally, are the main reason for the slow
rise times in the rise time test circuit.

Roy Lewallen, W7EL

Bojangle Chicken wrote:
>
> I don't know which series you're talking about, however, looking through the
> specs of a couple IRF HEXFETs I've got on hand, the IRF530 (N channel) and
> IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd = 50V, Id
> = 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would doubt
> that they would work much above 20-25MHz. If these are the series of
> HEXFETs you're talking about, I've experienced that they work much better
> for about 5MHz and down--i.e. power switching devices.
>
> Your milage may vary, but not much.
> Good evening.
> Pete
> ki0eg
>
> Jim Weir <jim@rst-engr.com> wrote in message
> news:ig03ft01nfepitnugqnijil7eul3uibln4@4ax.com...
> > Has anybody successfully used the relatively inexpensive Int'l Rectifier
> HexFet
> > series of devices at the 5 to 15 watt range on 6 or 2 meters? If not IR,
> are
> > there other inexpensive mosfet devices that you've used?
> >
> > Jim
> > Jim Weir, VP Eng. RST Eng. WX6RST
> > A&P, CFI, and other good alphabet soup

2896. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 19:09:15 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <rouuc9.s81.ln@localhost.localdomain>
Source record: 52893

Jim Weir wrote:

> Has anybody successfully used the relatively inexpensive Int'l Rectifier
> HexFet
> series of devices at the 5 to 15 watt range on 6 or 2 meters?

It's difficult enough to get them working at HF. I remember seeing
a design for a 6M amp using VN66 fets. I think it was in RadCom.

73, Ed. EI9GQ.

--
Remove 'X' to reply.

Linux 2.4.4
http://www.qsl.net/ei9gq

2897. Re: RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 20:12:09 UTC
From: la8ak@online.no
Message-ID: <3af30c5f.695810241@news.online.no>
Source record: 52894

On Fri, 04 May 2001 14:41:55 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

>On Fri, 4 May 2001 10:30:54 -0400, "John" <hydro@fx2.com> wrote:
>
>>Hi
>> I need the part number to a easy to get PIN diode that will switch
>>about 100 watts of RF..... anyone help ??
>
>Microsemi UM9401 $3.95 at RF Parts
>
>Wes Stewart N7WS
>>
>>John
>>
>
>
SM5BSZ shows a way (on his site) to switch over a kW using this diode,
but it requires very low loss 100 ohm quarterwave lines on 2m, how can
they be realized

73
jan-martin

2898. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 20:56:27 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tf65rusmrlfnda@corp.supernews.com>
Source record: 52895
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF2090C.2C9DD715@spam.me.not...
> Actually, I don't have my license yet. I go for my written tests next
> week.

I wish you good luck and hope you make it!!! You have any equipment yet? If not what are you looking at getting?

> I've been studying code for over two years (see the other thread:
> Ticket test suggestions for more info on this) without much result. I
> won't go into that rigmarole again here. It's already in that other
> thread.

Yeah, I know what you mean there.

> That's a bit reactionary, Leland. I don't think legalizing drugs is an
> option. I don't see the connection between the two.

To a point true, but I think you get my drift however. Until somebody makes a stand and says "NO MORE" they will just keep taking what is not theirs to take.

> I'm proposing additional bandwidth for a particular mode of operation in
> order to help alleviate some of the congestion on an already overtaxed
> and overused band, which may just help to reduce the encroachment by
> unlicensed radio operators on HAM bands.

You have to stop and think about the mechanics a little bit. If a new band was created, as you suggest, then there will appear commercial rigs to operate on the new band. Once that happens then hordes of other CBers, looking for a clear channel to talk on, will show up over running the operators there now. Now we have the same situation all over again. SSB operators looking for the open band. They have to learn to be happy with what they already "legally" have.

Ham Radio is not going to be any different either once you get your ticket. Sometimes the bands get crowed so you either put up with it, move, or turn the rig off. We don't just spin the VFO knob looking for an open frequency outside of our legal bands like the freebanders currently do on 11m. Hams seem to have much more respect for their privileges than freeband CBers do. I think Hams have more sense of respect for others rights to radio spectrum than the freebanders do. If there is any spectrum use disagreement it is taken up with the FCC, and let them decide. Hams don't just "occupy" spectrum outside of our bands because we feel we have a "right" to it.

--
--
73 de,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse Code is used exclusively by Electronics Based life forms to communicate amongst themselves using advanced Organic Digital Signal Processors, running state of the art Artificial Intelligence Software, to perform the highly complex transmit encryption, receive decryption and error correction functions."

2899. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 21:50:06 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF315A0.CB0F1A8B@mailcity.com>
Source record: 52896
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

That might hold only if I know you are there and don't protest or make
an effort to have you removed. If you are using the land without my
knowledge, and you have made no effort to contact me, not only will I
retain the property but your improvements as well.

W6RCecilA wrote:
>
> GG wrote:
> > Sorry, but in Texas if the owner is paying the taxes on the property,
> > it doesn't matter if he never uses it, it still belongs to him and no
> > one can claim ownership by just using it. I have some pasture land in
> > west Texas that hasn't been used in some years, but I pay the taxes on
> > it every year. You go and try to use it and claim it as yours and see
> > how far you get.
>
> If you allow me to nest for a certain number of years without protest,
> and it is I and not you who does improvements to the property, I can
> go to court and obtain ownership of the property. Certain conditions
> must be meet and your property becomes mine.
> --
> http://www.mindspring.com/~w6rca

2900. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 22:48:51 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9d11g4$l6b$1@dipsy.missouri.edu>
Source record: 52815

Roy Lewallen <w7el@eznec.com> wrote in message
> The high capacitances, incidentally, are the main reason for the slow
> rise times in the rise time test circuit.

Yeah, I knew that, sort of. One of those things that sits in the back of my mind, coming out every once in a while at embarassing moments.

Incidentally, I've gotten the power amp that I was designing to work properly. I originally was using the IRF530, with Vdd at 50V and I was still having power gain issues even at 13.5MHz. I've still got a lot to learn in regards to mosfet applications, but that was a really nice learning project. The device, using several different values for an output coupling capacitor, seemed to have peak gains right around 2.5MHz. I tried 2 or 3 of them, so I'm 60% sure that they all will operate something like that.

But they sure are nice high-current switches.

Pete
ki0eg

2901. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 22:50:41 UTC
From: HelmutSweenie <helmutsweenie@youranus.com>
Message-ID: <5nGI6.47666$B22.11940850@news1.rdc2.pa.home.com>
Source record: 52798
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

A 2 watt carrier? do you just sit there and throw dead keys or do you talk.
If you do talk I am sure it is more than 2 watts so your deadkey figure is
irrelavent.

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF25F37.669914B6@spam.me.not...
> Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> so I must have done something right.
>
> ::shrug::
>
> -SSB
>
> "David G. Nagel" wrote:
> >
> > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> > make a dipole composed of two 5/8 wave loaded antenna's. This
> > configuration will not make a truly efficient antenna. Read up on
> > collinear antenna's and dipole antenna's. You will see that what you
> > have is nothing. However for you sake I do hope it works to your
> > satisfaction. I prefer something else...
> >
> > Dave WD9BDZ
> >
> > Sideband wrote:
> > >
> > > Doug:
> > >
> > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > >
> > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> > > have said 1 1/4 wave dipole?
> > >
> > > -SSB
> > >
> > > Doug Smith wrote:
> > > >
> > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not>
wrote:
> > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> > > > >
> > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is

1/4 wave,
> > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > >
> > > > (you should try a 102" whip, I think you're likely to find it more
effective
> > > > than the twin four-footers. Because you won't have loading-coil
losses.
> > > > Mine worked *fantastically* well on 10 meters with a converted SSB
CB.)
> > > > --
> > > > Doug Smith W9WI
> > > > Pleasant View (Nashville), TN EM66
> > > > http://www.w9wi.com

2902. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 22:57:53 UTC
From: graham dyer <grahamva3gjb@sympatico.ca>
Message-ID: <9hGI6.15668$nC6.1870418@news20.bellglobal.com>
Source record: 52797
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

hey you got a ticket or you don't there is no in betweens
goofball!!!!!!!!!!!!!

graham va3gjb

"W4NTI" <w4nti@nospammindspring.com> wrote in message
news:9cq7onqpr1@slb4.atl.mindspring.net...
> Look dumbass...you ain't going to convince the people that have a license.
> So quite trying to explain what you think is alright. The bottom line is
> YOU ARE ILLEGAL. PERIOD.
>
> Dan/W4NTI
>
> "Bob" <bob@bob.com> wrote in message news:3AF09A1D.1F7C4E45@bob.com...
> > Ok, Mr. Letter of the Law.
> >
> > And I bet you ALWAYS obey the maximum posted speed limit. If you wanted
to
> speed,
> > you would take the right approach to speeding legally - because, hey
man,
> you do
> > EVERYTHING right. You would put your mind to becoming a race car driver
> and do your
> > speeding on the track where it belongs. You would follow the proper
steps
> to
> > becoming a race car driver:
> >
> > 1. Learn to ride a unicycle, because that's how it all started, man. Our
> > forefather's rode unicycles before fast cars were around, so must you
> learn.
> > 2. Learn everything there is to know about cars - including memorizing
the
> answers
> > to questions about walking, unicycles, horse and carriage, boats,
planes,
> etc.
> > 3. If you skip the step on learning to ride a unicycle, prepare to be
> chastised by
> > old-timers that had to learn how to ride it and by some who love the
> unicycle and
> > can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
bad

> people
> > from becoming race car drivers.
> > 4. Prepare to spend some money. Your standard car won't do - it doesn't
> fit race
> > car specs! And every race track requires a different car and tire
> combination.
> >
> > Is becoming a race car driver what you should do because you like to
take
> those 15
> > turns of Bear Mountain road at an faster than the posted speed? Well,
ham
> radio IS
> > NOT a replacement for the "freeband" either. Ham radio doesn't fit
> everybody. Maybe
> > its a bit of an extreme commitment for some. Hey, I can operate my
> equipment and
> > make sure that it complies with the same rules the FCC mandates for
hams.
> I can
> > operate it responsibly. I can operate it courteously . I can use the
> minimum amount
> > of power necessary for a contact.
> >
> > Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
> immoral? A
> > crime against humanity? Absolutely not. To me - speeding in your car is
a
> far more
> > worse crime.
> >
> > BTW, I do not condone operating on ham bands or intentionally
interfering
> with any
> > service that I am aware of. Yes, I know there are (very few, non
> essential)
> > services allocated between 27.405 and 28Mhz. I support operations on
> 27.405 -
> > 27.855 Mhz that follow the same regulations that hams follow.
> >
> > Hopefully this metaphor can crack the thick skull of the "yes, but it's
> illegal,
> > yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
> black and
> > white.
> >
> > Bob.
> >
> >
> > Scott Townley wrote:

> >
> > > But you *do* have all the respect you deserve...the same respect we
> > > all grant to FELONS, which is what you are, buddy...
> > >
> > > On 30 Apr 2001 21:04:39 GMT, "Twistedhed" <twistedhed@webtv.net>
> > > wrote:
> > >
> > > >
> > > >I am posting here because of some of the nasty things I have read in
> this
> > > >group and in QRZ discussions regarding freebanders. We who use the
> frequencies
> > > >from 27.405 to 28.000 have more in common with hams than you might
> think.
> > > >We are good operators and have knowledge of propagation and skip
> conditions.
> > > >We use Yasus, Kenwoods and Icomm radios just like you do, so we know
> technical
> > > >issues as well or better. However, the attitude of some hams toward
us
> is
> > > >rude and condescending. We are treated like 2nd class citizens.
This
> should
> > > >not be. We have the same rights under the constitution as legal hams
> do.
> > > >For those that do not wish to be under Uncle Sam's thumb, freebanding
> is
> > > >a viable alternative to getting a ham radio license. What I am saying
> is
> > > >that maybe the next time you meet a freebander it might be wise to
talk
> with
> > > >him before you condemn him.
> > > >
> > > >I am QRT and standing by. (No flames answered. Please reply via
email)
> > > >
> > > >Unit 2711, Florida
> > > >
> >
>
>

2903. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-04 23:37:19 UTC
From: Richard McCollum <rmccollOMA@worldnet.att.net>
Message-ID: <P2HI6.5143$t12.365467@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52799
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF29002.97AB689C@spam.me.not...
> Comments within:
>
> Richard McCollum wrote:
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF21492.23260143@spam.me.not...
> > > Will a tester come out to an invalid's house in order to test them? If
> > > not, how would someone who cannot leave the house get tested to attain
> > > their license?
> > >
> > > I've heard the "if you want to DX and run power, get a license"
argument
> > > ad nauseum. Some people are incapable of passing a code test due to
> > > dyslexia or other disorders. Some people are incapable of even leaving
> > > their house. How do those people attain their license?
> > >
> > > -SSB
> >
> > For what it is worth, in my VE days in Wausau WI I went up to Merrill to
> > administer an exam to a housebound man who for reasons known only unto
him
> > wanted DXCC before he died. I and my partners read an Extra to a blind
man
> > after a regular testing session in Wisconsin Rapids at about -35 degrees
> > costing me a few bucks to get moving again.
>
> I didn't know this went on. Kudos to you, Dick. Highly commendable.

****
Not looking for a medal. VEs are required to make reasonable accomodation
to disabilities and medical conditions. Besides, we are generally pretty
good people with a streak of insanity for volunteering.

****
>
> > I have a friend of many years standing who tried to learn code as both a
> > left and right-handed activity at the same time and ran into a brutal
'hump'
> > at about 6wpm. We had to literally tie his left hand in his belt, pump
code
> > into the right ear only, and such things to get him to do it only one
way.

> > As he holds an Advanced, it must have worked. This is not dyslexia by
any
> > means but 5wpm can be worked around.
>
> And I'm still trying to work around it, only my "hump" is right at about
> 2 WPM.

****
Might I suggest Morse Academy from http://ah0a.org. If you have a problem
recognizing sounds the freq can be adjusted as well as the spacing. If you
type decently, learn the code typing. Seven lessons, tried and true
software, read the instructions before installing. Buy a cheap set of cans
from Walmart before those near and dear berate you strongly about the head
and shoulders with large cudgels to stop the incessant beeping.

****

>
> > I have long advocated the eventual outlawing of AM on CB freqs simply
> > because it is nitro in the hands of children. To do this, it would seem
> > that setting up a truckers band (FM, PL, the whole enchilada) to prevent
> > these 'opinion leaders' into ownership mode instead of wandering farther
> > afield would make sense. Adding a sideband segment might fit into this.
> > Marine freqs are also plagued by this sort of thing. The early phone
> > companies did not view pointless babbling and time wasting as valid
> > activities either and lived to regret it. If your point is that we are
> > making the same mistake I tend to agree.
>
> Actually, Dick, you just reminded me of this precise point, which I had
> wanted to make, yet had forgotten to.
>
> AM is a volatile emission mode, IMHO. Of course, FM isn't much better;
> if the deviation is turned up too high, it "bleeds over" just as badly
> as over modulation and carrier instabilities bleed over on AM. I prefer
> sideband for a multitude of reasons. This is one of them.

****
FM has the advantage of being receiver-dependent. Pump 15 kHz deviation
into a receiver expecting five and all you get is 'What did you say?'

****
>
> > Some years ago a university I happened to be attending built a new
library.
> > They installed a few paved paths in obvious places to get to it and
waited a
> > few years to pave the paths the students made. This was a simple and
> > practical approach as opposed to putting them in right away and planting
> > landmines to keep the students on the paths. As Flaubert, a French
poobah,
> > once said of taxation, the object of plucking a goose is maximum
feathers

> > with minimum hissing.
>
> If you're speaking of Calvin College, in Grand Rapids, MI, I attended
> the same School. Escher started this trend when the school was designed
> and first built, in keeping with his ideals of letting his buildings
> flow with nature as much as possible.

****
Washington U St. Louis
****
>
> >
> > Dick N&#65533;BK
>
> Basically, CB needs to be revamped. CB'ers need to be educated about
> what's "loud" and what causes interference, what "gets out" and what
> bleeds over. Modes need to change, and bandwidth needs to be
> reallocated. Leave 1-40 for the AM'ers, and set aside a band for FM and
> a band for SSB either above 40 or below 1. There are some unallocated
> frequencies there, I'm sure. I DO NOT want to make HAMs give up any more
> bandwidth, and I don't want to take seldom used emergency frequencies
> from other services, but the whole of 27.405-27.800 can't be
> allocated.... at least I've never seen a chart that shows anything
> allocated in that area. (Maybe someone has a URL to a chart/page that
> lists all allocated frequencies?)
>
> -SSB

Considering that 28-29.7 is a treaty ham band as is the 24.89-24.99 band,
the Commission could not give you them if they wanted to.

The 25-30 range are garbage frequencies to begin with so even the allocated
ones are probably never used. If they are used, it is with hardware that
probably takes three minutes for the tubes to lite and the dynamotor to come
up to speed. It is damned hard to tell just how vital these were and at one
time the FCC was going to a 99-channel CB and clearing everything up toe
27.99. There is no great way to tell. Below CB is also a land mobile
allocation. Hard to tell just what is there. The 11 meter broadcast band
has some STLs in it, one of which plays reggae to keep the freebanders away.
You should remember, however, that while the treaty definition of land
mobile is pretty broad, it really does not include hobbyists.

This thread has identified problems broader than the one you proposed
originally:

Equipment: So long as equipment that is within a pair of dykes of
out-of-band operation is allowed to come thru the ports we are dead in the
water. These things can be made more bullet-proof than they are and whether
intended for CB or 2 meter amateur or marine VHF they need to be. Time to
get Customs involved. Engineering firms can be hired to do the grunt work
just as they are for everything else; the FCC (properly) does no grunt work.

Enforcement: Phil Kane, as usual, makes a good point with respect to separating the enforcement and technical from the political. The priorities and funding are just too different.

History: It is not 1958 but some of the uses of the garbage band predate CB. There is a lot of history to wade thru. I agree fully that Ancient Modulation needs to be kept in the 40 until it dies. While it is an interesting nostagia trip, there is no good reason for ham gear to be AM-capable; another equipment problem.

Attitude: This is a tough one. While I tend to like to legalize facts on the ground to try to get people in the tent pissing out rather than outside the tent pissing in (TNX LBJ) the two good objections are the rewarding of outlawry and the lack of a guarantee that this will stop the problem. In this case, justice lies on the side of the truckers who are for the most part the English speakers on 28.085. There is a real use for a trucking service, it does meet the treaty requirements, and it could be designed to use the present antennas etc on an increasingly electronically-cluttered cab. As they are pretty much the 'opinion leaders' in CB circles giving them ownership interest in a band that was hard to bootleg (13.2 channel spacing for example and PL required) might ultimately help cool things down.

There is less justification for opening a new SSB-only hobbyist service on say 5kHz USB channels simply because you don't fit any reasonable definition of Land Mobile. This is the reason for the skip limits in the regs to begin with and the requirement in a number of countries that at least one party to a conversation be literally mobile. I tend to favor it only because it would accelerate the scrapping of Antique Modulation and the TVI, non-Linears, etc that go with it.

Download the CW software, use my e-mail (God, I love ATT) if need be, and let's get you on the ham bands before the spots go down

Dick NBK

2904. FS: HP 410B with original RF probe Nice Condx

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 00:55:30 UTC
From: Bob Miller <bmiller@calweb.com>
Message-ID: <3af34fd5$1_1@news3.calweb.com>
Source record: 52800

For Sale: Hewlett Packard HP 410B VTVM with original RF probe, in good condition with last calibration date of March 1999. A few scratches, but no dents, cruds or extra holes. Good three wire power cord with case that has a released back cover to stow the power cord. Meter balance is good, test leads are in good condition. Figure UPS on 15 lbs from zip 95827 ... Tnx for the read

$45.00 plus UPS as noted

tnx for the read

Bob, KE6F

2905. FA: 20 pieces MRF607 transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 02:31:25 UTC
From: norway@interlog.com
Message-ID: <2CJI6.4137$ec.866352@news.total.net>
Source record: 52801

For auction are 20 pieces of NOS Motorola MRF607 transistors. These are rated as 12.5Volts, 175MHz, 11.5db gain, 1.75W output; and are used as HF/VHF drivers and QRP output stages. Please see:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1234808744

David Snowdon, VA3DKS
norway@interlog.com

2906. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 02:55:05 UTC
From: qrm2000@aol.com
Message-ID: <20010504225505.07174.00001561@ng-fj1.aol.com>
Source record: 52802

The group has fallen victim to a Troll.

Get wise. Stop fighting. The troll is laughing as he watches the message count in this thread.

QRM

2907. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 02:58:39 UTC
From: qrm2000@aol.com
Message-ID: <20010504225839.07174.00001563@ng-fj1.aol.com>
Source record: 52803

>I don't see what this poor guy did to incur the wrath you're showering him
>with. He's pleading the rights of honest law abiding CB'ers. There are such
>people.
>

You are mixing apples and oranges, OM. Freebanding is quite different from the regular CB band. Freebanders are not "honest law abiding" individuals. The are operating illegal gear on unauthorized frequencies.

>
>I'm not too proud that you're one of my hobby peers.
>

I'm not too proud that an Amateur fell for a troll's message because he doesn't read or doesn't understand what he's talking about.

Now PLEASE, stop feeding the Trolls.

73,
QRM

2908. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 03:04:20 UTC
From: qrm2000@aol.com
Message-ID: <20010504230420.07174.00001564@ng-fj1.aol.com>
Source record: 52804

>
>Are there any victims or is it like the crime of oral sex?
>--

Let those who are assigned to the "freeband" channels defend their own turf.

However, when freebanders splatter into the lower portion of 10 meters, there are victims.

Now, please STOP FEEDING THE TROLL.

QRM

2909. re: 410B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 03:32:27 UTC
From: Bob Miller <bmiller@calweb.com>
Message-ID: <3af3749e_1@news3.calweb.com>
Source record: 52805

RE: 410B

The unit has been sold and I apologise for the post here as I had
intended it for the boatanchors list. Just pushed the wrong button.

73
Bob, KE6F
"Bob Miller" <bmiller@calweb.com> wrote in message
news:3af34fd5$1_1@news3.calweb.com...
> For Sale: Hewlett Packard HP 410B VTVM with original RF probe, in good
> condition with last calibration date of March 1999. A few scratches, but
no
> dents, cruds or extra holes. Good three wire power cord with case that has
a
> released back cover to stow the power cord. Meter balance is good, test
> leads are in good condition. Figure UPS on 15 lbs from zip 95827 ... Tnx
> for the read
>
> $45.00 plus UPS as noted
>
> tnx for the read
>
> Bob, KE6F
>
>
>
>

2910. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 04:18:24 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF37F10.94C61DDD@spam.me.not>
Source record: 52806
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Richard:

Thanks for the kind words... You've brought up a few points that I hadn't thought of, and that I need to give some thought to before responding..

I take my written Tech and General tests on the 8th. I'm going to work on my code with KC8HEZ and others here in Livingston county on 2M when I get my set up. Once I get the code down, I'll take the code test, find an HF set, and hopefully be talking on HF by the end of the year.

The next problem is going to be an antenna here in the apt. I've thought of throwing out a longwire and using a tuner, trying to use the gutters on the building as a large loop antenna with a tuner, and a few other options. The 2M setup shouldn't be too difficult. I do have a rail outside my window I can mount an antenna to... I just hope it's high enough to get to the repeater.

Hopefully, by the 10th, I'll have a callsign to send you guys... and by the 15th I should have the domain name corresponding to that callsign.. I'm going to put a site up here at the house for those who are curious.

73's and Hopefully I'll be chatting with you all on the air soon.

-SSB

Richard McCollum wrote:
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF29002.97AB689C@spam.me.not...
> > Comments within:
> >
> > Richard McCollum wrote:
> > >
> > > "Sideband" <sideband@spam.me.not> wrote in message
> > > news:3AF21492.23260143@spam.me.not...
> > > > Will a tester come out to an invalid's house in order to test them? If
> > > > not, how would someone who cannot leave the house get tested to attain
> > > > their license?
> > > >
> > > > I've heard the "if you want to DX and run power, get a license"
> argument
> > > > ad nauseum. Some people are incapable of passing a code test due to
> > > > dyslexia or other disorders. Some people are incapable of even leaving
> > > > their house. How do those people attain their license?

> > > >
> > > > -SSB
> > >
> > > For what it is worth, in my VE days in Wausau WI I went up to Merrill to
> > > administer an exam to a housebound man who for reasons known only unto
> him
> > > wanted DXCC before he died. I and my partners read an Extra to a blind
> man
> > > after a regular testing session in Wisconsin Rapids at about -35 degrees
> > > costing me a few bucks to get moving again.
> >
> > I didn't know this went on. Kudos to you, Dick. Highly commendable.
>
> **********
> Not looking for a medal. VEs are required to make reasonable accomodation
> to disabilities and medical conditions. Besides, we are generally pretty
> good people with a streak of insanity for volunteering.
>
> **********
> >
> > > I have a friend of many years standing who tried to learn code as both a
> > > left and right-handed activity at the same time and ran into a brutal
> 'hump'
> > > at about 6wpm. We had to literally tie his left hand in his belt, pump
> code
> > > into the right ear only, and such things to get him to do it only one
> way.
> > > As he holds an Advanced, it must have worked. This is not dyslexia by
> any
> > > means but 5wpm can be worked around.
> >
> > And I'm still trying to work around it, only my "hump" is right at about
> > 2 WPM.
>
> **********
> Might I suggest Morse Academy from http://ah0a.org. If you have a problem
> recognizing sounds the freq can be adjusted as well as the spacing. If you
> type decently, learn the code typing. Seven lessons, tried and true
> software, read the instructions before installing. Buy a cheap set of cans
> from Walmart before those near and dear berate you strongly about the head
> and shoulders with large cudgels to stop the incessant beeping.
>
> **********
>
> >
> > > I have long advocated the eventual outlawing of AM on CB freqs simply
> > > because it is nitro in the hands of children. To do this, it would seem
> > > that setting up a truckers band (FM, PL, the whole enchilada) to prevent
> > > these 'opinion leaders' into ownership mode instead of wandering farther
> > > afield would make sense. Adding a sideband segment might fit into this.

> > > Marine freqs are also plagued by this sort of thing. The early phone
> > > companies did not view pointless babbling and time wasting as valid
> > > activities either and lived to regret it. If your point is that we are
> > > making the same mistake I tend to agree.
> >
> > Actually, Dick, you just reminded me of this precise point, which I had
> > wanted to make, yet had forgotten to.
> >
> > AM is a volatile emission mode, IMHO. Of course, FM isn't much better;
> > if the deviation is turned up too high, it "bleeds over" just as badly
> > as over modulation and carrier instabilities bleed over on AM. I prefer
> > sideband for a multitude of reasons. This is one of them.
>
> **
> FM has the advantage of being receiver-dependent. Pump 15 kHz deviation
> into a receiver expecting five and all you get is 'What did you say?'
>
> **
> >
> > > Some years ago a university I happened to be attending built a new
> library.
> > > They installed a few paved paths in obvious places to get to it and
> waited a
> > > few years to pave the paths the students made. This was a simple and
> > > practical approach as opposed to putting them in right away and planting
> > > landmines to keep the students on the paths. As Flaubert, a French
> poobah,
> > > once said of taxation, the object of plucking a goose is maximum
> feathers
> > > with minimum hissing.
> >
> > If you're speaking of Calvin College, in Grand Rapids, MI, I attended
> > the same School. Escher started this trend when the school was designed
> > and first built, in keeping with his ideals of letting his buildings
> > flow with nature as much as possible.
>
> **
> Washington U St. Louis
> **
> >
> > >
> > > Dick Ni¿½BK
> >
> > Basically, CB needs to be revamped. CB'ers need to be educated about
> > what's "loud" and what causes interference, what "gets out" and what
> > bleeds over. Modes need to change, and bandwidth needs to be
> > reallocated. Leave 1-40 for the AM'ers, and set aside a band for FM and
> > a band for SSB either above 40 or below 1. There are some unallocated
> > frequencies there, I'm sure. I DO NOT want to make HAMs give up any more
> > bandwidth, and I don't want to take seldom used emergency frequencies

> > from other services, but the whole of 27.405-27.800 can't be
> > allocated.... at least I've never seen a chart that shows anything
> > allocated in that area. (Maybe someone has a URL to a chart/page that
> > lists all allocated frequencies?)
> >
> > -SSB
>
> Considering that 28-29.7 is a treaty ham band as is the 24.89-24.99 band,
> the Commission could not give you them if they wanted to.
>
> The 25-30 range are garbage frequencies to begin with so even the allocated
> ones are probably never used. If they are used, it is with hardware that
> probably takes three minutes for the tubes to lite and the dynamotor to come
> up to speed. It is damned hard to tell just how vital these were and at one
> time the FCC was going to a 99-channel CB and clearing everything up toe
> 27.99. There is no great way to tell. Below CB is also a land mobile
> allocation. Hard to tell just what is there. The 11 meter broadcast band
> has some STLs in it, one of which plays reggae to keep the freebanders away.
> You should remember, however, that while the treaty definition of land
> mobile is pretty broad, it really does not include hobbyists.
>
> This thread has identified problems broader than the one you proposed
> originally:
>
> Equipment: So long as equipment that is within a pair of dykes of
> out-of-band operation is allowed to come thru the ports we are dead in the
> water. These things can be made more bullet-proof than they are and whether
> intended for CB or 2 meter amateur or marine VHF they need to be. Time to
> get Customs involved. Engineering firms can be hired to do the grunt work
> just as they are for everything else; the FCC (properly) does no grunt work.
>
> Enforcement: Phil Kane, as usual, makes a good point with respect to
> separating the enforcement and technical from the political. The priorities
> and funding are just too different.
>
> History: It is not 1958 but some of the uses of the garbage band predate
> CB. There is a lot of history to wade thru. I agree fully that Ancient
> Modulation needs to be kept in the 40 until it dies. While it is an
> interesting nostagia trip, there is no good reason for ham gear to be
> AM-capable; another equipment problem.
>
> Attitude: This is a tough one. While I tend to like to legalize facts on
> the ground to try to get people in the tent pissing out rather than outside
> the tent pissing in (TNX LBJ) the two good objections are the rewarding of
> outlawry and the lack of a guarantee that this will stop the problem. In
> this case, justice lies on the side of the truckers who are for the most
> part the English speakers on 28.085. There is a real use for a trucking
> service, it does meet the treaty requirements, and it could be designed to
> use the present antennas etc on an increasingly electronically-cluttered
> cab. As they are pretty much the 'opinion leaders' in CB circles giving

> them ownership interest in a band that was hard to bootleg (13.2 channel
> spacing for example and PL required) might ultimately help cool things down.
>
> There is less justification for opening a new SSB-only hobbyist service on
> say 5kHz USB channels simply because you don't fit any reasonable definition
> of Land Mobile. This is the reason for the skip limits in the regs to begin
> with and the requirement in a number of countries that at least one party to
> a conversation be literally mobile. I tend to favor it only because it
> would accelerate the scrapping of Antique Modulation and the TVI,
> non-Linears, etc that go with it.
>
> Download the CW software, use my e-mail (God, I love ATT) if need be, and
> let's get you on the ham bands before the spots go down
>
> Dick Nï¿½BK

2911. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 04:26:41 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF38101.858C2075@spam.me.not>
Source record: 52807
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Comments within:

"Leland C. Scott" wrote:
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF2090C.2C9DD715@spam.me.not...
> > Actually, I don't have my license yet. I go for my written tests next
> > week.
>
> I wish you good luck and hope you make it!!! You have any equipment yet? If
> not what are you looking at getting?

I'm starting out taking the Tech and General written tests. Code will
come later this year, hopefully. I'm going to need a 2M set to start,
and an HF set later, once I've passed the code requirement.

>
> > I've been studying code for over two years (see the other thread:
> > Ticket test suggestions for more info on this) without much result. I
> > won't go into that rigmarole again here. It's already in that other
> > thread.
>
> Yeah, I know what you mean there.
>
> > That's a bit reactionary, Leland. I don't think legalizing drugs is an
> > option. I don't see the connection between the two.
>
> To a point true, but I think you get my drift however. Until somebody makes
> a stand and says "NO MORE" they will just keep taking what is not theirs to
> take.

I did get that, Leland.. But honestly, the problem with CB'ers venturing
out where they don't belong is twofold: (1) There just isn't enough
bandwidth for CB. and (2) Export Radios that do too much. I think we can
both agree on these two, so I won't go into it too deeply here.

>
> > I'm proposing additional bandwidth for a particular mode of operation in
> > order to help alleviate some of the congestion on an already overtaxed
> > and overused band, which may just help to reduce the encroachment by
> > unlicensed radio operators on HAM bands.
>
> You have to stop and think about the mechanics a little bit. If a new band
> was created, as you suggest, then there will appear commercial rigs to
> operate on the new band. Once that happens then hordes of other CBers,

> looking for a clear channel to talk on, will show up over running the
> operators there now. Now we have the same situation all over again. SSB
> operators looking for the open band. They have to learn to be happy with
> what they already "legally" have.
>
> Ham Radio is not going to be any different either once you get your ticket.
> Sometimes the bands get crowed so you either put up with it, move, or turn
> the rig off. We don't just spin the VFO knob looking for an open frequency
> outside of our legal bands like the freebanders currently do on 11m. Hams
> seem to have much more respect for their privileges than freeband CBers do.
> I think Hams have more sense of respect for others rights to radio spectrum
> than the freebanders do. If there is any spectrum use disagreement it is
> taken up with the FCC, and let them decide. Hams don't just "occupy"
> spectrum outside of our bands because we feel we have a "right" to it.

No, but you can look for an open frequency within the bands HAMs are
allowed to transmit on. That's my point... HAMs have the bandwidth.
CB'ers don't. So when a CB'er goes off to find an empty frequency to
talk on, they're in violation of FCC rules when they go outside of the
standard-40. HAMs have MUCH more bandwidth with which to search for an
"open channel"...

>
> --
> --
> 73 de,
>
> Leland C. Scott
> KC8LDO
>
> ARRL member
> NCI member
>
> "You ask what Morse Code is good for? I'll tell you. Morse
> Code is used exclusively by Electronics Based life forms to
> communicate amongst themselves using advanced Organic
> Digital Signal Processors, running state of the art Artificial
> Intelligence Software, to perform the highly complex
> transmit encryption, receive decryption and error correction
> functions."

73's

-SSB

2912. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 04:29:00 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF3818C.28F440BF@spam.me.not>
Source record: 52808
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I've turned down the carrier on my Grant XL to 2 watts. The radio swings to 5 on AM, and does 0-12 on SSB. the AM measurements are RMS, the SSB measurements are PEP.

-SSB

HelmutSweenie wrote:
>
> A 2 watt carrier? do you just sit there and throw dead keys or do you talk.
> If you do talk I am sure it is more than 2 watts so your deadkey figure is
> irrelavent.
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF25F37.669914B6@spam.me.not...
> > Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> > so I must have done something right.
> >
> > ::shrug::
> >
> > -SSB
> >
> > "David G. Nagel" wrote:
> > >
> > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > configuration will not make a truly efficient antenna. Read up on
> > > collinear antenna's and dipole antenna's. You will see that what you
> > > have is nothing. However for you sake I do hope it works to your
> > > satisfaction. I prefer something else...
> > >
> > > Dave WD9BDZ
> > >
> > > Sideband wrote:
> > > >
> > > > Doug:
> > > >
> > > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > >
> > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> > > > have said 1 1/4 wave dipole?
> > > >
> > > > -SSB
> > > >

> > > > Doug Smith wrote:
> > > > >
> > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not>
> wrote:
> > > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> > > > > >
> > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is
> 1/4 wave,
> > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > >
> > > > > (you should try a 102" whip, I think you're likely to find it more
> effective
> > > > > than the twin four-footers. Because you won't have loading-coil
> losses.
> > > > > Mine worked *fantastically* well on 10 meters with a converted SSB
> CB.)
> > > > > --
> > > > > Doug Smith W9WI
> > > > > Pleasant View (Nashville), TN EM66
> > > > > http://www.w9wi.com

2913. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 07:24:13 UTC
From: Dwight Stewart <stewartx@sccoast.net>
Message-ID: <3AF3AA40.AD6DA43B@sccoast.net>
Source record: 52809
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6RCecilA wrote:
>
> What gave you the idea that I consider it
> a minor problem? I don't consider illegally
> driving on the shoulder of the road to be a
> minor problem, do you? Bicyclists can die
> because of that problem. Do you care about
> the RF emissions of freebanders more than
> the lives of bicyclists?

I must have missed that part - I don't remember any mention of
bicyclists. All I remember is a mention about driving on the side of
the road, which is indeed minor (unless you hit a bicyclist).

> On a scale of crimes, is freebanding a
> minimum offense compared to rape and murder?

Well, that is certainly stating the obvious.

Dwight Stewart (W5NET)

http://www.qsl.net/w5net

2914. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 08:38:08 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <nt97ft8evcrq73ga98uth8mbkvc2th9nug@4ax.com>
Source record: 52810

On Fri, 04 May 2001 11:47:11 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>The real killer in my opinion is the extremely high, and voltage
>variable, capacitances, especially for low Rds(on) devices. These are
>very hard to deal with at high frequencies. If nothing else, you end up
>eating a lot of power in the driver stage trying to pump charge in and
>out of the input C. I have a rig using the IRF510 (Ciss = 180 pF,
>Rds(on) = 0.54 ohms) in class C at 15 meters, and it's hard to drive at
>that frequency.

How would these HEXFETs behave in a common gate circuit ?

After all, 180 pF at 21 MHz corresponds to a 40 ohm capacitive
reactance in parallel with the quite low input impedance of a CG
stage. Even at 50 MHz, this reactance would be about 15 ohms.

Old VHF tube amplifiers used push pull configurations so that the
stray capacitances of the tubes were in series, thus representing a
smaller detuning capacitance to the input and output tuned circuits,
compared to using two tubes in parallel, in which case, these
capacitances would be in parallel.

Would there be similar advantages of using grounded gate hexfets in
push pull for VHF ?

Paul OH3LWR

2915. Re: NiCd Electrolyte - Answer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 12:45:36 UTC
From: jphelan501@aol.com
Message-ID: <20010505084536.05922.00001617@ng-fk1.aol.com>
Source record: 52811

I read this thread with great interest. Is there a source for reconditioned (or used) wet-cell nicads? Should I call Alcad directly?

Thanks.
John

2916. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 12:54:11 UTC
From: Tad Danley <taddanley@att.net>
Message-ID: <3AF3F7F3.CB14DB51@att.net>
Source record: 52812
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:

> Richard:
>
> Thanks for the kind words... You've brought up a few points that I
> hadn't thought of, and that I need to give some thought to before
> responding..
>
> I take my written Tech and General tests on the 8th. I'm going to work
> on my code with KC8HEZ and others here in Livingston county on 2M when I
> get my set up. Once I get the code down, I'll take the code test, find
> an HF set, and hopefully be talking on HF by the end of the year.
>
> The next problem is going to be an antenna here in the apt. I've thought
> of throwing out a longwire and using a tuner, trying to use the gutters
> on the building as a large loop antenna with a tuner, and a few other
> options. The 2M setup shouldn't be too difficult. I do have a rail
> outside my window I can mount an antenna to... I just hope it's high
> enough to get to the repeater.
>
> Hopefully, by the 10th, I'll have a callsign to send you guys... and by
> the 15th I should have the domain name corresponding to that callsign..
> I'm going to put a site up here at the house for those who are curious.
>
> 73's and Hopefully I'll be chatting with you all on the air soon.

Good luck with your tests, and welcome to ham radio! As far as antennas go, they are always a challenge in an apartment setting, but you can get creative and will learn much in the process!

Don't forget about going mobile if you are not able to get satisfactory performance with your base antennas or have RF interference problems with your neighbors. I have lots of fun with a Yaesu FT-100D and Hamsticks.

73,

--
Tad Danley, K3TD
mailto:taddanley@att.net

2917. The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 13:21:57 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com>
Source record: 52813

Is it true that the FCC is proposing lopping off the top of the 40m band, but adding 100kHz to the bottom. So says the ARRL in this morning's mail:

==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY VIEWS

The FCC's World Radiocommunication Conference 2003 Advisory Committee has approved several "preliminary views"--or PVs--on expected WRC-03 agenda items. Among these is a US preliminary view supporting a realigned 40-meter amateur allocation at 6900-7200 kHz on a worldwide primary basis. The FCC is soliciting public comment on all preliminary views by May 9.

This will come as a blow to all us boatanchor types.

2918. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 13:35:39 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <LkTI6.2176$Ur6.232052@newsread2.prod.itd.earthlink.net>
Source record: 52814

I don't know if this is just a silly rumor or if we are gong to get a band realignment... but ... how is this going to wreck boat anchor enthusiasts. Boat anchors I have seen and used will tune way outside the bands. Remember OO's?

Are they proposing a rule against tubes? A rule against multipliers? How would they enforce rules like that? If your boat anchor won't tune the new 100 khz for some reason just build yourself an accessory to take it there. You likely needed a new accessory added on to get onto the "warc" bands when we got those.

Bill KU8H

Schatzie <jdwalton@home.com> wrote in message
news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
> Is it true that the FCC is proposing lopping off the top of the 40m band,
> but adding 100kHz to the bottom. So says the ARRL in this morning's mail:
>
> ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY VIEWS
>
> The FCC's World Radiocommunication Conference 2003 Advisory Committee has
> approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> items. Among these is a US preliminary view supporting a realigned
40-meter
> amateur allocation at 6900-7200 kHz on a worldwide primary basis. The FCC
is
> soliciting public comment on all preliminary views by May 9.
>
> This will come as a blow to all us boatanchor types.
>
>

2919. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 14:43:07 UTC
From: Glenn Cummings <kg7il@foxinternet.net>
Message-ID: <3AF4117B.7E6F2532@foxinternet.net>
Source record: 52816

I can't be certain, but I think that this was additive to the existing 7000-7100 worldwide allocation. I didn't see where it would lop of the existing 40 meters for the North America's.

The contention seemed to be the European Broadcasters. If the worldwide allocation was the same as ours, those broadcasters would have to move.

Schatzie wrote:

> Is it true that the FCC is proposing lopping off the top of the 40m band,
> but adding 100kHz to the bottom. So says the ARRL in this morning's mail:
>
> ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY VIEWS
>
> The FCC's World Radiocommunication Conference 2003 Advisory Committee has
> approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> items. Among these is a US preliminary view supporting a realigned 40-meter
> amateur allocation at 6900-7200 kHz on a worldwide primary basis. The FCC is
> soliciting public comment on all preliminary views by May 9.
>
> This will come as a blow to all us boatanchor types.

2920. FS: Clegg Zeus and Thor, Heath Shawnee, etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 15:08:16 UTC
From: k9sqg@aol.com
Message-ID: <20010505110816.09378.00001737@ng-fz1.aol.com>
Source record: 52817

This is being posted for a gentleman that does not have Internet access. He has several pieces of gear for sale including a Clegg Zeus, Thor, a Heathkit Shawnee, etc. Most convenient time to call is 6-8 PM Eastern time at 614-868-1654 which is in Columbus, Ohio. If you're coming to Hamvention, it might just be on the way. The gentleman's name is Sam and he's a really nice guy.

73s,

Evan

2921. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 15:08:46 UTC
From: magne@clustra.com
Message-ID: <m3snijhlz5.fsf@clustra.com>
Source record: 52818

"Schatzie" <jdwalton@home.com> writes:

> Is it true that the FCC is proposing lopping off the top of the 40m band,
> but adding 100kHz to the bottom. So says the ARRL in this morning's mail:
>
> ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY VIEWS
>
> The FCC's World Radiocommunication Conference 2003 Advisory Committee has
> approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> items. Among these is a US preliminary view supporting a realigned 40-meter
> amateur allocation at 6900-7200 kHz on a worldwide primary basis. The FCC is
> soliciting public comment on all preliminary views by May 9.
>
> This will come as a blow to all us boatanchor types.

Really? Why?

As you may know, radio amateurs in Region 1 countries has only
7000-7100 available for use. It has been a goal for a long time
to have a 40m band of more than 100kHz available *globally*.
The initial wish was to allocate 7000-7300, but this has showed
as being too difficult to accomplish, due to the heavy use of parts
of this segment by the broadcasting service.

In region 1, 7100-7300 is allocated to the broadcasting service,
while 6765-7000 is allocated to the fixed (primary) and the land
mobile (sec.) service. I guess it is far easier to relocate
existing users here than in the broadcasting service.

I think we should all be thankful to the IARU and its partners
in legislation and member organization that this issue is now up
for the conference in 2003. It would seem like we have a fair
chance of finally getting a 300kHz band at 7MHz available
globally.

--Magne / la1bfa

PS: You will have adequate time to re-tune your boat-anchor. I
guess that it will take 5-15 years to implement this band change.

2922. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 15:26:28 UTC
From: Rough Rider <roughrider@home.com>
Message-ID: <EYUI6.48645$B22.12307263@news1.rdc2.pa.home.com>
Source record: 52819
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Yes but what you are saying is you are heard with a 2 watt carrier. It is irrelavent what your carrier power is when you are talking. If you had a 10 watt carrier and when you talk it went back to 5 watts then all you are doing is 5 watts not 10.

"Sideband" <sideband@spam.me.not> wrote in message news:3AF3818C.28F440BF@spam.me.not...
> I've turned down the carrier on my Grant XL to 2 watts. The radio swings
> to 5 on AM, and does 0-12 on SSB. the AM measurements are RMS, the SSB
> measurements are PEP.
>
> -SSB
>
> HelmutSweenie wrote:
> >
> > A 2 watt carrier? do you just sit there and throw dead keys or do you talk.
> > If you do talk I am sure it is more than 2 watts so your deadkey figure is
> > irrelavent.
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF25F37.669914B6@spam.me.not...
> > > Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> > > so I must have done something right.
> > >
> > > ::shrug::
> > >
> > > -SSB
> > >
> > > "David G. Nagel" wrote:
> > > >
> > > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> > > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > > configuration will not make a truly efficient antenna. Read up on
> > > > collinear antenna's and dipole antenna's. You will see that what you
> > > > have is nothing. However for you sake I do hope it works to your
> > > > satisfaction. I prefer something else...
> > > >
> > > > Dave WD9BDZ
> > > >

> > > > Sideband wrote:
> > > > >
> > > > > Doug:
> > > > >
> > > > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > > >
> > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on
11M)
> > > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I
should
> > > > > have said 1 1/4 wave dipole?
> > > > >
> > > > > -SSB
> > > > >
> > > > > Doug Smith wrote:
> > > > > >
> > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband
<sideband@spam.me.not>
> > wrote:
> > > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4'
Wilson
> > > > > >
> > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip
is
> > 1/4 wave,
> > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > >
> > > > > (you should try a 102" whip, I think you're likely to find it
more
> > effective
> > > > > than the twin four-footers. Because you won't have loading-coil
> > losses.
> > > > > Mine worked *fantastically* well on 10 meters with a converted
SSB
> > CB.)
> > > > > --
> > > > > Doug Smith W9WI
> > > > > Pleasant View (Nashville), TN EM66
> > > > > http://www.w9wi.com

2923. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 15:50:08 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF42130.7083E136@spam.me.not>
Source record: 52820
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

well, if a 2 watt carrier is full quieting 20 miles away, then the
antenna must be doing its job, wouldn't you think?

-SSB

Rough Rider wrote:
>
> Yes but what you are saying is you are heard with a 2 watt carrier. It is
> irrelavent what your carrier power is when you are talking. If you had a 10
> watt carrier and when you talk it went back to 5 watts then all you are
> doing is 5 watts not 10.
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF3818C.28F440BF@spam.me.not...
> > I've turned down the carrier on my Grant XL to 2 watts. The radio swings
> > to 5 on AM, and does 0-12 on SSB. the AM measurements are RMS, the SSB
> > measurements are PEP.
> >
> > -SSB
> >
> > HelmutSweenie wrote:
> > >
> > > A 2 watt carrier? do you just sit there and throw dead keys or do you
> talk.
> > > If you do talk I am sure it is more than 2 watts so your deadkey figure
> is
> > > irrelavent.
> > >
> > > "Sideband" <sideband@spam.me.not> wrote in message
> > > news:3AF25F37.669914B6@spam.me.not...
> > > > Well, I'm heard with a 2 watt carrier over 20 miles away straight
> shot,
> > > > so I must have done something right.
> > > >
> > > > ::shrug::
> > > >
> > > > -SSB
> > > >
> > > > "David G. Nagel" wrote:
> > > > >
> > > > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole.
> They
> > > > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > > > configuration will not make a truly efficient antenna. Read up on

> > > > > collinear antenna's and dipole antenna's. You will see that what you
> > > > > have is nothing. However for you sake I do hope it works to your
> > > > > satisfaction. I prefer something else...
> > > > >
> > > > > Dave WD9BDZ
> > > > >
> > > > > Sideband wrote:
> > > > > >
> > > > > > Doug:
> > > > > >
> > > > > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > > > >
> > > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on
> 11M)
> > > > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I
> should
> > > > > > have said 1 1/4 wave dipole?
> > > > > >
> > > > > > -SSB
> > > > > >
> > > > > > Doug Smith wrote:
> > > > > > >
> > > > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband
> <sideband@spam.me.not>
> > > wrote:
> > > > > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4'
> Wilson
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> > > > > > > so a 5/8 wave would be a bit more than 17 feet long.
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> > > > > > > (you should try a 102" whip, I think you're likely to find it
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> > > losses.
> > > > > > > Mine worked *fantastically* well on 10 meters with a converted
> SSB
> > > CB.)
> > > > > > > --
> > > > > > > Doug Smith W9WI
> > > > > > > Pleasant View (Nashville), TN EM66
> > > > > > > http://www.w9wi.com

2924. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 16:04:07 UTC
From: Rough Rider <roughrider@home.com>
Message-ID: <XvVI6.48662$B22.12323325@news1.rdc2.pa.home.com>
Source record: 52821
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Full quieting is normally associated with FM use. Who cares and what does
it really mean you have a 2 watt carrier, unless you go around deadkeying
and never say anything . your carrier power is a useless figure. What is
your carrier power on ssb?

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF42130.7083E136@spam.me.not...
> well, if a 2 watt carrier is full quieting 20 miles away, then the
> antenna must be doing its job, wouldn't you think?
>
> -SSB
>
> Rough Rider wrote:
> >
> > Yes but what you are saying is you are heard with a 2 watt carrier. It
is
> > irrelavent what your carrier power is when you are talking. If you had a
10
> > watt carrier and when you talk it went back to 5 watts then all you are
> > doing is 5 watts not 10.
> >
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> > > I've turned down the carrier on my Grant XL to 2 watts. The radio
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> > > to 5 on AM, and does 0-12 on SSB. the AM measurements are RMS, the SSB
> > > measurements are PEP.
> > >
> > > -SSB
> > >
> > > HelmutSweenie wrote:
> > > >
> > > > A 2 watt carrier? do you just sit there and throw dead keys or do
you
> > talk.
> > > > If you do talk I am sure it is more than 2 watts so your deadkey
figure
> > is
> > > > irrelavent.
> > > >
> > > > "Sideband" <sideband@spam.me.not> wrote in message
> > > > news:3AF25F37.669914B6@spam.me.not...
> > > > > Well, I'm heard with a 2 watt carrier over 20 miles away straight

> > shot,
> > > > > so I must have done something right.
> > > > >
> > > > > ::shrug::
> > > > >
> > > > > -SSB
> > > > >
> > > > > "David G. Nagel" wrote:
> > > > > >
> > > > > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave
dipole.
> > They
> > > > > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > > > > configuration will not make a truly efficient antenna. Read up
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> > > > > > collinear antenna's and dipole antenna's. You will see that what
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> > > > > > satisfaction. I prefer something else...
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> > > > > > Dave WD9BDZ
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> > > > > > Sideband wrote:
> > > > > > >
> > > > > > > Doug:
> > > > > > >
> > > > > > > Hit Wilson's site and read up on what a Wilson Silver Load
is....
> > > > > > >
> > > > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8
(on
> > 11M)
> > > > > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I
> > should
> > > > > > > have said 1 1/4 wave dipole?
> > > > > > >
> > > > > > > -SSB
> > > > > > >
> > > > > > > Doug Smith wrote:
> > > > > > > >
> > > > > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband
> > <sideband@spam.me.not>
> > > > wrote:
> > > > > > > > >them as well. Granted, I run a 5/8 dipole on the car (two
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> > Wilson
> > > > > > > > > >
> > > > > > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2')
whip
> > is

> > > > 1/4 wave,
> > > > > > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > > > > >
> > > > > > > > > (you should try a 102" whip, I think you're likely to find
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> > > > > effective
> > > > > > > > > than the twin four-footers. Because you won't have
loading-coil
> > > > losses.
> > > > > > > > > Mine worked *fantastically* well on 10 meters with a
converted
> > SSB
> > > > CB.)
> > > > > > > > > --
> > > > > > > > > Doug Smith W9WI
> > > > > > > > > Pleasant View (Nashville), TN EM66
> > > > > > > > > http://www.w9wi.com

2925. Re: A potential new band for CB'ers? [Was: Re: Respect For Freebanders]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 16:24:05 UTC
From: Karl <wa7ycp@yahoo.com>
Message-ID: <3AF42925.2CCC297C@yahoo.com>
Source record: 52822
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Very, very good attitute :) May others follow this example.
Karl

--
for info and email go to:
http://www.dalek.org/srg

2926. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 16:44:57 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <c6WI6.376$R01.172960@paloalto-snr1.gtei.net>
Source record: 52823
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF42130.7083E136@spam.me.not...
> well, if a 2 watt carrier is full quieting 20 miles away, then the
> antenna must be doing its job, wouldn't you think?
>
> -SSB

Not really. How about 4 million + miles per watt ?

(Full quieting? Then you must have been using FM emissions, an illegal mode
on 11 meters. :>)

http://radioworks.com/hpmain.html

73 de W6DKN

2927. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 18:15:24 UTC
From: Lionel Booth PE <l.booth-pe@worldnet.att.net>
Message-ID: <0rXI6.6170$kA2.479682@bgtnsc04-news.ops.worldnet.att.net>
Source record: 52824

Should creat an interesting market for mod. articles and new dial scales. My
NC 303 for one doesn't tune much below 7.000 (maybe 5khz). I have less
problems with mods than with competing with swbc and ssb below 7100.
Schatzie <jdwalton@home.com> wrote in message
news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
> Is it true that the FCC is proposing lopping off the top of the 40m band,
> but adding 100kHz to the bottom. So says the ARRL in this morning's mail:
>
> ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY VIEWS
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> The FCC's World Radiocommunication Conference 2003 Advisory Committee has
> approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> items. Among these is a US preliminary view supporting a realigned
40-meter
> amateur allocation at 6900-7200 kHz on a worldwide primary basis. The FCC
is
> soliciting public comment on all preliminary views by May 9.
>
> This will come as a blow to all us boatanchor types.
>

2928. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 18:27:17 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <9CXI6.22981$2_.7980964@news3.rdc1.on.home.com>
Source record: 52825
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I take it you are a fan of EME?

--
Rob St.Denis

"W6DKN" <w6dkn@qsl.net> wrote in message
news:c6WI6.376$R01.172960@paloalto-snr1.gtei.net...
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF42130.7083E136@spam.me.not...
> > well, if a 2 watt carrier is full quieting 20 miles away, then the
> > antenna must be doing its job, wouldn't you think?
> >
> > -SSB
>
> Not really. How about 4 million + miles per watt ?
>
> (Full quieting? Then you must have been using FM emissions, an illegal
mode
> on 11 meters. :>)
>
> http://radioworks.com/hpmain.html
>
> 73 de W6DKN
>
>

2929. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 20:20:42 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ugZI6.48300$Ce4.3704077@news1.rdc1.ct.home.com>
Source record: 52826

You will have a far easier time retuning linear boat
anchor radios to cover the bands. Some rigs will need
a simple retweaking, others will need new mixer crystals,
etc.

Pity the rest of us using more modern gear, where
bandpass filters and programming rules the coverage.
I dread the day when I have to modify my JRC NSD515
to cover below 7 MHz.

Pete
"Lionel Booth PE" <l.booth-pe@worldnet.att.net> wrote in message
news:0rXI6.6170$kA2.479682@bgtnsc04-news.ops.worldnet.att.net...
> Should creat an interesting market for mod. articles and new dial scales.
My
> NC 303 for one doesn't tune much below 7.000 (maybe 5khz). I have less
> problems with mods than with competing with swbc and ssb below 7100.
> Schatzie <jdwalton@home.com> wrote in message
> news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
> > Is it true that the FCC is proposing lopping off the top of the 40m
band,
> > but adding 100kHz to the bottom. So says the ARRL in this morning's
mail:
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> > ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY
VIEWS
> >
> > The FCC's World Radiocommunication Conference 2003 Advisory Committee
has
> > approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> > items. Among these is a US preliminary view supporting a realigned
> 40-meter
> > amateur allocation at 6900-7200 kHz on a worldwide primary basis. The
FCC
> is
> > soliciting public comment on all preliminary views by May 9.
> >
> > This will come as a blow to all us boatanchor types.
> >
>
>

2930. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 21:20:01 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <58_I6.48304$Ce4.3715578@news1.rdc1.ct.home.com>
Source record: 52827
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"> Hit Wilson's site and read up on what a Wilson Silver Load is....
>
> Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> top loaded coil antenna.

Runs chills up and down my spine just thinking about
a Wilson Silver Load. Gives me the urge to run and
buy two, and co-phase them on the sidemirrors for
anudder 10dB or so.. Ten Fer.

2931. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 22:07:57 UTC
From: Keith <nospamssdf@home.com>
Message-ID: <3af478d0$1_1@spamkiller>
Source record: 52828

On Sat, 05 May 2001 13:21:57 GMT, "Schatzie" <jdwalton@home.com> wrote:

>Is it true that the FCC is proposing lopping off the top of the 40m band,
>but adding 100kHz to the bottom. So says the ARRL in this morning's mail:

Basically the FCC is trying to save some of the 40 meter band. The countries
around the world want to chop off the 7.1-7.3 region 2 allocation to SWBC.
I doubt if the FCC proposal will fly and region 2 hams will be left with only
7.0 to 7.1. Maybe in 10 years the HF bands will be abandoned by government
SWBC in favor of the internet and portable satellite receivers that are
coming on the market and hams will get a lot more spectrum.
Right now the governments around the world use HF for wide area broadcasting
and they want more spectrum. The cost of running dozens of HF transmitters
compared to a couple of satellite channels should go down over the next few
years and it will be economical to use satellites for broadcasting, if
satellite receivers become less expensive.
The Government and religious SWBC have gained more and more spectrum to
broadcast their propaganda while ham radio is losing ground.

--
Best Regards,

Keith
---
http://members.home.net/keithew1/nworegon/ NW Oregon Radio topics.
Amateur Radio is a international resource and asset.
Need a daily digest of rec.radio.swap newsgroup? Join
recradioswap at Yahoo! Groups.

2932. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 22:33:09 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF47FA5.4D01F4E8@coqui.net>
Source record: 52829

Well, there's been SWBC a plenty forever from 7.1 to 7.3 and if we can
convert this inconvenience to some additional freqs, then I'm all for
it. The pirates in the 6.9 spectrum will just have to go elsewhere.
Its a boatanchor dilemma, and if you haven't clipped those diodes in
your rice-box already, it may be time to do so. I, for one, wouldn't
object to band-expansion/shifting based on that reason.
Remember expanding the 20 SSB band below 14.2? Moving the 80 and 40
Novice Band? Adding 10 and 18 Mcs? Lotsa whining, but they were all
good moves.

-Bill, WX4A

>
> On Sat, 05 May 2001 13:21:57 GMT, "Schatzie" <jdwalton@home.com> wrote:
>
> >Is it true that the FCC is proposing lopping off the top of the 40m band,
> >but adding 100kHz to the bottom. So says the ARRL in this morning's mail:
>
> Basically the FCC is trying to save some of the 40 meter band. The countries
> around the world want to chop off the 7.1-7.3 region 2 allocation to SWBC.
> I doubt if the FCC proposal will fly and region 2 hams will be left with only
> 7.0 to 7.1. Maybe in 10 years the HF bands will be abandoned by government
> SWBC in favor of the internet and portable satellite receivers that are
> coming on the market and hams will get a lot more spectrum.
> Right now the governments around the world use HF for wide area broadcasting
> and they want more spectrum. The cost of running dozens of HF transmitters
> compared to a couple of satellite channels should go down over the next few
> years and it will be economical to use satellites for broadcasting, if
> satellite receivers become less expensive.
> The Government and religious SWBC have gained more and more spectrum to
> broadcast their propaganda while ham radio is losing ground.
>
> --
> Best Regards,
>
> Keith
> --
> http://members.home.net/keithew1/nworegon/ NW Oregon Radio topics.
> Amateur Radio is a international resource and asset.
> Need a daily digest of rec.radio.swap newsgroup? Join
> recradioswap at Yahoo! Groups.
> --

2933. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 22:38:14 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <qh%I6.19176$K5.2254240@news1.rdc1.nj.home.com>
Source record: 52830

Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
I can always modify my HP5328 to just read the VFO....

"Bill Cromwell" <bcromwell1@earthlink.net> wrote in message
news:LkTI6.2176$Ur6.232052@newsread2.prod.itd.earthlink.net...
> I don't know if this is just a silly rumor or if we are gong to get a band
> realignment... but ... how is this going to wreck boat anchor enthusiasts.
> Boat anchors I have seen and used will tune way outside the bands.
Remember
> OO's?
>
> Are they proposing a rule against tubes? A rule against multipliers? How
> would they enforce rules like that? If your boat anchor won't tune the new
> 100 khz for some reason just build yourself an accessory to take it
there.
> You likely needed a new accessory added on to get onto the "warc" bands
when
> we got those.
>
> Bill KU8H
>
> Schatzie <jdwalton@home.com> wrote in message
> news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
> > Is it true that the FCC is proposing lopping off the top of the 40m
band,
> > but adding 100kHz to the bottom. So says the ARRL in this morning's
mail:
> >
> > ==>7 MHZ "REALIGNMENT" AMONG WRC-2003 ADVISORY COMMITTEE PRELIMINARY
VIEWS
> >
> > The FCC's World Radiocommunication Conference 2003 Advisory Committee
has
> > approved several "preliminary views"--or PVs--on expected WRC-03 agenda
> > items. Among these is a US preliminary view supporting a realigned
> 40-meter
> > amateur allocation at 6900-7200 kHz on a worldwide primary basis. The
FCC
> is
> > soliciting public comment on all preliminary views by May 9.
> >
> > This will come as a blow to all us boatanchor types.
> >
> >

>
>

2934. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-05 22:57:26 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF48556.1CA1BE1D@coqui.net>
Source record: 52831

Schatzie wrote:
>
> Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
> I can always modify my HP5328 to just read the VFO....

Well, Schatz, how do you handle the WARC bands or are you whining about
that gift also?

-WX4A

2935. WTB: Drake 1544 and 1548 for 7 line

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 00:02:53 UTC
From: k9sqg@aol.com
Message-ID: <20010505200253.17535.00002169@ng-fj1.aol.com>
Source record: 52832

Looking for the 1544 and 1548 adaptor box and cable that allows the TR-7 to transcieve with the R-7 and RV-75.

Enjoy the Drakes and the upcoming Dayton Hamvention.

73s,

Evan

2936. Re: Extinct Radio Technology?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 00:59:34 UTC
From: mike <mlambert@bigpond.net.au>
Message-ID: <3AF4A1B1.A78BC97E@bigpond.net.au>
Source record: 52833

http://www.telemuseum.se/historia/alex/

"R. Hubbard" wrote:

> Does anyone know anything about the construction of the old Alexanderson
> alternator or know its patent number?
>
> Thanks.

2937. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 02:15:07 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105052156230.16538-100000@gloria.cam.org>
Source record: 52834

On Sat, 5 May 2001, Bill Meacham wrote:

>
>
> Schatzie wrote:
> >
> > Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
> > I can always modify my HP5328 to just read the VFO....
>
>
> Well, Schatz, how do you handle the WARC bands or are you whining about
> that gift also?
>
> -WX4A
>
>

I find this talk of moving equipment interesting, since the worriers
seem to have no sense of history.

There was a time when "mods" were not about clipping diodes to enable
something the manufacturer put in place. Somebody had a piece of
equipment, it didn't do quite what they wanted, so they modified it,
and then shared what they'd done in the ham magazines. Who knows
how many actually copied the idea, but I would hope the articles
gave other people ideas for something they needed with the equipment
they had.

I can picture an article by someone who wanted to get on six meters
without spending any money. He modified his existing HF transmitter,
a Globe or a Heathkit, probably doubling in the final. He might have
forfeited one of the HF bands, or perhaps the rig dated from the
time when there was an 11M ham band. He had no crystal that would
multiply up to six meters, so he turned to his VFO. It wasn't
intended for VHF (ie, it had not 8MHz range), but he retuned
one of the bands it did tune, just by adjusting a slug tuned
coil. As for the dial, I think he just decided vague was good
enough, and so he never did anything with the dial.

I can picture another article where someone retuned one of those
single-band SSB rigs (they only cover the phone segment of the band,
and the author probably wanted to get the CW segmen). Again,
covering the new frequency only required an adjustment of
a slug-tuned coil. But in that case, he wantes something slicker,
so he went to the trouble of redoing the dial, using rub-on lettering.

Someone once wrote an short article about using their NC300 on
a non-ham frequency; either to get WWV or perhaps to hear
a satellite. He added a trimmer across the tuning capacitor, to
get the new frequency. I think he had an alligator clip and
a bit of wire as a bandswitch.

When the rigs got fancier, and needed a heterodyne crystal
for each of the 500KHz or so band segments, adding a new band
required a new crystal. But most of those old rigs could
cover frequencies close to ham bands without any further adjustment,
and certainly a lot of the receivers could cover most of
the HF range without mods, once the crystal was in place.

Those old articles would be the basis for someone who needed
to get their rig working on this new 40M band, if it happens.
Though, the concept should often be fairly obvious.

It is sad that the ingenuity of days gone by seems to
be lacking in many hams.

Michael VE2BVW

2938. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 03:41:10 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF4C7D6.4B517D73@spam.me.not>
Source record: 52835
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Um... Either you're being ignorant, or you're trying to test me...

either way.. my answer is...

DUH!

SSB radio emissions have no carrier.

-SSB

Rough Rider wrote:
>
> Full quieting is normally associated with FM use. Who cares and what does
> it really mean you have a 2 watt carrier, unless you go around deadkeying
> and never say anything . your carrier power is a useless figure. What is
> your carrier power on ssb?
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF42130.7083E136@spam.me.not...
> > well, if a 2 watt carrier is full quieting 20 miles away, then the
> > antenna must be doing its job, wouldn't you think?
> >
> > -SSB
> >
> > Rough Rider wrote:
> > >
> > > Yes but what you are saying is you are heard with a 2 watt carrier. It
> is
> > > irrelavent what your carrier power is when you are talking. If you had a
> 10
> > > watt carrier and when you talk it went back to 5 watts then all you are
> > > doing is 5 watts not 10.
> > >
> > > "Sideband" <sideband@spam.me.not> wrote in message
> > > news:3AF3818C.28F440BF@spam.me.not...
> > > > I've turned down the carrier on my Grant XL to 2 watts. The radio
> swings
> > > > to 5 on AM, and does 0-12 on SSB. the AM measurements are RMS, the SSB
> > > > measurements are PEP.
> > > >
> > > > -SSB
> > > >
> > > > HelmutSweenie wrote:
> > > > >
> > > > > A 2 watt carrier? do you just sit there and throw dead keys or do

> you
> > > talk.
> > > > > If you do talk I am sure it is more than 2 watts so your deadkey
> figure
> > > is
> > > > > irrelavent.
> > > > >
> > > > > "Sideband" <sideband@spam.me.not> wrote in message
> > > > > news:3AF25F37.669914B6@spam.me.not...
> > > > > > Well, I'm heard with a 2 watt carrier over 20 miles away straight
> > > shot,
> > > > > > so I must have done something right.
> > > > > >
> > > > > > ::shrug::
> > > > > >
> > > > > > -SSB
> > > > > >
> > > > > > "David G. Nagel" wrote:
> > > > > >
> > > > > > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave
> dipole.
> > > They
> > > > > > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > > > > > configuration will not make a truly efficient antenna. Read up
> on
> > > > > > > collinear antenna's and dipole antenna's. You will see that what
> you
> > > > > > > have is nothing. However for you sake I do hope it works to your
> > > > > > > satisfaction. I prefer something else...
> > > > > > >
> > > > > > > Dave WD9BDZ
> > > > > > >
> > > > > > > Sideband wrote:
> > > > > > >
> > > > > > > > Doug:
> > > > > > > >
> > > > > > > > Hit Wilson's site and read up on what a Wilson Silver Load
> is....
> > > > > > > >
> > > > > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8
> (on
> > > > > 11M)
> > > > > > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I
> > > should
> > > > > > > > have said 1 1/4 wave dipole?
> > > > > > > >
> > > > > > > > -SSB
> > > > > > > >
> > > > > > > > Doug Smith wrote:
> > > > > > > >

> > > > > > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband
> > > <sideband@spam.me.not>
> > > > > wrote:
> > > > > > > > > >them as well. Granted, I run a 5/8 dipole on the car (two
> 4'
> > > Wilson
> > > > > > > > > >
> > > > > > > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2')
> whip
> > > is
> > > > > > > 1/4 wave,
> > > > > > > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > > > > > >
> > > > > > > > > > (you should try a 102" whip, I think you're likely to find
> it
> > > more
> > > > > > effective
> > > > > > > > > > than the twin four-footers. Because you won't have
> loading-coil
> > > > > > losses.
> > > > > > > > > > Mine worked *fantastically* well on 10 meters with a
> converted
> > > SSB
> > > > > > CB.)
> > > > > > > > > > --
> > > > > > > > > > Doug Smith W9WI
> > > > > > > > > > Pleasant View (Nashville), TN EM66
> > > > > > > > > > http://www.w9wi.com

2939. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 03:44:28 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF4C89C.25CB3C84@spam.me.not>
Source record: 52836
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Um.... Ok...

So I drive a truck.. Big Deal. I have never cophased antennae on my
truck. I find it counterproductive to even attempt to do so.

But if you want to play CB games...

Uh, 10-9 good buddy?

-SSB

"Peter J. Bertini" wrote:
>
> "> Hit Wilson's site and read up on what a Wilson Silver Load is....
> > >
> > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > top loaded coil antenna.
>
> Runs chills up and down my spine just thinking about
> a Wilson Silver Load. Gives me the urge to run and
> buy two, and co-phase them on the sidemirrors for
> anudder 10dB or so.. Ten Fer.

2940. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 03:59:29 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3AF4CC21.258E7EE7@inreach.com>
Source record: 52839

What is really sad is a backhanded slap in the face couched in inuendo,
when a simple "here's what you do" would suffice.
Lets see you make your own tube....

Michael Black wrote:
>
> On Sat, 5 May 2001, Bill Meacham wrote:
>
> > >
> > > Schatzie wrote:
> > > >
> > > > Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
> > > > I can always modify my HP5328 to just read the VFO....
> > >
> > > Well, Schatz, how do you handle the WARC bands or are you whining about
> > > that gift also?
> > >
> > > -WX4A
> > >
> > >
> I find this talk of moving equipment interesting, since the worriers
> seem to have no sense of history.
>
> There was a time when "mods" were not about clipping diodes to enable
> something the manufacturer put in place. Somebody had a piece of
> equipment, it didn't do quite what they wanted, so they modified it,
> and then shared what they'd done in the ham magazines. Who knows
> how many actually copied the idea, but I would hope the articles
> gave other people ideas for something they needed with the equipment
> they had.
>
> I can picture an article by someone who wanted to get on six meters
> without spending any money. He modified his existing HF transmitter,
> a Globe or a Heathkit, probably doubling in the final. He might have
> forfeited one of the HF bands, or perhaps the rig dated from the
> time when there was an 11M ham band. He had no crystal that would
> multiply up to six meters, so he turned to his VFO. It wasn't
> intended for VHF (ie, it had not 8MHz range), but he retuned
> one of the bands it did tune, just by adjusting a slug tuned
> coil. As for the dial, I think he just decided vague was good
> enough, and so he never did anything with the dial.
>

> I can picture another article where someone retuned one of those
> single-band SSB rigs (they only cover the phone segment of the band,
> and the author probably wanted to get the CW segmen). Again,
> covering the new frequency only required an adjustment of
> a slug-tuned coil. But in that case, he wantes something slicker,
> so he went to the trouble of redoing the dial, using rub-on lettering.
>
> Someone once wrote an short article about using their NC300 on
> a non-ham frequency; either to get WWV or perhaps to hear
> a satellite. He added a trimmer across the tuning capacitor, to
> get the new frequency. I think he had an alligator clip and
> a bit of wire as a bandswitch.
>
> When the rigs got fancier, and needed a heterodyne crystal
> for each of the 500KHz or so band segments, adding a new band
> required a new crystal. But most of those old rigs could
> cover frequencies close to ham bands without any further adjustment,
> and certainly a lot of the receivers could cover most of
> the HF range without mods, once the crystal was in place.
>
> Those old articles would be the basis for someone who needed
> to get their rig working on this new 40M band, if it happens.
> Though, the concept should often be fairly obvious.
>
> It is sad that the ingenuity of days gone by seems to
> be lacking in many hams.
>
> Michael VE2BVW

2941. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 04:06:00 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <I44J6.19902$K5.2391399@news1.rdc1.nj.home.com>
Source record: 52837

I think I'll also need a few more inches on the dipole.

"Bill Meacham" <NOSPAMexray@coqui.net> wrote in message
news:3AF48556.1CA1BE1D@coqui.net...
>
>
> Schatzie wrote:
> >
> > Please to supply me with a dial for my Swan 350, HT44 and SX117, of
course,
> > I can always modify my HP5328 to just read the VFO....
>
>
> Well, Schatz, how do you handle the WARC bands or are you whining about
> that gift also?
>
> -WX4A

2942. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 04:13:17 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF4CF5D.44940E29@coqui.net>
Source record: 52838

My sentiments exactly. I sympathize with the vintage station guy who
'loses' part of 40 m (if that is indeed the case) on his NC-300. But
geez, any ham who is worth his salt can figure ways around all this.
It may be an affront to vintage rigs, but there's a s**tload of rigs
that won't work all HF bands, or even all freqs...SBE mobiles or
whatever. If the powers that be are willing to give us a cleaner slice
of spectrum, whining certainly serves no purpose. I'll willingly GIVE
them 7.2 to 7.3 in exchange for 6.9 to 7.0. Thats a no-brainer.

-Bill
WX4A

Michael Black wrote:
>
> On Sat, 5 May 2001, Bill Meacham wrote:
>
> > >
> > >
> > > Schatzie wrote:
> > > >
> > > > Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
> > > > I can always modify my HP5328 to just read the VFO....
> > >
> > >
> > > Well, Schatz, how do you handle the WARC bands or are you whining about
> > > that gift also?
> > >
> > > -WX4A
> > >
> > >
> > I find this talk of moving equipment interesting, since the worriers
> > seem to have no sense of history.
>
> There was a time when "mods" were not about clipping diodes to enable
> something the manufacturer put in place. Somebody had a piece of
> equipment, it didn't do quite what they wanted, so they modified it,
> and then shared what they'd done in the ham magazines. Who knows
> how many actually copied the idea, but I would hope the articles
> gave other people ideas for something they needed with the equipment
> they had.
>
> I can picture an article by someone who wanted to get on six meters
> without spending any money. He modified his existing HF transmitter,
> a Globe or a Heathkit, probably doubling in the final. He might have
> forfeited one of the HF bands, or perhaps the rig dated from the

> time when there was an 11M ham band. He had no crystal that would
> multiply up to six meters, so he turned to his VFO. It wasn't
> intended for VHF (ie, it had not 8MHz range), but he retuned
> one of the bands it did tune, just by adjusting a slug tuned
> coil. As for the dial, I think he just decided vague was good
> enough, and so he never did anything with the dial.
>
> I can picture another article where someone retuned one of those
> single-band SSB rigs (they only cover the phone segment of the band,
> and the author probably wanted to get the CW segmen). Again,
> covering the new frequency only required an adjustment of
> a slug-tuned coil. But in that case, he wantes something slicker,
> so he went to the trouble of redoing the dial, using rub-on lettering.
>
> Someone once wrote an short article about using their NC300 on
> a non-ham frequency; either to get WWV or perhaps to hear
> a satellite. He added a trimmer across the tuning capacitor, to
> get the new frequency. I think he had an alligator clip and
> a bit of wire as a bandswitch.
>
> When the rigs got fancier, and needed a heterodyne crystal
> for each of the 500KHz or so band segments, adding a new band
> required a new crystal. But most of those old rigs could
> cover frequencies close to ham bands without any further adjustment,
> and certainly a lot of the receivers could cover most of
> the HF range without mods, once the crystal was in place.
>
> Those old articles would be the basis for someone who needed
> to get their rig working on this new 40M band, if it happens.
> Though, the concept should often be fairly obvious.
>
> It is sad that the ingenuity of days gone by seems to
> be lacking in many hams.
>
> Michael VE2BVW

2943. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 04:17:10 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <6nj9ft0c0ci4rjqr5nopmq34q2k7nvcovb@4ax.com>
Source record: 52840

>The countries
>around the world want to chop off the 7.1-7.3 region 2 allocation to SWBC.

For the life of me I don't understand why the countries of the world are so sold on shortwave broadcasting. Technology has advanced to the point where direct satellite broadcasts could be done cheaply and very effectively. A thousand or so 10 KHz channels around 1 GHz could handle it all. If everything were standardized (channel spacing, FM mode, deviation) then receivers could be mass produced cheaply and the shortwave problems would be solved forever.

73, Bill W7TI

2944. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 04:26:31 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF4D277.42938E47@coqui.net>
Source record: 52841

Schatzie wrote:
>
> I think I'll also need a few more inches on the dipole.

I'll send you a few inches of wire in the 'old ham' spirit. We'll get through this challenge!

-Bill

2945. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 06:18:00 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <s06J6.38783$qD1.727134@typhoon.mw.mediaone.net>
Source record: 52842
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF38101.858C2075@spam.me.not...
> Comments within:
>
> "Leland C. Scott" wrote:
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF2090C.2C9DD715@spam.me.not...
> > > Actually, I don't have my license yet. I go for my written tests next
> > > week.
> >
> > I wish you good luck and hope you make it!!! You have any equipment yet?
If
> > not what are you looking at getting?
>
> I'm starting out taking the Tech and General written tests. Code will
> come later this year, hopefully. I'm going to need a 2M set to start,
> and an HF set later, once I've passed the code requirement.

That sounds good. The credit for the written elements are good for a year I
think. If you
can find somebody to practice code with that would be great help I'm sure.
Depending on your finances, if your looking to save some money, check out
some of the local Hamfests in your area. The ARRL web site has a list of
them all over the country. A used radio can save you a big chunk of coin.
That's maybe your best bet until you figure out what you want or need in the
way of features in a rig. Once you know that then you are in a better
position to spend some money on a new, or newer, radio knowing it will do
what you want. Also don't let some of the Old Timers on this news group get
under your skin either about anything. Some like to take cheap shots at Tech
Class operators. Regardless of what class license you get, or the code speed
you test at, your a Ham at that point, and don't let anybody tell you
different.

--
Leland C. Scott
KC8LDO

ARRL Member
NCI Member
--
"Sometimes our enthusiasm for change
depends on our willingness to take a
chance on tomorrow by risking what

we have today."

2946. Kenwood R2000 circuit/manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 09:19:58 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3af51683.1187187@news.xtra.co.nz>
Source record: 52843

Hi,
looking for a manual to help me fix a rogue R2000. Intermittant
display and goes out of lock. All LO's working.

Thanks, Renfred ZL1BDL
Remove x from email address

2947. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 11:51:48 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9d3e1o02v7r@news2.newsguy.com>
Source record: 52844

"Schatzie" <jdwalton@home.com> wrote in message
news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
>
> This will come as a blow to all us boatanchor types.

Hey - the boatanchor types, at most, have a little tweaking to do, and more than likely, they know how to do it. OK, sometimes they may need to be a little creative, as some other posters have pointed out, but many of them had to get at least as creative to get the old beast on the air in the first place.

The real challenge will come for the rice box appliance operators. Anymore these rigs are all computer controlled and very hard to work on. Ever try removing an SOT64 chip? The design of these rigs is such that it would be real hard for the manufacturers to supply an upgrade, as if they would rather do that than sell a new rig. And most of the folks who have them, wouldn't have any idea what to do to change them even if it was a reasonable thing to do.

I'm sure there will be a ton of whining about how this is just another way charlie is trying to help the manufacturers sell more gear, but if there is a way to make the 40 meter band a little less hostile, I'm all for it.

didleydadidah

2948. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 13:30:51 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <fmcJ6.96$a67.28560@newsread2.prod.itd.earthlink.net>
Source record: 52845

Hey Bill,

The guy didn't ask how to get around a problem tuning new frequencies. He just flat out said that all boat anchor enthusiasts are out of luck.

I did make a tube once just to see if it could be done. It worked (for a couple of minutes). My project was not economically viable even if we count time as worth only 1 cent per hour. It was ugly and messy.

All that said...

If a boat anchor enthusiast is worried about wrecking the resale value of antique equipment then outboard, add-on accessories would be the way to go. An external VFO plugged in to the place where a crystal would go or some similar arrangement. Later boat anchors would only require a crystal change for a new 40 meter band and the user would have to simply know the dial is off by 100 khz (or 2 or whatever). Seems simple enough for anybody capable of getting a ham ticket. Out of band operation isn't so touchy for a swl (who probably already has general coverage).

Bill KU8H

William F. Hagen <whagen@inreach.com> wrote in message news:3AF4CC21.258E7EE7@inreach.com...
> What is really sad is a backhanded slap in the face couched in inuendo,
> when a simple "here's what you do" would suffice.
> Lets see you make your own tube....
>
> Michael Black wrote:
> >
> > On Sat, 5 May 2001, Bill Meacham wrote:
> >
> > > >
> > > >
> > > > Schatzie wrote:
> > > >
> > > > Please to supply me with a dial for my Swan 350, HT44 and SX117, of course,
> > > > I can always modify my HP5328 to just read the VFO....
> > > >
> > > >
> > > > Well, Schatz, how do you handle the WARC bands or are you whining about
> > > > that gift also?
> > > >
> > > > -WX4A

> > >
> > >
> > I find this talk of moving equipment interesting, since the worriers
> > seem to have no sense of history.
> >
> > There was a time when "mods" were not about clipping diodes to enable
> > something the manufacturer put in place. Somebody had a piece of
> > equipment, it didn't do quite what they wanted, so they modified it,
> > and then shared what they'd done in the ham magazines. Who knows
> > how many actually copied the idea, but I would hope the articles
> > gave other people ideas for something they needed with the equipment
> > they had.
> >
> > I can picture an article by someone who wanted to get on six meters
> > without spending any money. He modified his existing HF transmitter,
> > a Globe or a Heathkit, probably doubling in the final. He might have
> > forfeited one of the HF bands, or perhaps the rig dated from the
> > time when there was an 11M ham band. He had no crystal that would
> > multiply up to six meters, so he turned to his VFO. It wasn't
> > intended for VHF (ie, it had not 8MHz range), but he retuned
> > one of the bands it did tune, just by adjusting a slug tuned
> > coil. As for the dial, I think he just decided vague was good
> > enough, and so he never did anything with the dial.
> >
> > I can picture another article where someone retuned one of those
> > single-band SSB rigs (they only cover the phone segment of the band,
> > and the author probably wanted to get the CW segmen). Again,
> > covering the new frequency only required an adjustment of
> > a slug-tuned coil. But in that case, he wantes something slicker,
> > so he went to the trouble of redoing the dial, using rub-on lettering.
> >
> > Someone once wrote an short article about using their NC300 on
> > a non-ham frequency; either to get WWV or perhaps to hear
> > a satellite. He added a trimmer across the tuning capacitor, to
> > get the new frequency. I think he had an alligator clip and
> > a bit of wire as a bandswitch.
> >
> > When the rigs got fancier, and needed a heterodyne crystal
> > for each of the 500KHz or so band segments, adding a new band
> > required a new crystal. But most of those old rigs could
> > cover frequencies close to ham bands without any further adjustment,
> > and certainly a lot of the receivers could cover most of
> > the HF range without mods, once the crystal was in place.
> >
> > Those old articles would be the basis for someone who needed
> > to get their rig working on this new 40M band, if it happens.
> > Though, the concept should often be fairly obvious.
> >
> > It is sad that the ingenuity of days gone by seems to
> > be lacking in many hams.

> >
> > Michael VE2BVW
>

2949. Ciss, Crss and Coss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 13:51:30 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9d3p21gdd1@dipsy.missouri.edu>
Source record: 52747

This may seem like a silly question, maybe not. Is there any reason why Ciss, Crss and Coss are listed in datasheets rather than Cgd, Cgs and Cds? It probably has something to do with y parameters or something, I'm sure. Why not list the Cgd, etc. outright? [note: I know that Ciss=Cgs+Cgd, Crss=Cds+Cgd and Crss=Cgd] Is it just some sort of ploy to scare/confuse amateur hobbyists and students?

I know the answer has to be obvious, but I've been known to miss some obvious things.

Thanks for any help.
Pete
ki0eg

2950. amp with pl36

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 14:22:10 UTC
From: Alexander Dyszewski <amarylis@chello.at>
Message-ID: <3AF55E30.6FB8E3D2@chello.at>
Source record: 52846

is it possible do make any kind of amplifier with the pl36 valve ??

greets ALEX

2951. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 15:47:48 UTC
From: "MIchael W. McGinley" <mmcginley@kscable.comSTOPSPAM>
Message-ID: <060520011048147038%mmcginley@kscable.comSTOPSPAM>
Source record: 52748
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

No Respect - No Quarter - No Mercy

There is no such thing as a freebander
I'll call Freebanders what They really are... FELONS !

Nuff Said

Michael - N0JVT

2952. Re: Transistor "CTC CD2545" from Atlas 210x HF Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 18:18:43 UTC
From: Robert Richardson <rrichard@zianet.com>
Message-ID: <3af604b5.0@oracle.zianet.com>
Source record: 52756
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Andreas Weller <weller@andreas-weller.de> wrote in message
news:3AF29E22.6F3C97FC@andreas-weller.de...
> Hi!
>
> I need some help with a strange transistor found in an Atlas 210x
> amateur radio transmitter.
> It's printed with "CTC CD2545" does anyone know a referring type or
> where to obtain this transistor?
The ATLAS transistors can be obtained from almost any replacenment
transistor supplier in your part of the country as an NTE317 or from
http://www.rfparts.com as a matched pair of MRF412's for about $48.00 pr. I
just replaced the finals in my two of my ATLAS'es with a pair of MRF412's in
one and a pair of NTE317's in the other last month. The MRF412's were much
cheaper than the NTE's. $48.00 pair to $120 pr. Thus my choice to go to RF
Parts co. for the second pair.

Robert K5DXN

2953. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 19:53:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <3ZhJ6.48946$Ce4.3923650@news1.rdc1.ct.home.com>
Source record: 52749

Yep, it will be a challenge to get my JRC twins to
work below 7.0000 on TX, the NSD-515 will require
a bit of rework and parts changes to do so...

The real question I have is whether the CW DX window
will remain in the first 25 kHz just above 7.0000 MHz.
There is no reason that the band plan would have to
remain as it is now... It would seem the status quo
would remain for a number years--with the first new
100kHz of the band almost taking on a WARC band
like aura... opinions?

Peter

Peter

"WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote in message
news:9d3e1o02v7r@news2.newsguy.com...
> "Schatzie" <jdwalton@home.com> wrote in message
> news:V7TI6.15885$>
> The real challenge will come for the rice box appliance operators.
Anymore
> these rigs are all computer controlled and very hard to work on. Ever try
> removing an SOT64 chip? The design of these rigs is such that it would be
> real hard for the manufacturers to supply an upgrade, as if they would
> rather do that than sell a new rig. And most of the folks who have them,
> wouldn't have any idea what to do to change them even if it was a
reasonable
> thing to do.
>
> I'm sure there will be a ton of whining about how this is just another way
> charlie is trying to help the manufacturers sell more gear, but if there
is
> a way to make the 40 meter band a little less hostile, I'm all for it.
>
> didleydadidah
>
>
>

2954. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 20:14:11 UTC
From: Gary McAdams <g.m.mcadams@worldnet.att.net>
Message-ID: <ngiJ6.7251$t12.599591@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52750

Dunno 'bout all those other "rice boxes" out there,
but mine was very easily modded.

Receives/Transmits from 1.8 MHz to 30 MHz.

NO problem with new bands/segments.

Seriously though, this re-alignment could be
good if it really resulted in a 300 kHz Amateur
only band. I don't trust the process enough. Maybe
I'm just too suspicious...

Gary WG7X

WB8RCR <wb8rcr_NOSPAM@qsl.net> wrote in message
news:9d3e1o02v7r@news2.newsguy.com...
> "Schatzie" <jdwalton@home.com> wrote in message
> news:V7TI6.15885$K5.2022093@news1.rdc1.nj.home.com...
> >
> > The real challenge will come for the rice box appliance operators.
Anymore
> these rigs are all computer controlled and very hard to work on

2955. 38 Special keying "thumps"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 20:23:07 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <0miJ6.3610$vR1.12104@nntpserver.swip.net>
Source record: 52751

Is there a simple way to get rid of the irritating keying "thumps" on the 38 Special?
Have changed the filter caps for the 7808 to 22+10uF with no difference.

2956. Toroidal Power Transformer design questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-06 20:34:16 UTC
From: rhebert <rexheb@NOSPAMbellsouth.net>
Message-ID: <cziJ6.118933$Xl3.6799460@news2.aus1.giganews.com>
Source record: 52752

Hello,

I need some expert advice please
I've been trying to learn all I can about toroidal power transformers

You see, I'm prototyping a simple audio device that uses a single
12AX7 tube for which I'd like a simple light-duty toroidal power transformer.
I know power transformers can get quite large but available space is tight.
How physically small could this be made?

Primary: 120Vac
Secondary 1: 120Vac at 100mA to 300mA - Plate
Secondary 2: 12Vac at 150mA to 300mA - Filament

The plate winding feeds a Fullwave solid-state diode bridge
with a CRC ripple filter design following.

I would like to wind one myself but I could use some expert advice
on core selection and specs. How many turns would these windings
require and at what guage? What brand of core?
Is there a ready-made unit available with these specs?

Iron Powder or Ferrite? or Coiled Lamination (if I have that right)

I'm on a very tight budget and need to keep my costs down
and for now I only need one

Thank you very much for any advice or suggestions
Please reply via Email rexheb@bellsouth.net

Rex Hebert

HEBERT Audio Video Services
Lafayette, Louisiana 70501

2957. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 01:13:11 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AF5F6A7.75FAC5FD@bloomer.net>
Source record: 52753

Can't wait to get realigned to 6.9 to 7.2 MHz. Most solid state,
general coverage boxes can have a diode removed to make them general
coverage transmit as well. Even the older rigs like my spare TS-520S
should just require one crystal change (100KHz lower) for the 40M band.

Scott
N0EDV

"Peter J. Bertini" wrote:
>
> Yep, it will be a challenge to get my JRC twins to
> work below 7.0000 on TX, the NSD-515 will require
> a bit of rework and parts changes to do so...
>
> The real question I have is whether the CW DX window
> will remain in the first 25 kHz just above 7.0000 MHz.
> There is no reason that the band plan would have to
> remain as it is now... It would seem the status quo
> would remain for a number years--with the first new
> 100kHz of the band almost taking on a WARC band
> like aura... opinions?
>
> Peter
>
> Peter
>
> "WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote in message
> news:9d3e1o02v7r@news2.newsguy.com...
> > "Schatzie" <jdwalton@home.com> wrote in message
> > news:V7TI6.15885$>
> > The real challenge will come for the rice box appliance operators.
> Anymore
> > these rigs are all computer controlled and very hard to work on. Ever try
> > removing an SOT64 chip? The design of these rigs is such that it would be
> > real hard for the manufacturers to supply an upgrade, as if they would
> > rather do that than sell a new rig. And most of the folks who have them,
> > wouldn't have any idea what to do to change them even if it was a
> reasonable
> > thing to do.
> >
> > I'm sure there will be a ton of whining about how this is just another way
> > charlie is trying to help the manufacturers sell more gear, but if there
> is
> > a way to make the 40 meter band a little less hostile, I'm all for it.
> >

> > didleydadidah
> >
> >
> >

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2958. Re: Kenwood R2000 circuit/manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 01:38:19 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <f0nJ6.8206$4f7.614428@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52754

I had one of these units in for repair a few years ago; the problem with the intermittent display turned out to be a cold solder joint on the regulator that feeds the display.

Pete

Renfred <xrenfredm@xtra.co.nz> wrote in message news:3af51683.1187187@news.xtra.co.nz...
> Hi,
> looking for a manual to help me fix a rogue R2000. Intermittant
> display and goes out of lock. All LO's working.
>
> Thanks, Renfred ZL1BDL
> Remove x from email address

2959. Re: Respect For Freebanders Response

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 02:00:55 UTC
From: Oris Grim <oris@dirtball.com>
Message-ID: <3AF601D7.1594700@dirtball.com>
Source record: 52755
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Just get your ham ticket and become Legal!

"Arf! Arf!" wrote:

> Gee whiz! When you guys gonna learn to keep your responses short and to the
> point? Don't write a darn book....nobody reads past the first two paragraphs
> anyway.
> If you can't say it in a few sentences, nobody cares.
> Save your editorializing for the New York Times....
>
> <ccom2@socket.net> wrote in message news:3af0dcb3.3549117@news.socket.net...
> > Preach it Brother
> > It could not have been said any better.
> >
> > FreeBanders are bottom feeding scum.
> > That should have all their equipment taken away.
> > Mike
> > AB0IV
> >
> > Jerry Oxendine <joxendi@bellsouth.net> wrote:
> >
> > >Bob,
> > >
> > >Yours is the kind of misunderstanding that, try as people might, just
> > >can't seem to be overcome. I know FIRSTHAND that there are agencies
> > >that are assigned frequencies above and below the 11 meter CB band.
> > >Tell me, what is "unessential" about forest rangers. What is "unessen-
> > >tial" about military comms? The difference is the type and duration of
> > >commercial and military comms as opposed to civilians who are there just
> > >to talk, often as much as possible, to as many people as possible. Busi-
> > >ness or military comms are short and to the point.
> > >
> > >I know the regulars get tired of reading this example, but it is a per-
> > >fect example of why NOT to "freeband". Some years ago, I was acting
> > >as communications officer for Civil Air Patrol on a live search for a
> > >light plane that disappeared during a storm. We planned to use a freq-
> > >uency near 11 meters which is a USAF frequency assigned to CAP. Like
> > >many rescue agencies, both civilian and military, we use our assigned
> > >frequencies so as to separate various kinds of traffic, take advantage
> > >of atmospherics (time of day), and keep from "interfering" with our-
> > >selves--air to ground on one freq., mobile to base on another, and yet
> > >another for "incidental comms" such as flight line, safety, or even
> > >sending out for food for the searchers. Another reason for choosing the
> > >low power 26 MHZ band was to prevent news hounds, ambulance chasers,

> > >and even possibly the family of the pilot from hearing adverse news via
> > >scanner. *Most* scanners don't deal too well with SSB. We quickly dis-
> > >covered that there was a "freebander" on that frequency calling, "BREAK,
> > >BREAK, skipland", etc with a linear that made it difficult or impossible
> > >to use this frequency forcing a lot of incidental traffic onto VHF. I
> > >was LIVID! There was NO excuse for this person operating on that freq-
> > >uency whatsoever. He was interfering with an active USAF authorized
> > >mission, a real emergency where a life was hanging in the balance. In
> > >the following week after the mission was suspended, I began to DF this
> > >pirate, determined to put a stop to his outlaw operations. One evening,
> > >I happened to be in a nearby town, and absently switched on one of my
> > >radios in the car not expecting to hear anything. The guy was pegging
> > >my meter and almost busted my speaker. On my way out of town, I made
> > >a screeching U-turn and went back into town, stopping at the town PD to
> > >ask if they recognized that voice. Yup, they knew the fella and where he
> > >lived. I drove to his house and confirmed the location. Outlaw was
> > >reported to FCC field office, and was busted for out-of-band operation
> > >AND interfering with emergency communications--a serious Federal
> > >offense. Betcha he got tired of eating beans from a .10 can!
> > >
> > >There IS no excuse for operating on unauthorized frequencies. You might
> > >*think* these freqs are unoccupied and that the agencies thereto assign-
> > >ed are "non-essential". That is not for individuals to decide. Just
> > >because *you* don't hear anyone doesn't mean they aren't there and that
> > >there is no traffic being passed that you could hinder.
> > >
> > >Finally, let's say I, or you, rent/lease a piece of property with a nice
> > >lake on it. Intending to do a little fishing, you stock that lake with
> > >a variety of game fish--bass, crappy, catfish, perch, or whatever. You
> > >are busy and don't get out to your lake real often, but one day you
> > >decide it would be a good day to go fishing; remember, it's "your" lake
> > >by virtue of your lease to use as you see fit within the guidelines of
> > >your agreement with the owner. When you arrive, you discover a large
> > >group of people on your property, at YOUR lake, catching the fish YOU
> > >stocked--in spite of the fact there are No Trespassing signs all over-
> > >even right where the trespassers are fishing. I'd be angry and I'd bring
> > >charges against each and every one that trespassed on my land. It
> > >doesn't make any difference if I don't come to the lake every day, it
> > >is STILL property assigned to me by virtue of rent or lease and nobody
> > >has any business on it without permission.
> > >
> > >"Freebanders" don't have "permission" (license) to operate on frequen-
> > >cies outside the 11 meter band. They are trespassing just as surely
> > >as those people I cited in the above paragraph. And when they DO tres-
> > >pass, it pisses off those who are legitimately assigned said frequencies
> > >for their exclusive use and it don't make ANY difference if they "visit"
> > >(use) their "property" (frequency) once a minute or once a year--the
> > >"freebanders" are trespassing just as surely as if they just walked into
> > >your/my house uninvited. There is no respect due, and none forthcoming
> > >for trespassers, "freebanders", or outlaw radio ops.

> > >
> > >Jerry
> > >K4KWH
> > >
> > >
> > >Bob wrote:
> > >>
> > >> Ok, Mr. Letter of the Law.
> > >>
> > >> And I bet you ALWAYS obey the maximum posted speed limit. If you wanted
> to speed,
> > >> you would take the right approach to speeding legally - because, hey
> man, you do
> > >> EVERYTHING right. You would put your mind to becoming a race car driver
> and do your
> > >> speeding on the track where it belongs. You would follow the proper
> steps to
> > >> becoming a race car driver:
> > >>
> > >> 1. Learn to ride a unicycle, because that's how it all started, man.
> Our
> > >> forefather's rode unicycles before fast cars were around, so must you
> learn.
> > >> 2. Learn everything there is to know about cars - including memorizing
> the answers
> > >> to questions about walking, unicycles, horse and carriage, boats,
> planes, etc.
> > >> 3. If you skip the step on learning to ride a unicycle, prepare to be
> chastised by
> > >> old-timers that had to learn how to ride it and by some who love the
> unicycle and
> > >> can ride it at over 20 mph! BTW - learning to ride the unicycle keeps
> bad people
> > >> from becoming race car drivers.
> > >> 4. Prepare to spend some money. Your standard car won't do - it doesn't
> fit race
> > >> car specs! And every race track requires a different car and tire
> combination.
> > >>
> > >> Is becoming a race car driver what you should do because you like to
> take those 15
> > >> turns of Bear Mountain road at an faster than the posted speed? Well,
> ham radio IS
> > >> NOT a replacement for the "freeband" either. Ham radio doesn't fit
> everybody. Maybe
> > >> its a bit of an extreme commitment for some. Hey, I can operate my
> equipment and
> > >> make sure that it complies with the same rules the FCC mandates for
> hams. I can
> > >> operate it responsibly. I can operate it courteously . I can use the

> minimum amount
> > >> of power necessary for a contact.
> > >>
> > >> Still, is it illegal to operate between 27.405 - 28.000Mhz ? Yes. Is it
> immoral? A
> > >> crime against humanity? Absolutely not. To me - speeding in your car is
> a far more
> > >> worse crime.
> > >>
> > >> BTW, I do not condone operating on ham bands or intentionally
> interfering with any
> > >> service that I am aware of. Yes, I know there are (very few, non
> essential)
> > >> services allocated between 27.405 and 28Mhz. I support operations on
> 27.405 -
> > >> 27.855 Mhz that follow the same regulations that hams follow.
> > >>
> > >> Hopefully this metaphor can crack the thick skull of the "yes, but it's
> illegal,
> > >> yes, but it's illegal, yes, but it's illegal" ham. This is issue isn't
> black and
> > >> white.
> > >>
> > >> Bob.
> > >
> > >> > >
> >

2960. Re: Kenwood R2000 circuit/manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 10:36:30 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3af679e0.1150986@news.xtra.co.nz>
Source record: 52757

On Mon, 07 May 2001 01:38:19 GMT, "NANCY GIANAKOPOULOS"
<n.gianakopoulos@worldnet.att.net> wrote:

>I had one of these units in for repair a few years ago; the problem with the
>intermittent display turned out to be a cold solder joint on the regulator
>that feeds the display.
>
>Pete
>
>Renfred <xrenfredm@xtra.co.nz> wrote in message
>news:3af51683.1187187@news.xtra.co.nz...
>> Hi,
>> looking for a manual to help me fix a rogue R2000. Intermittant
>> display and goes out of lock. All LO's working.
>>
>> Thanks, Renfred ZL1BDL
>> Remove x from email address
>
>Thanks Pete, it turned out to be a sick 4011 . Now display works fine. Now problem is not working in USB, LSB or CW mode. Hhhhmmmm. I haven't yet figured out the signal path in these modes. Takes ages without a diagram!!

Remove x from email address

2961. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 11:44:37 UTC
From: mbz07 <mbz07@lineone.net>
Message-ID: <tfd2k1m2jaua6@corp.supernews.co.uk>
Source record: 52758
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

>
> (Full quieting? Then you must have been using FM emissions, an illegal
mode
> on 11 meters. :>)

Not in the UK and most or Europe....

2962. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 12:24:08 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF693E8.EF77E40@spam.me.not>
Source record: 52759
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Maybe I've got my definitions confused, but isn't full quieting when a
transmitted carrier is strong enough to cover all background noise at
the receiver?

I don't recall ever hearing/being told/reading that Full Quieting
applied only to FM. I could be wrong.

-SSB

W6DKN wrote:
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF42130.7083E136@spam.me.not...
> > well, if a 2 watt carrier is full quieting 20 miles away, then the
> > antenna must be doing its job, wouldn't you think?
> >
> > -SSB
>
> Not really. How about 4 million + miles per watt ?
>
> (Full quieting? Then you must have been using FM emissions, an illegal mode
> on 11 meters. :>)
>
> http://radioworks.com/hpmain.html
>
> 73 de W6DKN

2963. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 13:32:24 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF6A3E8.5F001C5F@IEEE.org>
Source record: 52760
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
> I don't recall ever hearing/being told/reading that Full Quieting
> applied only to FM. I could be wrong.

From the IEEE Dictionary: "quieting sensitivity (frequency-modulation receivers) The minimum unmodulated signal input for which the output signal-noise ratio does not exceed a specified limit, under specified conditions."

Note the "unmodulated" requirement which would prohibit this term from being used associated with SSB.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2964. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 13:38:20 UTC
From: k5dh@raytheon.com
Message-ID: <gzxJ6.147$px.3904@dfw-service2.ext.raytheon.com>
Source record: 52761

In article <6nj9ft0c0ci4rjqr5nopmq34q2k7nvcovb@4ax.com>, w7ti@jps.net says...
>
>For the life of me I don't understand why the countries of the world are so
sold
>on shortwave broadcasting. Technology has advanced to the point where direct
>satellite broadcasts could be done cheaply and very effectively. A thousand
or
>so 10 KHz channels around 1 GHz could handle it all. If everything were
>standardized (channel spacing, FM mode, deviation) then receivers could be
mass
>produced cheaply and the shortwave problems would be solved forever.
>
>73, Bill W7TI

Too many people already have SW receivers. Doesn't matter if it's a
WW2 surplus BA, or a new Grundig whiz-bang box. Either one receives
SW broadcasts just fine. In many countries, many people live in
poverty, so the cost to buy a new receiver would be prohibitive.

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

2965. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 14:48:39 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF6B5C7.501194DA@spam.me.not>
Source record: 52762
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

So it could apply to an unmodulated AM signal, then? If so, my statement
was correct. If not, I stand corrected. I hope someone will let me know
which it is.

-SSB

W6RCecilA wrote:
>
> Sideband wrote:
> > I don't recall ever hearing/being told/reading that Full Quieting
> > applied only to FM. I could be wrong.
>
> From the IEEE Dictionary: "quieting sensitivity (frequency-modulation
> receivers) The minimum unmodulated signal input for which the output
> signal-noise ratio does not exceed a specified limit, under specified
> conditions."
>
> Note the "unmodulated" requirement which would prohibit this term
> from being used associated with SSB.
> --
> http://www.mindspring.com/~w6rca
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2966. PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 15:12:58 UTC
From: AC6V <ac6v@ix.netcom.com>
Message-ID: <3AF6BB79.F8ED5E8B@ix.netcom.com>
Source record: 52763

PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS
I opened up several posts today and the topic dicussed had nothing to do
with the header.
AND neither the header or the topic had anything to do with homebrew.

Come on folks - lets respect the Use Group Guide Lines at URL:
http://faqs.jmas.co.jp/FAQs/radio/personal-intro

AND FOR CRIPES SAKES __ CHANGE THE HEADER WHEN YOU CHANGE TOPICS.
I just read one with a header of "freebander" nonsense and it was
discussing FM Quieting!!!

--
73 From Rod AC6V In San Diego
700 Ham Topics & 6,000 Links
http://ac6v.com/
I Doubt, Therefore I Might Be!!!

2967. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 16:49:55 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <lgkdftcv4ktsa20ftmqvraa7lfv4rl6th9@4ax.com>
Source record: 52764

On Mon, 07 May 2001 08:39:56 -0500, K5DH wrote:

>Too many people already have SW receivers. Doesn't matter if it's a
>WW2 surplus BA, or a new Grundig whiz-bang box. Either one receives
>SW broadcasts just fine. In many countries, many people live in
>poverty, so the cost to buy a new receiver would be prohibitive.

I understand the cost of changeover factor, but if people were to apply that to all facets of life, we'd still be riding horses and using outdoor plumbing. Changes like this can be phased in over a period of years with minimal impact. I see going to microwaves as a clear benefit to all involved - better reception, less interference, little or no fading, smaller antennas - it's well worth doing IMO.

Don't you agree?

73, Bill W7TI

2968. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 17:05:01 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF6D5BD.D4C1833B@zylay.com>
Source record: 52765
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> "> Hit Wilson's site and read up on what a Wilson Silver Load is....
> >
> > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > top loaded coil antenna.
>
> Runs chills up and down my spine just thinking about
> a Wilson Silver Load. Gives me the urge to run and
> buy two, and co-phase them on the sidemirrors for
> anudder 10dB or so.. Ten Fer.

That's a big 10-fer good buddy. I'm sure you gets lots of horizontal
gain with a 4-ft-long half-wave antenna. These dumbasses don't even
recognize marketing hype when it's served to them on a silver platter.

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

2969. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 17:09:23 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF6D6C3.2C6EDA34@zylay.com>
Source record: 52766
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> > How serious a crime is it? Your assignment - think of all the crimes you can,
> > where does freebanding fit it?
>
> That's a pretty good question. Unless I'm missing something, I would
> rank it right up there with driving on the shoulder of the road where
> such is illegal.

I don't see where it's that minor at all. If one of my kids got hurt because of someone driving down the side of the road, I'd hunt them down and slowly kill them. If someone scared them with a near-miss, their car would not be recognizable when I was done with it. In short, nobody screws with my babies, else I become the mother of all mother bears.

Lots of people take driving infractions lightly until someone gets killed. All of a sudden there is a great wailing and gnashing of teeth as everyone wonders what can be done to make our roads safe. For starters, might I suggest taking ALL laws seriously, not just the ones that fit your own personal agenda?

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

2970. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 17:11:58 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF6D75E.91D1ECD1@IEEE.org>
Source record: 52767
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Gene wrote:
>
> > > How serious a crime is it? Your assignment - think of all the crimes you can,
> > > where does freebanding fit it?
> >
> > That's a pretty good question. Unless I'm missing something, I would
> > rank it right up there with driving on the shoulder of the road where
> > such is illegal.
>
> I don't see where it's that minor at all. If one of my kids got hurt
> because of someone driving down the side of the road, I'd hunt them down
> and slowly kill them.

I'm with you, Gene. If you think I said "right down there", you are
mistaken. I ride a bicycle. Vehicles driving on the shoulder are
deadly weapons. What gave you the idea I consider it minor?
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

2971. Re: PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 17:19:12 UTC
From: la8ak@online.no
Message-ID: <3af6d241.943113298@news.online.no>
Source record: 52768

On Mon, 07 May 2001 08:12:58 -0700, AC6V <ac6v@ix.netcom.com> wrote:

>PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS
>I opened up several posts today and the topic dicussed had nothing to do
>with the header.
>AND neither the header or the topic had anything to do with homebrew.
>
>Come on folks - lets respect the Use Group Guide Lines at URL:
>http://faqs.jmas.co.jp/FAQs/radio/personal-intro
>
>AND FOR CRIPES SAKES __ CHANGE THE HEADER WHEN YOU CHANGE TOPICS.
>I just read one with a header of "freebander" nonsense and it was
>discussing FM Quieting!!!
>
>--
>73 From Rod AC6V In San Diego
>700 Ham Topics & 6,000 Links
>http://ac6v.com/
>I Doubt, Therefore I Might Be!!!
>
>
seems you are fighting with the windmill.....,
I am pleased it is possible to change email subjects with MS Outlook*,
a similar feature for newsreaders seems to be the only way to avoid
too much stupidity on a thread, but it implies a manual operation

I would agree with you, but often the discussion changes over the
thread, and quite often one make arguments on two different matters in
a single post. If you had changed the subject then, it is possible
that nobody would care to see it

in my experience most of the crowd only bother to read a post when it
has a few replies, if it doesn't get that much, it simply dies because
nobody think it is worth participating - not that I care for the crowd
wishing to have an answer they already have seen mentioned several
times before, but it helps, so it seems important not to make the most
radical arguments too early in the thread, nobody cares to reply.

Better to discuss SWR months after months.... and although you don't
care so much, don't ever mention that the VSWR is higher than 1.2:1 to
your transmitter, the crowd will know you are an "idiot"! hi

73
Jan-Martin
LA8AK

*) doesn't work with MSOE

2972. Visit at - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 17:22:36 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <wRAJ6.3$Qx.302@newsread1.prod.itd.earthlink.net>
Source record: 52769
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Lots of STUFF to do at www.ab7sl.com such as...

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

2973. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 18:30:32 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF6E9C8.C0788842@zylay.com>
Source record: 52770
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

W6RCecilA wrote:
>
> Gene wrote:
> >
> > > > How serious a crime is it? Your assignment - think of all the crimes you can,
> > > > where does freebanding fit it?
> > >
> > > That's a pretty good question. Unless I'm missing something, I would
> > > rank it right up there with driving on the shoulder of the road where
> > > such is illegal.
> >
> > I don't see where it's that minor at all. If one of my kids got hurt
> > because of someone driving down the side of the road, I'd hunt them down
> > and slowly kill them.
>
> I'm with you, Gene. If you think I said "right down there", you are
> mistaken. I ride a bicycle. Vehicles driving on the shoulder are
> deadly weapons. What gave you the idea I consider it minor?

Maybe not you personally. Just making a point that while many people
might consider something a very minor violation of the law, it might not
be so minor (and perhaps even for a very good reason) to another person.
--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

2974. How do I sell 4 Bendix/King radios?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:06:40 UTC
From: Tia Wheeler <twheeler@transecur.com>
Message-ID: <9d6rkisuu1@news.jump.net>
Source record: 52772
Cross-posted to: alt.ham-radio.marketplace,alt.ham-radio.vhf-uhf,alt.radio.family,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Please reply to my email address twheeler@transecur.com.

Thanks for any help you can offer.

2975. Re: Kenwood R2000 circuit/manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:11:33 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <0rsdft43eu0v8m4tefoohau30nps1ifai0@4ax.com>
Source record: 52771

On Mon, 07 May 2001 10:36:30 GMT, xrenfredm@xtra.co.nz (Renfred)
wrote:
>>
[snips]
>>Now problem is not working in USB, LSB or CW mode. Hhhhmmmm. I haven't
>>yet figured out the signal path in these modes.
>>
>>Takes ages without a diagram!!
>
>Remove x from email address

Renfred,

I took pity on you and scanned parts of my Kenwood R-2000 manual.

I posted files on my web page at:

http://www.dnai.com/~rexa/R2000/

Here's what I put there:

r2kblk.gif 172712 - block diagram
r2krx.rtf 17297 - rx description (rich text format)
r2krx1.gif 321000 - 1st half rx schematic
r2krx2.gif 314081 - 2nd half rx schematic

The solution is probably in there somewhere. The rtf file has a
couple places where it talks about things splitting along the lines
of your problem.

-Rex, KK6MK

2976. FS: 140 MHz/10 MHz BW SAW filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:16:46 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3AF6F49E.5ECED59B@valley.net>
Source record: 52776

FS: 140 MHz, 10 MHz BW SAW Filters p/n 851921 (only five pieces
available)

Manufactured by Sawtek, these SAW (surface acoustic wave)
filters feature a center frequency of 140 MHz and a typical
bandwidth of 10.3 MHz at -3 dB. Full specs and S parameters
are available at Sawtek's web site-- look under "stock 140 MHz
filters" for part number 851921.

Small-quantity list price for these NOS filters is approximately
$110.00;
I'm asking $10.00 each for plus $2.00 postage to your QTH. Please
contact me
for more information.

73--
Brad AA1IP

Brad Thompson
P.O. Box 307, 202 Whitaker Rd.
Meriden, NH 03770-0307
(603) 469-3351

2977. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:40:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AF6FA2B.BFB023E5@eznec.com>
Source record: 52773

Bill Turner wrote:
>
> I understand the cost of changeover factor, but if people were to apply that to
> all facets of life, we'd still be riding horses and using outdoor plumbing.
> . . .

and the old English system of weights and measures. . .

Roy Lewallen, W7EL

2978. Re: Kenwood R2000 circuit/manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:41:21 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9d6tp4$ga9$1@slb6.atl.mindspring.net>
Source record: 52774

Sounds like the "BFO" oscillator is not working which is needed to re-enject the missing carrier for demodulation of side band and cw. Sparks W4EAS

2979. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 19:43:59 UTC
From: sparksw4eas@mindspring.com
Message-ID: <9d6tu1$1gg$1@slb6.atl.mindspring.net>
Source record: 52775
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Amen Gene! 73 Sparks

2980. Re: How do I sell 4 Bendix/King radios?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 23:02:58 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3AF729A2.18374480@bloomer.net>
Source record: 52777
Cross-posted to: alt.ham-radio.marketplace,alt.ham-radio.vhf-uhf,alt.radio.family,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

What kind of Bendix/King radios do you have?

Scott
N0EDV

Tia Wheeler wrote:
>
> Please reply to my email address twheeler@transecur.com.
>
> Thanks for any help you can offer.

--
--Scott--
1986 Corben Junior Ace N3642
http://corbenflyer.tripod.com/
RV-4 under construction (tail feathers)

Gotta Fly or Gonna Die!

2981. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 23:16:35 UTC
From: Rough Rider <roughrider@home.com>
Message-ID: <n1GJ6.53673$B22.13704741@news1.rdc2.pa.home.com>
Source record: 52778
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband, I will put a cup out for you since you are begging to be correct about full quieting. Notice Cecils definition, frequency modulation recievers, does this give you enough of a hint- that it is FM only. Do yourself a favor while studying for the ham test don't just memorize the answers actually learn what the question mean. If it was fill in the blanks the ham population would decrease by two fold.

"Sideband" <sideband@spam.me.not> wrote in message news:3AF6B5C7.501194DA@spam.me.not...
> So it could apply to an unmodulated AM signal, then? If so, my statement
> was correct. If not, I stand corrected. I hope someone will let me know
> which it is.
>
> -SSB
>
> W6RCecilA wrote:
> >
> > Sideband wrote:
> > > I don't recall ever hearing/being told/reading that Full Quieting
> > > applied only to FM. I could be wrong.
> >
> > From the IEEE Dictionary: "quieting sensitivity (frequency-modulation
> > receivers) The minimum unmodulated signal input for which the output
> > signal-noise ratio does not exceed a specified limit, under specified
> > conditions."
> >
> > Note the "unmodulated" requirement which would prohibit this term
> > from being used associated with SSB.
> > --
> > http://www.mindspring.com/~w6rca
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

2982. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 23:19:39 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <f4GJ6.38846$2_.13598101@news3.rdc1.on.home.com>
Source record: 52779
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

"Sideband" <sideband@spam.me.not> wrote in message
news:3AF693E8.EF77E40@spam.me.not...
> Maybe I've got my definitions confused, but isn't full quieting when a
> transmitted carrier is strong enough to cover all background noise at
> the receiver?

AM always has background noise

2983. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 23:22:05 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <bfbeftkqisif0909v4omnd0bcik8b3ouv9@4ax.com>
Source record: 52780

On Mon, 07 May 2001 12:40:27 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>and the old English system of weights and measures. . .
>
>Roy Lewallen, W7EL

It's not a well-known fact, but the metric system is the official US standard.
It's just never been adopted by industry.

73, Bill W7TI

2984. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-07 23:54:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3AF735B9.9431D9DC@eznec.com>
Source record: 52781

Federally-mandated highway signs are in miles and miles/hour, NOAA gives temperatures in degrees Fahrenheit and atmospheric pressure in inches of mercury, the USDA lists crop exports in bushels, postage is determined by the ounce and pound. Just because (and if) some congressmen with nothing important to do declared a "standard" doesn't make it so. It looks to me like industry has adopted the metric system to a greater extent than the government has.

Roy Lewallen, W7EL

Bill Turner wrote:
>
> On Mon, 07 May 2001 12:40:27 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
> >and the old English system of weights and measures. . .
> >
> >Roy Lewallen, W7EL
>
> --
>
> It's not a well-known fact, but the metric system is the official US standard.
> It's just never been adopted by industry.
>
> 73, Bill W7TI

2985. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 01:54:19 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF751CB.B955FE6C@spam.me.not>
Source record: 52782
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Now, there, Hand, yer just showin yer igernence, tin-fur! I ne'er said
it were horizontal, roge-o?

:-{P~

-SSB

Gene wrote:
>
> > "> Hit Wilson's site and read up on what a Wilson Silver Load is....
> > >
> > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > top loaded coil antenna.
> >
> > Runs chills up and down my spine just thinking about
> > a Wilson Silver Load. Gives me the urge to run and
> > buy two, and co-phase them on the sidemirrors for
> > anudder 10dB or so.. Ten Fer.
>
> That's a big 10-fer good buddy. I'm sure you gets lots of horizontal
> gain with a 4-ft-long half-wave antenna. These dumbasses don't even
> recognize marketing hype when it's served to them on a silver platter.
>
> --
> Ride to eat, eat to ride. __O
> _-\<,_
> Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
> Please visit http://www.tfn.net/~gfloyd7/cmn/

2986. Re: Toroidal Power Transformer design questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 02:18:42 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <OIIJ6.7711$oa2.156258@news6.giganews.com>
Source record: 52783

First, you can buy very cheaply a power transformer to do what you want. It would use E-I laminations most likely, the most economical construction. It will also be very small.

Winding your own is a viable alternative, but why toroidal? Toroid cores are much more difficult to wind, and you will need plenty of turns for the primary. Probably the best core to use would be tape wound, and the best material some sort of magnetically soft iron. I don't know what's available these days; I used to build toroidal power transformers using square loop mateirals but that was a long time ago. You can use those too.

Get catalogs from the companies that make the cores. All the design information will be right there. The power handling capability of a core with a given winding material is proportional to the area of the hole where the windings go. There is no theoretical limit of power for a given core; it's the windings that determine that. If you can use wire of a lower specific resistance than copper, you can handle more power.

The important parameter is the required turns-per-volt to avoid saturating the core. The closer you get to saturation, the more energy wasted. High peak currents will flow if saturation is reached. Once you know the safe number of turns per volt you can compute the number of turns. Once you know those, and the size wire to carry the desired current, you can see if it will fit in the hole. If not, a bigger core is needed. Allow for insulation too; you don't want shorts between turns or windings. Make sure your primary won't saturate the core even at highest expected power line potential, including medium duration transients.

Wire size depends on required current and voltage regulation (due to resistance of the winding). A good number to use is around 500 circular mils wire per Ampere. (You get the circular mils by squaring the wire diameter measured in thousandths of an inch.) Any larger size than calculated is fine of course, as long as it will fit on the core.

You asked a simple question and got the $25 answer.

73, Bob K6DDX

2987. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 02:23:59 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <kvleftcqpvnvurah2tg0i6gce15tg8cah3@4ax.com>
Source record: 52784

On Mon, 07 May 2001 16:54:33 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>Just because (and if) some congressmen with
>nothing important to do declared a "standard" doesn't make it so.

It is more than "some congressman with nothing to do". In 1893 the US officially adopted definitions of the yard and pound in terms of the meter and kilogram. For more info see:

http://www.encyclopedia.com/articlesnew/13734.html

73, Bill W7TI

2988. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 03:43:42 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF76B6E.FA662A75@coqui.net>
Source record: 52785

Bill Turner wrote:
>
> On Mon, 07 May 2001 16:54:33 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>
> >Just because (and if) some congressmen with
> >nothing important to do declared a "standard" doesn't make it so.
>
> --
>
> It is more than "some congressman with nothing to do". In 1893 the US
> officially adopted definitions of the yard and pound in terms of the meter and
> kilogram. For more info see:
>
> http://www.encyclopedia.com/articlesnew/13734.html
>
> 73, Bill W7TI

So, what you're saying is, that congressmen in 1893 had nothing
important to do either? All kidding aside, its amazing the we Americans
can't overcome the reluctance to convert. I remember an effort back in
the 70s? that lasted only a very short time. One crew was putting up
the new highway signs, and another was right behind them re-installing
'old' ones. I wonder if anybody saved any pictures of those? And, I
recall that Canada easily made the transition at that time. Our only
remnant of the effort is that a fifth of booze became 750ml.
--
Bill Meacham WX4A
Vieques, PR

2989. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 04:59:45 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9fes4u.mac.w9wi@linux1.localdomain>
Source record: 52786
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

On Mon, 07 May 2001 23:19:39 GMT, Rob St.Denis <tstdenis3160@home.com> wrote:
>"Sideband" <sideband@spam.me.not> wrote in message
>news:3AF693E8.EF77E40@spam.me.not...
>> Maybe I've got my definitions confused, but isn't full quieting when a
>> transmitted carrier is strong enough to cover all background noise at
>> the receiver?
>
>AM always has background noise

But so does FM. True, the noise vs. signal curve is different but it's
still there.

The cited definition does specify FM, but really the concept of "full
quieting" is not at all meaningless on AM. Especially when you consider the
effects of AGC, which will back off receiver gain and take the channel noise
with it.

It's a bit more of a stretch, but really the concept of quieting isn't
completely meaningless for SSB either, again considering AGC effects.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

2990. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 06:03:35 UTC
From: JR <jr@some.net>
Message-ID: <3AF77DBD.B4813F55@some.net>
Source record: 52787
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

An AM carrier without modulation looks just like an FM carrier without modulation. So it seems to me that "quieting sensitivity" could apply to an AM receiver as well although the term "full quieting" is generally understood to apply to FM.

Rough Rider wrote:
>
> Sideband, I will put a cup out for you since you are begging to be correct
> about full quieting. Notice Cecils definition, frequency modulation
> recievers, does this give you enough of a hint- that it is FM only. Do
> yourself a favor while studying for the ham test don't just memorize the
> answers actually learn what the question mean. If it was fill in the blanks
> the ham population would decrease by two fold.
>

2991. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 08:13:31 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF7AAAB.D597E6CF@spam.me.not>
Source record: 52788
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Ok...

I stand corrected.

Allow me to rephrase what I'd originally stated, then..

My 2 watt AM carrier covered up all the background noise on the other
guy's CB, which was roughly 20 miles away, according to his signal
report.

-SSB

JR wrote:
>
> An AM carrier without modulation looks just like an FM carrier without
> modulation. So it seems to me that "quieting sensitivity" could apply to
> an AM receiver as well although the term "full quieting" is generally
> understood to apply to FM.
>
> Rough Rider wrote:
> >
> > Sideband, I will put a cup out for you since you are begging to be correct
> > about full quieting. Notice Cecils definition, frequency modulation
> > recievers, does this give you enough of a hint- that it is FM only. Do
> > yourself a favor while studying for the ham test don't just memorize the
> > answers actually learn what the question mean. If it was fill in the blanks
> > the ham population would decrease by two fold.
> >

2992. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 10:17:53 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <lJPJ6.43826$2_.15211996@news3.rdc1.on.home.com>
Source record: 52789
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

A signal report comming from a cb'er, a lets turn up mic gain until its completely distorted, then put an echo on it and a loud roger beep so that I get out better, radio operator ... there's usefull

--
Rob St.Denis

"Sideband" <sideband@spam.me.not> wrote in message news:3AF7AAAB.D597E6CF@spam.me.not...
> Ok...
>
> I stand corrected.
>
> Allow me to rephrase what I'd originally stated, then..
>
> My 2 watt AM carrier covered up all the background noise on the other
> guy's CB, which was roughly 20 miles away, according to his signal
> report.
>
> -SSB
>
> JR wrote:
> >
> > An AM carrier without modulation looks just like an FM carrier without
> > modulation. So it seems to me that "quieting sensitivity" could apply to
> > an AM receiver as well although the term "full quieting" is generally
> > understood to apply to FM.
> >
> > Rough Rider wrote:
> > >
> > > Sideband, I will put a cup out for you since you are begging to be correct
> > > about full quieting. Notice Cecils definition, frequency modulation
> > > recievers, does this give you enough of a hint- that it is FM only. Do
> > > yourself a favor while studying for the ham test don't just memorize the
> > > answers actually learn what the question mean. If it was fill in the blanks
> > > the ham population would decrease by two fold.
> > >

2993. Re: Kenwood R2000 circuit/manual..thanks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 11:59:31 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3af7df2e.10093107@news.xtra.co.nz>
Source record: 52790

Hi ya all, many thanks for your replies. You were right onto it. It
was an open circuit feedback cap in the BFO....Cheers, Renfred ZL1BDL

On Sun, 06 May 2001 09:19:58 GMT, xrenfredm@xtra.co.nz (Renfred)
wrote:

>Hi,
> looking for a manual to help me fix a rogue R2000. Intermittant
>display and goes out of lock. All LO's working.
>
> Thanks, Renfred ZL1BDL
>Remove x from email address

Remove x from email address

2994. FS: Simpson 260 front panel (New)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 13:40:46 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3AF7F75E.5999F393@alltel.net>
Source record: 52792

For Sale: Simpson 260 front panel (New).
This is the front meter panel with all lettering etc on it. It is for
the model 260 that has
the 5kv AC/DC jacks and uses pin jacks for test leads.
Price is $12.00 plus $3.50 to mail.
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

2995. Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 15:13:57 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3AF80D35.77664B92@neicoltech.org>
Source record: 52793

Hi gang,
I am looking for a small quantity of HEP 590 integrated circuits.
They were a diff amp ckt in an 8 lead metal can. If you know where I
might find some, please let me know. Thanks

72
Bob L. WB0POQ
robert.liesenfeld@neicoltech.org

2996. WANT: Alpha 91 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 16:11:44 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tffs0cmmfe8b49@corp.supernews.com>
Source record: 52791
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Looking for a schematic of the Alpha 91 amplifier.
If you can make a copy let me know the price.

Doug, N4IJ

2997. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 17:57:01 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF8336D.6C258B2A@zylay.com>
Source record: 52794
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

GG wrote:
>
> I picked a good analogy, I have no right to use his property just
> because I observe it does not appear to be in use by the owner.

In your case of hte squatter, you stated that noone had noticed him. The major and important difference here is that freebanders have been noticed and lots of people are raising hell about it. To bring your analogy into line with freebanding, the squatter would have had to hold onto the land for the required number of years through either armed force, or simple civil disobediance, not by not being noticed.

> W6RCecilA wrote:
> >
> >
> > You picked a bad analogy. A person did just that on some land in my
> > home county of Madison in Texas. Nobody noticed him living there.
> > After N number of years he was discovered. The case went to court
> > and the trespasser was awarded the property under the Texas homestead
> > laws. So you better keep an eye on your property or some homesteader
> > will wind up owning it. Homesteading is a good description of what the
> > freebanders have done between the CB band and the ham band. Time was
> > when amateur radio operators homesteaded the radio frequencies.
> > --
> > http://www.mindspring.com/~w6rca
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

2998. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 18:13:21 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF83741.387451A6@spam.me.not>
Source record: 52795
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I have never run my CB this way. I do have an echo mic on my GrantXL,
but the echo "volume" is barely cracked open. According to three
different modulation meters, I'm set at 99% modulation.

The fellow I was talking to runs his radio in much the same way. He has
a Cobra 148 (same radio, basically), and has his set similarly.

Any more than 100% modulation is going to sound like crap, and probably
bleed over. I know this, and those CB'ers who know this try to avoid
bleeding over, etc...

Now, if you don't mind, I need a nap before I go down to the testing
center to test for my ticket. Have a nice day, Rob, and I hope "huked on
fonix" continues to help your English grammar. ("there's usefull"? Come
On!)

-SSB

"Rob St.Denis" wrote:
>
> A signal report comming from a cb'er, a lets turn up mic gain until its
> completely distorted, then put an echo on it and a loud roger beep so that I
> get out better, radio operator ... there's usefull
>
> --
> Rob St.Denis
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF7AAAB.D597E6CF@spam.me.not...
> > Ok...
> >
> > I stand corrected.
> >
> > Allow me to rephrase what I'd originally stated, then..
> >
> > My 2 watt AM carrier covered up all the background noise on the other
> > guy's CB, which was roughly 20 miles away, according to his signal
> > report.
> >
> > -SSB
> >
> > JR wrote:
> > >
> > > An AM carrier without modulation looks just like an FM carrier without
> > > modulation. So it seems to me that "quieting sensitivity" could apply to

> > > an AM receiver as well although the term "full quieting" is generally
> > > understood to apply to FM.
> > >
> > > Rough Rider wrote:
> > > >
> > > > Sideband, I will put a cup out for you since you are begging to be
> correct
> > > > about full quieting. Notice Cecils definition, frequency modulation
> > > > recievers, does this give you enough of a hint- that it is FM only. Do
> > > > yourself a favor while studying for the ham test don't just memorize
> the
> > > > answers actually learn what the question mean. If it was fill in the
> blanks
> > > > the ham population would decrease by two fold.
> > > >

2999. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 18:27:25 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF83A8D.11224D89@zylay.com>
Source record: 52796
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Sideband wrote:
>
> Now, there, Hand, yer just showin yer igernence, tin-fur! I ne'er said
> it were horizontal, roge-o?

Do you even know the difference between horizontal gain and vertical
gain? I never said a word about antenna orientation.

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

> :-{P~
>
> -SSB
>
> Gene wrote:
> >
> > > "> Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > >
> > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > > top loaded coil antenna.
> > >
> > > Runs chills up and down my spine just thinking about
> > > a Wilson Silver Load. Gives me the urge to run and
> > > buy two, and co-phase them on the sidemirrors for
> > > anudder 10dB or so.. Ten Fer.
> >
> > That's a big 10-fer good buddy. I'm sure you gets lots of horizontal
> > gain with a 4-ft-long half-wave antenna. These dumbasses don't even
> > recognize marketing hype when it's served to them on a silver platter.
> >
> > --
> > Ride to eat, eat to ride. __O
> > _-\<,_
> > Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
> > Please visit http://www.tfn.net/~gfloyd7/cmn/

3000. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 18:32:43 UTC
From: W6RCecilA <Cecil.A.Moore@IEEE.org>
Message-ID: <3AF83BCB.243AF4A5@IEEE.org>
Source record: 52697
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Gene wrote:
>
> GG wrote:
> >
> > I picked a good analogy, I have no right to use his property just
> > because I observe it does not appear to be in use by the owner.
>
> In your case of hte squatter, you stated that noone had noticed him. The
> major and important difference here is that freebanders have been
> noticed and lots of people are raising hell about it. To bring your
> analogy into line with freebanding, the squatter would have had to hold
> onto the land for the required number of years through either armed
> force, or simple civil disobediance, not by not being noticed.

The freebanders go relatively unnoticed by the FCC and the FCC is
who matters.
--
http://www.mindspring.com/~w6rca

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3001. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 18:37:20 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3AF83CE0.9024A5B1@spam.me.not>
Source record: 52698
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

And, of course, I never said anything about a half wave antenna, either.

Goes both ways, I guess.

-SSB

Gene wrote:
>
> Sideband wrote:
> >
> > Now, there, Hand, yer just showin yer igernence, tin-fur! I ne'er said
> > it were horizontal, roge-o?
>
> Do you even know the difference between horizontal gain and vertical
> gain? I never said a word about antenna orientation.
>
> --
> Ride to eat, eat to ride. __O
> _-\<,_
> Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
> Please visit http://www.tfn.net/~gfloyd7/cmn/
>
> > :-{P~
> >
> > -SSB
> >
> > Gene wrote:
> > >
> > > "> Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > > >
> > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > > > top loaded coil antenna.
> > > > >
> > > > Runs chills up and down my spine just thinking about
> > > > a Wilson Silver Load. Gives me the urge to run and
> > > > buy two, and co-phase them on the sidemirrors for
> > > > anudder 10dB or so.. Ten Fer.
> > >
> > > That's a big 10-fer good buddy. I'm sure you gets lots of horizontal
> > > gain with a 4-ft-long half-wave antenna. These dumbasses don't even
> > > recognize marketing hype when it's served to them on a silver platter.
> > >
> > > --
> > > Ride to eat, eat to ride. __O

> > > _-\<,_
> > > Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
> > > Please visit http://www.tfn.net/~gfloyd7/cmn/

3002. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 18:41:48 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105081434230.27415-100000@gloria.cam.org>
Source record: 52699

On Tue, 8 May 2001, Bob Liesenfeld wrote:

> Hi gang,
> I am looking for a small quantity of HEP 590 integrated circuits.
> They were a diff amp ckt in an 8 lead metal can. If you know where I
> might find some, please let me know. Thanks
>
> 72
> Bob L. WB0POQ
> robert.liesenfeld@neicoltech.org
>

Instead of asking every so often, apparently without success, for these devices, you might want to post about why you need them. If you are repairing something, there might be better reason for getting the same part. But if you are building something fresh, you might try something close but not exactly the same, or use a newer design using a more recent (or at least available) IC amplifier.

Below is my response to a similar post of yours from a year and a half ago. I guess you did read it, since now at least you are specifying that the IC is a differential amplifier.

Michael VE2BVW

From: Michael Black (blackm00@cam.org)
Subject: Re: Old Motorola part
Newsgroups: sci.electronics.design

Date: 1999/09/15

In article <37DFC927.35B81E7F@neicoltech.org>, Bob Liesenfeld <robert.liesenfeld@neicoltech.org> wrote:

> Hi,
> Anyone know where I can get a couple of HEP590s? It subs to an
> obsolete ECG part, so that is not of much help. Thanks
>
> Bob L.
>

It's just a simple differential amplifier, with some biasing resistors. It was commonly seen in radio frequency work.

The MC1550P is the original Motorola part. Since Motorola made the HEP line, it's going to be the same thing.

You're not likely to find the device in the catalogs, since it's about thirty years old.

You'll have to understand the circuit, and figure out a suitable replacement, which shouldn't be all that difficult since it's a simple circuit. At worst, you could find an IC with a differential amplifier and no biasing, RCA used to make such items, and bias it externally. That might be the easiest solution if you are trying to replace a faulty IC in an existing circuit.

The RCA CA3028 was fairly similar, and would show up in circuits of the same type. It isn't identical, so it might need a bit of reworking of the circuit, or won't work at all depending on the way the IC is used in the circuit. I don't know if you can get a CA3028 anymore.

There probably were other IC along the same lines that might be adapted to the circuit. Of course, I'm less certain that such a thing could be found nowadays.

If this is to build a circuit in an old book or magazine, you might do well to find a more recent circuit with the same function.

Michael

3003. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 20:26:04 UTC
From: W4NTI <w4nti@nospammindspring.com>
Message-ID: <9d9kno$cq0$1@slb4.atl.mindspring.net>
Source record: 52700
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Actually you can run good sounding audio at more than 100%. This requires a modulation scheme other than you have in your 'CB' set. So this leads me to ask this....how can a meter read 'modulation' in the first place?

I was under the impression that in order to read Peak Power, than one needs a O-scope, one that is calibrated preferably.

Not to mention the fact, that unless you are running class C RF, and class B AF (for AM) then you can NOT ACHIEVE 99% anyway.

Dan/W4NTI

"Sideband" <sideband@spam.me.not> wrote in message news:3AF83741.387451A6@spam.me.not...
> I have never run my CB this way. I do have an echo mic on my GrantXL,
> but the echo "volume" is barely cracked open. According to three
> different modulation meters, I'm set at 99% modulation.
>
> The fellow I was talking to runs his radio in much the same way. He has
> a Cobra 148 (same radio, basically), and has his set similarly.
>
> Any more than 100% modulation is going to sound like crap, and probably
> bleed over. I know this, and those CB'ers who know this try to avoid
> bleeding over, etc...
>
> Now, if you don't mind, I need a nap before I go down to the testing
> center to test for my ticket. Have a nice day, Rob, and I hope "huked on
> fonix" continues to help your English grammar. ("there's usefull"? Come
> On!)
>
> -SSB
>
>
>
> "Rob St.Denis" wrote:
> >
> > A signal report comming from a cb'er, a lets turn up mic gain until its
> > completely distorted, then put an echo on it and a loud roger beep so
that I
> > get out better, radio operator ... there's usefull
> >
> > --
> > Rob St.Denis
> >

> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF7AAAB.D597E6CF@spam.me.not...
> > > Ok...
> > >
> > > I stand corrected.
> > >
> > > Allow me to rephrase what I'd originally stated, then..
> > >
> > > My 2 watt AM carrier covered up all the background noise on the other
> > > guy's CB, which was roughly 20 miles away, according to his signal
> > > report.
> > >
> > > -SSB
> > >
> > > JR wrote:
> > > >
> > > > An AM carrier without modulation looks just like an FM carrier
without
> > > > modulation. So it seems to me that "quieting sensitivity" could
apply to
> > > > an AM receiver as well although the term "full quieting" is
generally
> > > > understood to apply to FM.
> > > >
> > > > Rough Rider wrote:
> > > > >
> > > > > Sideband, I will put a cup out for you since you are begging to be
> > correct
> > > > > about full quieting. Notice Cecils definition, frequency
modulation
> > > > > recievers, does this give you enough of a hint- that it is FM
only. Do
> > > > > yourself a favor while studying for the ham test don't just
memorize
> > the
> > > > > answers actually learn what the question mean. If it was fill in
the
> > blanks
> > > > > the ham population would decrease by two fold.
> > > > >

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.251 / Virus Database: 124 - Release Date: 4/26/01

3004. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 20:36:06 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <WMYJ6.51660$Ce4.4254972@news1.rdc1.ct.home.com>
Source record: 52701

Well, Mike. If they are indeed MC1550
ic's, I have them, new and unused. '

Peter K1ZJH

"Michael Black" <blackm00@gloria.cam.org> wrote in message
news:Pine.LNX.4.10.10105081434230.27415-100000@gloria.cam.org...
>
>
> On Tue, 8 May 2001, Bob Liesenfeld wrote:
>
> > robert.liesenfeld@neicoltech.org
> >
> Instead of asking every so often, apparently without >

snip

Below is my response to a similar post of yours from a year and
> a half ago. I guess you did read it, since now at least you
> are specifying that the IC is a differential amplifier.
>
> Michael VE2BVW
> ----------

3005. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 20:40:57 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3af857e8.249051319@news.aepnet.com>
Source record: 52702

On Mon, 07 May 2001 16:54:33 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>Federally-mandated highway signs are in miles and miles/hour, NOAA gives
>temperatures in degrees Fahrenheit and atmospheric pressure in inches of
>mercury, the USDA lists crop exports in bushels, postage is determined
>by the ounce and pound. Just because (and if) some congressmen with
>nothing important to do declared a "standard" doesn't make it so. It
>looks to me like industry has adopted the metric system to a greater
>extent than the government has.
>
>Roy Lewallen, W7EL
>

Actually we have some metric highway signs on I-19 that extends from the
southern end of Tucson down to the US-Mexican border.

I believe this is to make the illegal aliens feel welcome when they enter the
country. Sorta like G. W. Bush making his weekly radio broadcast in Spanish.

Oh, and another thing, the Border Patrol and Customs people always give the
quantity of drugs seized from these same illegal aliens in "Kilos."

See we really do use the metric system<g>.

Wes Stewart N7WS

3006. Telegraph keys

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 20:54:09 UTC
From: "gian P." <norumenta@tin.it>
Message-ID: <9d9mie$509$1@nreadB.inwind.it>
Source record: 52703

Hello friends.
If someone is interested or simply curious about ****Telegraph Keys*** can
see my collection at my web site www.qsl.net/ik1zoy
73 and gl de Giancarlo IK1ZOY
e-mail: ik1zoy@qsl.net

3007. Re: WANT: Alpha 91 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:07:39 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9d9n6r$t1v$1@woodrow.ucdavis.edu>
Source record: 52704
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Hi Doug,

I've fixed my share of Alpha's in the last few years... if you have a specifict problem, feel free to Email me direct to the address below.

A great source of free manuals (all types) is the boat anchor manual archive, located at:

http://bama.sbc.edu

I know there are some Alpha Manuals on the page, have a look.

cheers and 73's
skipp@pilot.ucdavis.edu

: In rec.radio.swap Douglas Snowden <snowden@peoplepc.com> wrote:
: Looking for a schematic of the Alpha 91 amplifier.
: If you can make a copy let me know the price.

: Doug, N4IJ

3008. Re: amplifier schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:17:51 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9d9npv$t1v$3@woodrow.ucdavis.edu>
Source record: 52705

: Christian Schaathun <chrsch@online.no> wrote:
: does anyone have scematics for an Hf amp (10 - 12 M) I need something like
: 50 W ..
: PLEASE help me, I have been looking for this for ages.
: CS

try:

http://www.cbtricks.com

3009. Re: PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:19:39 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF862EB.2F74002C@clifto.com>
Source record: 52706

```
AC6V wrote:
> PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS

Isn't that against the law?

--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3010. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:25:15 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF8643B.15875A40@clifto.com>
Source record: 52708

Schatzie wrote:
> Is it true that the FCC is proposing lopping off the top of the 40m band,
> but adding 100kHz to the bottom.

Whatever happened to the consortium of SW broadcasters that was going to
voluntarily move out of the amateur bandspace?

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

3011. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:45:03 UTC
From: jyazel@nls.net
Message-ID: <3af868b8.2770981@news.newsguy.com>
Source record: 52707

On Tue, 08 May 2001 10:13:57 -0500, Bob Liesenfeld
<robert.liesenfeld@neicoltech.org> wrote:

>Hi gang,
> I am looking for a small quantity of HEP 590 integrated circuits.
>They were a diff amp ckt in an 8 lead metal can. If you know where I
>might find some, please let me know. Thanks
>
>72
>Bob L. WB0POQ
>robert.liesenfeld@neicoltech.org
> ---------------------

I've got two of them.

Got anything to trade?

Jack W8RAG

3012. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 21:57:44 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3AF86D2F.BD8@pop.removethistomailme.net>
Source record: 52709

```
Clifton T. Sharp Jr. wrote:
>
> Schatzie wrote:
> > Is it true that the FCC is proposing lopping off the top of the 40m band,
> > but adding 100kHz to the bottom.
>
> Whatever happened to the consortium of SW broadcasters that was going to
> voluntarily move out of the amateur bandspace?
>

I believe that was an April Fools' hoax.

-- jm

-----------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-----------------------------------------------------
```

3013. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 22:54:24 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF87920.ACB645D2@coqui.net>
Source record: 52710

> >
> > Whatever happened to the consortium of SW broadcasters that was going to
> > voluntarily move out of the amateur bandspace?
> >
>
> I believe that was an April Fools' hoax.
>
> -- jm
>
Sad to say, but Swiss Radio International is terminating North America transmissions on SW and BBC World Service has now announced the same thing in recent days. These don't directly affect the 40m ham band per se, but there seems to be a trend afoot with the availability of internet audio and things like the little Worldspace satellite receivers....look at this for example. Its been up and running in Europe and Africa for quite some time....and the users report excellent results!
http://www.worldspace.com/index.html

--
Bill Meacham WX4A
Vieques, PR

3014. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-08 23:11:17 UTC
From: "Rob St.Denis" <tstdenis3160@home.com>
Message-ID: <p2%J6.47480$2_.16353523@news3.rdc1.on.home.com>
Source record: 52711
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> Now, if you don't mind, I need a nap before I go down to the testing
> center to test for my ticket. Have a nice day, Rob, and I hope "huked on
> fonix" continues to help your English grammar. ("there's usefull"? Come
> On!)

I appologize for my use of vernacular and spelling errors ... I don't
usually spend much time on my posts ...

3015. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 00:04:57 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <l92hftst11c6b0tr0trh37elh7emff4km1@4ax.com>
Source record: 52712

On Tue, 08 May 2001 18:54:24 -0400, Bill Meacham <NOSPAMexray@coqui.net> wrote:

>and things like the little Worldspace satellite
>receivers....look at this for example. Its been up and running in
>Europe and Africa for quite some time....and the users report excellent
>results!
>http://www.worldspace.com/index.html

Interesting, but in looking over most of the web pages there, I noticed
WorldSpace is being very careful not to disclose its location or ownership.
Anyone know why it is being so secretive?

3016. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 00:28:33 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3AF88F31.4BE0A680@coqui.net>
Source record: 52713

I'm not pitching them or anything, but this is from that same website
and also from
http://www.worldspace.org/

WorldSpace Foundation is a U.S. based non-profit organization that was
created in 1997 to provide
educational and informational programming to people
in developing regions of the world who are
disadvantaged by illiteracy, poverty or geographic
isolation. The foundation partners with a wide array of
organizations to produce its educational programs
for broadcast on WorldSpace satellites. These
organizations include, non-governmental
organizations (NGOï¿½s), UN agencies, government ministries,
international development groups, universities and
community radio stations. Content on WorldSpace
Foundation channels may include basic education and
information on a variety of development-related
topics, such as health, agriculture, environment,
womenï¿½s issues and civic education. Although WorldSpace
Foundation may on occasion work closely with the
WorldSpace Corporation and its entities, WorldSpace
Foundation is strictly governed by U.S. Internal
Revenue Service (IRS) rules and regulations for tax-exempt
organizations and is not a business unit or
subsidiary of the WorldSpace Corporation.

Founded by Noah Samara,
ï¿½ WorldSpace Foundation 1999 - 2001
2400 N Street, NW, Washington,
DC 20037 USA
Telephone: +1 202-861-2261
Facsimile: +1 202-861-6407
E-mail:
gmhillman@worldspace.org

> Interesting, but in looking over most of the web pages there, I noticed
> WorldSpace is being very careful not to disclose its location or ownership.
> Anyone know why it is being so secretive?

--

Bill Meacham
Vieques, PR

3017. Dig. Panel Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 02:02:34 UTC
From: unkadean <dnorris@k7nomyclothes.com>
Message-ID: <v69hftkq8812eg9n6lju9b810vml4vhjar@4ax.com>
Source record: 52714

I am looking for a digital panel voltmeter. Only need range to 15V.
No frills.

Please e-mail since I do not normally check this newsgroup. My
thanks..
unkadean
dnorris@k7no.com

Visit www.k7no.com Under construction but getting there.

3018. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 02:37:17 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105082215310.29016-100000@gloria.cam.org>
Source record: 52716

On Tue, 8 May 2001, Peter J. Bertini wrote:

> Well, Mike. If they are indeed MC1550
> ic's, I have them, new and unused. '
>
> Peter K1ZJH
>

I'm quite certain they are, but now that you mention it, I can't
come up with a source. It has to be something I picked up in
the early seventies.

My HEP replacement guide from 1974 gives the wrong cross for
the MC1550P, which I know is a differential amplifier because
it's listed in my 1978 Motorola databook. The pinout for the HEP590
is missing from the HEP guide.

My ten year old ECG guide crosses both to the ECG816. There's
no internal diagram for it, but there is for the ECG817 (which
the MC1550P crosses to. That matches the internal circuit
shown in the Motorola databook for the MC1550.

I wasn't feeling like digging through magazines to find
a reference that would directly make the connection between
the two. But I just remembered I have the first issue of
73 that I ever saw handy, and it has an article by the legendary
Bill Hoisington. September 1972, on page 57, he's describing
a tuenable 6M receiver that uses the HEP590. It shows the internal
circuitry of the HEP590, and again, it matches that in the Motorola
databook for the MC1550.

The incomplete junk we remember.

Michael VE2BVW

> "Michael Black" <blackm00@gloria.cam.org> wrote in message
> news:Pine.LNX.4.10.10105081434230.27415-100000@gloria.cam.org...
> >
> >
> > On Tue, 8 May 2001, Bob Liesenfeld wrote:
> >
> > > robert.liesenfeld@neicoltech.org
> > >
> > Instead of asking every so often, apparently without >
>
> snip
>

> Below is my response to a similar post of yours from a year and
> > a half ago. I guess you did read it, since now at least you
> > are specifying that the IC is a differential amplifier.
> >
> > Michael VE2BVW
> > ----------
>
>
>
>
>

3019. Modified Boomer 600?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 02:46:53 UTC
From: Mont O'Leary <k0ycn@arrl.net>
Message-ID: <xc2K6.12156$t12.903541@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52715

I recently picked up a Boomer 600 amplifier which apparently is intended for the 11 meter market. Has anyone had any luck in converting one of these for use as an HF mobil amp for 75-10 meters SSB? I think the relatively high Q of a mobil antenna should minimize spurious emissions that may be a problem.

73, Mont - K0YCN

3020. Re: Dig. Panel Meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 04:56:30 UTC
From: N1iqo <n1iqo@hotmail.com>
Message-ID: <264K6.274$372.221307@typhoon2.ba-dsg.net>
Source record: 52717

Try JCWhitney
www.jcwhitney.com

n1iqo

"unkadean" <dnorris@k7nomyclothes.com> wrote in message
news:v69hftkq8812eg9n6lju9b810vml4vhjar@4ax.com...
> I am looking for a digital panel voltmeter. Only need range to 15V.
> No frills.
>
> Please e-mail since I do not normally check this newsgroup. My
> thanks..
> unkadean
> dnorris@k7no.com
> ____
> Visit www.k7no.com Under construction but getting there.

3021. IC-706 FM Broadcast Mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 05:12:14 UTC
From: Victor Vanderberg <victor1@vt.edu>
Message-ID: <9dakll$q4i$1@solaris.cc.vt.edu>
Source record: 52720
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello,
I have been hearing about a newer mod for the IC-706 opening up the TX
to 200 MHz. Does anyone have any info on this? I'm not really interested
in using the radio for broadcast but I would love to take a look at the mod
and consider it. Anyone using his radio/mod? Thanks in advance.

Victor
radios@vt.edu

3022. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 05:20:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF8D384.6EB8BA8F@clifto.com>
Source record: 52718

Wes Stewart wrote:
> See we really do use the metric system<g>.

Sez you. I've never run a full 3.785 liters in my life.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3023. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 05:27:05 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF8D529.3EE8B0E5@clifto.com>
Source record: 52719

Michael Black wrote:
> My ten year old ECG guide crosses both to the ECG816. There's
> no internal diagram for it, but there is for the ECG817 (which
> the MC1550P crosses to. That matches the internal circuit
> shown in the Motorola databook for the MC1550.

My older guide has the MC1550G crossing to the 816. The diagram is
the same as for the 817, except that it shows pin 7 tied to the metal
can.

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

3024. XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 08:36:16 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF90180.3568D9E1@clifto.com>
Source record: 52721

Has anyone played with making a better loop filter for this puppy? Somehow just hanging a cap across the phase detector output just left me cold, and I've already made noisy-signal performance (300 baud FSK) better just by splitting their "R1" and hanging the cap off the middle, so I know it can be improved. Good noise immunity is a priority for this one.

Ideas on input signal conditioning also gratefully considered.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3025. Metric System , WAS : The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 09:49:26 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9dbd3v$ui0$1@news5.svr.pol.co.uk>
Source record: 52722

> It's not a well-known fact, but the metric system is the official US
standard.
> It's just never been adopted by industry.
==========
IF the US Government (trough the democratic process) has adopted the metric
system as the official standard, why are manufacturers and suppliers to the
US Government allowed to continue with the supply of goods and services
using the lb , foot/inch ,Fahrenheit units.
When watching CNN and CNBC weather reports it's all in miles/hour and
degrees Fahrenheit.
I feel if ANY government accepts a particular weights and measures system
,its agencies should take the lead in implementing that system , otherwise
such a system will never be accepted/used by the nation at large.

73 Frank , gm0csz.kn6wh@ukrs located in Scotland ,which is (still)
part of the United Kingdom , where the metric system has been accepted (I
believe in the early 70s) . It has been generally accepted and implemented
by industry and all Gov. agencies ,although all road signs are still in
miles .
Petrol must be priced and dispensed in litres.

3026. homebrew lineair amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 14:26:39 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <zscK6.65347$ii.8240170@afrodite.telenet-ops.be>
Source record: 52723

Dear fellow homebrewers.

I'd like to build a kW PA myself, just for the fun of it. Not for myself, but I found someone who needs one and is willing to pay.
The whole thing is still in the "design phase", being a faint idea in my head...
Now, I have several questions / problems to solve:

1. Final stages
For the actual PA, I'd like to use solid state, simply because I don't know anything about valves/tubes (graduated 3 years ago and this was not part of the program), but I'm quite familiar with bipolar and MOSFET transistors (characteristics, usage, drawbacks...).
I found an off-the shelf homebrew solution at http://www.communication-concepts.com/ => they sell the hardware for Motorola application notes, and have a kit for a 1kW PA (PCB, components and matched pair of power-mosfets). Now, this costs abt 1000US$, of which the finals costing 900US$ for a matched pair of MRF154. This is alotta $$$!!!
Question is: has anyone a cheaper source for these MOSFETS, or maybe a whole other design with other components?

2. RX / TX switchinh
Can anyone help me out for a fast and "built to last" RX / TX switching cuircuit?

3. SWR protection
What circuitry should I use to detect (and protect against?) hi SWR?

4. Experience
I'm sure there are some of you out there who have build one or more PA's.
What should I specificly take care of, or take into consideration?

Any help on schematics, application notes and help is surely appreciated!
Reply via newsgroup is ok, direct to my mailaddress is even better!

Thanks in advance to those who'll reply!
73! Franki - ON4CLN

3027. Re: Metric System , WAS : The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 14:55:24 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <5emifto8n9i0chcpchog0j89lo5r9rgrdr@4ax.com>
Source record: 52724

On Wed, 9 May 2001 12:49:26 +0300, "Frank Dinger"
<gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:

>IF the US Government (trough the democratic process) has adopted the metric
>system as the official standard, why are manufacturers and suppliers to the
>US Government allowed to continue with the supply of goods and services
>using the lb , foot/inch ,Fahrenheit units.

Very simple. The standard is just the definition of units. It does not mean
those definitions MUST be used in ordinary life. The US has never made the
metric system mandatory, although I have no doubt that day will come.

73, Bill W7TI

3028. OT: tracking transceivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:05:22 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3AF95CB1.B4F1EF88@midwestmicro-tek.com>
Source record: 52732

Sorry about this OT post but I have had no luck with other information avenues. I'm hopeing that you fellows might have some insight.

I've got an application here where I need a transceiver that has a range of about 3 miles and can be controlled by a microproccesor. I need an off the shelf product that is pre FCC approved and idealy has a RS232 serial interface.

Thanks,

Rick KC0GIX

3029. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:07:36 UTC
From: JR <jr@some.net>
Message-ID: <3AF94EB6.1573B77B@some.net>
Source record: 52725
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

I would suggest you forget the echo completely when getting on the ham bands. It may please all the 12 year olds and those who think like 12 year olds on cb, but it doesn't fly on ham radio.

Sideband wrote:
>
> I have never run my CB this way. I do have an echo mic on my GrantXL,
> but the echo "volume" is barely cracked open. According to three
> different modulation meters, I'm set at 99% modulation.
>
> The fellow I was talking to runs his radio in much the same way. He has
> a Cobra 148 (same radio, basically), and has his set similarly.
>
> Any more than 100% modulation is going to sound like crap, and probably
> bleed over. I know this, and those CB'ers who know this try to avoid
> bleeding over, etc...
>
> Now, if you don't mind, I need a nap before I go down to the testing
> center to test for my ticket. Have a nice day, Rob, and I hope "huked on
> fonix" continues to help your English grammar. ("there's usefull"? Come
> On!)
>
> -SSB
>
>

3030. Circuits for 2m S.W.R and Watt Meters.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:08:52 UTC
From: Tienie.Venter@eskom.co.za
Message-ID: <9dbmi9$g52$1@nnrp01.ops.uunet.co.za>
Source record: 52727
Cross-posted to: rec.ham-radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,relcom.radio.diagrams,sci.electronics.design,sci.electronics.equipmenttw.bbs.rec.radio.amateur

Hi,
I am looking for circuits to build a S.W.R and Watt meters for 2m. (144 - 146MHz) If anyone can help, please e-mail direct to:-
Tienie.Venter@Eskom.Co.ZA
Thanks,
Tienie ZR6JMV.

3031. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:10:05 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3af95c70_3@newsfeeds>
Source record: 52726
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

You, sir, assume too much. And you know what happens when you assume. I, for one, do happen to obey speed limits as well as frequency ranges and power contstraints. But thanks for your concern.

JWheeler
kd5bcu
Bob <boob@boob.com> wrote in message

<snip>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3032. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:20:36 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF96044.151D1E70@zylay.com>
Source record: 52728
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> You, sir, assume too much. And you know what happens when you assume. I,
> for one, do happen to obey speed limits as well as frequency ranges and
> power contstraints. But thanks for your concern.

Don't take it too hard. Some folks simply can't comprehend what it must
be like to drive without constantly paying attention to potential hiding
places for cops rather than the road itself.

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

3033. Re: The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:28:17 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9filbk.scg.w9wi@linux1.localdomain>
Source record: 52729

On Tue, 08 May 2001 17:04:57 -0700, Bill Turner <w7ti@jps.net> wrote:
>Interesting, but in looking over most of the web pages there, I noticed
>WorldSpace is being very careful not to disclose its location or ownership.
>Anyone know why it is being so secretive?

They're following the First Commandment of Web Design: ensure your site
provides no possible route for users to actually contact you...
==========
The FCC has metricized to a significant degree. According to our license,
my employer's antenna is 430 meters above average terrain - not 1,410 feet.
Other figures in the broadcast regulations, like the minimum distances
between stations on the same frequency, are also expressed in metric
measures. Admittedly, sometimes converted directly from the old
English-system values. ("289.7km" replacing 180 miles, etc.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3034. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:35:48 UTC
From: JWheeler <"kd5bcu at sydcom dot net">
Message-ID: <3af96278_3@newsfeeds>
Source record: 52730
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

That's not completely correct. I believe that the time limit is about 4 years. If I went and 'established' myself on that land for long enough and no one said anything about it, then while I may have been there illegally in the beginning, I do have a legal right to be there, and the courts in Texas will back me up on it. I'm not sure if it falls under homestead or imminent domain, but it is the law, at least here in Texas. I know of people who have lost several feet off of their property line in this very same manner.

JWheeler
kd5bcu
GG <nbc_red@mailcity.com> wrote in message n

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3035. Re: Isn't that against the law?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 15:46:43 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.156376f7d34eafcf9896be@news.earthlink.net>
Source record: 52731

> Isn't that against the law?

no

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--

3036. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 16:49:56 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9dbsfk$oc6$2@woodrow.ucdavis.edu>
Source record: 52733

```
Hi Cliff,

You might research older RTTY detector circuits. I've seen a number of
them using the 2211 in various layouts.

cheers
skipp

: Clifton T. Sharp Jr. <clifto@clifto.com> wrote:
: Has anyone played with making a better loop filter for this puppy? Somehow
: just hanging a cap across the phase detector output just left me cold,
: and I've already made noisy-signal performance (300 baud FSK) better
: just by splitting their "R1" and hanging the cap off the middle, so I
: know it can be improved. Good noise immunity is a priority for this one.

: Ideas on input signal conditioning also gratefully considered.

: --
: +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
: | Cliff Sharp | Hate spam? Take the Boulder Pledge! |
: | WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
: +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3037. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 17:31:06 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3AF97EDA.27B6D592@clifto.com>
Source record: 52734

Skipp wrote:
> You might research older RTTY detector circuits. I've seen a number of
> them using the 2211 in various layouts.

I have, and I'm going to keep on doing so, but so far the ones I've found have pretty much used the circuit right out of the data book with only slight (if any) changes. I guess everyone's so happy to see a databook circuit that works right off the bat that they're doing it the honor of leaving it unchanged. :)

--
+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+

3038. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 17:35:00 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3AF97FC4.FF6D5DF@rupert.tds-az.lmco.com>
Source record: 52737
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Gene wrote:
>
> JWheeler wrote:
> > You, sir, assume too much. And you know what happens when you assume. I,
> > for one, do happen to obey speed limits as well as frequency ranges and
> > power contstraints. But thanks for your concern.
>
> Don't take it too hard. Some folks simply can't comprehend what it must
> be like to drive without constantly paying attention to potential hiding
> places for cops rather than the road itself.
>

It works both ways. Some people can't comprehend the peace of mind
that you have when you don't care where the cops are hiding.

All you have to do is go a little slower then all those other
drivers, that are looking over their sholders for cops, and the
cops won't pay any attention to you. In the end, does it really
matter whether you get there a minute or two before me? If you
get there first, do you win? If so, what do you win?

--
Martin E. Meserve, K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

3039. Storno cqm 5112

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 18:19:13 UTC
From: lxw-klas@telia.com
Message-ID: <000a01c0d8b4$ec1b5120$ca0e40d5@u31738469>
Source record: 52735

How can i programming this radio to 2 meters amatörradio
SM7LXW

3040. Re: Old Motorola HEP part

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 18:21:44 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <YUfK6.52610$Ce4.4408078@news1.rdc1.ct.home.com>
Source record: 52736

```
Well, I'd be glad to sell him a few for his project. Haven't
received an email back from the gentleman as of yet.

Pete

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3AF8D529.3EE8B0E5@clifto.com...
> Michael Black wrote:
> > My ten year old ECG guide crosses both to the ECG816. There's
> > no internal diagram for it, but there is for the ECG817 (which
> > the MC1550P crosses to. That matches the internal circuit
> > shown in the Motorola databook for the MC1550.
>
> My older guide has the MC1550G crossing to the 816. The diagram is
> the same as for the 817, except that it shows pin 7 tied to the metal
> can.
>
> --
>
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
+-+
> | Cliff Sharp | Hate spam? Take the Boulder Pledge!
|
> | WA9PDM |
http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
>
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
+-+
```

3041. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 18:39:49 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3AF98EF5.647902AE@zylay.com>
Source record: 52738
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

> > > You, sir, assume too much. And you know what happens when you assume. I,
> > > for one, do happen to obey speed limits as well as frequency ranges and
> > > power contstraints. But thanks for your concern.
> >
> > Don't take it too hard. Some folks simply can't comprehend what it must
> > be like to drive without constantly paying attention to potential hiding
> > places for cops rather than the road itself.
> >
>
> It works both ways. Some people can't comprehend the peace of mind
> that you have when you don't care where the cops are hiding.
>
> All you have to do is go a little slower then all those other
> drivers, that are looking over their sholders for cops, and the
> cops won't pay any attention to you. In the end, does it really
> matter whether you get there a minute or two before me? If you
> get there first, do you win? If so, what do you win?

I think we said the same thing in different words LOL

--
Ride to eat, eat to ride. __O
_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

3042. Re: PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 20:50:24 UTC
From: la8ak@online.no
Message-ID: <3af9abfa.1129950923@news.online.no>
Source record: 52739

On Tue, 08 May 2001 16:19:39 -0500, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>AC6V wrote:
>> PLEASE CHANGE THE HEADER WHEN CHANGING TOPICS
>
>Isn't that against the law?
>
cetainly not Murphy's Law

3043. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 22:34:07 UTC
From: GG <nbc_red@mailcity.com>
Message-ID: <3AF9B764.5AEEBD5A@mailcity.com>
Source record: 52740
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Suggest you check with a lawyer, it isn't that simple. Homesteading and
imminent domain have nothing to do with it.

JWheeler wrote:
>
> That's not completely correct. I believe that the time limit is about 4
> years. If I went and 'established' myself on that land for long enough and
> no one said anything about it, then while I may have been there illegally in
> the beginning, I do have a legal right to be there, and the courts in Texas
> will back me up on it. I'm not sure if it falls under homestead or imminent
> domain, but it is the law, at least here in Texas. I know of people who
> have lost several feet off of their property line in this very same manner.
>
> JWheeler
> kd5bcu
> GG <nbc_red@mailcity.com> wrote in message n
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3044. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 23:01:14 UTC
From: la8ak@online.no
Message-ID: <3af9b046.1131050458@news.online.no>
Source record: 52741

On Wed, 09 May 2001 12:31:06 -0500, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>Skipp wrote:
>> You might research older RTTY detector circuits. I've seen a number of
>> them using the 2211 in various layouts.
>
>I have, and I'm going to keep on doing so, but so far the ones I've found
>have pretty much used the circuit right out of the data book with only
>slight (if any) changes. I guess everyone's so happy to see a databook
>circuit that works right off the bat that they're doing it the honor of
>leaving it unchanged. :)
>
TAPR meeting information described some improvements particularly for
DCD with optimization for 300 and 1200baud, Believe it was around
1988, I do not keep my old packet radio information. Suggest you ask
OM W0RLI

73
Jan-Martin

3045. Re: Isn't that against the law?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-09 23:03:26 UTC
From: la8ak@online.no
Message-ID: <3af9ccb0.1138325298@news.online.no>
Source record: 52742

On Wed, 09 May 2001 15:46:43 GMT, Brian Short <k7on@earthlink.net>
wrote:

>
>
>> Isn't that against the law?
>
>no
>
certain laws?

3046. Re: New project: 17 meter DSB TX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 03:19:03 UTC
From: Michael Black <blackm00@Gloria.CAM.ORG>
Message-ID: <Pine.LNX.4.10.10104231213500.9960-100000@Gloria.CAM.ORG>
Source record: 52743

On Mon, 23 Apr 2001, Bill Meara wrote:

> I feel the urge to melt solder. And I want to build a "phone rig."
> I've always wanted to get on 17 meters (no contests!). I can listen
> to that band on my Drake 2-B. Here's my plan:
>
> Solid State Doouble side band surpressed carrier TX based on Doug
> DeMaw's circuits. Very simple. Sort of a direct conversion
> transmitter. The oscillator will be on the transmit frequency. I
> think I'll start out with a VXO (I have the rock). Solid State PA.
> (Another option I considered would be to put the boards on an old
> DX-60 chassis and rebuild the 6146 PA stage... but I think that might
> be overkill.)
>
> I'm going to start out just building a transmitter. I'll build the
> oscillator first, then the DSB generator. Finally (!) the PA. I'm
> going to leave room in the cabinet for receive circuitry. It would be
> very easy (and sort of appropriate) to build a matching direct
> conversion receiver, but I've had bad luck with them and may decide to
> build a real superhet RX and make the final rig a Transmitter -
> Receiver (not a transceiver).
>
> I have an old Bud cabinet that's about the right size. I'm thinking
> of using the Manhattan technique on the circuit boards.
>
> What do you guys think? Anyone out there built this kind of rig?
>
> 73 from the Azores.
> Bill CU2JL N2CQR
>
>
(I started this right after you posted the original message, put
it aside, and finally I'm finishing it).

But have you thought about doing the modulation at high level? Instead
of putting the modulator after the oscillator and then amplifying, you
build up your power and then have the modulator feeding the antenna.
You don't have to have a linear amplifier chain that way. Audio
requirements may go up, but that's an easier realm. You
certainly won't need as much audio power as you'd need
in a comparable power AM transmitter.

For some reason, this sort of transmitter has faded. Years ago,
this was what you'd commonly see if there was an article about
a DSB transmitter. You'd see complete transmitters, people turning

finals of CW (and AM) transmitters into balanced modulators, and there'd even be add-ons, where an existing transmitter would feed a home-made external balanced moudlator.

It makes sense to do the modulation at a low level if you are thinking of adding a crystal filter at a later date, but that's hardly likely in this case since your oscillator is on the signal frequency.

You could even do phasing SSB at a high level.

Michael VE2BVW

3047. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 09:08:52 UTC
From: k3ky@erols.spamnocom
Message-ID: <3afa57ec.12858703@news.erols.com>
Source record: 52744

Pretty close- but WA2EBY did get a pair of inexpensive IRF-510's to
run reasonably well up through 10 meters. Output was falling off
rapidly at this point, but his 28V design did manage to output around
40 watts with 1 watt drive at the high end. Interestingly, the
frequency he got peak output at was 10MHz in his design. He told
me he invested quite a lot of time to get it to play this well, and he
does work in the amplifier design area. I doubt it would be worth
trying these little gems on 2 meters, but perhaps they could be
coaxed into working on 6 meters. I wouldn't bet on it, however.
The WA2EBY FET power amp can be seen in Mar+Apr 99 QST
magazine. BTW, the power output over frequency was definitely
not leveled, but this may not be an issue for some hams. His amp
runs from 160 through 10 meters, with a peak power output of
about 75 watts on 30 meters with 1 watt drive. Sure beats bipolars
for some applications. I built one using his PCB layout and it has
worked well for me. BTW this design outputs quite usable power
from a 12V supply, as well. I get about 25 watts for 1 watt drive with
13V on 40m. 73, David K3KY

On Thu, 3 May 2001 19:27:25 -0500, "Bojangle Chicken"
<bojanglechicken@yahoo.com> wrote:

>I don't know which series you're talking about, however, looking through the
>specs of a couple IRF HEXFETs I've got on hand, the IRF530 (N channel) and
>IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd = 50V, Id
>= 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would doubt
>that they would work much above 20-25MHz. If these are the series of
>HEXFETs you're talking about, I've experienced that they work much better
>for about 5MHz and down--i.e. power switching devices.
>
>Your milage may vary, but not much.
>Good evening.
>Pete
>ki0eg
>
>
>Jim Weir <jim@rst-engr.com> wrote in message
>news:ig03ft01nfepitnugqnijil7eul3uibln4@4ax.com...
>> Has anybody successfully used the relatively inexpensive Int'l Rectifier
>HexFet
>> series of devices at the 5 to 15 watt range on 6 or 2 meters? If not IR,
>are
>> there other inexpensive mosfet devices that you've used?
>>
>> Jim

>> Jim Weir, VP Eng. RST Eng. WX6RST
>> A&P, CFI, and other good alphabet soup
>
>

3048. Re: homebrew lineair amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 10:05:47 UTC
From: k3ky@erols.spamnocom
Message-ID: <3afa5f61.14768218@news.erols.com>
Source record: 52745

There are some solid state bipolar transistor amp kits available on
the internet. As I remember, the kits cost around 600-700 USD
at the KW level. For mobile use with heavy duty 12V supply, these
might make sense. It also demonstrates that parts for solid state
power amps are still fairly expensive. There has to be some good
reason why tube amplifiers are not yet extinct, and this is it- the
high cost of silicon at that power level. I would only suggest that
it might be worth the investment of your time and effort to learn
RF power tube technology. There is an almost unbelievable wealth
of parts out there for tube amps, much of it in surplus channels
(= cheap!). I have yet to build a single KW HF amp in solid state.
All of mine have used 'valves' and have been built quite
inexpensively. BTW please note that my argument holds for
building amps with *surplus* tubes and components. If you campare
new parts, the price difference gets fairly small. If price is not an
issue, it stilll might be better to go with tubes, as they can be much
more forgiving of short term overloads due to antenna impedance
missmatch including open and short circuit conditions. Loading
errors that are survivable for tubes can prove instantly fatal for
the output transistors if not properly protected with a 'bullet proof'
protection circuit. I doubt you would be happy to see a 900 USD
pair of RF transistors go up in a little cloud of silicon smoke! :o)
BTW some amplifier tubes are almost as fragile, and require grid
protection circuits. These are almost as easy to destroy as
transistors if they are abused while unprotected. It is always
safest for the beginning designer/builder to stick with glass
envelope power tubes. There are many good available types,
both new and surplus. I like 813's, 4-250A'sand 4-400A's (surplus),
and 3-500Z's (new). Many different similar types are used in Europe.
Good luck and 73, David K3KY

On Wed, 09 May 2001 14:26:39 GMT, "ON4CLN" <on4cln@qsl.net> wrote:

>Dear fellow homebrewers.
>
>I'd like to build a kW PA myself, just for the fun of it. Not for myself,
>but I found someone who needs one and is willing to pay.
>The whole thing is still in the "design phase", being a faint idea in my
>head...
>Now, I have several questions / problems to solve:
>
>1. Final stages
>For the actual PA, I'd like to use solid state, simply because I don't know
>anything about valves/tubes (graduated 3 years ago and this was not part of
>the program), but I'm quite familiar with bipolar and MOSFET transistors

>(characteristics, usage, drawbacks...).
>I found an off-the shelf homebrew solution at
>http://www.communication-concepts.com/ => they sell the hardware for
>Motorola application notes, and have a kit for a 1kW PA (PCB, components and
>matched pair of power-mosfets). Now, this costs abt 1000US$, of which the
>finals costing 900US$ for a matched pair of MRF154. This is alotta $$$!!!
>Question is: has anyone a cheaper source for these MOSFETS, or maybe a whole
>other design with other components?
>
>2. RX / TX switchinh
>Can anyone help me out for a fast and "built to last" RX / TX switching
>cuircuit?
>
>3. SWR protection
>What circuitry should I use to detect (and protect against?) hi SWR?
>
>4. Experience
>I'm sure there are some of you out there who have build one or more PA's.
>What should I specificly take care of, or take into consideration?
>
>
>Any help on schematics, application notes and help is surely appreciated!
>Reply via newsgroup is ok, direct to my mailaddress is even better!
>
>Thanks in advance to those who'll reply!
>73! Franki - ON4CLN
>
>
>

3049. NEW KNIGHT KIT BULLETIN BOARD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 13:12:02 UTC
From: SideValve <sabbatai_zvi@NOSPAMhotmail.com>
Message-ID: <nm4lft8co0fdupfhsiqllmtv57210qtb2p@4ax.com>
Source record: 52746
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hey folks,

We have a NEW address for the Allied - Knight Kit Bulletin Board!

The old BBS over at BESEEN.COM was being trashed repeatedly by
annoying Taiwanese spammers with totally off-topic ads.

This new Board lets me delete spam, and al;so ban spammers if they try
to register and use the board. The registration is free and takes like
20 seconds. A small price to pay for getting our privacy back!

Many Knight and Allied enthusiasts are out there. Please forward this
to your friends, and to other Search engines, lists, reflectors, clubs
etc.

So please pass the word. KNIGHT KIT LIVES!

73 de AF4K, Brian

http://www.senac.com/boards/1270/

3050. Re: IC-706 FM Broadcast Mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 13:40:40 UTC
From: peterongc@yahoo.com
Message-ID: <9de5oo$8t8$1@news.netmar.com>
Source record: 52654
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello Victor,
Please visit the site www.mods.dk . The very best as far as
radio modifications are concerned.If you cannot find it here you cannot find
it anywhere !

have a nice time...
peter
peterongc@yahoo.com

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http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

3051. Re: homebrew lineair amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 15:26:04 UTC
From: 2w8ji@contesting.com
Message-ID: <3afaad21.594886466@news.accessunited.com>
Source record: 52647

On Wed, 09 May 2001 14:26:39 GMT, "ON4CLN" <on4cln@qsl.net> wrote:

>For the actual PA, I'd like to use solid state, simply because I don't know
>anything about valves/tubes (graduated 3 years ago and this was not part of
>the program), but I'm quite familiar with bipolar and MOSFET transistors
>(characteristics, usage, drawbacks...).

Good, then you know to build a few small PA's first, and get used to
what you are doing before leaping into a high-power PA. A good
education will cover about 10% of the problems you might run into in
the real-world.

The real problems with PA's are things like component current ratings,
"ringing" of waveforms that may cause excessive voltage, harmonic
suppression, and IMD performance.

For example, there are amplifier kits that are sold (illegally for USA
users) using 2SC2879's but they have poor biasing and poor IMD
performance. They are OK in a car, but would be too "dirty" for home
use on big antennas where you signal would be stronger and more
noticable. You wouldn't want a 14 volt amplifier over a few hundered
watts anyway, unless you had no other choice.

You are probably limited to 28 volt or higher devices if you want
decent IMD performance and a reasonable power supply for home use.

>I found an off-the shelf homebrew solution at
>http://www.communication-concepts.com/ => they sell the hardware for
>Motorola application notes, and have a kit for a 1kW PA (PCB, components and
>matched pair of power-mosfets). Now, this costs abt 1000US$, of which the
>finals costing 900US$ for a matched pair of MRF154. This is alotta $$$!!!

One problem is these are based on Motorola evaluation kits. These
projects do not always work perfectly, and often require some
additional refinements. So don't depend on such kits being "turn-key"
operation.

I know for a fact the evaluation layout for MRF150's in a 600 watt
amplifier has high voltage transients on the drains of the MRF-150's
because of lead impedances and layout. You might or might not destroy
a few FET's while taming it down.

>Question is: has anyone a cheaper source for these MOSFETS, or maybe a whole
>other design with other components?

If I were just building a first PA, I'd build several QRP PA's first.
Better to learn what to do and what not to do with $10 FET's than $100

FET's.

Tube-type PA's are a lot more forgiving, and can give you some insight
into problems without wasting hundreds of dollars learning on FET's.

>2. RX / TX switchinh
>Can anyone help me out for a fast and "built to last" RX / TX switching
>cuircuit?

Relays are the best choice, and then later you might add PIN diode
switching. I wouldn't try to do it all at once, you'll have too many
big projects with expensive parts if you do!

High power PIN diode switches are difficult at HF because of diode
carrier lifetime and other component problems, not nearly as easy as
VHF and higher switches.

>3. SWR protection
>What circuitry should I use to detect (and protect against?) hi SWR?

That's the easiest task. You just need a fast shutdown circuit and to
design the PA so it can take voltage excesses. If you have a voltage
failure problem, it is virtually impossible to design a shutdown
circuit that will save the PA. So you need to make sure you have some
headroom on the peak voltages you might see with load faults.

A standard directional coupler like used in a SWR bridge and an op-amp
comparator can do the job... if you pay attention to rise time of
voltages and make the system fast. You'll need a fast relay to protect
the PA by removing drive, like a reed relay, and have enough headrooom
the PA can take overvoltage untiul it shuts down. Overcurrent is much
less of a problem.

>4. Experience
>I'm sure there are some of you out there who have build one or more PA's.
>What should I specificly take care of, or take into consideration?

Be prepared to waste a few devices while working out bugs! That's why
I would start small.

3052. Re: IC-706 FM Broadcast Mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 16:28:50 UTC
From: George <geonbc@optonline.net>
Message-ID: <6lzK6.79889$4X4.10491983@news02.optonline.net>
Source record: 52648
Cross-posted to:
alt.ham-radio.vhf-uhf,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

You might want to try http://www.mods.dk/
George-NY

"Victor Vanderberg" <victor1@vt.edu> wrote in message
news:9dakll$q4i$1@solaris.cc.vt.edu...
> Hello,
> I have been hearing about a newer mod for the IC-706 opening up the TX
> to 200 MHz. Does anyone have any info on this? I'm not really interested
> in using the radio for broadcast but I would love to take a look at the
mod
> and consider it. Anyone using his radio/mod? Thanks in advance.
>
> Victor
> radios@vt.edu
>
>
>

3053. Re: Circuits for 2m S.W.R and Watt Meters.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 17:46:06 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9dek4uprr2@woodrow.ucdavis.edu>
Source record: 52649
Cross-posted to: rec.ham-radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,relcom.radio.diagrams,sci.electronics.design,sci.electronics.equipmenttw.bbs.rec.radio.amateur

Your best bet is to pick up an ARRL Handbook and have a look at the projects inside. If you want a cheaper prebuilt unit, consider buying a used Heathkit VHF watt meter off Ebay.

cheers
skipp
http://sonic.ucdavis.edu

: In sci.electronics.design Tienie.Venter@eskom.co.za wrote:
: Hi,
: I am looking for circuits to build a S.W.R and Watt meters for 2m. (144 -
: 146MHz) If anyone can help, please e-mail direct to:-
: Tienie.Venter@Eskom.Co.ZA
: Thanks,
: Tienie ZR6JMV.

3054. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 19:38:23 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9deqnk$u2k$1@dipsy.missouri.edu>
Source record: 52651

I guess I should have said: "Given the rise/fall times, and capacitances, I would doubt these devices work *well* above 20-25MHz." That is to say, I would doubt they work well in a nice linear Class A mode. Higher class operation I could understand, possibly [or in fact, considering the design you mention]. As you mention, a good deal of work had to be done to get the amplifier to work over the range required, as well. The question is, is it worth it?
As I said, your milage may [/will] vary.
Pete

<k3ky@erols.spamnocom> wrote in message
news:3afa57ec.12858703@news.erols.com...
> Pretty close- but WA2EBY did get a pair of inexpensive IRF-510's to
> run reasonably well up through 10 meters. Output was falling off
> rapidly at this point, but his 28V design did manage to output around
> 40 watts with 1 watt drive at the high end. Interestingly, the
> frequency he got peak output at was 10MHz in his design. He told
> me he invested quite a lot of time to get it to play this well, and he
> does work in the amplifier design area. I doubt it would be worth
> trying these little gems on 2 meters, but perhaps they could be
> coaxed into working on 6 meters. I wouldn't bet on it, however.
> The WA2EBY FET power amp can be seen in Mar+Apr 99 QST
> magazine. BTW, the power output over frequency was definitely
> *not* leveled, but this may not be an issue for some hams. His amp
> runs from 160 through 10 meters, with a peak power output of
> about 75 watts on 30 meters with 1 watt drive. Sure beats bipolars

> >IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd = 50V,
Id
> >= 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would
doubt
> >that they would work much above 20-25MHz. If these are the series of

> >> Has anybody successfully used the relatively inexpensive Int'l
Rectifier
> >HexFet
> >> series of devices at the 5 to 15 watt range on 6 or 2 meters? If not
IR,
> >are
> >> there other inexpensive mosfet devices that you've used?

3055. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 19:47:27 UTC
From: Henry County American Red Cross <arcweb@bnnorth.net>
Message-ID: <0jCK6.9390$Os.1295162@cletus.bright.net>
Source record: 52652
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

JR <jr@some.net> wrote in message news:3AF94EB6.1573B77B@some.net...
> I would suggest you forget the echo completely when getting on the ham
> bands. It may please all the 12 year olds and those who think like 12
> year olds on cb, but it doesn't fly on ham radio.
>
echo definately sucks on 11m sideband as well, especially thse jokers who
get their kicks by echoing their roger beeps. I never saw the need for the
modulation toys, I have only ever seen two good reasons for a power mic, one
was a friend of mine who had a really soft voice due to his suffering throat
cancer, and he had his setup on a O-scope and had it set at 100% (or as
close to it as possible) by a local radio sho that is owned by a local HAM,
the other was a friend who had a radio with weak modulation, he had it in
every shop in the tri state area and nobody could trace the problem, so he
had a power mic that he barely cracked open. Other than this, power mics and
modulation kits (connex boards) are a waste and useless for good sounding
radio.

WebDoc

3056. Caddock Non-Inductive resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-10 22:14:08 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tflpvmreldchfe@corp.supernews.com>
Source record: 52650

I have the Caddock catalog here. Looks like you have to buy a pile
of them minimum. Anyone know where I can get a few TO-220
style 50 ohm 50 to 100 watt non-inductive resistors? I also need
a 15-20 ohm at 20 watt. Guess I could settle for another type
of non-inductive resistor, but these are pretty small.

Doug N4IJ

3057. Icom Sound Card Interface PC Boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 02:22:15 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tfmj6shkj0ro79@corp.supernews.com>
Source record: 52653

I have a limited number (20) of PC boards for a sound card interface which I designed specifically for the IC-756PRO. It should work fine with any of the Icom rigs (such as the IC761/765) which use the 8 pin DIN ACC(1) connector. The interface contains Rx and Tx audio preamps and isolation transformers. PTT can be keyed via an optical isolated serial port interface or via an internal VOX type circuit which has been designed to work well with the digital modes. All I/O lines are filtered with chokes and bypass capacitors. An on/off switch routes all ACC(1) connections to an identical connector when the interface is turned off. Front panel controls for Rx, Tx, and VOX gain work independent of the rig's volume, mike gain, and vox gain controls. Fits in a standard MicroPack "C" enclosure by Lansing Instruments.

These boards are available at my cost of $21 each plus $1.50 shipping. I can send you a zip file with PDF format schematic and parts list. If you are interested e-mail me directly at: rlewis@staffnet.com

3058. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 05:46:44 UTC
From: k3ky@erols.spamnocom
Message-ID: <3afb7326.65334153@news.erols.com>
Source record: 52655

The WA2EBY amp is linear, runs in AB apparently. The idling current
is low, about 20mA. This is no class C amp. I would say that 40 to 75
watts output for 1 watt input over 1.8 to 28MHz is pretty respectable.
Yes, output definitely drops steadily above 21MHz. (Output down to
about 33w at 30MHz) The output powers at 1.8 and about 23MHz
are identical (`57 watts) The power peak is at about 10MHz. (75w).
On air reports on the prototype were good on SSB. Not too shabby for
a couple of 2 dollar hexfets. 73, K3KY
P.S. Class A operation would not be practical with this setup, as it
is definitely 'pushing the envelope' already, to run TO-220
transistors with their poor thermal resistance quite this hard.

On Thu, 10 May 2001 14:38:23 -0500, "Bojangle Chicken"
<bojanglechicken@yahoo.com> wrote:

>I guess I should have said: "Given the rise/fall times, and capacitances, I
>would doubt these devices work *well* above 20-25MHz." That is to say, I
>would doubt they work well in a nice linear Class A mode. Higher class
>operation I could understand, possibly [or in fact, considering the design
>you mention]. As you mention, a good deal of work had to be done to get the
>amplifier to work over the range required, as well. The question is, is it
>worth it?
>As I said, your milage may [/will] vary.
>Pete
>
>
><k3ky@erols.spamnocom> wrote in message
>news:3afa57ec.12858703@news.erols.com...
>> Pretty close- but WA2EBY did get a pair of inexpensive IRF-510's to
>> run reasonably well up through 10 meters. Output was falling off
>> rapidly at this point, but his 28V design did manage to output around
>> 40 watts with 1 watt drive at the high end. Interestingly, the
>> frequency he got peak output at was 10MHz in his design. He told
>> me he invested quite a lot of time to get it to play this well, and he
>> does work in the amplifier design area. I doubt it would be worth
>> trying these little gems on 2 meters, but perhaps they could be
>> coaxed into working on 6 meters. I wouldn't bet on it, however.
>> The WA2EBY FET power amp can be seen in Mar+Apr 99 QST
>> magazine. BTW, the power output over frequency was definitely
>> *not* leveled, but this may not be an issue for some hams. His amp
>> runs from 160 through 10 meters, with a peak power output of
>> about 75 watts on 30 meters with 1 watt drive. Sure beats bipolars
>
>> >IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd = 50V,
>Id

>> >= 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would
>doubt
>> >that they would work much above 20-25MHz. If these are the series of
>
>> >> Has anybody successfully used the relatively inexpensive Int'l
>Rectifier
>> >HexFet
>> >> series of devices at the 5 to 15 watt range on 6 or 2 meters? If not
>IR,
>> >are
>> >> there other inexpensive mosfet devices that you've used?
>
>
>

3059. Re: Caddock Non-Inductive resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 06:04:21 UTC
From: k3ky@erols.spamnocom
Message-ID: <3afb7e00.68112904@news.erols.com>
Source record: 52656

It's hard to beat the Globar/Kanthal units (used to be made
by Carborundum, then Cesiwid). I can't tell you about minimum
orders. May be the same problem as with Caddock. The big,
round 100w globar ones will sure take more avg. power, and
will handle overloads better. Of course, they are huge- about
1 inch diameter and 5 inches long. I can't believe it- I walked
by two 50 ohm units at a recent hamfest- twice- and didn't buy
them. The guy was only asking 5.00 each. Jeez! Oh well, my buddy
was cranky because it was a small hamfest and there was not
much equipment there. He was bored. He is a good influence
on me, however, as his faster pace through the flea market
causes me to waste a lot less money on parts that I don't really
need. :o) 73, David K3KY

On Thu, 10 May 2001 15:14:08 -0700, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>I have the Caddock catalog here. Looks like you have to buy a pile
>of them minimum. Anyone know where I can get a few TO-220
>style 50 ohm 50 to 100 watt non-inductive resistors? I also need
>a 15-20 ohm at 20 watt. Guess I could settle for another type
>of non-inductive resistor, but these are pretty small.
>
>
>Doug N4IJ
>
>
>
>
>

3060. Re: Isn't that against the law?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 13:53:49 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.1565ff855649f64d9896bf@news.earthlink.net>
Source record: 52657

```
In article <3af9ccb0.1138325298@news.online.no>, la8ak@online.no says...
> On Wed, 09 May 2001 15:46:43 GMT, Brian Short <k7on@earthlink.net>
> wrote:
> >> Isn't that against the law?
> > >
> > >no
> > >
> > certain laws?
> >
uncertain laws

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--
```

3061. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 15:30:32 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9dh0inmpb2@woodrow.ucdavis.edu>
Source record: 52658

: I have, and I'm going to keep on doing so, but so far the ones I've found
: have pretty much used the circuit right out of the data book with only
: slight (if any) changes. I guess everyone's so happy to see a databook
: circuit that works right off the bat that they're doing it the honor of
: leaving it unchanged. :)

Hi again Cliff,

As the other guy mentions, you can look at TAPER packet group archives,
maybe some of it is on their web page. As I have an interest in both
packet and rtty, I have a small file and some friends I can reference.
Let me see what I can come up with. Email me direct in a few days and I'll
see what I can find for you...

73's
skipp@pilot.ucdavis.edu

3062. R.L. DRAKE VIRTUAL MUSEUM !

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 15:56:44 UTC
From: JM CHERRY <jmc@dproducts.be>
Message-ID: <3afc0af7$0$3123$456d72a3@news.skynet.be>
Source record: 52659

Hi Gang,

For all the R.L. DRAKE "lovers"....

The complete R.L. DRAKE Ham & Commercial catalogue... Since the Drake 1-A receivers, to the last Commercial and Army Transceivers.

Lot of pictures, Schematic, information, manuals and more.....

Visit it now ===========> http://www.dproducts.be/drake_museum

73,
JM CHERRY
http://www.dproducts.be
http://www.dproducts.be/drake_museum

3063. Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 16:31:56 UTC
From: jwodell@provide.net
Message-ID: <3afd1388.639410@news.provide.net>
Source record: 52660

You know, I used to be a sort of scientist before I retired, and as I recall there are several variations on the metric system -- thing like

SI or some such thing. I know that when I was teaching, half the chem department wouldn't speak to the other half because they advocated the wrong set.

Wonder if there's any truth to that. Oh, I think the other one was IU.

73 jerry w8gnd

3064. Re: Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 16:50:49 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <216ofts4sab6k0p1ots5t8h9vtcga2dml7@4ax.com>
Source record: 52661

On Fri, 11 May 2001 16:31:56 GMT, jwodell@provide.net (Jerry W. O'Dell) wrote:

>You know, I used to be a sort of scientist before I retired, and as I
>recall there are several variations on the metric system -- thing like
>
>SI or some such thing. I know that when I was teaching, half the chem
>department wouldn't speak to the other half because they advocated
>the wrong set.
>
>Wonder if there's any truth to that. Oh, I think the other one was IU.
>
>73 jerry w8gnd

I recall two sets of metric units, one base on meter-kilogram-second and the
other based on centimeter-gram-second. Was that it?

73, Bill W7TI

3065. Re: homebrew lineair amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 17:11:58 UTC
From: w4pqwhs@aol.com
Message-ID: <20010511131158.17128.00003442@ng-ci1.aol.com>
Source record: 52662

Franki, I think you just listed all the reasons that the manufacturers are most all using tubes..cost, protection, availability of parts ,simplicity and so on. good luck Harold W4PQW

3066. Re: Caddock Non-Inductive resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 17:20:45 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tfo7rge98nk0b1@corp.supernews.com>
Source record: 52663

I got about 12 of the MP style as "free samples". I sent them an E-mail and told them I needed to evaluate some of them for a project and wanted to get some samples. I got an E-mail back asking how many of which type. I sent the info back, and a few weeks later I had my free samples. I should point out that I made sure I had them sent to my work QTH, and used my work E-mail account too.

--
--
73 de,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse Code is used exclusively by Electronics Based life forms to communicate amongst themselves using advanced Organic Digital Signal Processors, running state of the art Artificial Intelligence Software, to perform the highly complex transmit encryption, receive decryption and error correction functions."

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:tflpvmreldchfe@corp.supernews.com...
> I have the Caddock catalog here. Looks like you have to buy a pile
> of them minimum. Anyone know where I can get a few TO-220
> style 50 ohm 50 to 100 watt non-inductive resistors? I also need
> a 15-20 ohm at 20 watt. Guess I could settle for another type
> of non-inductive resistor, but these are pretty small.
>
>
> Doug N4IJ
>
>
>
>
>

3067. Re: Toroidal Power Transformer design questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 17:28:27 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tfo89tcahg69ab@corp.supernews.com>
Source record: 52664

"Bob" <balbert@cnmnetwork.com> wrote in message
news:OIIJ6.7711$oa2.156258@news6.giganews.com...
>
> Winding your own is a viable alternative, but why toroidal?

They are self shielding to a large degree, which helps keep power line hum
out of the low level audio circuits due to magnetic coupling. You will find
this type of power transformer used in high end audio power amplifiers etc.

--
--
73 de,

Leland C. Scott
KC8LDO

ARRL member
NCI member

"You ask what Morse Code is good for? I'll tell you. Morse
Code is used exclusively by Electronics Based life forms to
communicate amongst themselves using advanced Organic
Digital Signal Processors, running state of the art Artificial
Intelligence Software, to perform the highly complex
transmit encryption, receive decryption and error correction
functions."

3068. Re: Isn't that against the law?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 17:35:45 UTC
From: la8ak@online.no
Message-ID: <3afc22dd.1291481818@news.online.no>
Source record: 52665

On Fri, 11 May 2001 13:53:49 GMT, Brian Short <k7on@earthlink.net>
wrote:

>In article <3af9ccb0.1138325298@news.online.no>, la8ak@online.no says...
>> On Wed, 09 May 2001 15:46:43 GMT, Brian Short <k7on@earthlink.net>
>> wrote:
>> >> Isn't that against the law?
>> >
>> >no
>> >
>> certain laws?
>>
>uncertain laws
>
like Murphy's Law?

3069. Re: HexFet Power Amp At VHF????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 17:51:02 UTC
From: Bojangle Chicken <bojanglechicken@yahoo.com>
Message-ID: <9djcuq$1u9$1@dipsy.missouri.edu>
Source record: 52680

I had a Class A version built and running a couple of weeks ago, using the 510 and 530 [comparison testing]. They were both hooked up to a big honking heatsink. I was pushing just over 10W directly off of an oscillator...probably about 18dB of power gain...which roughly about what you were claiming (75W out for 1W in). Guess I missed that 1W drive the first time around. Class AB, in the strictest of definitions, by the way, is not linear. But it's close enough.

Time to find that article...
Pete
ki0eg

<k3ky@erols.spamnocom> wrote in message
news:3afb7326.65334153@news.erols.com...
> The WA2EBY amp is linear, runs in AB apparently. The idling current
> is low, about 20mA. This is no class C amp. I would say that 40 to 75
> watts output for 1 watt input over 1.8 to 28MHz is pretty respectable.
> Yes, output definitely drops steadily above 21MHz. (Output down to
> about 33w at 30MHz) The output powers at 1.8 and about 23MHz
> are identical (`57 watts) The power peak is at about 10MHz. (75w).
> On air reports on the prototype were good on SSB. Not too shabby for
> a couple of 2 dollar hexfets. 73, K3KY
> P.S. Class A operation would not be practical with this setup, as it
> is definitely 'pushing the envelope' already, to run TO-220
> transistors with their poor thermal resistance quite this hard.
>
> On Thu, 10 May 2001 14:38:23 -0500, "Bojangle Chicken"
> <bojanglechicken@yahoo.com> wrote:
>
> >I guess I should have said: "Given the rise/fall times, and capacitances,
I
> >would doubt these devices work *well* above 20-25MHz." That is to say, I
> >would doubt they work well in a nice linear Class A mode. Higher class
> >operation I could understand, possibly [or in fact, considering the
design
> >you mention]. As you mention, a good deal of work had to be done to get
the
> >amplifier to work over the range required, as well. The question is, is
it
> >worth it?
> >As I said, your milage may [/will] vary.
> >Pete
> >
> >
> ><k3ky@erols.spamnocom> wrote in message

> >news:3afa57ec.12858703@news.erols.com...
> >> Pretty close- but WA2EBY did get a pair of inexpensive IRF-510's to
> >> run reasonably well up through 10 meters. Output was falling off
> >> rapidly at this point, but his 28V design did manage to output around
> >> 40 watts with 1 watt drive at the high end. Interestingly, the
> >> frequency he got peak output at was 10MHz in his design. He told
> >> me he invested quite a lot of time to get it to play this well, and he
> >> does work in the amplifier design area. I doubt it would be worth
> >> trying these little gems on 2 meters, but perhaps they could be
> >> coaxed into working on 6 meters. I wouldn't bet on it, however.
> >> The WA2EBY FET power amp can be seen in Mar+Apr 99 QST
> >> magazine. BTW, the power output over frequency was definitely
> >> *not* leveled, but this may not be an issue for some hams. His amp
> >> runs from 160 through 10 meters, with a peak power output of
> >> about 75 watts on 30 meters with 1 watt drive. Sure beats bipolars
> >
> >> >IRF9530 (P channel) have rise times (typical) of 22ns [IRF530, Vdd =
50V,
> >Id
> >> >= 9A] and 52ns [IRF9530, Vdd = -50V, Id = -12A]. Given this, I would
> >doubt
> >> >that they would work much above 20-25MHz. If these are the series of
> >
> >> >> Has anybody successfully used the relatively inexpensive Int'l
> >Rectifier
> >> >HexFet
> >> >> series of devices at the 5 to 15 watt range on 6 or 2 meters? If
not
> >IR,
> >> >are
> >> >> there other inexpensive mosfet devices that you've used?
> >
> >
> >
>

3070. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 18:13:48 UTC
From: la8ak@online.no
Message-ID: <3afc2665.1292385708@news.online.no>
Source record: 52666

On Fri, 11 May 2001 15:30:32 +0000 (UTC), Skipp
<skipp@pilot.ucdavis.edu> wrote:

>: I have, and I'm going to keep on doing so, but so far the ones I've found
>: have pretty much used the circuit right out of the data book with only
>: slight (if any) changes. I guess everyone's so happy to see a databook
>: circuit that works right off the bat that they're doing it the honor of
>: leaving it unchanged. :)
>
>Hi again Cliff,
>
>As the other guy mentions, you can look at TAPER packet group archives,
>maybe some of it is on their web page. As I have an interest in both
>packet and rtty, I have a small file and some friends I can reference.
>Let me see what I can come up with. Email me direct in a few days and I'll
>see what I can find for you...
>
>73's
>skipp@pilot.ucdavis.edu

modified all the available MFJ1270B and MFJ1274 according to the TAPR
notes, and later discovered that this was meant for 300Baud on 10m
(USB receiption) optimization, 2m FM 1200baud optimization was
simpler, think the optimization was particularly for using the TNC2
with open squelch on the RX.

For KAM I used an XR2211 to dcd detector and fed the signal back to
KAM, the same applies for TNC2C-DL and TNC2C-OZ

73
Jan-Martin
LA8AK

3071. VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 20:07:38 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <9dhgkblid1@news.inet.tele.dk>
Source record: 52667

Hi all,
I just wanted to ask what are the main(those most usual) impedance matching networks following a VHF (6m,2m) power transistor to match a 50ohm transmission line (coax) and an antenna. Which of those (T, pi or other) do you prefer and ou have experience. If someone can point me out to some web-site or literature, it would be fine. Thank you all for your efforts,
Adry

3072. Re: Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 21:15:23 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <cWN34BArZF$6Ewa2@g3ohx.demon.co.uk>
Source record: 52668

In article <216ofts4sab6k0p1ots5t8h9vtcga2dml7@4ax.com>, Bill Turner
<w7ti@jps.net> writes
>On Fri, 11 May 2001 16:31:56 GMT, jwodell@provide.net (Jerry W. O'Dell) wrote:
>
>>You know, I used to be a sort of scientist before I retired, and as I
>>recall there are several variations on the metric system -- thing like
>>
>>SI or some such thing. I know that when I was teaching, half the chem
>>department wouldn't speak to the other half because they advocated
>>the wrong set.
>>
>>Wonder if there's any truth to that. Oh, I think the other one was IU.
>>
>>73 jerry w8gnd
>
>_____
>
>I recall two sets of metric units, one base on meter-kilogram-second and the
>other based on centimeter-gram-second. Was that it?
>
>73, Bill W7TI

Yes. In the UK, at school, we changed from CGS to MKS around 1958.
Ian.

3073. 1296 linear transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 22:50:57 UTC
From: Michael Hart <mhart@NOSPAM.terrigal.net.au>
Message-ID: <3afc6d67@turakina.six.asn.au>
Source record: 52669

Has anybody made the 28Mhz to 1296Mhz linear transverter described in the 1989 ARRL handbook on page 32-14?

If so how well does it go and how did you get the designs for the PCBs?

Michael

3074. Re: Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 23:30:22 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3AFC75FF.30090BF7@earthlink.net>
Source record: 52670

Jerry---

> You know, I used to be a sort of scientist before I retired, and as I
> recall there are several variations on the metric system -- thing like
> SI or some such thing.

Well, there are two different metric ``sets'' that were used in the scientific community. One was the CGS set, or centimeter/gram/second set. I believe this was also called IU. The other set was the SI set, or Systeme Internationale (or some other such french spelling, I know I'm bastardizing it), using kilograms, meters, and seconds.

During my HS years and on into college (1987--1999), all the science classes used the SI system. The sad part, however, was that the math department used english!

Oh well.

Henry C. Gernhardt, III
KE4PIB/AG

3075. Re: Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-11 23:39:32 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <UK_K6.74252$ii.9156480@afrodite.telenet-ops.be>
Source record: 52671

Well, being brought up with the metric system (and driving in the RIGHT side
of the road, which happens to be the RIGHT side - no pun intended... ;o),
we were drilled to use the SI-untis..

SI stands for "syst&#65533;me international", which is French for International
System...

<quote>
It is based upon 7 principal units, 1 in each of 7 different categories -

Category Name Abbreviation

Length metre m
Mass kilogram kg
Time second s
Electric current ampere A
Temperature kelvin K
Amount of substance mole mol
Luminous intensity candela cd
<end quote>

More details can be found here (where I got the quote)
http://www.ex.ac.uk/cimt/dictunit/dictunit.htm#SI

Hope this enlightens your path - hi!
ON4CLN / Franki

3076. Re: Metrics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 00:41:49 UTC
From: Randy <randyap@geocities.delete.com>
Message-ID: <DC%K6.3880$55.970224@newsrump.sjc.telocity.net>
Source record: 52672

When I was in college ('75-'79 in the US), we studied the mks (meter-kilogram-second) version. I don't remember regularly using K for temperature, though. I think we used C. I only remember using K for absolute zero in chemistry.

If we could just get one generation started on the metric system, the US could easily convert. Unfortunately, we get so bogged down with comparisons that a true conversion is almost impossible.

"ON4CLN" <on4cln@qsl.net> wrote in message
news:UK_K6.74252$ii.9156480@afrodite.telenet-ops.be...
> Well, being brought up with the metric system (and driving in the RIGHT
side
> of the road, which happens to be the RIGHT side - no pun intended...
;o),
> we were drilled to use the SI-untis..
>
> SI stands for "syst�me international", which is French for International
> System...
>
> <quote>
> It is based upon 7 principal units, 1 in each of 7 different categories -
>
> Category Name Abbreviation
>
> Length metre m
> Mass kilogram kg
> Time second s
> Electric current ampere A
> Temperature kelvin K
> Amount of substance mole mol
> Luminous intensity candela cd
> <end quote>
>
> More details can be found here (where I got the quote)
> http://www.ex.ac.uk/cimt/dictunit/dictunit.htm#SI
>
> Hope this enlightens your path - hi!
> ON4CLN / Franki
>
>

3077. ARCO 429 Mica Trimmers (9 of them)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 06:03:35 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tfp9rudcn0r22a@corp.supernews.com>
Source record: 52673

I have 9 ARCO 429 mica trimmmers that have been removed from projects I have built in the past. They have solder and maybe bits of wire on them but they are otherwise good. These are 190-780 pf.

$20.00 shipped.

Doug N4IJ

3078. Jackson Brothers Ball Drives (3 of them)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 06:05:42 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tfp9vpn7a2ac5d@corp.supernews.com>
Source record: 52674

I have 3 Jackson Brothers Ball Drives. I think they are
about 6 to 1 ratio. They feel a bit stiff, like the lubricant
should be washed out and replaced. But no rust and they
are in good shape.

$20.00 shipped.

Doug N4IJ

3079. QUAD Matched Sylvania 6JM6 Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 06:07:32 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tfpa37onlkih90@corp.supernews.com>
Source record: 52675

4 matched Sylvania N.O.S. tubes. Original boxes.
Don't mistake for 6MJ6. These are 6JM6's

$20.00 shipped.

Doug N4IJ

3080. QUAD Matched GE 6JM6 Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 06:08:57 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tfpa5speeta5bd@corp.supernews.com>
Source record: 52676

4 GE 6JM6 tubes, N.O.S. matched in original boxes.
Not 6MJ6's. These are 6JM6's.

$20.00 shipped.

Doug N4IJ

3081. Re: XR2211 FSK loop filter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 07:12:06 UTC
From: Clark Southoff <cwsouth@telusplanet.net>
Message-ID: <3AFCE303.67A4F0F3@telusplanet.net>
Source record: 52677

Hi Cliff;
I used a Linear Technology switched capacitor low pass filter for a fsk project in past.
There was a bit of tuning required, and bad ground was identified as the culprit.
The LTC1062 provided a faster lock with lower ringing than the traditional passive filter.
Exar did have some design data for op amp filters.
We chose to go the switched capacitor filter route as a time saver.

The only problem was the noise from the clock, at 10 times the cut off frequency.
They are worth a shot, just read the ap notes.
LTI application notes #22 covers general use, # 24 covers the use with a 4046 PLL.
The consideration regarding the DC offset may affect initial lock.
I think Digi-Key stocks them, now.

http://www.linear-tech.com/pdf/an20.pdf
http://www.linear-tech.com/pdf/an24.pdf

Best regards and 73
Clark Southoff

"Clifton T. Sharp Jr." wrote:

> Has anyone played with making a better loop filter for this puppy? Somehow
> just hanging a cap across the phase detector output just left me cold,
> and I've already made noisy-signal performance (300 baud FSK) better
> just by splitting their "R1" and hanging the cap off the middle, so I
> know it can be improved. Good noise immunity is a priority for this one.
>
> Ideas on input signal conditioning also gratefully considered.
>
> --
> +-+
> | Cliff Sharp | Hate spam? Take the Boulder Pledge! |
> | WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
> +-+

3082. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 12:34:45 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <F5aL6.8505$ZC6.1149884@news02.optonline.net>
Source record: 52678

Hi Adrian,

I'm assuming you are talking about power amplifiers in the > 20 watt range.

In general you are dealing with very low impedances. If you tear open the typical amp you usually find that the inductive elements are traces on a PC board and the capacitors are fairly high value mica's. In some of the newer stuff they seem to have found ceramic replacements for the mica's but they still are about the same size. Even at VHF you see various transformers wound on ferrite cores.

The circuit topology generally looks like it's in the "other" category. They get designed to match a fairly weird output and input impedance combination. You also need to set up to keep things stable. Large swamping resistors on the input are not at all unusual, FET amps seem to die without them.

A couple of good things to look into in order to get a better idea of what's going on:

Check out the application notes on the manufacturer's web sites, the data's free.
Next time you see a friend with an amp, pull out the screw driver
...
Read up on baluns and un-un's

The basic theory is a bit odd as well. You are not really matching impedances at either the input or the output. You supply the input with the load it needs to keep things stable. You supply the output with the load that it will deliver the most power into. A good analogy is the power company. They do not match the wall socket impedance to your toaster, they deliver the most power they can into the toaster.

Hope this helps

Bob Camp
KB8TQ

"Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message news:9dhgkblid1@news.inet.tele.dk...
> Hi all,
> I just wanted to ask what are the main(those most usual) impedance
> matching networks following a VHF (6m,2m) power transistor to match a 50ohm
> transmission line (coax) and an antenna. Which of those (T, pi or other) do

> you prefer and ou have experience. If someone can point me out to
some
> web-site or literature, it would be fine. Thank you all for your
efforts,
> Adry
>
>

3083. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 13:01:29 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <9djc15$kq5$1@news.inet.tele.dk>
Source record: 52679

What would differ if you get into the QRP zone say an output power up to 10 maximally those 20 W. You can get a impedance that would differ not so much say an optimal output impedance of 8 - 20 ohms. how would you match that to a 50 ohm. Using a wideband ferite transformer, or some reactance matching circuits ?
TNX for the answer, Adry
"Bob Camp" <bob@cq.nu> p�e v diskusn�m p��sp�vku news:F5aL6.8505$ZC6.1149884@news02.optonline.net...
> Hi Adrian,
>
> I'm assuming you are talking about power amplifiers in the > 20 watt
> range.
>
> In general you are dealing with very low impedances. If you tear open
> the typical amp you usually find that the inductive elements are
> traces on a PC board and the capacitors are fairly high value mica's.
> In some of the newer stuff they seem to have found ceramic
> replacements for the mica's but they still are about the same size.
> Even at VHF you see various transformers wound on ferrite cores.
>
> The circuit topology generally looks like it's in the "other"
> category. They get designed to match a fairly weird output and input
> impedance combination. You also need to set up to keep things stable.
> Large swamping resistors on the input are not at all unusual, FET amps
> seem to die without them.
>
> A couple of good things to look into in order to get a better idea of
> what's going on:
>
> Check out the application notes on the manufacturer's web sites,
> the data's free.
> Next time you see a friend with an amp, pull out the screw driver
> ...
> Read up on baluns and un-un's
>
> The basic theory is a bit odd as well. You are not really matching
> impedances at either the input or the output. You supply the input
> with the load it needs to keep things stable. You supply the output
> with the load that it will deliver the most power into. A good analogy
> is the power company. They do not match the wall socket impedance to
> your toaster, they deliver the most power they can into the toaster.
>
> Hope this helps

>
> Bob Camp
> KB8TQ
>
>
>
> "Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message
> news:9dhgkblid1@news.inet.tele.dk...
> > Hi all,
> > I just wanted to ask what are the main(those most usual) impedance
> > matching networks following a VHF (6m,2m) power transistor to match
> a 50ohm
> > transmission line (coax) and an antenna. Which of those (T, pi or
> other) do
> > you prefer and ou have experience. If someone can point me out to
> some
> > web-site or literature, it would be fine. Thank you all for your
> efforts,
> > Adry
> >
> >
>
>

3084. FS: COAXIAL DYNAMICS WATTMETER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 14:24:24 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3AFD4798.662C90A4@alltel.net>
Source record: 52681

For Sale: Coaxial Dynamics model 81000A
Coaxial Dynamics model 81000A wattmeter. Near new condition with orig
manual.
No Slugs just the meter. Price is $175.00 plus $10.50 to send priority
mail. Cost $250.00
See pic's at the URL below. Also see page 90 of current AES catalog. All
bird 43 slugs work
with it.
Same thing as a Bird 43 but much nicer with big mirrored scale on it.
Has the optional female
N-conn on this one.SEE PIC AT BELOW
http://www.homestead.com/wb5apd/wattmeter.html
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3085. screwdriver antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 14:33:31 UTC
From: bonnie ahrens <bjahrens@mhonline.net>
Message-ID: <3AFD49BB.714274BA@mhonline.net>
Source record: 52682

HI all;
I would like to build my own screwdriver antenna as a project besides
they seem to very $$$.
so if any of you expert antenna builders have any plans or ideas that
would help i would rely
apprecate it, remember this will be my first screwdriver antenna
project so be nice.
I would like lots of Picts and details .

All that would like to reply can by email bjahrens@mhonline.net or the
reflector
THANK YOU ALL THAT REPLY JOHN KC2FXE

3086. HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 18:09:31 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <A$zYvHAbxX$6Ew6G@invest.fsbusiness.co.uk>
Source record: 52684

Firstly, I'd be interested if anyone knows of any building block and or evaluation PLL kits on the market.

I am interested in putting together a mono/dual HF band AM transmitter. Rather than being rockbound or building a VFO I decided to look at PLL's.

My thoughts so far:

There does not seem to be any simple old-fashioned synth IC's any more, unless
you can get some of the common types used in CB radios, either from the CB
shops or somewhere like RFParts in California (I forgot the URL). By 'simple' I mean those with parallel programming and without prescalers. Modern synth IC's are always serial-data, almost always with prescalers ahead of the main dividers, and have an on-board crystal osc, but require an
external VCO. The only suitable example in the Farnell catalogue at the moment is a National part for use up to 550MHz, for 4 or 5 quid.

I've no experience of this type of application, but my guess is that it would be unsafe to operate the synth at the Tx freq if there is to be more
than a few watts of RF in the vicinity. Better to synth a higher freq and
mix down against the reference osc, as in many CB radios with 10.24MHz crystal and mixing. Of course, it's also easier to make a VCO to tune 13 -
18MHz than 3 - 8MHz.

The alternatives for the PLL synth are a) use a modern IC with a microprocessor b)use a modern IC with a logic parallel-to-serial converter
c) use logic ICs to make programmable dividers.

I'd be interested in anyone's ideas.

Phil G4ZOW

3087. SWR Detector Audio Adapter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 18:11:37 UTC
From: kg7fu <kg7fu@yahoo.com>
Message-ID: <epuqftki6rh7mai870bhivqjegfov15asr@4ax.com>
Source record: 52683
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Looking for kits, parts, boards or templates for "An SWR Detector
Audio Adapter" project from the January 1994 issue of QST.

Operative word is "Cheap".

tia de kg7fu

James S. Kaplan KG7FU
Eugene Oregon USA
kg7fu@yahoo.com
http://www.rio.com/~kg7fu
ICQ # 1227639
Have YOU tried Linux today?

3088. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 20:45:47 UTC
From: N1iqo <n1iqo@yahoo.com>
Message-ID: <%hhL6.981$0W5.1447134@typhoon1.ba-dsg.net>
Source record: 52685

Well you can try this Webpage
www.dckits.com/plls.htm

Dave
n1iqo@yahoo.com

3089. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-12 20:51:48 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <xCsEQgAkJa$6Ewvi@invest.fsbusiness.co.uk>
Source record: 52686

Thank you Dave,

>Well you can try this Webpage
>www.dckits.com/plls.htm
Rgd

Phil G4ZOW

3090. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 00:04:59 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9dkj7j07s9@news2.newsguy.com>
Source record: 52687

What about Sheldon's DDS3A
http://www.rf-kits.demon.co.uk/run.htm

Kind of pricey but...

I'm not so sure the DDS thing is worth it. A reasonably stable VFO with a display like the K1 seems to be a heck of a lot simpler. Yeah, I would like memories etc., but the price and complexity of DDS has so far deterred me. Nevertheless, I'm going to take a close look at the DDS3 at Dayton this week. I expect Kanga U.S. will be there although I don't se Sheldon's name on the list.

didleydadidah

3091. PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 03:59:56 UTC
From: Z <zclobes@swbell.net>
Message-ID: <VQlL6.53$Do6.137824@nnrp2.sbc.net>
Source record: 52688

What methods of drawing/etching PCB's are people having good luck with?
I've tried the transfer paper from All Elec/Digikey and I only got one
almost decent transfer out of about 20. I've seen the ad from Jameco on the
photo-transfer without a darkroom but haven't seen any details of exactly
how that takes place.

Most of my boards are single sided, and need only a quantity of one, or
maybe as many as about five should the club want to build them as a kit.

Thanks in advance,
Zack Clobes, W0ZC

3092. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 04:50:23 UTC
From: N1iqo <n1iqo@yahoo.com>
Message-ID: <jooL6.1791$0W5.1776848@typhoon1.ba-dsg.net>
Source record: 52689

Take a look at Manhattan Style Construction....
here is a web site
http://www.qsl.net/k7qo/manhat.htm

Dave
n1iqo@yahoo.com

3093. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 07:09:19 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3afe32c1$0$5842@echo-01.iinet.net.au>
Source record: 52690

I have tried various methods over the years

(1) The Dalo pen seems to give a reasoable result but the tracks can be etched through if you leave them too long

(2) For small circuits/prototypes eg for a dummy load or return loss bridge I sometimes cut out sections to solder to by using a small drill mounted burr. I cut gaps in the solid copper plane and create a pad. The outside of the plane remains GND

(3) I have made quite complex one off circuits using sections of plastic insulating tape. This is somewhat time consuming but quite good results can be achieved
use double sided board - the top layer is ground
plan mechanical layout and cut board to size
clean the board with steel wool
lay out some insulating tape on another piece of hard board
Using a rule and sharp knife cut the tape into small squares for pads and thin strips for tracks
Plan the circuit layout
Place pads on the board using fine forceps to lift each section from the second board and press it down without touching with fingers - use another object such as a roll of tape to do this
Join pads as required with sections of strip - lift and cut a section with forceps and fine wirecutters. Tape sections can overlap
Even ICs can be laid out - best results are achieved if the rule and knife are used to cut out the pads from a single piece of tape placed on the PCB In this case the pad spacing will have to be measured accurately at 0.1 inch for DIP ICs.
Remember to cover the top ground plane layer with tape!
When the layout is complete, etch the board in ferric chloride - heat and agitiate the solution to speed up etching
Wash board and remove tape from board
Drill holes through pads using a suitable small drill eg 0.8 or 1mm HSS - tungsten carbide will break unless in a drill press
Using a larger drill (say 1/4 inch) at low speed, coutersink holes on the top ground plane layer to create insulation from the ground plane (care not to drill through if the drill is sharp)
Clean the board using steel wool until the copper is bright
Spray the board using PCB lacquer
Through Hole components can now be mounted with the top plane being ground. Because of the ground plane, this method works well for RF circuits

(4) Cut board into small sections and using hot glue stick it to a piece of unetched PCB. The glued sections are pads while the PCB is ground plane

(5) Draft a PCB using a layout program such as Easytrax (free) or one the commercial programs (expensive)
It will take a lot of work to get up to speed with the program but this might be worthwhile if you intend to do lot of electronics
You can get the board layout photoplotted at your local PCB house at reasonable cost. If the board is double sided you can use a section of scrap PCB to tape the corresponding photoplots to and place the PCB to be exposed between the photoplots - obviously the plots will
have to be accurately aligned
Using photoresist coated board (again - get yor local PCB house to sell you some) expose the bord to UV light
There are a number of details which have to be correct here
(1) Light source - not all UV sources are suitable due to various wavelengths - I have used a 300W floodlamp (care with eye exposure!!)
(2) Photoplots must be applied tightly to the PCB or edge definition will be poor. I have used a plastic bag around the PCB/photoplots with suction applied to the bag from a vacuum cleaner and a small plastic tube into the bag - it doesnt matter if there is
some leakage
(3) Make sure the photoplots are not reversed
(4) Exposure and Timing is critical.About 1 foot from lamp and 3 minutes works in our setup
(5) make sure the plot is correct for the photoresist - a negative photoresist gives good results and this is standard but positive photoresist is also available

Remove exposed photoresist using a solution of caustic soda - care as th is is corrosive
Etch the board in ferric chloride as before

You will probably have to experiment with any setup
This method gives commercial quality bare copper boards once you get all the details right but is rather tedious

(6) Draft a PCB and get your local PCB house to do a prototype frame. I have got a frame done for AUS$385 which will give me about 6-8 of a small board. For this you will get commercial quality through hole double sided boards with a solder mask

Hope this helps

Richard Hosking

"Z" <zclobes@swbell.net> wrote in message
news:VQlL6.53$Do6.137824@nnrp2.sbc.net...
> What methods of drawing/etching PCB's are people having good luck with?
> I've tried the transfer paper from All Elec/Digikey and I only got one
> almost decent transfer out of about 20. I've seen the ad from Jameco on the
> photo-transfer without a darkroom but haven't seen any details of exactly

> how that takes place.
>
> Most of my boards are single sided, and need only a quantity of one, or
> maybe as many as about five should the club want to build them as a kit.
>
> Thanks in advance,
> Zack Clobes, W0ZC
>
>

3094. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 07:14:28 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3afe33f6$0$5846@echo-01.iinet.net.au>
Source record: 52691

Philip
I have just about got a DDS solution ready which will give you crystal
stable fully tunable/programmable frequency agility over the HF band.
If you wanted to be really flash you could even produce the AM by digitally
modulating the DDS output!

Richard Hosking

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:A$zYvHAbxX$6Ew6G@invest.fsbusiness.co.uk...
> Firstly, I'd be interested if anyone knows of any building block and or
> evaluation PLL kits on the market.
>
> I am interested in putting together a mono/dual HF band AM transmitter.
> Rather than being rockbound or building a VFO I decided to look at
> PLL's.
>
> My thoughts so far:
>
> There does not seem to be any simple old-fashioned synth IC's any more,
> unless
> you can get some of the common types used in CB radios, either from the
> CB
> shops or somewhere like RFParts in California (I forgot the URL). By
> 'simple' I mean those with parallel programming and without prescalers.
> Modern synth IC's are always serial-data, almost always with prescalers
> ahead of the main dividers, and have an on-board crystal osc, but
> require an
> external VCO. The only suitable example in the Farnell catalogue at the
> moment is a National part for use up to 550MHz, for 4 or 5 quid.
>
> I've no experience of this type of application, but my guess is that it
> would be unsafe to operate the synth at the Tx freq if there is to be
> more
> than a few watts of RF in the vicinity. Better to synth a higher freq
> and
> mix down against the reference osc, as in many CB radios with 10.24MHz
> crystal and mixing. Of course, it's also easier to make a VCO to tune 13
> -
> 18MHz than 3 - 8MHz.
>
> The alternatives for the PLL synth are a) use a modern IC with a
> microprocessor b)use a modern IC with a logic parallel-to-serial
> converter
> c) use logic ICs to make programmable dividers.

>
> I'd be interested in anyone's ideas.
>
> Phil G4ZOW

3095. A Big Surprise At The Surplus Store

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 07:26:56 UTC
From: "R. Hubbard" <hubbard_ron@hotmail.com>
Message-ID: <9dlcmv$iiunl$1@ID-43450.news.dfncis.de>
Source record: 52692
Cross-posted to: rec.audio.tubes,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On impulse I bought a whopping big power tube, an Amperex HF100 tube, at a surplus place for $15.00 thinking I could look up the specs later on. Unfortunately my old tube reference book doesn't have any information on it. Does anyone know--

1) The power output

2) Plate voltage.

3) Filament voltage and current.

for this tube? Any information would be deeply appreciated. Thanks.

3096. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 08:37:59 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3afe4788$0$5860@echo-01.iinet.net.au>
Source record: 52693

Sorry - forgot the URL
Also I have a VFO stabilizer counter with settable offsets if you still want
to have a free running VFO
see
http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard Hosking

"Richard Hosking" <zaprichardh@iinet.net.au(remove the zap)> wrote in
message news:3afe33f6$0$5846@echo-01.iinet.net.au...
> Philip
> I have just about got a DDS solution ready which will give you crystal
> stable fully tunable/programmable frequency agility over the HF band.
> If you wanted to be really flash you could even produce the AM by
digitally
> modulating the DDS output!
>
> Richard Hosking
>
> "Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
> news:A$zYvHAbxX$6Ew6G@invest.fsbusiness.co.uk...
> > Firstly, I'd be interested if anyone knows of any building block and or
> > evaluation PLL kits on the market.
> >
> > I am interested in putting together a mono/dual HF band AM transmitter.
> > Rather than being rockbound or building a VFO I decided to look at
> > PLL's.
> >
> > My thoughts so far:
> >
> > There does not seem to be any simple old-fashioned synth IC's any more,
> > unless
> > you can get some of the common types used in CB radios, either from the
> > CB
> > shops or somewhere like RFParts in California (I forgot the URL). By
> > 'simple' I mean those with parallel programming and without prescalers.
> > Modern synth IC's are always serial-data, almost always with prescalers
> > ahead of the main dividers, and have an on-board crystal osc, but
> > require an
> > external VCO. The only suitable example in the Farnell catalogue at the
> > moment is a National part for use up to 550MHz, for 4 or 5 quid.
> >
> > I've no experience of this type of application, but my guess is that it
> > would be unsafe to operate the synth at the Tx freq if there is to be
> > more

> > than a few watts of RF in the vicinity. Better to synth a higher freq
> > and
> > mix down against the reference osc, as in many CB radios with 10.24MHz
> > crystal and mixing. Of course, it's also easier to make a VCO to tune 13
> > -
> > 18MHz than 3 - 8MHz.
> >
> > The alternatives for the PLL synth are a) use a modern IC with a
> > microprocessor b)use a modern IC with a logic parallel-to-serial
> > converter
> > c) use logic ICs to make programmable dividers.
> >
> > I'd be interested in anyone's ideas.
> >
> > Phil G4ZOW
>
>

3097. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 09:58:04 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <crlld9.n5.ln@localhost>
Source record: 52695

Z wrote:

> What methods of drawing/etching PCB's are people having good luck with?

If you have a laser printer or photocopier, have a look at my
web-page. URL below.

73, Ed. EI9GQ.

--
Remove 'X' to reply.

http://www.qsl.net/ei9gq

3098. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 10:04:42 UTC
From: Bill Turner <w7ti@jps.net>
Message-ID: <vsmsftk51b49fcc5v5jfk3nv4207tebhi7@4ax.com>
Source record: 52694

On Sun, 13 May 2001 04:50:23 GMT, "N1iqo" <n1iqo@yahoo.com> wrote:

>Take a look at Manhattan Style Construction....
>here is a web site
>http://www.qsl.net/k7qo/manhat.htm
>
>Dave
>n1iqo@yahoo.com
>

Great article, but I question the use of super glue for adhering the pads.
Super glue is notorious for becoming brittle with age. If you want a
long-lasting project, I'd suggest silicone RTV instead. It takes longer to dry
of course, but on the other hand, it is immune to the heat of soldering and
lasts forever.

73, Bill W7TI

3099. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 11:15:49 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9dlqht0n01@news2.newsguy.com>
Source record: 52696

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:A$zYvHAbxX$6Ew6G@invest.fsbusiness.co.uk...

> 'simple' I mean those with parallel programming and
> without prescalers. Modern synth IC's are always
> serial-data, almost always with prescalers

I neglected to ask before ... what's wrong with serial data? Certainly
simplifies the whole business. Lots less parts.

didleydadidah

3100. FS: Heath AR-3 and Jonhson Adventurer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 13:34:05 UTC
From: k9sqg@aol.com
Message-ID: <20010513093405.11336.00001688@ng-ma1.aol.com>
Source record: 52597

Accepting offers on the pair. Prefer pickup at Dayton Hamvention.

Cosmetics on Adventurer are about an "7-8", same on the AR-3. One of the tubes in the Adventurer is a Johnson tube! Haven't even had a chance to power them up since I bought them.

73s,

Evan

3101. Re: Caddock Non-Inductive resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 15:28:23 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9dmlp2$9uj$1@news8.svr.pol.co.uk>
Source record: 52600

<k3ky@erols.spamnocom> wrote in message
news:3afb7e00.68112904@news.erols.com...
> It's hard to beat the Globar/Kanthal units (used to be made
> by Carborundum, then Cesiwid). I can't tell you about minimum
> orders. May be the same problem as with Caddock. The big,
> round 100w globar ones will sure take more avg. power, and
> will handle overloads better. Of course, they are huge- about
> 1 inch diameter and 5 inches long. I can't believe it- I walked
> by two 50 ohm units at a recent hamfest- twice- and didn't buy
> them. The guy was only asking 5.00 each. Jeez! Oh well, my buddy
> was cranky because it was a small hamfest and there was not
> much equipment there. He was bored. He is a good influence
> on me, however, as his faster pace through the flea market
> causes me to waste a lot less money on parts that I don't really
> need. :o) 73, David K3KY
==========

At a hamfest I bought 2 identical 50 Ohms dummy loads .It is a ceramic package moulded to a metal strip ,make KDI . The actual resistor measures 9 x 6 x 1.5 millimetre . It is moulded to a metal strip of 22 x 9 millimetres which has 2 holes for fixing to a (substancial heatsink).
One connection is a tiny strip of copper , the other connection is the metal strip .

Although not marked as such they are supposed to dissipate up to 150 W ,eg passing a current of 1.7 Ampere On a digital resistance meter with an uncertainty of 2% the resistance measured of both pcs is 50.3 Ohms.The inductance is about 150 microHenry .
Has anybody on this NG come across this type of dummy load ?

Frank gm0csz.kn6wh@ukrs.org

3102. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 15:36:25 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3AFEA9F9.885BF80@primeline.net>
Source record: 52598

WB8RCR wrote:
>
> "Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
> news:A$zYvHAbxX$6Ew6G@invest.fsbusiness.co.uk...
>
> > 'simple' I mean those with parallel programming and
> > without prescalers. Modern synth IC's are always
> > serial-data, almost always with prescalers
>
> I neglected to ask before ... what's wrong with serial data? Certainly
> simplifies the whole business. Lots less parts.
>
> didleydadidah

Not if you don't want to code a micro. With a micro you will aslo
have to wire in a display and a keypad/rotary control.

I would like to try using a coulpe of of 8 to 1 multiplexors (most
serial
PLLs I have looked into require 17 bits)
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3103. Re: PCB Methods-- try hot-melt glue

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 16:25:52 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3AFEB590.7A8AEE08@valley.net>
Source record: 52599

Hello--

A while ago, I wrote an article for "73" magazine that discussed using hot-melt glue
as the medium for sticking copper-and-fiberglass pads to a ground plane.

Visit your local hardware store and buy a package of high-strength hot-melt glue sticks.

Use a sharp knife to trim a small flake of glue from the stick.

Place the glue between the ground plane or substrate and the isolated pad you're using.

Solder a component lead to the pad-- the hot-melt glue will hold the pad to the substrate when the glue cools.

More tips: the substrate and underside of the mad must be free from dirt or oil for this method to work.
The pad has a tendency to slide on its liquid hot-glue "bearing" Use a sharp scribe

to hold the pad in place (a third hand helps, too<g>).
Experiment with various substrates-- I've used business cards, plywood, and window glass to fab breadboards.

If anyone's interested, I can offer FS pieces of thin-fiberglass substrate, single-sided
copper laminate suitable for punching with an ordinary hole punch. Please don't hesitate to inquire for details.

73--
Brad AA1IP

3104. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 19:29:28 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9dmncg02omr@news2.newsguy.com>
Source record: 52601

I suppose if someone was in love with the complexity of those muxes and all those lines, then adding a shift register to the mix wouldn't be all that bad, but a PIC sure does simplify the whole thing.

I'm not sure I understand what you are thinking about for frequency input. I agree that shaft encoders are bloody expensive, and keypads are operationally annoying, at least for HF. The only other thing I could think of would be BCD switches, which would work just as well for a PIC as not. If you used a common PIC like the 16F84, you wouldn't have any lines left for a display, but you wouldn't need one, either.

I suppose you could use up/down buttons, but then you would need a display for your hardwired circuit as well, and again, it would be an order of magnitude simpler with a PIC.

See:
http://www.qsl.net/wb8rcr/lcdcnt.html
and also
http://www.qsl.net/wb8rcr/cwreadr.html

didleydadidah

"Gary Tait, The Real" <tait@primeline.net> wrote in message
news:3AFEA9F9.885BF80@primeline.net...
>
>
> Not if you don't want to code a micro. With a
> micro you will aslo have to wire in a display
>

3105. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 20:16:43 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <XGPNhkAruu$6EwKb@invest.fsbusiness.co.uk>
Source record: 52603

Many thanks.
>What about Sheldon's DDS3A
> http://www.rf-kits.demon.co.uk/run.htm
>
>Kind of pricey but...
>
>I'm not so sure the DDS thing is worth it. A reasonably stable VFO with a
>display like the K1 seems to be a heck of a lot simpler. Yeah, I would like
>memories etc., but the price and complexity of DDS has so far deterred me.
>Nevertheless, I'm going to take a close look at the DDS3 at Dayton this
>week. I expect Kanga U.S. will be there although I don't se Sheldon's name
>on the list.
I had forgotten about Sheldons kits. It's been quite some time since I looked at his stuff. I have built one of his noise comparators. Most useful tool.

Once again thanks.

Phil G4ZOW

3106. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 20:22:55 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <OGSLxrAf0u$6EwJe@invest.fsbusiness.co.uk>
Source record: 52602

Hello Richard,

>I have just about got a DDS solution ready which will give you crystal
>stable fully tunable/programmable frequency agility over the HF band.
>If you wanted to be really flash you could even produce the AM by digitally
>modulating the DDS output!
The only thing which concerns me about going down the DDS route is cost.

However, do let me/us know a little more or drop me a mail direct if you
wish.

Is your design part of a personal project?

I like the idea AM production but to be equally 'flash' I/we, a
colleague and I are looking at any non-iron, high level route as far as
AM modulators go.

That pretty much leaves only Pulse Duration Modulation for which I think
I have collated about every single printed reference ever produced.

(((73)))

Phil G4ZOW

3107. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 20:38:04 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <$3OX90AsCv$6Ewcq@invest.fsbusiness.co.uk>
Source record: 52604

Hi,

>> 'simple' I mean those with parallel programming and
>> without prescalers. Modern synth IC's are always
>> serial-data, almost always with prescalers
>
>I neglected to ask before ... what's wrong with serial data? Certainly
>simplifies the whole business. Lots less parts.
Nothing really with 74 series logic cips.

I just wanted feedback from all you more experienced home brewers out
there.

Maybe this is the route to follow.

Many thanks

Phil G4ZOW

3108. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 20:45:33 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <3nOV54AtJv$6Ew8e@invest.fsbusiness.co.uk>
Source record: 52605

>I suppose if someone was in love with the complexity of those muxes and all
>those lines, then adding a shift register to the mix wouldn't be all that
>bad, but a PIC sure does simplify the whole thing.
>
>I'm not sure I understand what you are thinking about for frequency input.
>I agree that shaft encoders are bloody expensive, and keypads are
>operationally annoying, at least for HF. The only other thing I could think
>of would be BCD switches, which would work just as well for a PIC as not.
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>for a display, but you wouldn't need one, either.
>
>I suppose you could use up/down buttons, but then you would need a display
>for your hardwired circuit as well, and again, it would be an order of
>magnitude simpler with a PIC.
>
>See:
> http://www.qsl.net/wb8rcr/lcdcnt.html
> and also
> http://www.qsl.net/wb8rcr/cwreadr.html
I was going to go down this route for dialing up the frequency:

http://www.eastcoastcomms.com/amtrans/am100.html

This is a picture of a low power AM broadcast band transmitter. I
believe it's similar to the Part 15 boxes you have in the US and the
legal RSL units here in the UK.

Phil G4ZOW

3109. Help with Boonton 92C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-13 22:15:49 UTC
From: Norm Clanton <nclanton@megalink.net>
Message-ID: <3AFF0794.898B8F16@megalink.net>
Source record: 52606

I've just acquired a Boonton 92C RF Millivoltmeter, but, unfortunately, didn't get a manual with it. It seems to work very well, except that readings (including the zero) on the 3 mV and 100 mV ranges fluctuate. The other ranges seem fine and steady. If anyone has a manual or experience with this instrument, your suggestions would be appreciated. With only two ranges affected, I'd tend to suspect dirty switch contacts, but figured I ought to seek ideas before I start tinkering with it. Thanks.

Norm KA1SG

3110. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 01:59:54 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9dne9d0oua@news2.newsguy.com>
Source record: 52608

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:$3OX90AsCv$6Ewcq@invest.fsbusiness.co.uk...

> I just wanted feedback from all you more experienced
> home brewers out there.

For what it's worth, my choice would be an analog VFO with a PIC driving a digital display. The thing that would drive me to DDS would be wanting to have memories. The inability to have the PIC directly set the frequency is the major downside to the analog VFO, IMO.

There are plenty of simple, varactor tuned VFO circuits out there. Generally, varactors are cheaper and more available than variable capacitors, and surplus 10 turn pots eliminate the need for complicated gearing schemes. Even if you pay list price for a 10 turn pot, you are still way less than the price of a decent air variable, and you haven't begun to think of some sort of a drive for the cap. Most of the circuits you see on the net are intended for CW - for AM your demands for stability should be quite a bit less demanding. G-QRP does have some interesting circuits for using variable caps that are available in the UK, however.

VFOs are reasonably easy to construct in the 2-5 MHz range, stabilizing them at higher frequencies gets a bit dicey. Common practice is to then mix the VFO with a crystal oscillator in a 602 to get to the operating frequency.

The digital display eliminates the need for an expensive turns counter on the pot, and it's simple and cheap. An LCD display, the PIC, PIC crystal, trimmer, and 5 volt supply in total comes to less than 25 Euro mail order. This has the advantage of actually reading the frequency rather than hoping that everything worked right. This is significantly less than the price of the popular DDS chips. And with a little imagination, the PIC, and the display, can be put to other uses as well.

Take a look at the Elecraft K1 schematic. This has a lot of the stuff you are looking for - 2 bands, precise frequency control, the 2 bands can be whatever you like, all in a relatively low cost radio. The manual, with schematic and circuit description is available online. They did maybe go a little overboard with the PICs, with all the options this low end radio has 4 computers in it! But they do have some ingenious schemes to use the PICs to reduce the parts count. I don't like their LCD choice, I would go for an LCD with a Hitachi controller and more digits, but then, I only need to buy one, not a thousand.

To tell the truth, I've been struggling with this very same question myself. I'm building a 20 meter CW rig, and my initial thought was to have an analog VFO. (In fact, I have the VFO built.) But I would very much like to have

memories, and that spells DDS. I haven't found a reasonably priced DDS lashup that would let me drive the programming, and once I get it built, I now have the issue of phase noise. I don't have enough test gear to really see what I'm doing there, so the problem concerns me. But I'm not interested in a fully blown, all packaged up VFO like Sheldon's because I have a lot of ideas about how the control of the radio should work. I didn't see Sheldon on the list for FDIM, but perhaps the US Kanga guy can help me understand how accessible the programming in the DDS3 is. It's kind of pricey, especially on this side of the pond, but if I could get it to do what I want, maybe it's the thing.

Oh, and I keep saying PICs because they are cheap and easy to program with a simple homebrew programmer. There are lots of other micros out there with other features, but the PIC, especially the 16F84, has gotten real popular for homebrewing.

Anyway, that's my two cents. (hmmm, do they say that's my 2p in the UK?)

didleydadidah

3111. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 02:15:19 UTC
From: ve6nap@ve6nap.com
Message-ID: <3aff3f1a.29681530@news.telusplanet.net>
Source record: 52607

Perhaps you continue to view the worlds through broken glasses

Good operators both Amateur and Citizens band operate
within the law and frequencies allocated to them under national laws
and international agreements

The term homebrew means you build it yourself at home
to meet these legal and technical requirements
and the discussions here are supposed to act as an information
exchange to help each of us learn how to do this better by exchanging
ideas and information.....

NOT WAYS TO BREAK THE RULES AND LAWS

In regards to amplifiers being built that would easily exceed the
legal limit if operated at maximum ratings It is somtimes more
prudent to build a device that operates at a fraction of its maximum
design power handeling capability
so as to ensure reliablility when operated continuioulsy for extended
periods of teime ie radio sporting events - and high duty cycle modes
such as RTTY etc.

those amateur radio operators who operate out of band with amateur
equipment are also treated by their peers as no longer worth of
remaining amateur operators and if they do not stop operating
outside of the law they pay the price of loosing their equipment and
priveleges as well as being subjected to fines and jail terms like
any other person who continuiously disregards the laws.

De
VE6NAP
Gerald Caouette

On 2 May 2001 01:46:32 GMT, "Twistedhed" <twistedhed@webtv.net> wrote:

>
>Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
>>RS1175---
>>
>>> I must admit I am shocked by some of the responses to my original
>>> post.
>>
>>Perhaps, then, you should not have posted your diatribe on a ham radio
>>newsgroup.
>
>I thought the homebrew newsgroup was where I'd find a sympathetic ear since
>this is where the hammies discuss techncal details of all their mods out

>of band stuff and hi power amps which you know can't be striclty legal.
>
>

3112. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 05:46:29 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3AFF7129.D7E993B@dioxine.com>
Source record: 52609

Excellent thread - really refreshing stuff on r.r.a.homebrew.

WB8RCR wrote:

> "Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
> news:$3OX90AsCv$6Ewcq@invest.fsbusiness.co.uk...
>
> > I just wanted feedback from all you more experienced
> > home brewers out there.
>
> For what it's worth, my choice would be an analog VFO with a PIC driving a
> digital display. The thing that would drive me to DDS would be wanting to
> have memories. The inability to have the PIC directly set the frequency is
> the major downside to the analog VFO, IMO.

> There are plenty of simple, varactor tuned VFO circuits out there.
> Generally, varactors are cheaper and more available than variable
> capacitors, and surplus 10 turn pots eliminate the need for complicated
> gearing schemes. Even if you pay list price for a 10 turn pot, you are
> still way less than the price of a decent air variable, and you haven't
> begun to think of some sort of a drive for the cap. Most of the circuits
> you see on the net are intended for CW - for AM your demands for stability
> should be quite a bit less demanding. G-QRP does have some interesting
> circuits for using variable caps that are available in the UK, however.

Once you have a varactor-tuned VFO, you have a VCO. It's not *that*
huge of a step from a VCO to a PLL, especially if you already have a
PIC in the circuit.

Remember, a PLL doesn't at all imply the presence of a DDS (they're
two different frequency synthesis schemes).

> VFOs are reasonably easy to construct in the 2-5 MHz range, stabilizing them
> at higher frequencies gets a bit dicey. Common practice is to then mix the
> VFO with a crystal oscillator in a 602 to get to the operating frequency.

Once you start mixing to get on-frequency, you *really* ought to reconsider
a PLL scheme. It is usually better to run a VCO at the desired frequency
and employ a down-mixer in the *feedback* loop than mix a VCO up;
by doing any mixing in the feedback loop, image suppression and feedthrough
is much less of an issue.

> The digital display eliminates the need for an expensive turns counter on
> the pot, and it's simple and cheap. An LCD display, the PIC, PIC crystal,
> trimmer, and 5 volt supply in total comes to less than 25 Euro mail order.

And a common PLL chip adds perhaps 5 Euro to that.

> This has the advantage of actually reading the frequency rather than hoping
> that everything worked right. This is significantly less than the price of
> the popular DDS chips. And with a little imagination, the PIC, and the
> display, can be put to other uses as well.

Well, the accuracy of the display is going to be determined by the accuracy
of the PIC's crystal, which is usually pretty good but, as you imply, requires
trimming when used as a frequency counter.

Again, there's no need to be discussing DDS here at all, a PLL will easily
do the job, especially a dual-loop design. A popular configuration is to use
a PLL to control the 'main' VCO and a DDS to generate a down-mixing
LO, which takes advantage of what a PLL does best and what a DDS does
best.

> Take a look at the Elecraft K1 schematic. This has a lot of the stuff you
> are looking for - 2 bands, precise frequency control, the 2 bands can be
> whatever you like, all in a relatively low cost radio. The manual, with
> schematic and circuit description is available online. They did maybe go a
> little overboard with the PICs, with all the options this low end radio has
> 4 computers in it! But they do have some ingenious schemes to use the PICs
> to reduce the parts count. I don't like their LCD choice, I would go for an
> LCD with a Hitachi controller and more digits, but then, I only need to buy
> one, not a thousand.
>
> To tell the truth, I've been struggling with this very same question myself.
> I'm building a 20 meter CW rig, and my initial thought was to have an analog
> VFO. (In fact, I have the VFO built.) But I would very much like to have
> memories, and that spells DDS.

No, it does not spell DDS. It spells synthesizer, which could easily be
a PLL design; a dual-loop synthesizer can give very good lock-up time
combined with relatively fine tuning steps (how fine is fine enough? 10Hz?).

> I haven't found a reasonably priced DDS
> lashup that would let me drive the programming, and once I get it built, I
> now have the issue of phase noise. I don't have enough test gear to really
> see what I'm doing there, so the problem concerns me. But I'm not
> interested in a fully blown, all packaged up VFO like Sheldon's because I
> have a lot of ideas about how the control of the radio should work. I
> didn't see Sheldon on the list for FDIM, but perhaps the US Kanga guy can
> help me understand how accessible the programming in the DDS3 is. It's kind
> of pricey, especially on this side of the pond, but if I could get it to do
> what I want, maybe it's the thing.

DDS has the advantage of essentially immediate frequency change (since it
isn't a loop, it doesn't have to lock up) and very fine frequency steps. The
disadvantage is primarily the relatively high spurious noise characteristics
(not technically the same as phase noise) as well as usually high power
consumption.

I'm curious why people don't much talk about dual-loop PLLs any more,
sure, they're a little complicated but they're really pretty straightforward

and have the advantage of fewer high-speed digital signals to generate internal QRM (also an issue with many LCD displays).

Dana K6JQ
dana@dioxine.com

3113. FA: PK-232MBX Data Controller

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 06:17:11 UTC
From: dlb <dlbarnhart@ixpres.com>
Message-ID: <3aff7351$1_1@news.vic.com>
Source record: 52610
Cross-posted to: alt.ham-radio.packet,alt.ham-radio.marketplace,rec.radio.amateur.homebrew,alt.ham-radio.vhf-uhf

FYI. I have listed for Auction on Ebay
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1237931328) a
"Pakratt" PK-232MBX made by AEA.

It's in working order, but the power supply is not included. I have two
PK-232's but only one power supply. Includes a copy of the Operators Manual

thanks
dlbarnhart

3114. Re: Respect For Freebanders----TOPIC CHANGE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 06:17:51 UTC
From: Roger <rdhalste@tm.net>
Message-ID: <jMKL6.1064$gA.382891@monger.newsread.com>
Source record: 52611

Hi Ryan,

Once you pass roughly 10 WPM the subconscious starts to take over. By the time you get to 20 WPM you have to learn to spell again as you hear word sounds instead of letters.

Roger Halstead (K8RI) www.RogerHalstead.com
N833R World's Oldest Debonair? s# CD-2

"Ryan KC8PMX" <kc8pmx@tm.net> wrote in message
news:EPeI6.6459$Uu6.590927@monger.newsread.com...
>
> > Listen to the music of the Code. :)
>
>
> Hmmm..... wonder if this is a training option for learning code???
(Somehow
> using music to relate to the morse code???) Or better yet, find someone
to
> make "subliminal" tapes or CD's??? Even better yet, receive training
while
> under hypnosis??? Just a crazy thought or two or three..... :)
>
> Ryan KC8PMX
>
>
>
>

3115. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 06:26:19 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <bfHenGALq3$6Ewa3@invest.fsbusiness.co.uk>
Source record: 52612

Hi RCR,

Still don't know your name and I don't have a call book to hand.

I do appreciate all this feedback and am learning stuff here.

I have had several e-mails privately, not sure why as I find all this
stuff most interesting.

I think DDS is out of the window due to both expense and my not
requiring memories or other bells and whistles.

Following all the various links provided so far has given me a whole
bunch of good reference material. I had not thought of the G-QRP stuff
but am now aware that members have carried out a fair bit of work in
this area in the past.

One US retail outlet are offering LCD's for 3 bucks which is my kind of
price. I would be happy with thumbwheel tuning and wanted to stay away
from keypads as this added to the cost which is paramount or at least
equal to the importance of keeping this whole project simple.

Once again many thanks.

Phil G4ZOW
>> I just wanted feedback from all you more experienced
>> home brewers out there.
>
>For what it's worth, my choice would be an analog VFO with a PIC driving a
>digital display. The thing that would drive me to DDS would be wanting to
>have memories. The inability to have the PIC directly set the frequency is
>the major downside to the analog VFO, IMO.
>
>There are plenty of simple, varactor tuned VFO circuits out there.
>Generally, varactors are cheaper and more available than variable
>capacitors, and surplus 10 turn pots eliminate the need for complicated
>gearing schemes. Even if you pay list price for a 10 turn pot, you are
>still way less than the price of a decent air variable, and you haven't
>begun to think of some sort of a drive for the cap. Most of the circuits
>you see on the net are intended for CW - for AM your demands for stability
>should be quite a bit less demanding. G-QRP does have some interesting
>circuits for using variable caps that are available in the UK, however.
>
>VFOs are reasonably easy to construct in the 2-5 MHz range, stabilizing them
>at higher frequencies gets a bit dicey. Common practice is to then mix the
>VFO with a crystal oscillator in a 602 to get to the operating frequency.
>

>The digital display eliminates the need for an expensive turns counter on
>the pot, and it's simple and cheap. An LCD display, the PIC, PIC crystal,
>trimmer, and 5 volt supply in total comes to less than 25 Euro mail order.
>This has the advantage of actually reading the frequency rather than hoping
>that everything worked right. This is significantly less than the price of
>the popular DDS chips. And with a little imagination, the PIC, and the
>display, can be put to other uses as well.
>
>Take a look at the Elecraft K1 schematic. This has a lot of the stuff you
>are looking for - 2 bands, precise frequency control, the 2 bands can be
>whatever you like, all in a relatively low cost radio. The manual, with
>schematic and circuit description is available online. They did maybe go a
>little overboard with the PICs, with all the options this low end radio has
>4 computers in it! But they do have some ingenious schemes to use the PICs
>to reduce the parts count. I don't like their LCD choice, I would go for an
>LCD with a Hitachi controller and more digits, but then, I only need to buy
>one, not a thousand.
>
>To tell the truth, I've been struggling with this very same question myself.
>I'm building a 20 meter CW rig, and my initial thought was to have an analog
>VFO. (In fact, I have the VFO built.) But I would very much like to have
>memories, and that spells DDS. I haven't found a reasonably priced DDS
>lashup that would let me drive the programming, and once I get it built, I
>now have the issue of phase noise. I don't have enough test gear to really
>see what I'm doing there, so the problem concerns me. But I'm not
>interested in a fully blown, all packaged up VFO like Sheldon's because I
>have a lot of ideas about how the control of the radio should work. I
>didn't see Sheldon on the list for FDIM, but perhaps the US Kanga guy can
>help me understand how accessible the programming in the DDS3 is. It's kind
>of pricey, especially on this side of the pond, but if I could get it to do
>what I want, maybe it's the thing.
>
>Oh, and I keep saying PICs because they are cheap and easy to program with a
>simple homebrew programmer. There are lots of other micros out there with
>other features, but the PIC, especially the 16F84, has gotten real popular
>for homebrewing.
>
>Anyway, that's my two cents. (hmmm, do they say that's my 2p in the UK?)
>
>didleydadidah
>
>
>

3116. Re: A Big Surprise At The Surplus Store

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 07:30:45 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9do182mds1@news6.svr.pol.co.uk>
Source record: 52613
Cross-posted to: rec.audio.tubes,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hello
Try:
http://frank.nostalgiaair.org/sheets/111/h/HF100.pdf

Don

3117. Looking for schematics for older radios

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 08:30:08 UTC
From: OZ1BV <oz1bv@vind.gl_AntiSpam>
Message-ID: <9do52nbbm1@news.inet.tele.dk>
Source record: 52614

Hello !

I am looking for schematics for these radios:
* Zodiac M-5006LM
* Zodiac RT7230
* Philips M290 (M294 is written on the back side)
* TP Radio TP3000, model no. 21225
* Storno CQM 5332S
* Storno CQM 5110-5290

Hope that anybody can help me.

Vy 73 de OZ1BV/OX3IO, Brian

P.S. Remember to rmove _AntiSpam if You mail something direct to me.

3118. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 12:36:55 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3affd136$0$21358@echo-01.iinet.net.au>
Source record: 52615

Philip
This part of a DSP receiver ultimately - though I doubt I will ever get there! The AD9854 has quadrature outputs which would make it ideal for an I/Q circuit.
The am could be produced by a PWM scheme though I am not sure how you would get rid of the subcarrierr sidebands or conventional amplitude modulation as the output amplitude of the chip can be controlled to 12 bit resolution.

Richard

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message news:OGSLxrAf0u$6EwJe@invest.fsbusiness.co.uk...
> Hello Richard,
>
> >I have just about got a DDS solution ready which will give you crystal
> >stable fully tunable/programmable frequency agility over the HF band.
> >If you wanted to be really flash you could even produce the AM by digitally
> >modulating the DDS output!
> The only thing which concerns me about going down the DDS route is cost.
>
> However, do let me/us know a little more or drop me a mail direct if you wish.
>
> Is your design part of a personal project?
>
> I like the idea AM production but to be equally 'flash' I/we, a colleague and I are looking at any non-iron, high level route as far as AM modulators go.
>
> That pretty much leaves only Pulse Duration Modulation for which I think I have collated about every single printed reference ever produced.
>
> (((73)))
>
> Phil G4ZOW
>
>

3119. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 12:45:53 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3affd354$0$21340@echo-01.iinet.net.au>
Source record: 52616

Philip
If you want to have a free running VFO look at the VFO PLL stabilizer/frequency readout at my webpage
This was based on a design by Eamon Skelton in Elektor but I used a different micro, had programmable offsets and was automatic (no manual lock).
These boards are available and some 25 have been built (successfully as far as I know!!)

Richard

3120. Re: RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 15:16:19 UTC
From: msix@plato.nmia.com
Message-ID: <7FSL6.297$C4.90458@e420r-sjo3.usenetserver.com>
Source record: 52617

John wrote:
>Hi
> I need the part number to a easy to get PIN diode that will switch
>about 100 watts of RF..... anyone help ?

Web Site: http://www.downeastmicrowave.com
954 Rt. 519, Frenchtown, NJ 08825
Tel. 908-996-3584 Hams run this place.

MA4P1200 UHF PIN diode, 50W, UM9401 replacement 4.00
The guys told me they work fine at 200W HF.
73 W7ZFB

3121. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 18:15:09 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <3KBFCXAtCCA7EwyT@invest.fsbusiness.co.uk>
Source record: 52618

Richard and others following this thread,

>If you want to have a free running VFO look at the VFO PLL
>stabilizer/frequency readout at my webpage
>This was based on a design by Eamon Skelton in Elektor but I used a
>different micro, had programmable offsets and was automatic (no manual
>lock).
>These boards are available and some 25 have been built (successfully as far
>as I know!!)
My partner just e-mailed the following back to me and made some valid points which he would like comments to.

By the way in reference to the UK currency, we currently have around 1.45 US dollars to 1 UK pound sterling.

'Thanks for links to the two synth circuits - those would do fine, but you'd be looking for obsolete components. The Motorola oscillator IC would be nice to use if you could find one - someone was advocating its use only last month in RadCom. But my
criterion for choosing components is availability from Farnell. So my oscillator would use BC109's or modern package equivalent, and the big issue would be the varicaps - Farnell do not have a good selection, and oddly the price for the only LF/HF type,
MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is beyond me - not car radio mfrs, for sure. RS comps have none. I will tap up Micrometrics for some samples of ideal varicaps (http://www.micromet
rics.com/hf.htv.html)'.

(((73)))

Phil G4ZOW

3122. Looking for microwave design assistance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 20:31:30 UTC
From: Scott Kelley <scottk@skelleyco.com>
Message-ID: <3b0041c8$1@news.zzz.com>
Source record: 52619

I am looking for someone to do some consulting work on a microwave doppler sensor system. Frequency of operation is yet to be determined, but I expect that it will be in the range of 2-6 GHz. Will require design of transceiver and antenna system.

Scott Kelley

3123. Re: RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-14 23:38:30 UTC
From: "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
Message-ID: <q1_L6.28705$m_6.7828247@news-west.usenetserver.com>
Source record: 52620

<msix@plato.nmia.com> wrote in message
news:7FSL6.297$C4.90458@e420r-sjo3.usenetserver.com...
> John wrote:
> >Hi
> > I need the part number to a easy to get PIN diode that will switch
> >about 100 watts of RF..... anyone help ?
>
> Web Site: http://www.downeastmicrowave.com
> 954 Rt. 519, Frenchtown, NJ 08825
> Tel. 908-996-3584 Hams run this place.
>
> MA4P1200 UHF PIN diode, 50W, UM9401 replacement 4.00
> The guys told me they work fine at 200W HF.
> 73 W7ZFB

The MA4P1200 has only a 2 to 4 microsecond carrier lifetime. This is a
little short for the low end of HF. I would suggest a part from their
MA4P4300 series of diodes instead. These have a higher carrier lifetime
(8 uS minimum) and can be used at lower frequencies.

I have not seen my Unitrode PIN Diode Handbook for a while so I cannot look
up the ratings of the UM9401 diode the MaCom diode is supposed to replace.

For those interested in PIN diodes, some excellent reference are given at:
http://www.microsemi.com/corporate/products/rf/chapter%201.pdf
http://palgong.kyungpook.ac.kr/~ysyoon/Pdf/an922.pdf
http://www.infineon.com/cmc_upload/0/000/011/828/appli034.pdf
http://www.alphaind.com/pdf/pages/Discrete%5CAPN1002.pdf

73, Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net

remove the NO SPAM to reply

3124. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 00:04:15 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3B007356.C292E60@sympatico.ca>
Source record: 52621

There is a new PLL on the market manufactured by Peregrine Semiconductors; the PE3236 has both serial and parallel programming inputs. The built-in pre-scaler is switchable. It can be used up to 2 Ghz. It is sold worlwide by Richardson Electronics.
I bought 3 and they all work well. It is a good substitute for those Hams familiar with the MC145151P2. I am using it in the parallel mode in a synthesizer from 1 to 2 Ghz. I am also interested in using 3 wire serial control from a PIC and I would be very interested to look at the homebrew programmer mentioned in this thread. Last year, I designed and built a parallel to serial programmer using about 8 CMOS costing 50 cents each. It has 20 switches to enter one fileld for the reference frequency and the same switches are used for the second field which is the F in divider. I built this for experimentation because it is not practical from an operational point of view. I used it with the National LMX2324
PLL which in my opinion is the best PLL for Ham use because it is simple and you do not have to program it for charge pump current and there is no circuitry for fast switching which requires a special external filter at the charge pump output. It has a fixed current value. In the parallel mode, I will use the PE3236 with 2 BCD thumbwheel switches and an EPROM. This will not give me the frequency but I will have 99 channels with a table for conversion to frequency. The LMX2324 (About 4 dollars at NEWARK) and a PIC with frequency display appears to be the most economical and practical way to go. I have never worked yet with PIC's but this thread is motivating me. Regards! VE2AUC

Philip de Cadanet wrote:

> Richard and others following this thread,
>
> >If you want to have a free running VFO look at the VFO PLL
> >stabilizer/frequency readout at my webpage
> >This was based on a design by Eamon Skelton in Elektor but I used a
> >different micro, had programmable offsets and was automatic (no manual
> >lock).
> >These boards are available and some 25 have been built (successfully as far
> >as I know!!)
> My partner just e-mailed the following back to me and made some valid
> points which he would like comments to.
>
> By the way in reference to the UK currency, we currently have around
> 1.45 US dollars to 1 UK pound sterling.
>
> 'Thanks for links to the two synth circuits - those would do fine, but
> you'd be looking for obsolete components. The Motorola oscillator IC
> would be nice to use if you could find one - someone was advocating its
> use only last month in RadCom. But my

> criterion for choosing components is availability from Farnell. So my
> oscillator would use BC109's or modern package equivalent, and the big
> issue would be the varicaps - Farnell do not have a good selection, and
> oddly the price for the only LF/HF type,
> MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is
> beyond me - not car radio mfrs, for sure. RS comps have none. I will tap
> up Micrometrics for some samples of ideal varicaps (http://www.micromet
> rics.com/hf.htv.html)'.
>
> (((73)))
>
> Phil G4ZOW

3125. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 00:07:55 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <vr_L6.79742$ii.10379503@afrodite.telenet-ops.be>
Source record: 52622

Take a look at this:

http://www.techniks.com/press-n-peel.html

once you "master the process" it works, but it took me some trials to
optimize all parameters...

73! Franki ON4CLN
http://www.qsl.net/on4cln/

3126. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 00:25:35 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3B007857.F0046B89@sympatico.ca>
Source record: 52623

Addendum: My prior posting was informative for those Hams working at higher frequencies because the IC type numbers given are for UHF and low GHZ region. VE2AUC

jos wrote:

> There is a new PLL on the market manufactured by Peregrine Semiconductors; the
> PE3236 has both serial and parallel programming inputs. The built-in pre-scaler
> is switchable. It can be used up to 2 Ghz. It is sold worlwide by Richardson
> Electronics.
> I bought 3 and they all work well. It is a good substitute for those Hams
> familiar with the MC145151P2. I am using it in the parallel mode in a
> synthesizer from 1 to 2 Ghz. I am also interested in using 3 wire serial control
> from a PIC and I would be very interested to look at the homebrew programmer
> mentioned in this thread. Last year, I designed and built a parallel to serial
> programmer using about 8 CMOS costing 50 cents each. It has 20 switches to enter
> one fileld for the reference frequency and the same switches are used for the
> second field which is the F in divider. I built this for experimentation because
> it is not practical from an operational point of view. I used it with the
> National LMX2324
> PLL which in my opinion is the best PLL for Ham use because it is simple and you
> do not have to program it for charge pump current and there is no circuitry for
> fast switching which requires a special external filter at the charge pump
> output. It has a fixed current value. In the parallel mode, I will use the
> PE3236 with 2 BCD thumbwheel switches and an EPROM. This will not give me the
> frequency but I will have 99 channels with a table for conversion to frequency.
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> to be the most economical and practical way to go. I have never worked yet with
> PIC's but this thread is motivating me. Regards! VE2AUC
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> Philip de Cadanet wrote:
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> > Richard and others following this thread,
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> > would be nice to use if you could find one - someone was advocating its
> > use only last month in RadCom. But my
> > criterion for choosing components is availability from Farnell. So my
> > oscillator would use BC109's or modern package equivalent, and the big
> > issue would be the varicaps - Farnell do not have a good selection, and
> > oddly the price for the only LF/HF type,
> > MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is
> > beyond me - not car radio mfrs, for sure. RS comps have none. I will tap
> > up Micrometrics for some samples of ideal varicaps (http://www.micromet
> > rics.com/hf.htv.html)'.
> >
> > (((73)))
> >
> > Phil G4ZOW

3127. FA: Nice Tektronix 492 spectrum analyzer outfit, complete

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 02:13:44 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B009254.2A65@pop.removethistomailme.net>
Source record: 52624

Just upgraded to a 494P, gotta clean off the bench!

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1238132522

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3128. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 05:24:53 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3b00bd71$0$3980@echo-01.iinet.net.au>
Source record: 52625

Philip
I presume you wanted me comment
All the components in the VFO freq counter/stabilizer are easily available
and contemporary - I dont know about Farnell UK. They have a very wide range
in Australia. I would be surprised if any of the components are not
available in UK also.

Richard

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:3KBFCXAtCCA7EwyT@invest.fsbusiness.co.uk...
> Richard and others following this thread,
>
> >If you want to have a free running VFO look at the VFO PLL
> >stabilizer/frequency readout at my webpage
> >This was based on a design by Eamon Skelton in Elektor but I used a
> >different micro, had programmable offsets and was automatic (no manual
> >lock).
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> points which he would like comments to.
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> 'Thanks for links to the two synth circuits - those would do fine, but
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> would be nice to use if you could find one - someone was advocating its
> use only last month in RadCom. But my
> criterion for choosing components is availability from Farnell. So my
> oscillator would use BC109's or modern package equivalent, and the big
> issue would be the varicaps - Farnell do not have a good selection, and
> oddly the price for the only LF/HF type,
> MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is
> beyond me - not car radio mfrs, for sure. RS comps have none. I will tap
> up Micrometrics for some samples of ideal varicaps (http://www.micromet
> rics.com/hf.htv.html)'.
>
> (((73)))
>
> Phil G4ZOW

3129. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 06:10:52 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <SURsFPAshMA7Ew3I@invest.fsbusiness.co.uk>
Source record: 52627

Hi Richard, and Jos,

I replied to Jos's private e-mail.

>I presume you wanted me comment
>All the components in the VFO freq counter/stabilizer are easily available
>and contemporary - I dont know about Farnell UK. They have a very wide range
>in Australia. I would be surprised if any of the components are not
>available in UK also.
Yes, I had another look at your site and it shows nothing that's
difficult to find.

We still have a fair few component sources over here.

I have hooked up with a couple of large component distributors who also
supply Fair-Rite ferrite products which I need for both the PA and Pulse
Width Modulator sections.

The PA is run in class-D at present and the prototype rig is presently
rock bound on 160m.

The next stage was this PLL.

I am still gathering information.

Regards

Philip G4ZOW

3130. FS: New Eimac 450TH tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 13:30:52 UTC
From: gspubl@tca.net
Message-ID: <3b012f63.666121101@news.tamu.edu>
Source record: 52626

FS: I have one more 450TH tube (had 3) that is brand new in the factory metal framed (for antishock shipping) box. It is an EIMAC tube (new). I want $85 for this last one. This type of tube has the plate cap on top and the grid cap on the side and it stands about a foot tall and makes a great kilowatt amp. I had a friend that ran one so hard that you could see the grid shadow on the plate as it was white hot and it just kept on running....a very durable tube. If interested call mike at (979) 693-1461 (eves) or email to gspubl@tca.net

3131. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 19:06:16 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <hvm2gt02ddkqt06d42uh4pldtgei3m9njp@4ax.com>
Source record: 52628

On Mon, 14 May 2001 19:15:09 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>So my
>oscillator would use BC109's or modern package equivalent, and the big
>issue would be the varicaps - Farnell do not have a good selection, and
>oddly the price for the only LF/HF type,
>MV1404, is quite unrealistic at 16.15UKP ea,

Maybe it is time to design the oscillator for a low VHF frequency and
divide it down to the required LF/HF frequency.

At VHF/UHF you might even be able to use a high Q helical resonator or
a 1/4 line resonator to create a low phase noise signal. However,
non-ideal frequency dividers may ruin this advantage.

Paul OH3LWR

3132. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 20:05:28 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9ds2fb0r3g@news2.newsguy.com>
Source record: 52630

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:3KBFCXAtCCA7EwyT@invest.fsbusiness.co.uk...
> oddly the price for the only LF/HF type,
> MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is

Yikes, tell me that's 16.15 pence and not 16 pounds Sterling! Most varicaps are around USD $2 this side of the pond. The MV1404 is a little pricey at about $7 (about 10 Euro). But often you can find the popular types (MV209, MV2115) for under a buck.

didleydadidah

3133. Re: Caddock Non-Inductive resistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-15 20:22:32 UTC
From: g3kew@aol.com
Message-ID: <20010515162232.16350.00003310@ng-fl1.aol.com>
Source record: 52629

Hi Doug!
Did you ever find the resistors you are looking for? I have some 50-ohm
100-watt two-hole mount types.
Best regards,
Ellis.

3134. Source for stepper motors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 00:04:18 UTC
From: "Dave Cook", com
Message-ID: <6ujM6.7771$p33.163848@news1.sttls1.wa.home.com>
Source record: 52631

I was thinking about resurrecting my good ol' AEA IsoLoop antenna that's been sitting in the garage for the past few years after the stepper motor died. AEA, of course, has also met it's demise so I'm on my own to locate a new one. I haven't been able to locate the original manufacturer, Applied Motor Products of Scotts Valley CA, on the Web either, so I'm guessing that they also have passed from this cruel world. I don't think I need an exact match, but I haven't been able to locate any suppliers so far. Any suggestions for sources please?

Thank you and 73,
-- Dave, WA0TTN

3135. ** FLEA at MIT ** Sunday May 20th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 00:46:00 UTC
From: w1gsl@mit.edu
Message-ID: <3b01cdc7$0$1921$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 52632
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday May 20th 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Discounts

A sellers discount season pass is available which
offers a 33% discount. See the advanced registration
form below for full seller info.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all

sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Season Pass $99 First Space - includes $70 for Cambridge Vendor Licenses
$70 additional spaces

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.
$70 Season Early Bird Buyer

****************************** cut here ******************************

FLEA at MIT 2001 Advance Space Application

_____ 1st Season Pass @ $99 _____ Additional Season Spaces @ $70

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

_____ Season Early Bird Buyer @ $70 ** NB You may not sell. **

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

3136. Re: RF PIN Diode Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 00:57:05 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b01d05e.85441556@news.aepnet.com>
Source record: 52643

On Mon, 14 May 2001 19:38:30 -0400, "Barry L. Ornitz" <ornitzNOSPAM@usa.net>
wrote:

>
><msix@plato.nmia.com> wrote in message
>news:7FSL6.297$C4.90458@e420r-sjo3.usenetserver.com...
>> John wrote:
>> >Hi
>> > I need the part number to a easy to get PIN diode that will switch
>> >about 100 watts of RF..... anyone help ?
>>
>> Web Site: http://www.downeastmicrowave.com
>> 954 Rt. 519, Frenchtown, NJ 08825
>> Tel. 908-996-3584 Hams run this place.
>>
>> MA4P1200 UHF PIN diode, 50W, UM9401 replacement 4.00
>> The guys told me they work fine at 200W HF.
>> 73 W7ZFB
>
>The MA4P1200 has only a 2 to 4 microsecond carrier lifetime. This is a
>little short for the low end of HF. I would suggest a part from their
>MA4P4300 series of diodes instead. These have a higher carrier lifetime
>(8 uS minimum) and can be used at lower frequencies.
>
>I have not seen my Unitrode PIN Diode Handbook for a while so I cannot look
>up the ratings of the UM9401 diode the MaCom diode is supposed to replace.
>
>For those interested in PIN diodes, some excellent reference are given at:
>http://www.microsemi.com/corporate/products/rf/chapter%201.pdf
>http://palgong.kyungpook.ac.kr/~ysyoon/Pdf/an922.pdf
>http://www.infineon.com/cmc_upload/0/000/011/828/appli034.pdf
>http://www.alphaind.com/pdf/pages/Discrete%5CAPN1002.pdf
>
> 73, Barry L. Ornitz WA4VZQ ornitzNO@SPAMusa.net
>
> remove the NO SPAM to reply

If the UM9401 will do at the frequency in question (whatever it is), the data
sheet can be found here:

http://www.microsemi.com/datasheets/WT6-37.PDF

A neat PIN diode handbook that will tell you almost everything you need to know
about PIN diode applications can be download here:

http://www.microsemi.com/corporate/products/rf/pinbook.asp

The parts can be found at:

www.rfparts.com

They are $3.95 each.

Wes N7WS
>
>
>

3137. Re: Source for stepper motors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 01:23:57 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b01d679_2@newsa.ev1.net>
Source record: 52633

C&H Sales of Pasadena , Ca.
http://www.candhsales.com

Dave Cook <nospam.davepc2@netdave.,com> wrote in message
news:6ujM6.7771$p33.163848@news1.sttls1.wa.home.com...
> I was thinking about resurrecting my good ol' AEA IsoLoop antenna that's
> been sitting in the garage for the past few years after the stepper motor
> died. AEA, of course, has also met it's demise so I'm on my own to locate
a
> new one. I haven't been able to locate the original manufacturer, Applied
> Motor Products of Scotts Valley CA, on the Web either, so I'm guessing
that
> they also have passed from this cruel world. I don't think I need an exact
> match, but I haven't been able to locate any suppliers so far. Any
> suggestions for sources please?
>
> Thank you and 73,
> -- Dave, WA0TTN
>
>
>

3138. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 01:24:45 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <xFkM6.38009$ZC6.6061627@news02.optonline.net>
Source record: 52634

Hi Adrian,

How you finish up depends on where you start out. The next question would be power supply voltage. After that would come operating mode.

Just as a guess let's say you are running +12 volts and want to run SSB.

If you keep the device 3 volts out of saturation you are running 9 volts peak to peak of signal on the output. Just to keep the math simple let's call it 3 volts RMS.

Your ten to twenty watts works out to about 3 to 6 amps RMS at 3 volts. This is roughly a one to one half ohm load. Pretty darn low, but it's linear and broad band.

As another guess let's say that you want to run true class C into a narrow band tuned load (Q > 10 say).

Now you have 18 volts on the device - 6 volts RMS. Your current is 1.5 to 3 amps and the impedance is 2 to 4 ohms. Not quite as low, however now you are restricted to a L/C or tuned line matching setup.

Another way to go would be with a higher supply voltage. Obviously that makes the matching easier.

Hope this helps.

Bob Camp
KB8TQ

"Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message news:9djc15$kq5$1@news.inet.tele.dk...
> What would differ if you get into the QRP zone say an output power up to 10
> maximally those 20 W. You can get a impedance that would differ not so much
> say an optimal output impedance of 8 - 20 ohms. how would you match that to
> a 50 ohm. Using a wideband ferite transformer, or some reactance matching
> circuits ?
> TNX for the answer, Adry

3139. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 06:01:44 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <u5YzeFAIfhA7EwiY@invest.fsbusiness.co.uk>
Source record: 52635

John,

>> oddly the price for the only LF/HF type,
>> MV1404, is quite unrealistic at 16.15UKP ea, so who's buying those is
>
>Yikes, tell me that's 16.15 pence and not 16 pounds Sterling!
Unfortunately I can't!
> Most varicaps
>are around USD $2 this side of the pond. The MV1404 is a little pricey at
>about $7 (about 10 Euro). But often you can find the popular types (MV209,
>MV2115) for under a buck.
You must of heard the term 'Rip off Britain'.

Most expensive gas in the developed world, that along with most
everything else including the women.

I would end up buying components in good quantities to make it
worthwhile ordering from abroad in one hit once a design had been
perfected so if you have any other possible suppliers of varicaps on
your side worth checking out?

Ideally would like manufacturers names/URL's so that I can get full data
together inj the first instance.

Many thanks

Phil G4ZOW

3140. Don&#65533;t read (test)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 09:32:37 UTC
From: nemo <nemo@no.net>
Message-ID: <9ohtd9.b9c.ln@sobek.ivys.es>
Source record: 52499

```
Test
```

3141. 477Mhz Amplifier plans wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 09:42:40 UTC
From: nwalch@netspace.net.au
Message-ID: <000a01c0ddec$b83252e0$b5fb0fd2@nwalch>
Source record: 52636

I am looking for an amplifier for the 477Mhz FM band with up to 5 watt input and 15 to 35 watt output. Can anyone help me please ? afaitken@hotmail.com

3142. Re: Looking for microwave design assistance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 09:47:30 UTC
From: deyoreo@re.ray.com
Message-ID: <3b024b40.2215575@proxy.res.ray.com>
Source record: 52637

What are you looking to ense? Just that a motion occurred? or are you
determining distance?
In a CW Radar, the outgoing freq is usually chirped (ramped in freq),
the received freq from an echo is compared to the transmitted freq (at
the instant the echo is received). The difference in freq and the freq
ramp rate give distance to object. Obviously, ma range is given by
chirp length, the farthest echo must return before the next chirp.

On Mon, 14 May 2001 20:31:30 GMT, "Scott Kelley"
<scottk@skelleyco.com> wrote:

>I am looking for someone to do some consulting work on a microwave
>doppler sensor system. Frequency of operation is yet to be
>determined, but I expect that it will be in the range of 2-6 GHz.
>Will require design of transceiver and antenna system.
>
>Scott Kelley
>
>

3143. Re: Source for stepper motors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 10:52:31 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9du2hn$o1r$1@news8.svr.pol.co.uk>
Source record: 52638

> I was thinking about resurrecting my good ol' AEA IsoLoop antenna that's
> been sitting in the garage for the past few years after the stepper motor
> died. AEA, of course, has also met it's demise so I'm on my own to locate
> a new one. I haven't been able to locate the original manufacturer,
Applied
> Motor Products of Scotts Valley CA, on the Web either, so I'm guessing
> that they also have passed from this cruel world. I don't think I need an
exact
> match, but I haven't been able to locate any suppliers so far. Any
> suggestions for sources please?
==========
With a bit of 'home-brew' initiative , discarded floppy disk drives are a
good source for stepper motors. Especially the ancient 8 inch drives ,still
available @ flea markets, have powerful stepper motors.
But also the smaller motors from 3.5 inch and the older 5.25 inch floppy
drives can be very useful.
However ,in order to smoothly tune a magnetic loop (especially when used on
160 & 80 metres)
you have to check the change of angle per step. On the lower freq ham
bands magloops are veeeeery narrow band and have to be retuned at
practically any change of frequency at which 1 step of the motor might be
too much. This can be overcome be inserting a coaxial reducer 3:1 or 6:1
between motor and variable capacitor.
These reducers are still available from a few retailers or otherwise from
flea markets.

If a magloop has a variable vacuum cap the change of angle per step is not a
problem ,however the stepper motor might not have enough 'oemff' to rotate
the vacuum cap. ,so a reducer (also increasing torque) might still be the
answer. This obviously is not relevant to the ISOLOOP.

73 Frank gm0csz.kn6wh@ukrs.org

3144. Re: OT: tracking transceivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 16:07:36 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <bBxM6.4112$6j3.357863@www.newsranger.com>
Source record: 52639

In article <3AF95CB1.B4F1EF88@midwestmicro-tek.com>, Rick Haub says...
>
>Sorry about this OT post but I have had no luck with other information
>avenues. I'm hopeing that you fellows might have some insight.
>
>I've got an application here where I need a transceiver that has a range
>of about 3 miles and can be controlled by a microproccesor. I need an
>off the shelf product that is pre FCC approved and idealy has a RS232
>serial interface.
>
>Thanks,
>
>Rick KC0GIX
>
Hi Rick,

Several companies make telemetry transceivers:

RF Laboratories, http://www.rflab.com
RITRON, http://www.ritron.com
Scan-Data, http://www.scan-data.com
Freewave, http://www.freewave.com

or do a search on telemetry radios

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3145. radioKAOS Online

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 17:28:35 UTC
From: "Mr. Fella Guy" <me@me.org>
Message-ID: <3KyM6.238601$Z2.2604484@nnrp1.uunet.ca>
Source record: 52640

Hey people.
Sorry to interupt the day, but I just thought you might like to know that
our online radio station is online and running!

http://radiokaos.x5.ca

You can even use the web to send us requests, and they will be placed
automatically in the bottom of the rotation queue, radio on demand! :)

That's all, come and check us out, we have live, local programming (Windsor
and Essex County Area) every night at 7 pm.

Give us a try, see what you think, you can rach us through ICQ at: 114466114
, or by e-mail: newsgroup@radiokaos.x5.ca .

And now back to your regularly scheduled conferencing :)

Kristopher Marentette
radioKAOS
http://radiokaos.x5.ca
topher@radiokaos.x5.ca

3146. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 18:04:18 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <1Uil1HAiEsA7EwSM@invest.fsbusiness.co.uk>
Source record: 52641

Read that a company called 'Maxim' make some nice VCO's.

I cannot seem to find their website.

Does anyone know if they have one?

Thanks

Philip de Cadenet

3147. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 18:35:22 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <2G$XOoBqhsA7EADw@ifwtech.com>
Source record: 52642

Philip de Cadanet wrote:
>Read that a company called 'Maxim' make some nice VCO's.
>
>I cannot seem to find their website.
>
>Does anyone know if they have one?

www.maxim-ic.com

They're also very liberal with samples in a good cause!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

3148. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 20:21:15 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <9dun9fqlb1@news.inet.tele.dk>
Source record: 52644

Okay, then would you prefer to use a 28V power supply. If we're talking only about simplex channels on the 2-m band that leaves us with a bandwith of about 500kHz That allows the Q to be around 300. and the amp operating in the C class. say twenty watts. That should leave me with the impedance of 15 ohms. would you prefer this to the previous version ?

"Bob Camp" <bob@cq.nu> p�e v diskusn�m p��sp�vku news:xFkM6.38009$ZC6.6061627@news02.optonline.net...
> Hi Adrian,
>
> How you finish up depends on where you start out. The next question
> would be power supply voltage. After that would come operating mode.
>
> Just as a guess let's say you are running +12 volts and want to run
> SSB.
>
> If you keep the device 3 volts out of saturation you are running 9
> volts peak to peak of signal on the output. Just to keep the math
> simple let's call it 3 volts RMS.
>
> Your ten to twenty watts works out to about 3 to 6 amps RMS at 3
> volts. This is roughly a one to one half ohm load. Pretty darn low,
> but it's linear and broad band.
>
> As another guess let's say that you want to run true class C into a
> narrow band tuned load (Q > 10 say).
>
> Now you have 18 volts on the device - 6 volts RMS. Your current is 1.5
> to 3 amps and the impedance is 2 to 4 ohms. Not quite as low, however
> now you are restricted to a L/C or tuned line matching setup.
>
> Another way to go would be with a higher supply voltage. Obviously
> that makes the matching easier.
>
> Hope this helps.
>
> Bob Camp
> KB8TQ
>
>
> "Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message
> news:9djc15$kq5$1@news.inet.tele.dk...
> > What would differ if you get into the QRP zone say an output power
> up to 10

> > maximally those 20 W. You can get a impedance that would differ not
> so much
> > say an optimal output impedance of 8 - 20 ohms. how would you match
> that to
> > a 50 ohm. Using a wideband ferite transformer, or some reactance
> matching
> > circuits ?
> > TNX for the answer, Adry
>
>
>

3149. FS: Litz, bifilar, trifilar, multifilar wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 21:07:55 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B02EC2A.929C5D56@valley.net>
Source record: 52646

FS: Litz, bifilar, trifilar, multifilar wire

As an experiment, I'm offering antique-radio repairers and
amateur-radio project builders 10-foot lengths of the following
exotic wire for $3.00 each length postpaid (US only).

Use Litz wire to rewind damaged RF coils, and multifilar
wire to assemble baluns, transmission-line transformers,
and small power inductors. Here's what's currently available:

(Number of conductors conductor gauge, construction, color code)

Bifilar wire:

2 cond. AWG#34, parallel-bonded (i.e., untwisted), red/green
2 cond. AWG#32, twisted (6-8 twists/inch), red/green
2 cond. AWG#28, parallel-bonded (i.e., untwisted), red/green*

Trifilar and multifilar wire:

3 cond. AWG#32, twisted (6-8 twists/inch), red/green/amber
4 cond. AWG#33, twisted (6-8 twists/inch), red/green/white/blue
13 cond. AWG#25, twisted (7 twists/foot), one green/12 red

Litz and other wire:

1 cond. AWG#36 nyleeze/single nylon fabric wrap
Litz, 24 strands AWG#44, single polythermaleeze/single nylon fabric wrap

Litz, 25 strands AWG#38, single polythermaleeze/single nylon fabric wrap

Notes
-----
* Quad polythermaleeze nylon insulation

To get an idea how much wire you'll need to rewind a coil, measure the
coil's
diameter and multiply by 3.14 to get the length of a turn. Then,
multiply
by the number of turns to get the total length (allow a few inches extra
for
making external connections).

If you need longer lengths of wire or need more information, please
contact me.

73--
Brad AA1IP

Brad Thompson
P.O. Box 307, 202 Whitaker Rd.
Meriden, NH 03770-0307

3150. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 21:39:11 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <7HFWBaA$NvA7EwDR@invest.fsbusiness.co.uk>
Source record: 52645

>www.maxim-ic.com
>
>They're also very liberal with samples in a good cause!
>
>73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek
Many thanks Ian

3151. Re: screwdriver antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 23:11:14 UTC
From: n8blk@aol.com
Message-ID: <20010516191114.18977.00001234@nso-fa.aol.com>
Source record: 52497

In article <3AFD49BB.714274BA@mhonline.net>, bonnie ahrens
<bjahrens@mhonline.net> writes:

>
>HI all;
> I would like to build my own screwdriver antenna as a project besides
>they seem to very $$$.
> so if any of you expert antenna builders have any plans or ideas that
>would help i would rely
>

Last I heard, Don Johnson, W6AAQ was willing to sell plans for building a
screwdriver for $5. Write him at his callbook address and ask if he still
does.
-art clemons-

3152. Re: Source for stepper motors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-16 23:18:19 UTC
From: "Dave Cook", com
Message-ID: <%UDM6.15597$p33.263688@news1.sttls1.wa.home.com>
Source record: 52498

Thank you both Frank and Matt. I'll probably go with one of the surplus ones that Matt suggested. As for the step angle, the original was a 400 s/r and it was driving a pully which I would estimate gave it maybe a 6:1 ratio. I see that a good number of motors are 200 s/r so I might just increase the size of the pully wheel on the tuning cap to achieve the same ratio. And it is indeed an air-gap capacitor, which spins very frictionlessly on nylon bearings, so at least horsepower won't be a factor.

Thanks again, I really appreciate the info!

-- Dave

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:9du2hn$o1r$1@news8.svr.pol.co.uk...
> > I was thinking about resurrecting my good ol' AEA IsoLoop antenna that's
> > been sitting in the garage for the past few years after the stepper
motor
> > died. AEA, of course, has also met it's demise so I'm on my own to
locate
> > a new one. I haven't been able to locate the original manufacturer,
> Applied
> > Motor Products of Scotts Valley CA, on the Web either, so I'm guessing
> > that they also have passed from this cruel world. I don't think I need
an
> exact
> > match, but I haven't been able to locate any suppliers so far. Any
> > suggestions for sources please?
> ======================
> With a bit of 'home-brew' initiative , discarded floppy disk drives are a
> good source for stepper motors. Especially the ancient 8 inch drives
,still
> available @ flea markets, have powerful stepper motors.
> But also the smaller motors from 3.5 inch and the older 5.25 inch floppy
> drives can be very useful.
> However ,in order to smoothly tune a magnetic loop (especially when used
on
> 160 & 80 metres)
> you have to check the change of angle per step. On the lower freq ham
> bands magloops are veeeeery narrow band and have to be retuned at
> practically any change of frequency at which 1 step of the motor might be
> too much. This can be overcome be inserting a coaxial reducer 3:1 or 6:1
> between motor and variable capacitor.
> These reducers are still available from a few retailers or otherwise from
> flea markets.
>

> If a magloop has a variable vacuum cap the change of angle per step is not
a
> problem ,however the stepper motor might not have enough 'oemff' to rotate
> the vacuum cap. ,so a reducer (also increasing torque) might still be the
> answer. This obviously is not relevant to the ISOLOOP.
>
> 73 Frank gm0csz.kn6wh@ukrs.org
>
>
>
>

3153. Source MAN-1A LED ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 00:53:39 UTC
From: Woody <woody.white@att.net>
Message-ID: <3B032145.E33D0E5B@att.net>
Source record: 52500

Hello All!

Got a dead segment on my hbrew 75 meter display. Would like to
replace with like kind and not redo the entire display...

Looking for a source for a couple of MAN-1A 7 segment displays.
Any suggestions?

Thanks, Woody
--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

3154. Re: Metric System , WAS : The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 00:59:22 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <KnFM6.10464$gc1.940120@newsread1.prod.itd.earthlink.net>
Source record: 52501

In my part of the world all of the major roads were laid out in a grid on one mile intersections. We'd all have to get used to some funny fractions. I will not put up with that metric stuff here in Michigan.

See you on the new 66 foot band.

Bill KU8H <grinning>

Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:9dbd3v$ui0$1@news5.svr.pol.co.uk...
> > It's not a well-known fact, but the metric system is the official US
> standard.
> > It's just never been adopted by industry.
> ==========
> IF the US Government (trough the democratic process) has adopted the
metric
> system as the official standard, why are manufacturers and suppliers to
the
> US Government allowed to continue with the supply of goods and services
> using the lb , foot/inch ,Fahrenheit units.
> When watching CNN and CNBC weather reports it's all in miles/hour and
> degrees Fahrenheit.
> I feel if ANY government accepts a particular weights and measures system
> ,its agencies should take the lead in implementing that system , otherwise
> such a system will never be accepted/used by the nation at large.
>
> 73 Frank , gm0csz.kn6wh@ukrs located in Scotland ,which is
(still)
> part of the United Kingdom , where the metric system has been accepted (I
> believe in the early 70s) . It has been generally accepted and
implemented
> by industry and all Gov. agencies ,although all road signs are still in
> miles .
> Petrol must be priced and dispensed in litres.
>
>
>

3155. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 01:50:51 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <%7GM6.50781$ZC6.7474958@news02.optonline.net>
Source record: 52503

Hi Adrian,

If you are talking about something that narrow and FM then I would definitely go with a lumped element or cavity match.

The Q that you are interested in is the loaded Q of the network. You may easily have an unloaded Q of 300 or more. Some of your loss will be determined by the ratio of loaded to unloaded Q in the network. Larger ratios are better. If at all possible you want to keep the ratio above 10.

If your devices will take it the higher the supply voltage the better. Generally you see people talking about keeping the breakdown voltage greater than 4X the loaded output voltage. For a 28 volt supply and a high Q tank you could have 50 volts peak to peak on the output. You device would have to be good to 200 volts to be "safe".

From here on you are going to need data on the device you intend to use. Stability will be the biggest problem. Normally people seem to use computer models to get the device stable. Of course if you have enough parts you can do it by trial and error. Are you planning to use a FET or a Bipolar part ?

Bob

"Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message news:9dun9fqlb1@news.inet.tele.dk...
> Okay, then would you prefer to use a 28V power supply. If we're talking only
> about simplex channels on the 2-m band that leaves us with a bandwith of
> about 500kHz That allows the Q to be around 300. and the amp operating in
> the C class. say twenty watts. That should leave me with the impedance of 15
> ohms. would you prefer this to the previous version ?
>

3156. Re: Metric System , WAS : The new 40m band?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 01:55:46 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B032FA2.FB17C71@coqui.net>
Source record: 52502

Bill Cromwell wrote:
>
> In my part of the world all of the major roads were laid out in a grid on
> one mile intersections. We'd all have to get used to some funny fractions. I
> will not put up with that metric stuff here in Michigan.
>
> See you on the new 66 foot band.

Reminds me of a fella I worked with in Kansas doing cable construction.
He didn't like it "back east because the roads went every whichaway and
you couldn't tell which way was north". He was referring to the St.
Louis area when he made that statement.
--
Bill Meacham
Vieques, PR

3157. baggybob surface mount parts at Dayton

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 03:22:02 UTC
From: baggybob@execpc.com
Message-ID: <3b0343d9$0$18900$272ea4a1@news.execpc.com>
Source record: 52504

We will be at DAYTON parking spots 4055 & 4056 with the usual assortment of parts: chip resistors, chip caps, mica chip caps, chip inductors, tantalums, some transistors and leaded parts including mica caps.

kas

3158. Heathkit SW-717 - Need help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 07:51:42 UTC
From: Alain Desarzens <a.desarzens@bluewin.ch>
Message-ID: <3b038223$1_4@news.bluewin.ch>
Source record: 52505

Hello all

My SW-717 has strong spurious unmodulated signals on bands A, B and C. Also
with G1 shorted. The oscillator seems to be clean, but goes through into
the IF path at some higher frequencies than 455 KHz! I disconnected the LO
and put a signal generator: same results!
Can somebody help?
Many thanks in advance.
alain
a.desarzens@bluewin.ch

3159. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 10:44:03 UTC
From: Hans Summers <HansSummers@HotMail.Com>
Message-ID: <9e0a1m$dbq6$1@ID-61331.news.dfncis.de>
Source record: 52506

I have a collection of articles about VFO stabilisation using the Huff Puff method reproduced from RadCom (journal of the RSGB) on my web page. This method is the basis of Eamon Skelton's design. See http://www.HansSummers.Com/radio/huffpuff/contents.htm.

I also did some experiments with using ordinary diodes and LED's as varicap diodes. Sometimes they can be a cheap and convenient alternative: http://www.HansSummers.Com/radio/varicap/varicap.htm.

Hans Summers
http://www.HansSummers.Com

3160. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 13:41:24 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B03D503.9588BFF1@erols.com>
Source record: 52507
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Scott,

I am unfamiliar with your Yaesu, so I cannot comment on whether it actually has DSB or if you have a failure. I would suggest you look in the owners manual to see what it says.

DSB used to be an inexpensive way to transmit SSB. The only real down side is that you are transmitting both sidebands. DSB with the carrier injected is AM. DSB with the carrier suppressed is DSB sideband.

I agree there seems to be no reason to include DSB if you already have SSB!

73

3161. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 13:46:55 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B03D64F.AE49C76E@erols.com>
Source record: 52508

Paul,

The QST CD ROMs are still published. You can find them at ARRL.ORG if you look. They are available for all issues from 1911 through 2001. Personally I have a complete set through 1980. They cover 5 or 10 years depending on the age period and sell for $39.95 per set. They can be found for less by looking through the internet or at hamfests.

73

3162. Re: # 61 ferrite material ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 13:48:51 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B03D6C3.66E442F7@erols.com>
Source record: 52509

Mike,

The choice of ferrite materials depends on vendor and manufacturer. While one such as Amidon may call it type 61, others may call it something entirely different and have entirely different specs for the material!

Use what works for you.

73

3163. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 13:55:54 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B03D86A.408F566A@erols.com>
Source record: 52510

So, we should praise you for being a lawbreaker? If you know so much about electronics and ham radio why don't you get a license? The code speed requirements have been reduced to the point that a novice can learn enough in a week to pass. The theory requirements are not too hard, certainly simple enough for one who "understands" electronics. Why don't you become legal? The FCC does not interfere with our operations. We are not subject to a fine each and every time we turn on our rigs, you are though!

3164. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 14:04:10 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B03DA5A.FA6928E2@erols.com>
Source record: 52511

Zack,

I have etched boards of all types. I have started with something as simple as a "Sharpie" to masking tape. I have also tried transfer paper. They all have been successful except for transfer paper. There seems to be a wide variety of different requirements for using transfer paper. Maybe I have not tried often enough. They must start with a good xerox copy, of exactly the right density (or darkness). The iron temperature must also be correct. Then, if you are lucky, or have made offerings to the correct gods, it might work! For my money, masking tape was the easiest. Or try to find a set of General Cement rub down circuit elements!

73

3165. Downloadable IOTA List - updated 17-May-01

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 18:49:43 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <b3VM6.11731$Az.1090321@newsread2.prod.itd.earthlink.net>
Source record: 52512
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The downloadable IOTA list has been updated as of 17-May-2001 18:43 UTC

Found on The IOTA List page of the site listed below. 15k zip file
(ascii text format readable with Notepad or any text editor)

* also includes Top 10 Most Wanted IOTA's for each continent.

--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3166. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-17 20:09:43 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <beWM6.6119$6j3.551369@www.newsranger.com>
Source record: 52513
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

In article <3B03D503.9588BFF1@erols.com>, Bruce Muscolino says...
>
>
>Scott,
>
>I am unfamiliar with your Yaesu, so I cannot comment on whether it
>actually has DSB or if you have a failure. I would suggest you look in
>the owners manual to see what it says.
>
>DSB used to be an inexpensive way to transmit SSB. The only real down
>side is that you are transmitting both sidebands. DSB with the carrier
>injected is AM. DSB with the carrier suppressed is DSB sideband.
>
>I agree there seems to be no reason to include DSB if you already have
>SSB!
>
>73
>
DSB is more difficult to tune in than SSB if you don't reject one of the
sidebands in the receiver. In SSB you can tolerate a little slop in the exact
carrier frequency and the audio comes out "quacky" but still intelligible. In
DSB, if you're slightly off you get both "quacky" sidebands interfering with
each other.
To get 'sideband diversity' (if there is such a thing) you need to select either
one or the other sideband, whichever is better but not both.
This is why I use CW.

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3167. Re: Source MAN-1A LED ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 00:12:12 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B0468DC.8A105140@dialpoint.net>
Source record: 52514

What are the man-1a. I have some old red led 7 segment displays that
are about the size that will fit in a 14 pin dip IC socket. Been a long
time and don't recall the details of the man series . Also the decimal
point may be where the A comes in.
Think the ones I have are on the right. Let me know if you have not
found any. Maybe we can get together and discuss it sometime on 75
meters.

73 de KU4PT

Woody wrote:
>
> Hello All!
>
> Got a dead segment on my hbrew 75 meter display. Would like to
> replace with like kind and not redo the entire display...
>
> Looking for a source for a couple of MAN-1A 7 segment displays.
> Any suggestions?
>
> Thanks, Woody
> --
> Woody, WB4QXE

3168. Re: Source MAN-1A LED ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 04:41:57 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105180035330.24765-100000@gloria.cam.org>
Source record: 52515

On Thu, 17 May 2001, Ralph Mowery wrote:

> What are the man-1a. I have some old red led 7 segment displays that
> are about the size that will fit in a 14 pin dip IC socket. Been a long
> time and don't recall the details of the man series . Also the decimal
> point may be where the A comes in.
> Think the ones I have are on the right. Let me know if you have not
> found any. Maybe we can get together and discuss it sometime on 75
> meters.
>
> 73 de KU4PT
>
>

I was wondering the same thing, but at the moment I don't feel like
digging to find out. It would just be easier for the poster to give
us the size. I remember buying some very small 7-segment readouts
in the early seventies, like calculator readouts but single-digits,
and those might be a problem finding at this point.

If they are the size that fits into a 14-pin socket, a replacement
would be quite easy. I don't know if the pinout is completely
standardized, but I've traced unknown 7-segment readouts
only to find them matching a standard pinout. The key point,
other than the size and pinout, would be whether it's a common
cathode or common anode readout, and which side the decimal
point is on. There might be cosmetic difference if an exact
replacement can't be found, but then one could always replace
all the readouts with the same kind.

I would spend some time looking for info if the original
poster posts about the size of the readout.

Michael VE2BVW

> Woody wrote:
> >
> > Hello All!
> >
> > Got a dead segment on my hbrew 75 meter display. Would like to
> > replace with like kind and not redo the entire display...
> >
> > Looking for a source for a couple of MAN-1A 7 segment displays.
> > Any suggestions?
> >
> > Thanks, Woody
> > --

> > Woody, WB4QXE
>
>

3169. Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 13:16:56 UTC
From: troglodite@aol.com
Message-ID: <20010518091656.18520.00000575@ng-mq1.aol.com>
Source record: 52516

Greetings,

I'm trying to mount a 10m transceiver in my Ford Explorer. It is a stick shift, so "hump mounts" are out. It looks like it would fit under the dash slightly left of center, but the mounting surface is plastic, so probably wouldn't be secure. Anyone out there with an Explorer? What did you do? I'd actually like to mount TWO transceivers in there, but I can't even find a place for one.

Doug Moore KB9TMY

3170. Re: Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 17:06:01 UTC
From: dcollin@connix.com
Message-ID: <3b0555b5.8795276@news.mybizz.net>
Source record: 52517

On 18 May 2001 13:16:56 GMT, troglodite@aol.com (Troglodite) wrote:

>Greetings,
>
>I'm trying to mount a 10m transceiver in my Ford Explorer. It is a stick shift,
>so "hump mounts" are out. It looks like it would fit under the dash slightly
>left of center, but the mounting surface is plastic, so probably wouldn't be
>secure. Anyone out there with an Explorer? What did you do? I'd actually like
>to mount TWO transceivers in there, but I can't even find a place for one.
>
>Doug Moore KB9TMY

Before you go drilling any holes, try it out. Ford Explorers are
notorious for NOISE, bad enough that only S9+ signals can be copied.
Check the NG archive in deja.com for a long history of Explorer noise
issues.

3171. Re: Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 19:08:08 UTC
From: Jpos <jpos@mobilemark.com>
Message-ID: <KpeN6.12$J31.6599@nntp0.chicago.il.ameritech.net>
Source record: 52518

I've been using 10 meters in mine for over a year, no noise. Mounted the radio along with a 2 meter rig verically in front of the center consule. I have an automatic so theres room there. I was looking at removing the ash try and mounting it in there but I got lazy. Good luck,
Jerry N9DKQ

"Dennis" <dcollin@connix.com> wrote in message news:3b0555b5.8795276@news.mybizz.net...
> On 18 May 2001 13:16:56 GMT, troglodite@aol.com (Troglodite) wrote:
>
> >Greetings,
> >
> >I'm trying to mount a 10m transceiver in my Ford Explorer. It is a stick shift,
> >so "hump mounts" are out. It looks like it would fit under the dash slightly
> >left of center, but the mounting surface is plastic, so probably wouldn't be
> >secure. Anyone out there with an Explorer? What did you do? I'd actually like
> >to mount TWO transceivers in there, but I can't even find a place for one.
> >
> >Doug Moore KB9TMY
>
> Before you go drilling any holes, try it out. Ford Explorers are
> notorious for NOISE, bad enough that only S9+ signals can be copied.
> Check the NG archive in deja.com for a long history of Explorer noise
> issues.

3172. weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 19:42:02 UTC
From: "Charles T. Young" <ctyoung@mtu.edu>
Message-ID: <tgauoapnbci29f@corp.supernews.com>
Source record: 52519

Hi:

I have a Weller soldering gun that keeps giving me trouble.
After I use it a couple of times, it will become very slow to heat up.
I think the problem is the electrical connection to the tip.
This particular Weller has screws to tighten the tip. But the
slots in the screws get enlarged, then it is hard to tighten them,
so I have to use pliers on the screws, etc.

Has anyone found a solutions to this? I buy these Weller guns
so seldom that I don't know where to get them anymore, and besides,
the problem is in the screws, not the whole gun. I bought a Weller
gun about 30 years ago that had nuts you tighten, it worked much
better, but I don't know where to get that now.

Please reply by email to ctyoung@mtu.edu

Chuck Young

3173. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 20:10:30 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <9e3vf2$21g$1@news.inet.tele.dk>
Source record: 52520

definitely bipolar. I was thinking of some 15W from a roughly 1Watter. there
are several devices I want to choose from but I definitely intend to use a
bipolar device. Know of any programs that are used to do this stuff or
webpages that refer to this ??
"Bob Camp" <bob@cq.nu> p&#65533;e v diskusn&#65533;m p&#65533;&#65533;sp&#65533;vku
news:%7GM6.50781$ZC6.7474958@news02.optonline.net...
> Hi Adrian,
>
> If you are talking about something that narrow and FM then I would
> definitely go with a lumped element or cavity match.
>
> The Q that you are interested in is the loaded Q of the network. You
> may easily have an unloaded Q of 300 or more. Some of your loss will
> be determined by the ratio of loaded to unloaded Q in the network.
> Larger ratios are better. If at all possible you want to keep the
> ratio above 10.
>
> If your devices will take it the higher the supply voltage the better.
> Generally you see people talking about keeping the breakdown voltage
> greater than 4X the loaded output voltage. For a 28 volt supply and a
> high Q tank you could have 50 volts peak to peak on the output. You
> device would have to be good to 200 volts to be "safe".
>
> From here on you are going to need data on the device you intend to
> use. Stability will be the biggest problem. Normally people seem to
> use computer models to get the device stable. Of course if you have
> enough parts you can do it by trial and error. Are you planning to use
> a FET or a Bipolar part ?
>
> Bob
>
>
> "Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message
> news:9dun9fqlb1@news.inet.tele.dk...
> > Okay, then would you prefer to use a 28V power supply. If we're
> talking only
> > about simplex channels on the 2-m band that leaves us with a
> bandwith of
> > about 500kHz That allows the Q to be around 300. and the amp
> operating in
> > the C class. say twenty watts. That should leave me with the
> impedance of 15
> > ohms. would you prefer this to the previous version ?

> >
>
>
>

3174. Re: weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 21:08:33 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B058F51.7AC13CDC@clifto.com>
Source record: 52522

```
Charles T. Young wrote:
> I have a Weller soldering gun that keeps giving me trouble.
> After I use it a couple of times, it will become very slow to heat up.
> I think the problem is the electrical connection to the tip.
> This particular Weller has screws to tighten the tip. But the
> slots in the screws get enlarged, then it is hard to tighten them,
> so I have to use pliers on the screws, etc.

They're probably corroding, not enlarging. Use some anti-seize on the
screws.

--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | Hate spam? Take the Boulder Pledge! |
| WA9PDM | http://www.zdnet.com/yil/content/mag/9612/ebert9612.html |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3175. Re: weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 21:08:55 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B058F67.C95F1E8@coqui.net>
Source record: 52521

"Charles T. Young" wrote:
>
> Hi:
>
> I have a Weller soldering gun that keeps giving me trouble.
> After I use it a couple of times, it will become very slow to heat up.
> I think the problem is the electrical connection to the tip.
> This particular Weller has screws to tighten the tip. But the
> slots in the screws get enlarged, then it is hard to tighten them,
> so I have to use pliers on the screws, etc.
>
> Has anyone found a solutions to this? I buy these Weller guns
> so seldom that I don't know where to get them anymore, and besides,
> the problem is in the screws, not the whole gun. I bought a Weller
> gun about 30 years ago that had nuts you tighten, it worked much
> better, but I don't know where to get that now.
>
> Please reply by email to ctyoung@mtu.edu
>
> Chuck Young

Ebay...I just bought one of the old style, like new in the case with all
the trimmings, for under $20.

--

Bill Meacham
Vieques, PR

3176. FS: Plugin coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 21:56:13 UTC
From: msix@plato.nmia.com
Message-ID: <1UgN6.64912$C4.2756018@e420r-sjo3.usenetserver.com>
Source record: 52523

```
1 lot of 11 1950's plug-in transmitter coils
All 1.75 inches dia., 5-pin bases, mixed Bud and B&W
All plastic strips fragile but still intact
Use these with TLC...
10M JVL var 4T end link
10M JCL fxd 2T ctr link
10M JEL fxd 2T end link
15M JVL var 4T end link
15M JCL fxd 2T ctr link
15M JEL fxd 2T end link
20M JCL fxd 2T ctr link
20M JVL var 4T end link
40M JVL var 4T end link
40M JCL fxd 3T ctr link, reduced from 26T to 18T
80M JVL missing var ctr link, big enough to hit 160M

Packed egg-crate style, double-boxed $106 pp 48
73 - John W7ZFB 1400 Catron SE Albq, NM 87123
************************************************************
* Homebrewer since 1947 CW BoatAnchors Norcal #930 *
* BA CW freqs - 3547, 7050, 7147, 10120, 14050, 21050, 28050 *
************************************************************
```

3177. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 21:59:32 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <8XgN6.1395$y%1.333311@news02.optonline.net>
Source record: 52524

Hi Adrian,

Once you pick a manufacturer they probably will have application notes
that will help you on the next steps. At the very least they should
have the basic input and output match parameters you will need.

Bob

"Adrian Shephard" <jadernyj@podvodnik.cz> wrote in message
news:9e3vf2$21g$1@news.inet.tele.dk...
> definitely bipolar. I was thinking of some 15W from a roughly
1Watter. there
> are several devices I want to choose from but I definitely intend to
use a
> bipolar device. Know of any programs that are used to do this stuff
or
> webpages that refer to this ??

3178. Re: weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 22:53:20 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <AJhN6.11345$v5.841196@news1.rdc1.ct.home.com>
Source record: 52525

It is oxidation causing the resistance to go up.
Avoid the temptation to tighten the screws when
this happens. Try loosening the screws, then
gently retightening them to cure the problem.
Continually tightening leads to bigger problems
in a hurry.

Peter

"Charles T. Young" <ctyoung@mtu.edu> wrote in message
news:tgauoapnbci29f@corp.supernews.com...
> Hi:
>
> I have a Weller soldering gun that keeps giving me trouble.
> After I use it a couple of times, it will become very slow to heat up.
> I think the problem is the electrical connection to the tip.
> This particular Weller has screws to tighten the tip. But the
> slots in the screws get enlarged, then it is hard to tighten them,
> so I have to use pliers on the screws, etc.
>
> Has anyone found a solutions to this? I buy these Weller guns
> so seldom that I don't know where to get them anymore, and besides,
> the problem is in the screws, not the whole gun. I bought a Weller
> gun about 30 years ago that had nuts you tighten, it worked much
> better, but I don't know where to get that now.
>
> Please reply by email to ctyoung@mtu.edu
>
> Chuck Young
>

3179. Re: Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-18 23:30:17 UTC
From: kd1jt@arrl.net
Message-ID: <3b05b077.88731716@news.mybizz.net>
Source record: 52526

On Fri, 18 May 2001 14:08:08 -0500, "Jpos" <jpos@mobilemark.com>
wrote:

>I've been using 10 meters in mine for over a year, no noise. Mounted the
>radio along with a 2 meter rig verically in front of the center consule. I
>have an automatic so theres room there. I was looking at removing the ash
>try and mounting it in there but I got lazy. Good luck,
>Jerry N9DKQ

Great! Not all of the Fords have the problem to the same degree, it's
caused by a fuel pump in the tank ... and is expensive to remedy.
It's not so noticeable at higher freqs so maybe 10 meters is just high
enough. I just didn't want the guy to drill any holes only to find
out he couldn't hear diddly. I'm sure your post will brighten his
day.

73 de Dennis

3180. Re: Double sideband instead of AM ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 02:01:26 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B05D3AF.A3D2CFE9@att.net>
Source record: 52527
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.homebrew

DSB works well when the receiver contains the circuitry to extract phase information from the sidebands such that a properly phased carrier can be reinserted. Most commercial DSB broadcast systems - there are such things - transmit a small pilot carrier to facilitate proper carrier reinsertion.

A GE engineer named Costas did some pioneering work on advanced DSB transmission and reception systems back in the 50's while I was in grad school. I seem to recall that he published in one of the amateur magazines an article on the "Costas System" of DSB. Maybe someone with better recall can furnish a reference.

I make no claims for the superiority/inferiority of DSB vs AM vs SSB. But DSB systems do exist and are said to have advantages under certain conditions.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

AA1LL wrote:
>
> In article <3B03D503.9588BFF1@erols.com>, Bruce Muscolino says...
> >
> >
> >Scott,
> >
> >I am unfamiliar with your Yaesu, so I cannot comment on whether it
> >actually has DSB or if you have a failure. I would suggest you look in
> >the owners manual to see what it says.
> >
> >DSB used to be an inexpensive way to transmit SSB. The only real down
> >side is that you are transmitting both sidebands. DSB with the carrier
> >injected is AM. DSB with the carrier suppressed is DSB sideband.
> >
> >I agree there seems to be no reason to include DSB if you already have
> >SSB!
> >
> >73
> >
> DSB is more difficult to tune in than SSB if you don't reject one of the
> sidebands in the receiver. In SSB you can tolerate a little slop in the exact
> carrier frequency and the audio comes out "quacky" but still intelligible. In
> DSB, if you're slightly off you get both "quacky" sidebands interfering with

> each other.
> To get 'sideband diversity' (if there is such a thing) you need to select either
> one or the other sideband, whichever is better but not both.
> This is why I use CW.
>
> 73, Paul, AA1LL
> Mason, NH
> http://www.qsl.net/aa1ll

3181. Re: Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 03:03:02 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <OIlN6.4408$LM5.154102@news2.atl>
Source record: 52528

Look up behind the plastic and see if there is anything substantial such as an-
other layer of metal or plastic. If you don't smoke, you might remove the ashtray and use the screw holes that held it in. This is what I did on a Lumina
that had a center console. I discovered that this was an excellent solution.
When I trade the car, I will replace the ashtray assembly and no one will be the wiser.

73

Jerry
K4KWH

Troglodite <troglodite@aol.com> wrote in message news:20010518091656.18520.00000575@ng-mq1.aol.com...
> Greetings,
>
> I'm trying to mount a 10m transceiver in my Ford Explorer. It is a stick shift,
> so "hump mounts" are out. It looks like it would fit under the dash slightly
> left of center, but the mounting surface is plastic, so probably wouldn't be
> secure. Anyone out there with an Explorer? What did you do? I'd actually like
> to mount TWO transceivers in there, but I can't even find a place for one.
>
> Doug Moore KB9TMY
>
>

3182. Re: weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 04:13:01 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <lrmN6.16333$iC1.581296@news6.giganews.com>
Source record: 52529

I suggest removing the screws and tip and cleaning it all with sandpaper. Look for blackened or glossy surfaces and polish them all. It should work great after that. Any part the tip supports touch should be shined up and clean.

73, Bob

3183. Re: Source MAN-1A LED ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 04:50:01 UTC
From: Woody <woody.white@att.net>
Message-ID: <3B05FBB5.A48E051E@att.net>
Source record: 52530

Hello...

The MAN displays were one of the first 14 pin dip, 7 segment displays. ...Mid to late seventys or so. Anyhow, each segment is composed of a number of tiny led chips in-line. Much brighter and crisper than contemporary's single led illuminated segment type.

The things look different from most displays. The clear red window material comprises the entire structure. That is, (probably) the strings of LEDs were laid-out in the 7 segment pattern on a substrate with leads exiting the back. The LED/substrate/lead assembly was then cast in a rectangle of (nothing but) the clear red plastic. The result was about .1" thick, excluding leads.

I have some later versions, but unfortunately, can't use them as they have built-in counters and/or latches. They are built the same way - You can see the logic chip through the red plastic.

I haven't dug out the (yellowed) data sheet lately, so don't remember the pinout/polarity. I expect I could locate a current display that would work OK, but I kinda like the looks of the MAN and would like to match what I have...

The decimal placement is of no concern since the readout has 4 other fully functional MANs and only one D.P. is used.

TIA..

73, Woody

Michael Black wrote:
>
> On Thu, 17 May 2001, Ralph Mowery wrote:
>
> > What are the man-1a. I have some old red led 7 segment displays that
> > are about the size that will fit in a 14 pin dip IC socket. Been a long
> > time and don't recall the details of the man series . Also the decimal
> > point may be where the A comes in.
> > Think the ones I have are on the right. Let me know if you have not
> > found any. Maybe we can get together and discuss it sometime on 75
> > meters.
> >
> > 73 de KU4PT
> >
> >
> I was wondering the same thing, but at the moment I don't feel like
> digging to find out. It would just be easier for the poster to give

> us the size. I remember buying some very small 7-segment readouts
> in the early seventies, like calculator readouts but single-digits,
> and those might be a problem finding at this point.
>
> If they are the size that fits into a 14-pin socket, a replacement
> would be quite easy. I don't know if the pinout is completely
> standardized, but I've traced unknown 7-segment readouts
> only to find them matching a standard pinout. The key point,
> other than the size and pinout, would be whether it's a common
> cathode or common anode readout, and which side the decimal
> point is on. There might be cosmetic difference if an exact
> replacement can't be found, but then one could always replace
> all the readouts with the same kind.
>
> I would spend some time looking for info if the original
> poster posts about the size of the readout.
>
> Michael VE2BVW
>
> > Woody wrote:
> > >
> > > Hello All!
> > >
> > > Got a dead segment on my hbrew 75 meter display. Would like to
> > > replace with like kind and not redo the entire display...
> > >
> > > Looking for a source for a couple of MAN-1A 7 segment displays.
> > > Any suggestions?
> > >
> > > Thanks, Woody
> > > --
> > > Woody, WB4QXE
> >
> >

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

3184. Re: PCB Methods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 06:26:19 UTC
From: Thomas Bruhns <celtmouse@worldnet.att.net>
Message-ID: <fmoN6.30015$t12.2277592@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52531

I use boards pre-coated with photoresist. Circuit Specialists in the Phoenix area has carried them for some time, and now I see that DigiKey also carries them. (Note: C.S. claims theirs are 1 oz copper, but in fact they are 1/2 oz...at least all I've gotten from them.) You can print a transparency on an inkjet printer (generally better than laserjets) and expose with fluorescent lighting. You can do all the "darkroom" stuff in dim room lighting. I regularly do 10 mil lines/ 10 mil spaces this way, and can do 8/8 pretty reliably. If I get photo artwork made, I can do down to 5/5. I've done fine-pitch (0.5mm) SMT this way. If I watch the process carefully, the success rate is well over 90%, but I do have to remind myself to cross all the t's and dot all the i's...things like letting my exposure lamp warm up at least five minutes before doing the two minute exposure. (Impatience makes waste.)

There have been innumerable discussions of home PC board making over on sci.electronics.design.

73,
Tom

Z <zclobes@swbell.net> wrote in message
news:VQlL6.53$Do6.137824@nnrp2.sbc.net...
> What methods of drawing/etching PCB's are people having good luck with?
> I've tried the transfer paper from All Elec/Digikey and I only got one
> almost decent transfer out of about 20. I've seen the ad from Jameco on
the
> photo-transfer without a darkroom but haven't seen any details of exactly
> how that takes place.
>
> Most of my boards are single sided, and need only a quantity of one, or
> maybe as many as about five should the club want to build them as a kit.
>
> Thanks in advance,
> Zack Clobes, W0ZC
>
>

3185. Re: VHF power amplifier output impedance matching networks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 09:30:38 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9e5efkfao1@neptunium.btinternet.com>
Source record: 52532

Download program LINEAR1 from website below. Takes only a few
seconds. Not zipped up. Run immediately.

Will assist with basic design of a push-pull, bipolar, RF power
amplifier. Particularly with output transformer turns ratio.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

3186. Steepping motor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 19:07:01 UTC
From: N1IQO <n1iqo@yahoo.com>
Message-ID: <pvzN6.2106$0e6.795568@typhoon1.ba-dsg.net>
Source record: 52533

Hi all,

Well I could use some help
I was surfing the net and came across Magnetic Loop Antennas (looks like
fun) so I set out to make myself one.

located the page on homebrewing air caps from JO21FF (looks easy)
Here: http://www.qsl.net/mnqrp/Loop/Mag_Loops.htm

Now to remote control the cap with a stepping motor
(Brick wall) I never even herd of a stepping motor before this.
after some reading I find out that printers have stepping motors(cool I have
some old printers)

This is what I pulled from one of the printers:
Stepping Motor
#PJJQ148ZA-K
Volt - 4V
Coil - 5ohm
DEG/STEP - 1.8
6 - WIRE
KYUSHU MATSUSHITA ELECTRIC CO. LTD.

It's big and heavy it should work
Now for some help
How in the world do you control this

If you can help me I would be grateful
Thx
David
n1iqo@yahoo.com

3187. Program RJELINE4.exe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 21:53:13 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9e6q00num1@plutonium.btinternet.com>
Source record: 52534

NOW AVAILABLE, Program "RJELINE4.exe"

FULL ANALYSIS OF PERFORMANCE OF BALANCED-PAIR TRANSMISSION
LINES, 20Hz to 1GHz.

This program is an improved version of RJELINE3.exe. Extra output
data and user operating facilities have been added and the
extensive introductory notes have been rewritten. All the original
facilities have been retained.

Study all types of line from 50 Hz HV power distribution, overhead
and underground phone lines, antenna ladder lines, 100-ohm figure
of 8, to UHF high-power lecher-lines.

Input data is a line specification, Zo, conductor diameter,
dielectric loss factor, velocity factor, frequency, line length.
Also series resistive and reactive components of the terminating
impedance.

Output data is in 3 sections: Line Characteristics, conductor
spacing, R,L,C,G, attenuation, propagation velocity, Line Input
Impedance in various forms, and Line Performance, reflection
coefficient, SWR, actual line loss, power transmission efficiency,
resonant Q factor, etc.

Exact classical transmission line formulae used. Skin and conductor
proximity effects are taken into account. DC and AC conductor
resistance can be compared and observed to diverge with increasing
frequency and with closer conductor spacing.

Applications:- Transmission line design and design of line
transformers intended for complex terminations R+jX. Educational.

This program has been produced to the highest standards. Use it to
check accuracy and reliabilty of other transmission line
calculations and calculators.

Program size 75.6 Kilobytes. Download RJELINE4 in a few seconds.
Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

3188. Re: Steepping motor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 22:09:03 UTC
From: jim@nospam.com
Message-ID: <unrdgt4ir1pdt95kj9nbou7o6896afboa7@4ax.com>
Source record: 52535

The best trick I saw was using one stepper as a generator to run
a second stepper. A local ham brought one to a club meeting. Not as
much torque as running the normal way, but it should be enough for
a tuning cap and you can't beat its simplicity.

73,
Jim
N2VNO

On Sat, 19 May 2001 19:07:01 GMT, "N1IQO" <n1iqo@yahoo.com> wrote:

>Hi all,
>
>Well I could use some help
>I was surfing the net and came across Magnetic Loop Antennas (looks like
>fun) so I set out to make myself one.
>
>located the page on homebrewing air caps from JO21FF (looks easy)
>Here: http://www.qsl.net/mnqrp/Loop/Mag_Loops.htm
>
>Now to remote control the cap with a stepping motor
>(Brick wall) I never even herd of a stepping motor before this.
>after some reading I find out that printers have stepping motors(cool I have
>some old printers)
>
>This is what I pulled from one of the printers:
>Stepping Motor
>#PJJQ148ZA-K
>Volt - 4V
>Coil - 5ohm
>DEG/STEP - 1.8
>6 - WIRE
>KYUSHU MATSUSHITA ELECTRIC CO. LTD.
>
>It's big and heavy it should work
>Now for some help
>How in the world do you control this
>
>If you can help me I would be grateful
>Thx
>David
>n1iqo@yahoo.com
>
>

3189. Iambic Morse Keyer - simple and accurate

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 22:17:14 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3B06F0EA.51DB4727@oda.com.au>
Source record: 52536

Here is a simple approach to an iambic morse keyer that is well suited to integration in a home brewed transceiver / transmitter.

Power consumption is very low and board space is small, which suits it also to QRP / portable configurations.

Despite using less than a dozen parts for the essential keyer (and another 4 parts for the regulated power supply), it gives nothing away in terms of performance and accuracy for an iambic keyer, it does not require alignment and does it require any sophisticated equipment for construction.

Have a look at it at http://www.owenduffy.com.au/electronics/pik/pik.htm .

Owen

3190. mercury cell ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-19 23:28:51 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tge0ds5ttt9h86@corp.supernews.com>
Source record: 52537

i just got a Brown & Sharpe Digi-Cal Mark II universal digital caliper....
the batteries are dead, they are Eveready EPX-625 or any 625 equivalent..
Radio Shack wants $12.00 each for these mercury cells..
does anyone know of a more reasonable place to buy, an alternative or where
i might find the rechargeable nicads..
tnx
hank wd5jfr

3191. Re: mercury cell ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 02:09:12 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <cHFN6.105550$K5.10015548@news1.rdc1.nj.home.com>
Source record: 52538

You can't get them anymore. (Well, you can get them in photo shops in Europe.)(Although much more mercury is introduced into the environment through fluorescent tubes, switches and coal, the batteries had to go also.)

My suggetsion- I have done this with a Gossen light meter -- use a low dropout 2.7 volt regulator from Linear Tech or Toko with a pair of '76 batteries. The overhead is quite low and the SMT devices can be easily soldered into place.

Jack
exWA8PZL
"Henry Kolesnik" <wd5jfr@oklahoma.net> wrote in message news:tge0ds5ttt9h86@corp.supernews.com...
> i just got a Brown & Sharpe Digi-Cal Mark II universal digital caliper....
> the batteries are dead, they are Eveready EPX-625 or any 625 equivalent..
> Radio Shack wants $12.00 each for these mercury cells..
> does anyone know of a more reasonable place to buy, an alternative or where
> i might find the rechargeable nicads..
> tnx
> hank wd5jfr
>
>

3192. RF Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 02:36:42 UTC
From: Norm Melick <henmel@worldnet.att.net>
Message-ID: <3B072DEC.DC35D926@worldnet.att.net>
Source record: 52539

I have 3, new 4X150G's. I'd like to build an amplifier with them, preferably HF. First, could someone point me towards some schematics and articles using this tube, and second, I need the sockets for these tubes.

Any help would be greatly appreciated.

Norm/KQ6SD

3193. VOX headset for FRS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 09:45:47 UTC
From: k4jdh@hotmail.com
Message-ID: <60d64cfc.0105200145.7d47a232@posting.google.com>
Source record: 52540

I am looking for plans to build a VOX headset for FRS radios. I need this for motorcycle communcations. Has anyone seen plans for this?

3194. Schematics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 10:35:07 UTC
From: NoSpam Gary <bit.bucket@virgin.net>
Message-ID: <8vNN6.5670$yA4.959163@news2-win.server.ntlworld.com>
Source record: 52541

Hi NG

New (hopefully) Amateur radio op here, needs to find some circuits for voice processors (want to build a base mic) and a 2M PA.

I want to try and get them ready for when (if) I get my M1.

--
Regards,
Gary
If you want to mail me back you must put 'filterme' without quotes in the subject line or your mail will be deleted.

3195. Re: VOX headset for FRS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 12:28:03 UTC
From: Gene <webmaster@zylay.com>
Message-ID: <3B07B853.BDEFDF7@zylay.com>
Source record: 52542

jim wrote:

> I am looking for plans to build a VOX headset for FRS radios. I need
> this for motorcycle communcations. Has anyone seen plans for this?

Not specifically, but Radshack has a helmet-mounted one for $24.95 (along with several other styles) that I use on my HTX-202, which shares the same pin pattern as many FRS radios. Maybe you can get ahold of one of these from a friend and take a peek, or even repair it if it's broken.

--
Ride to eat, eat to
ride. __O

_-\<,_
Support Gene, his kids, and the Children's Miracle Network (_)/ (_)
Please visit http://www.tfn.net/~gfloyd7/cmn/

3196. Re: EVIL WHITE RADIO FUCK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 16:21:06 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B07EEF2.E335DA48@coqui.net>
Source record: 52543
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

ntudnosx@privacy.net wrote:
>
> I do not understand why the United States
> permits web sites like
> http://www.halturnershow.com to exist.

I do not understand why somebody sitting in Kuwait would be spamming
hate messages to radio newsgroups.

3197. Philips TEA5551T & TDA1572T

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 17:25:58 UTC
From: Sverre Holm <sverre@ifi.uio.no>
Message-ID: <Pine.GSO.4.21.0105201921120.12585-100000@granvin.ifi.uio.no>
Source record: 52544

I am planning to make a surface mount ham receiver and would like to make it as small as possible. Does anyone have any experience with any of these chips:

TDA1572T AM receiver (IF output should be possible to add a BFO etc)
TEA5551T One-chip AM radio (up to 40 MHz), includes AF amplifier

- or any other similar chip that integrates all or most of the stages for an AM receiver.

I think they use a 455 kHz IF frequency so they should give acceptable image rejection for the 80, 40 and 30 meter bands. For higher bands one could use a pre-converter down to e.g. 5.5 MHz first.

Sverre Holm
Norway

3198. FS: glass-Teflon microwave PC board laminate

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 18:59:39 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B08141A.1976FF89@valley.net>
Source record: 52545

Hello--

I'm offering a batch of microwave-grade printed-circuit
board laminate. Previous batches have sold quickly, so
e-mail me to reseve your choices to avoid disappointment.

73,
Brad AA1IP

****

Taconic Plastics, Ltd. p/n TLE-95-0100-C1/C1

PTFE/glass dielectric of 0.01 inches thickness and dielectric
constant of 2.95 nominal. Laminated with 1-ounce copper on both sides.

Supplied in 9-3/8 by 18-inch panels separated by sheets of anticorrosion

paper (some edge discoloration is present). Note that this thin and
flexible laminate will require extra care in processing.

Price: $10.00 per piece; or $20.00 for three pieces, plus $4.80 for
insured priority-mail shipment (U.S. only). Please add $2.00 postage
for each increment of three additional pieces (e.g., postage for six
is $6.80; nine is $8.80, etc.). Canadian purchasers, please inquire for
postage.

Also available in boxes of 50 sheets for club projects-- please inquire
for price and postage.

****
I accept payment via personal or cashier's check or money order drawn
in U.S. dollars and made payable to "Brad Thompson", or via certain
credit cards.

Warranty policy:

If you purchase these boards and find them unsatisfactory upon your
visual
inspection, notify me within seven days and return in as-received
condition
for a full refund of your original purchase price (you pay return
postage).

This material is subject to prior sale and is supplied as-is, as
new-old-stock
(NOS) merchandise, with all responsibility for safe and successful
application

residing solely with the purchaser.

**********Available from:**********

Brad Thompson, AA1IP
P.O. Box 307, 202 Whitaker Rd.
Meriden, NH 03770-0307
Voice:(603) 469-3351
Fax: (603) 469-3917
E-mail: brad.thompson@valley.net

3199. Re: FS: glass-Teflon microwave PC board laminate

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 21:44:51 UTC
From: John Buck <KH7T@arrl.net>
Message-ID: <3B083AD3.BCA87BF@arrl.net>
Source record: 52546

Brad,

I would like to purchase 3 pieces of the laminate $24.80.
Since I live on the Island of Hawaii it will take 4 to 7 days for my
check to reach you. I will wait for confirmation that I am on your
reserved list before sending check.

Thanks,
John Buck KH7T

Brad Thompson wrote:
>
> Hello--
>
> I'm offering a batch of microwave-grade printed-circuit
> board laminate. Previous batches have sold quickly, so
> e-mail me to reseve your choices to avoid disappointment.
>
> 73,
> Brad AA1IP
>
> **********
>
> Taconic Plastics, Ltd. p/n TLE-95-0100-C1/C1
>
> PTFE/glass dielectric of 0.01 inches thickness and dielectric
> constant of 2.95 nominal. Laminated with 1-ounce copper on both sides.
>
> Supplied in 9-3/8 by 18-inch panels separated by sheets of anticorrosion
>
> paper (some edge discoloration is present). Note that this thin and
> flexible laminate will require extra care in processing.
>
> Price: $10.00 per piece; or $20.00 for three pieces, plus $4.80 for
> insured priority-mail shipment (U.S. only). Please add $2.00 postage
> for each increment of three additional pieces (e.g., postage for six
> is $6.80; nine is $8.80, etc.). Canadian purchasers, please inquire for
> postage.
>
> I accept payment via personal or cashier's check or money order drawn
> in U.S. dollars and made payable to "Brad Thompson", or via certain
> credit cards.
>
> Warranty policy:
>

> If you purchase these boards and find them unsatisfactory upon your
> visual
> inspection, notify me within seven days and return in as-received
> condition
> for a full refund of your original purchase price (you pay return
> postage).
>
> This material is subject to prior sale and is supplied as-is, as
> new-old-stock
> (NOS) merchandise, with all responsibility for safe and successful
> application
> residing solely with the purchaser.
>
> **********Available from:**********
> Brad Thompson, AA1IP
> P.O. Box 307, 202 Whitaker Rd.
> Meriden, NH 03770-0307
> Voice:(603) 469-3351
> Fax: (603) 469-3917
> E-mail: brad.thompson@valley.net

3200. stearing antennas

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 21:47:01 UTC
From: Michael Hart <mhart@NOSPAM.terrigal.net.au>
Message-ID: <3b083c09@turakina.six.asn.au>
Source record: 52547

Can someone please point me to some web sites that have some designs for grey code wheels and antenna rotor controllers that use them.

I am particularly interested in az/el controllers

thanks

Michael

3201. Re: FS: glass-Teflon microwave PC board laminate

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 22:25:10 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B084445.61D093DA@valley.net>
Source record: 52549

Hi, John--
thank you-- see my e-mial message of earlier this evening. I have
a good supply to offer.
73--
Brad AA1IP
****
John Buck wrote:

> Brad,
>
> I would like to purchase 3 pieces of the laminate $24.80.
> Since I live on the Island of Hawaii it will take 4 to 7 days for my
> check to reach you. I will wait for confirmation that I am on your
> reserved list before sending check.
>
> Thanks,
> John Buck KH7T
>
> Brad Thompson wrote:
> >
> > Hello--
> >
> > I'm offering a batch of microwave-grade printed-circuit
> > board laminate. Previous batches have sold quickly, so
> > e-mail me to reseve your choices to avoid disappointment.
> >
> > 73,
> > Brad AA1IP
> >
> > **
> >
> > Taconic Plastics, Ltd. p/n TLE-95-0100-C1/C1
> >
> > PTFE/glass dielectric of 0.01 inches thickness and dielectric
> > constant of 2.95 nominal. Laminated with 1-ounce copper on both sides.
> >
> > Supplied in 9-3/8 by 18-inch panels separated by sheets of anticorrosion
> >
> > paper (some edge discoloration is present). Note that this thin and
> > flexible laminate will require extra care in processing.
> >
> > Price: $10.00 per piece; or $20.00 for three pieces, plus $4.80 for
> > insured priority-mail shipment (U.S. only). Please add $2.00 postage
> > for each increment of three additional pieces (e.g., postage for six

> > is $6.80; nine is $8.80, etc.). Canadian purchasers, please inquire for
> > postage.
> >
> > I accept payment via personal or cashier's check or money order drawn
> > in U.S. dollars and made payable to "Brad Thompson", or via certain
> > credit cards.
> >
> > Warranty policy:
> >
> > If you purchase these boards and find them unsatisfactory upon your
> > visual
> > inspection, notify me within seven days and return in as-received
> > condition
> > for a full refund of your original purchase price (you pay return
> > postage).
> >
> > This material is subject to prior sale and is supplied as-is, as
> > new-old-stock
> > (NOS) merchandise, with all responsibility for safe and successful
> > application
> > residing solely with the purchaser.
> >
> > ****************************Available from:**********************
> > Brad Thompson, AA1IP
> > P.O. Box 307, 202 Whitaker Rd.
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> > Voice:(603) 469-3351
> > Fax: (603) 469-3917
> > E-mail: brad.thompson@valley.net

3202. Cubic Astro-B HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 22:25:43 UTC
From: la8ak@online.no
Message-ID: <3b084434.1047638@news.online.no>
Source record: 52548

does someone know where I might find info and circuit diagram for it?

73
jan-martin
LA8AK

3203. Re: Superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 22:57:43 UTC
From: "jack.donio" <jack.donio@home.nl>
Message-ID: <HZXN6.165162$Uo2.4189106@zwoll1.home.nl>
Source record: 52550

This works well for old style AM modulation
Today's standard is SSB and FM a superreg is unusable for this
for more diagrams see http://members.home.nl/radiomorningstar/

Lars Brandt <lov.brandt@telia.com> schreef in berichtnieuws
W5UN6.3892$Yu6.881616@newsc.telia.net...
> This is a simple superregenerative receiver from a radio kitbox.
> It worked wery well on the band 26-31MHz. I have not heard a HAM.
> I was a kid when I had it to work. I want to build it again and see if it
> works so fantastic I remember it did.
> Can somebody help me with how it works and explain where all funktion part
> are?
> What is R6 for?
> Where is the RC link that start and stop the oscillation?
> Can you hear SSB on it?
>
> Regards
> Lars
>
>
>

3204. Re: EVIL WHITE RADIO *****

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 23:31:02 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <WsYN6.13116$v5.1222627@news1.rdc1.ct.home.com>
Source record: 52551
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

I don't know why any of you would respond to this
without first deleting the profanity in the subject line.
My ISP filters spam from the newsgroups, so all you
are doing is accomplishing what the original poster
wanted to do, but wasn't able to.

Peter

"KC8JBO" <rmccall-no-spam@cotse.com> wrote in message
news:990377532.3b07f63c1a1ba@public.webmail.cotse.com...
> "Bill Meacham" <NOSPAMexray@coqui.net> wrote in message
> news:3B07EEF2.E335DA48@coqui.net...
> >
> >
> > ntudnosx@privacy.net wrote:
> > >
> > > I do not understand why the United States
> > > permits web sites like
> > > http://www.halturnershow.com to exist.
> >
> >
> > I do not understand why somebody sitting in Kuwait would be spamming
> > hate messages to radio newsgroups.
>
> He's down a quart or so of oil?
> He's riding a camel without a hump?
> He's a girl short of a harem?
> I don't know what he's bitching about, without the United States, he'd be
> kissing Saddam Hussein's ass right now.
> LOL!
>
> 73 de Roger, KC8JBO
> EM99|
> Yaesu FT-920 | Inverted vee @ 40 Feet
> Yaesu FT-90R | Copper J-pole
>
> "Pubic" <ShitHead@doofuss.comz> wrote in message
> news:9e7smt$u3m$0@pita.alt.net...
> "I gits into gay bars half price. i can't git much closer to heven than
> that."
>
>
>
> AIDS INFECTED IGNORAMUS "Stagger Lee" <SLee@houston-hunks.com> shows

> lack of English composition skills/education in message
> news:too.two_or_also@houston-hunks.com...
>
> "You too need to get a newsreader which generates a References header."
>
> STUPIDASS "Stagger Lee" <SLee@houston-hunks.com> blathered out of his
> well-reamed ass in message news:0428120427.2115@houston-hunks.com...
>
> "One guess has it that KC8JBO lost his ability to post through cotse"
>
> From: "Stephen K. Gielda" <steve@cotse.com>
>
> "I saw a message posted to 2600 by that stagger lee idiot."
>

3205. Re: EVIL WHITE RADIO *****

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-20 23:40:08 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B0855D8.11EFCF56@coqui.net>
Source record: 52552
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

"Peter J. Bertini" wrote:
>
> I don't know why any of you would respond to this
> without first deleting the profanity in the subject line.
> My ISP filters spam from the newsgroups, so all you
> are doing is accomplishing what the original poster
> wanted to do, but wasn't able to.
>
> Peter

You're right. My mistake and I went back and cancelled the post later,
but too late. I apologize.
-BM

>
> "KC8JBO" <rmccall-no-spam@cotse.com> wrote in message
> news:990377532.3b07f63c1a1ba@public.webmail.cotse.com...
> > "Bill Meacham" <NOSPAMexray@coqui.net> wrote in message
> > news:3B07EEF2.E335DA48@coqui.net...
>

3206. Allied AX 190 info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 10:00:28 UTC
From: ljl160@aol.com
Message-ID: <20010521060028.05083.00000844@ng-mh1.aol.com>
Source record: 52553

I just bought an AX 190 receiver. It actually hears pretty well. Its a little audio hissy with no signal condition. Anyone ever done any mods or have any info on this rx. Appreciated-73s Lew KlNDV

3207. Re: Help with Boonton 92C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 11:58:52 UTC
From: knox_k@nemaine.com
Message-ID: <3b0902ee.2867883@news.nemaine.com>
Source record: 52554

On Sun, 13 May 2001 18:15:49 -0400, Norm Clanton
<nclanton@megalink.net> wrote:

>I've just acquired a Boonton 92C RF Millivoltmeter, but, unfortunately,
>didn't get a manual with it. It seems to work very well, except that
>readings (including the zero) on the 3 mV and 100 mV ranges fluctuate.
>The other ranges seem fine and steady. If anyone has a manual or
>experience with this instrument, your suggestions would be appreciated.
>With only two ranges affected, I'd tend to suspect dirty switch
>contacts, but figured I ought to seek ideas before I start tinkering
>with it. Thanks.
>
>Norm KA1SG
>

Hi Norm,

Try http://www.manualsplus.com/

3208. Re: Transceiver in Ford Explorer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 14:19:39 UTC
From: troglodite@aol.com
Message-ID: <20010521101939.29086.00001400@ng-fi1.aol.com>
Source record: 52555

>If you don't smoke, you might remove the
>ashtray and use the screw holes that held it in.

Thanks. Actually, pulled the ashtray and it's mounting frame in order to investigate what problems I'd have drilling a hole. When it was out, I thought I'd just try the transceiver in the opening for fun. It almost fit, would require just a little trimming of the plastic tabs on each side. I think I could fabricate an L bracket for both sides of the box using the screw holes intended for the microphone clip to hold it on. Then, the screws that held the ashtray frame could be used for mounting. I won't miss the ashtray, (I quit smoking 20 years ago.) except for it's lighter socket, which I can mount elsewhere.

I already tried the transceiver just sitting in the seat, and the noise seemed to be no more of a problem than it is with the 2m rig under the same circumstances. Maybe I'll scrap the radio and mount the 2m rig there. :-) Just have to figure out how to get the original radio out. I know it has something to do with those four holes around the bezel, but try as I might, I can't get it loose.

Doug Moore KB9TMY

3209. Re: RF Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 14:59:56 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <9ebahu$bol4@eccws12.dearborn.ford.com>
Source record: 52557

The 1960 or 61? ARRL handbook had something in the HF band with two 4CX
tubes I believe
Bob
KB8TL@yahoo.com

Norm Melick <henmel@worldnet.att.net> wrote in message
news:3B072DEC.DC35D926@worldnet.att.net...
> I have 3, new 4X150G's. I'd like to build an amplifier with them,
> preferably HF. First, could someone point me towards some schematics and
> articles using this tube, and second, I need the sockets for these
> tubes.
>
> Any help would be greatly appreciated.
>
> Norm/KQ6SD

3210. Re: Superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 15:07:02 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3b092ea9$0$191@news.impulse.net>
Source record: 52556

"jack.donio" <jack.donio@home.nl> wrote in message
news:HZXN6.165162$Uo2.4189106@zwoll1.home.nl...
> This works well for old style AM modulation
> Today's standard is SSB and FM a superreg is unusable for this
> for more diagrams see http://members.home.nl/radiomorningstar/
>
FM can be demodulated using slope detection and, by purposely causing the regen detector to break into oscillation, SSB and CW can also be demodulated. There may be other reasons that superregens are not suitable, but not that it can't demodulate the signals.

-CB

3211. FS: Peanut Whistle 2's WITH CRYSTALS!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 16:49:44 UTC
From: ARS--KC8BCR@webtv.net
Message-ID: <23830-3B094728-122@storefull-135.iap.bryant.webtv.net>
Source record: 52558
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap

We finally took the advice of several hams and made a bulk purchase of transmitting crystals from Jan's in order to include them with our Peanut Whistle Two 40 meter QRP CW transmitters for those who don't have a junk box of assorted crystals. We chose the internationally recognized QRP frequency of 7.040 MHz. And we are selling the crystals to you AT COST with the purchase of a Peanut Whistle Two transmitter. Sorry! No individual crystal sales. They are exclusively for PW-2 purchasers. The cost of the Peanut Whistle 2 without crystal is $19.95 plus s&h. For the Peanut Whistle Two that includes the 7.040 MHz transmitting crystal...ONLY $29.95 plus s&h. You're invited to look at photo's of the PW-2 and see further details at our website: http://qth.com/dwm

73,

Bill - WA8MEA @ Jackson Co. MI QRP Club station - KC8BCR

3212. Re: Superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 19:20:31 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105211507570.6584-100000@gloria.cam.org>
Source record: 52560

On Mon, 21 May 2001, C. Bauman wrote:

>
> "jack.donio" <jack.donio@home.nl> wrote in message
> news:HZXN6.165162$Uo2.4189106@zwoll1.home.nl...
> > This works well for old style AM modulation
> > Today's standard is SSB and FM a superreg is unusable for this
> > for more diagrams see http://members.home.nl/radiomorningstar/
> >
> FM can be demodulated using slope detection and, by purposely causing the
> regen detector to break into oscillation, SSB and CW can also be
> demodulated. There may be other reasons that superregens are not suitable,
> but not that it can't demodulate the signals.
>
> -CB
>
>
Of course, if you put a superregen receiver into continuous oscillation,
it's no longer a supperregen but just a regenerative receiver. Though
nothing comes to mind at the moment, I thought there were reasons why
superregens helped to pioneer the higher frequencies rather than
the regen.

The problem with slope detection on a superregen is that they tend
to have wide bandwidth. Probably fine for wide deviation like
FM broadcast and TV audio, but it will give low recovered audio
when receiving narrow deviation FM as found on the ham bands.

Years ago, the attempts on narrowing the bandwidth of a superregen
focused on a better coil. Use a high-Q coil, or build the tank
circuit out of coax. But most superregens were really simple,
using the same active element as both the regenerative detector
and the quench oscillator for it. That does not give much control
over the quenching of the circuit. You've basically got a square
wave running at just above audio frequencies putting the regen
detector in and out of oscillation. Except in the very early
days, like when the superregen was invented by Armstrong, did
anyone give much consideration to having a separate quench
oscillator. And I'm not even sure whether the original
superregen used a separate quench oscillator or was self-quenched.

Charles Kitchin has done some work with superregens in recent
years. A number of his articles on superregens have appeared in
Communications Quarterly, QST and QEX, and I've listed the articles in
previous posts. He says that the quenching is critical to

getting a narrower bandwidth in the superregen. The waveform is a consideration. One of his articles had a control to adjust the quenching, though it was the usual self-quenching circuit, and he gives great claims for reception of narrow deviation FM.

Michael VE2BVW

3213. Yaesu FT50 - setting VFO to PMR446 channel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 19:33:22 UTC
From: Richard <Dickus@dial.pipex.com>
Message-ID: <9ebqp8vot1@news8.svr.pol.co.uk>
Source record: 52559

Can anyone help with the following problem:

I have an FT50 which I want to set to a PMR446 channel frequency e.g.
Channel 2 = 446.01875

When setting VFO the closest I can get is 446.0125 (step of 12.5) or 446.020
(step 5.0).

The Yaesu has wideband mods applied and is set to "Freeband" (not sure if
this matters) and I'd like to be able to talk to PMR446 users on specific
PMR446 channels.

Is there any way of setting precise channel?

TIA

R-i-c-h-a-r-d.a-p-p-l-e-t-o-n@dial.pipex.com (remove hypens if responding
via e-mail)

3214. satellite tuner cans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 21:59:33 UTC
From: james@unknown.demon.co.uk
Message-ID: <3b098fac.14251575@news.demon.co.uk>
Source record: 52561

Wonder if anyone can help me. I have a sharp satellite tuner can which i use to recover audio from a microwave source. I dont have a part number for this item, all that is on it are two different numbers.

Prob, ser no. and something else.

Wondering if anyone would have any idea on the part number, or even tell me which receiver it would happen to come from.

Numbers are f1412a
and Bsfa75g08

Know its a very long shot, sharp(who its made by) cant (wont) help me on this one.

The can has 8 connections on the bottom. Audio comes from the 5th pin along
from the f-connector. Know its v.vague and am grasping at straws, but this is my last hope.

Thanks

Jimbo

3215. Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 22:41:48 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <v%gO6.9656$m93.1364874@news6-win.server.ntlworld.com>
Source record: 52562
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

lwilliams <lwilliams@guernsey.net> wrote in message
news:3b059bda.0@news.guernsey.net...
> Worked on the collision avoidance radar (Philips) for BMW, Merc, Volvo, GM
> etc, 77Ghz
> <pkearn@eircom.net> wrote in message
news:3ad63215.1175650@news1.tinet.ie...
> > "squilsh" <squilsh@ntlworld.com> wrote:
> > ::Has anybody considered doing amateur radar?
> >
> > Yes. years ago around late 1980's
> >
> > thought of 432mhz or use a Solfan Head using FMCW on 3cms
> >
> > main reason for my interest in all this Radar:
> > I am involved in Aero Radar (fixing of) and have always wondered
> > if I could get something going to at least see if its ''do-able''
> > without a huge r'n'd department behind me.
> >
> >
> > Either way.
> > I wish you all the best with your experiments.
> >
> > Its nice to see someone WONDERING OUT LOUD.
>
>
I'm currently halfway through building a simple ultrasonic pulse radar, from a design in the book "Electronic Projects for Experimenters", by Robert Penfold, published by Babani.

This consists of a hand-held box containing ultrasonic Tx and Rx transducers, oscillator and detector circuits, batteries, and a row of LED's to indicate distance of targets, same concept as an A-scope but using brightness to indicate signal strength. I will fit sockets to allow connection to an oscilloscope for a proper A-scope display.

Range is stated as 5 metres.

When I get a 'round tuit' I might write a letter to Practical Wireless about amateur radar.

3216. FS: IC706/ant./swr/wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 22:50:57 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <OHkF9hk4AHA.274@cpmsnbbsa07>
Source record: 52573
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

FS: by Fred WA5WZD
Reduced price, need the cash! ICOM IC-706 Mk1 in excellent condition
with box and packing. Power cord (about 6 ft) and all written material.
Included is a good working screwdriver antenna with the mounts used on a
pickup tool box and braces. Also included is an MFJ-815B HF peak reading
SWR/Wattmeter. This is the cross needles meter and makes tune up very easy.
The tuning system uses the inductor shunt at the base that allows tune up
any where within the HF range instead of having to switch caps with relays.
I'm an ex ICOM manager in Dallas so it's been treated with kid gloves.
Most operation has been on 40m and 2m ssb.
Asking $650 for the package and buyer pays a nominal shipping fee of $25
insured. Fred fred-palmer@msn.com 940-321-2029

3217. Re: weller soldering gun problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 23:04:26 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <h11hgt0gmqdjrc3tdrc7cdtr0q83kp99uc@4ax.com>
Source record: 52563

Charles T. Young <ctyoung@mtu.edu> wrote:

>I have a Weller soldering gun that keeps giving me trouble.
>After I use it a couple of times, it will become very slow to heat up.
>I think the problem is the electrical connection to the tip.
>This particular Weller has screws to tighten the tip. But the
>slots in the screws get enlarged, then it is hard to tighten them,
>so I have to use pliers on the screws, etc.

Up until a few (?) years ago the Weller "barrels" were plated copper,
and these always worked well. Then Weller modified the design
substituting alum parts and these will always oxidize and will never
last like the early ones which they made for decades. Unfortunately,
your experience is typical for the current versions of Weller guns.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

3218. Re: Looking for microwave design assistance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-21 23:53:39 UTC
From: Michael Hart <mhart@NOSPAM.terrigal.net.au>
Message-ID: <3b09ab3b@turakina.six.asn.au>
Source record: 52564

deyoreo@re.ray.com wrote in message <3b024b40.2215575@proxy.res.ray.com>...
>What are you looking to ense? Just that a motion occurred? or are you
>determining distance?
>In a CW Radar, the outgoing freq is usually chirped (ramped in freq),
>the received freq from an echo is compared to the transmitted freq (at
>the instant the echo is received). The difference in freq and the freq
>ramp rate give distance to object. Obviously, ma range is given by
>chirp length, the farthest echo must return before the next chirp.
>

In that case how does the radar know the difference between something stationary a long distance away (when the returned frequency has a large -ve offset to the current transmitted freq because of the time delay) and an object which is close but moving away at a high speed (here the returned frequency has a large -ve offset to the tx freq due to doppler) ??

3219. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 00:46:04 UTC
From: Rupertg@cix.co.removethis.uk
Message-ID: <3b09b60d.131928919@news.blueyonder.co.uk>
Source record: 52565
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

On Mon, 21 May 2001 23:41:48 +0100, "squilsh" <squilsh@ntlworld.com> wrote:

>lwilliams <lwilliams@guernsey.net> wrote in message
>news:3b059bda.0@news.guernsey.net...
>> Worked on the collision avoidance radar (Philips) for BMW, Merc, Volvo, GM
>> etc, 77Ghz
>> <pkearn@eircom.net> wrote in message
>news:3ad63215.1175650@news1.tinet.ie...
>> > "squilsh" <squilsh@ntlworld.com> wrote:
>> > ::Has anybody considered doing amateur radar?
>> >
>> > Yes. years ago around late 1980's
>> >
>> > thought of 432mhz or use a Solfan Head using FMCW on 3cms
>> >
>> > main reason for my interest in all this Radar:
>> > I am involved in Aero Radar (fixing of) and have always wondered
>> > if I could get something going to at least see if its ''do-able''
>> > without a huge r'n'd department behind me.
>> >
>> >
>> > Either way.
>> > I wish you all the best with your experiments.
>> >
>> > Its nice to see someone WONDERING OUT LOUD.
>>
>>
>I'm currently halfway through building a simple ultrasonic pulse radar, from
>a design in the book "Electronic Projects for Experimenters", by Robert
>Penfold, published by Babani.
>
>This consists of a hand-held box containing ultrasonic Tx and Rx
>transducers, oscillator and detector circuits, batteries, and a row of LED's
>to indicate distance of targets, same concept as an A-scope but using
>brightness to indicate signal strength. I will fit sockets to allow
>connection to an oscilloscope for a proper A-scope display.
>
>Range is stated as 5 metres.
>
>When I get a 'round tuit' I might write a letter to Practical Wireless about
>amateur radar.
>

But that's sonar! I did something similar for a school project a long time ago... fun, but not radar. The only time I've done anything like amateur radio was when I was a friend's shack playing with their EME equipment. I did some clumsy morse, and a moment later it came back having bounced off some large lump of rock nearby.

R

3220. Re: Yaesu FT50 - setting VFO to PMR446 channel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 01:59:42 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B09C80E.C2B5D7BF@nettally.com>
Source record: 52566

446.020 is close enough

Richard wrote:

> Can anyone help with the following problem:
>
> I have an FT50 which I want to set to a PMR446 channel frequency e.g.
> Channel 2 = 446.01875
>
> When setting VFO the closest I can get is 446.0125 (step of 12.5) or 446.020
> (step 5.0).
>
> The Yaesu has wideband mods applied and is set to "Freeband" (not sure if
> this matters) and I'd like to be able to talk to PMR446 users on specific
> PMR446 channels.
>
> Is there any way of setting precise channel?
>
> TIA
>
> R-i-c-h-a-r-d.a-p-p-l-e-t-o-n@dial.pipex.com (remove hypens if responding
> via e-mail)

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

3221. Re: Air sonar; was: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 08:17:46 UTC
From: Sverre Holm <sverre@ifi.uio.no>
Message-ID: <Pine.GSO.4.21.0105221014090.14437-100000@granvin.ifi.uio.no>
Source record: 52567
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

This project resembles very much the "parking radars" you can get for
cars. They are really sonic and often operating at 40 kHz. You can get it
as a kit, look at:

http://www.elexp.com/kit_3502.htm
http://www.qkits.com/serv/qkits/velleman/pages/K3502.asp

Sverre Holm

Rupert Goodwins skrev den 22.05.01, kl 00:46 (-0000):
> >I'm currently halfway through building a simple ultrasonic pulse radar, from
> >a design in the book "Electronic Projects for Experimenters", by Robert
> >Penfold, published by Babani.
> >
> >This consists of a hand-held box containing ultrasonic Tx and Rx
> >transducers, oscillator and detector circuits, batteries, and a row of LED's
> >to indicate distance of targets, same concept as an A-scope but using
> >brightness to indicate signal strength. I will fit sockets to allow
> >connection to an oscilloscope for a proper A-scope display.
> >
> >Range is stated as 5 metres.
> >
> >When I get a 'round tuit' I might write a letter to Practical Wireless about
> >amateur radar.
> >
>
> But that's sonar! I did something similar for a school project a long time
> ago... fun, but not radar. The only time I've done anything like amateur radio
> was when I was a friend's shack playing with their EME equipment. I did some
> clumsy morse, and a moment later it came back having bounced off some large
> lump of rock nearby.
>
> R
>
>
>

3222. HELP need 305Khz resonator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 11:37:08 UTC
From: deyoreo@re.ray.com
Message-ID: <3b0a4f24.1703339@proxy.res.ray.com>
Source record: 52568

Anyone know where I can get a 305Khz ceramic resonaror, QUICK? Best I found was 4-6 weeks.

3223. equivalent M752 & M739 on DMM HP3465a in TO220 ? in a HP3465a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 13:29:02 UTC
From: poissondanlo@aol.com
Message-ID: <20010522092902.01278.00000863@ng-fb1.aol.com>
Source record: 52569

HI,
I am very unhappy because my father gived me a digital volt/amp/ohm HP3465a
1982 's and the DMM coming out
in the power supply bord , on Q1(M739, motorola) , there is 8 volts on central
pin , and nothing on others
it seems to be a voltage regulator or an TO220 transistor like a darlington
TIP32 or other
is someone can tel me european equiv. for M752 and M739 or diagram of the DMM ?
is there an US/Europe table of these parts ?
i will be happy if someone can scan these table
73's
Serge

escuses me for appromative langage

french translation
Bonjour
suis bien ennuyï¿½ avec un ancien voltmetre digital de 1982 Sur un HP 3465a ,
l'appareil ne fonctionne plus , la basse tension s' arrete apres ces 2 betes
pourrait t il s'agir de regulateurs to220 ou darlington ou genre TIP32 ou
autres ?
sur le M752 , la pin centrale il arrive le 8 V mais rien n'en sort
Cordiales salutations
Serge

3224. what is the US electronic forum ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 13:31:51 UTC
From: poissondanlo@aol.com
Message-ID: <20010522093151.01278.00000865@ng-fb1.aol.com>
Source record: 52570

hi,
i will be happy if someone give me the US electronic forum adress
good afternoon
Serge
excuse me for approximative US langage
F5JTM /french hamradio

3225. Re: Superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 13:46:55 UTC
From: troglodite@aol.com
Message-ID: <20010522094655.28817.00001652@ng-fc1.aol.com>
Source record: 52571

>Though
>nothing comes to mind at the moment, I thought there were reasons why
>superregens helped to pioneer the higher frequencies rather than
>the regen.

You'll see a lot of them in Handbooks of the 40's. They offered a lot for such a simple circuit. They have natural noise immunity, and very good sensitivity. The "rushing noise" of the squegging oscillator is soothing if you have the right kind of personality. Their biggest drawback was re-radiation, which could be solved by adding a broadly tuned preamp stage.

Doug Moore

3226. RICOHET INTERNET MOBLIE FREQ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 18:00:38 UTC
From: Bill N0MNB <N0MNB@MINN.NET>
Message-ID: <uOxO6.292$SM.13634@news.corpcomm.net>
Source record: 52572
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.space,rec.radio.amateur.swap

ANYONE KNOW WHAT FREQ THERE ON.
THANKS BILL

3227. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 18:14:38 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B0AAC8E.F0AEED59@buttery.org>
Source record: 52574

WB8RCR wrote:
>
> Take a look at the Elecraft K1 schematic. This has a lot of the stuff you
> are looking for - 2 bands, precise frequency control, the 2 bands can be
> whatever you like, all in a relatively low cost radio. The manual, with
> schematic and circuit description is available online. They did maybe go a
> little overboard with the PICs, with all the options this low end radio has
> 4 computers in it! But they do have some ingenious schemes to use the PICs
> to reduce the parts count. I don't like their LCD choice, I would go for an
> LCD with a Hitachi controller and more digits, but then, I only need to buy
> one, not a thousand.

I think that Elecraft went with the LCDs that they chose for the K1 (and K2), rather than with character modules, because they could get bigger digits than the affordable modules offer. (The modules were also a lot more expensive a couple of years ago than they are now, so that may have been a factor.) Their approach may also use less power. The dot matrix modules are a lot more flexible, though, and the power consumption of the reflective versions isn't too bad.

As for the multiple microcontrollers, they are actually an elegant solution to the interconnect problem. If they didn't use a separate PIC on each board, they would have to run multiple control lines. With the PICs, they only need a single control line, simplifying the interboard connections considerably.

3228. Re: equivalent M752 & M739 on DMM HP3465a in TO220 ? in a HP3465a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 19:26:50 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-2205011226500001@dhcp-40-141.caltech.edu>
Source record: 52575

In article <20010522092902.01278.00000863@ng-fb1.aol.com>,
poissondanlo@aol.com (POISSONDANLO) wrote:

>HI,
>I am very unhappy because my father gived me a digital volt/amp/ohm HP3465a
>1982 's and the DMM coming out
>in the power supply bord , on Q1(M739, motorola) , there is 8 volts on central
>pin , and nothing on others
>it seems to be a voltage regulator or an TO220 transistor like a darlington
>TIP32 or other
>is someone can tel me european equiv. for M752 and M739 or diagram of the DMM ?
>is there an US/Europe table of these parts ?
>i will be happy if someone can scan these table
>73's
>Serge
>
>escuses me for appromative langage
>
>french translation
>Bonjour
>suis bien ennuy&#65533; avec un ancien voltmetre digital de 1982 Sur un HP 3465a ,
>l'appareil ne fonctionne plus , la basse tension s' arrete apres ces 2 betes
>pourrait t il s'agir de regulateurs to220 ou darlington ou genre TIP32 ou
>autres ?
>sur le M752 , la pin centrale il arrive le 8 V mais rien n'en sort
>Cordiales salutations
>Serge

I have manual and it lists Q1 as a Motorola MJE2100. H/P part number
1854-0701. The Zener connect to it's base is a 5.23 volt .4 watt. Parts
are located on board A10A6 part number 03465-66506. Tom WB6IQD

3229. Re: equivalent M752 & M739 on DMM HP3465a in TO220 ? in a HP3465a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 19:33:44 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-2205011233440001@dhcp-40-141.caltech.edu>
Source record: 52576

In article <20010522092902.01278.00000863@ng-fb1.aol.com>,
poissondanlo@aol.com (POISSONDANLO) wrote:

>HI,
>I am very unhappy because my father gived me a digital volt/amp/ohm HP3465a
>1982 's and the DMM coming out
>in the power supply bord , on Q1(M739, motorola) , there is 8 volts on central
>pin , and nothing on others
>it seems to be a voltage regulator or an TO220 transistor like a darlington
>TIP32 or other
>is someone can tel me european equiv. for M752 and M739 or diagram of the DMM ?
>is there an US/Europe table of these parts ?
>i will be happy if someone can scan these table
>73's
>Serge
>
>escuses me for appromative langage
>
>french translation
>Bonjour
>suis bien ennuy&#65533; avec un ancien voltmetre digital de 1982 Sur un HP 3465a ,
>l'appareil ne fonctionne plus , la basse tension s' arrete apres ces 2 betes
>pourrait t il s'agir de regulateurs to220 ou darlington ou genre TIP32 ou
>autres ?
>sur le M752 , la pin centrale il arrive le 8 V mais rien n'en sort
>Cordiales salutations
>Serge

I looked up the MJE2100 and its equivalent is a TIP120. Any 8 amp 60 Volt
Darling to should do. 73 Tom WB6IQD

3230. Re: equivalent M752 & M739 on DMM HP3465a in TO220 ? in a HP3465a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 19:35:19 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-2205011235190001@dhcp-40-141.caltech.edu>
Source record: 52577

In article <20010522092902.01278.00000863@ng-fb1.aol.com>,
poissondanlo@aol.com (POISSONDANLO) wrote:

>HI,
>I am very unhappy because my father gived me a digital volt/amp/ohm HP3465a
>1982 's and the DMM coming out
>in the power supply bord , on Q1(M739, motorola) , there is 8 volts on central
>pin , and nothing on others
>it seems to be a voltage regulator or an TO220 transistor like a darlington
>TIP32 or other
>is someone can tel me european equiv. for M752 and M739 or diagram of the DMM ?
>is there an US/Europe table of these parts ?
>i will be happy if someone can scan these table
>73's
>Serge
>
>escuses me for appromative langage
>
>french translation
>Bonjour
>suis bien ennuy&#65533; avec un ancien voltmetre digital de 1982 Sur un HP 3465a ,
>l'appareil ne fonctionne plus , la basse tension s' arrete apres ces 2 betes
>pourrait t il s'agir de regulateurs to220 ou darlington ou genre TIP32 ou
>autres ?
>sur le M752 , la pin centrale il arrive le 8 V mais rien n'en sort
>Cordiales salutations
>Serge

I looked up the MJE2100 and its equivalent is a TIP120. Any 8 amp 60 Volt
Darlington should do. 73 Tom WB6IQD

3231. WTB pair of 8908 tubes for a linear amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 19:49:26 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B0AC2C6.E27A0C6F@nf.sympatico.ca>
Source record: 52578
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Pair 8908 tubes wanted by my associate who is a licensed radio amateur.
Suggestions/Advice regarding a source and what approximate cost per tube
might be would be welcomed. Thank you.
BTW are there any direct equivalents to the 8908?
Terry.

3232. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 21:05:28 UTC
From: GeoffB <geofftb@btinternet.com>
Message-ID: <9eekducnv1@neptunium.btinternet.com>
Source record: 52579
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

You will need to generate some short duration pulses (a few milliseconds),
and then repeat them at a rate known as the pulse repatition frequency
(PRF). The range of the radar depends on this frequency, and also the rate
of the rotation of the scanner head (aerial), basically the lower the prf
and speed of rotation the greater the range.
Another crucial part is to switch the transmitter and receiver at a fairly
quick speed, pin diodes may be okay up to a few Ghz, or even better use a
circulator to isolate the Rx from the large Tx pulses, that way you could
leave the Rx running.
The PRF generator could be buffered to fire the timebase of an
oscilloscope...
Talking of scope, there is definately plenty of scope for experimentation,
dunno what the RA would make of it, but sounds like a fun project .

Best of luck.
Geoff (G8PPQ).

"squilsh" <squilsh@ntlworld.com> wrote in message
news:v%gO6.9656$m93.1364874@news6-win.server.ntlworld.com...
> lwilliams <lwilliams@guernsey.net> wrote in message
> news:3b059bda.0@news.guernsey.net...
> > Worked on the collision avoidance radar (Philips) for BMW, Merc, Volvo,
GM
> > etc, 77Ghz
> > <pkearn@eircom.net> wrote in message
> news:3ad63215.1175650@news1.tinet.ie...
> > > "squilsh" <squilsh@ntlworld.com> wrote:
> > > ::Has anybody considered doing amateur radar?
> > >
> > > Yes. years ago around late 1980's
> > >
> > > thought of 432mhz or use a Solfan Head using FMCW on 3cms
> > >
> > > main reason for my interest in all this Radar:
> > > I am involved in Aero Radar (fixing of) and have always wondered
> > > if I could get something going to at least see if its ''do-able''
> > > without a huge r'n'd department behind me.
> > >
> > >
> > > Either way.
> > > I wish you all the best with your experiments.
> > >
> > > Its nice to see someone WONDERING OUT LOUD.
> >

> >
> I'm currently halfway through building a simple ultrasonic pulse radar,
from
> a design in the book "Electronic Projects for Experimenters", by Robert
> Penfold, published by Babani.
>
> This consists of a hand-held box containing ultrasonic Tx and Rx
> transducers, oscillator and detector circuits, batteries, and a row of
LED's
> to indicate distance of targets, same concept as an A-scope but using
> brightness to indicate signal strength. I will fit sockets to allow
> connection to an oscilloscope for a proper A-scope display.
>
> Range is stated as 5 metres.
>
> When I get a 'round tuit' I might write a letter to Practical Wireless
about
> amateur radar.
>
>
>
>
>
>
>

3233. Re: equivalent M752 & M739 on DMM HP3465a in TO220 ? in a HP3465a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 21:57:53 UTC
From: poissondanlo@aol.com
Message-ID: <20010522175753.25550.00001073@ng-ca1.aol.com>
Source record: 52580

Hello
Many thinks Tom
it seem dead , nothing on other pins
do you tell me about Q1 & Q2 ?
good afternoon
Serge/F5JTM

3234. Need HTX-212 Schematic Radio Shack

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-22 22:49:06 UTC
From: Duffer <hduff@ica.net>
Message-ID: <3B0AECE2.14B8A455@ica.net>
Source record: 52581
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hi there.
I am in need of a copy of the schematic for the Radio Shack HTX-212
2 meter mobile. The TX just crapped out on mine.

Please reply by e-mail.

Tnx de VA3TO

3235. FA: Tektronix 494P, excellent condx, w/manuals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 01:07:45 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B0B0F4F.6C3F@pop.removethistomailme.net>
Source record: 52582

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1600469858

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3236. Re: Superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 01:53:09 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <9KEO6.20986$v5.1650803@news1.rdc1.ct.home.com>
Source record: 52583

They also have an inherent AGC quality.

Pete

"Troglodite" <troglodite@aol.com> wrote in message
news:20010522094655.28817.00001652@ng-fc1.aol.com...
> >Though
> >nothing comes to mind at the moment, I thought there were reasons why
> >superregens helped to pioneer the higher frequencies rather than
> >the regen.
>
> You'll see a lot of them in Handbooks of the 40's. They offered a lot for
such
> a simple circuit. They have natural noise immunity, and very good
sensitivity.
> The "rushing noise" of the squegging oscillator is soothing if you have
the
> right kind of personality. Their biggest drawback was re-radiation, which
could
> be solved by adding a broadly tuned preamp stage.
>
> Doug Moore
>

3237. earphones for crystal set

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 02:00:14 UTC
From: "Charles T. Young" <ctyoung@mtu.edu>
Message-ID: <tgm6de93blp093@corp.supernews.com>
Source record: 52584

So, I know how to build a crystal set. But, in the old days, we had magnetic earphones (nominally 2000 ohms). I still have a set. If I put those on a crystal set (with a good antenna and ground), I get LOTS of volume. I could probably drive a speaker if I could match impedances correctly. There are earphones that look a bit like this in the Antique Radio Supply catalog for about $20.

I have bought crystal sets with the stick-it-in-your-ear "crystal" earphones from Radio Shack and have bought "crystal" earphones from Antique Radio Supply. The volume available from these is PITIFUL compared to my ancient magnetic earphones. So the question comes up WHY?

Furthermore, I happened to be a judge at a science fair this year. This time, I saw a poor kid trying to make a crystal set with a pair of walkman type (low impedance) earphones. (Well, he followed the instructions in the old science book ...), But, you know its not going to work. You also know that the problem is impedance and sensitivity and that you are not going to be able to communicate that to the kid.

So, somewhere, somehow, someone has to know what we can do in the 21st century to help beginners make an honest crystal set. Maybe there is some adaptation we can do on those walkman earphones. An output transformer? I tried a little output transformer from Radio Shack and it didn't work. (Of course we know that we can make a one transistor impedance matcher/amplifier for the crystal set, but then that would be a crystal set anymore.)

The crystal set is such a nice lesson in basic radio. Four parts plus antenna and ground and you have a real radio. I hope we can find a solution.

If you have a solution, I would appreciate hearing about it via email, 'cause our newsgroup connection is so slow I don't use it much.

Thanks

Chuck

ctyoung@mtu.edu

3238. Re: earphones for crystal set

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 02:05:49 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <1WEO6.20990$v5.1653457@news1.rdc1.ct.home.com>
Source record: 52585

I use a pair of Deck Talker sound operated headphones
made by Dynalec. The impedance is only a 30 or
50 ohms, but the trick is using an extremely
high quality mike input transformer for matching.

You really need to check out the Crystal Set club
on Yahoo.

Peter

"Charles T. Young" <ctyoung@mtu.edu> wrote in message
news:tgm6de93blp093@corp.supernews.com...
> So, I know how to build a crystal set. But, in the old days,
> we had magnetic earphones (nominally 2000 ohms). I still have
> a set. If I put those on a crystal set (with a good antenna
> and ground), I get LOTS of volume. I could probably drive a speaker
> if I could match impedances correctly. There are earphones that
> look a bit like this in the Antique Radio Supply catalog for about
> $20.
>
> I have bought crystal sets with the stick-it-in-your-ear
> "crystal" earphones
> from Radio Shack and have bought "crystal" earphones from
> Antique Radio Supply. The volume available from these is
> PITIFUL compared to my ancient magnetic earphones. So the question
> comes up WHY?
>
> Furthermore, I happened to be a judge at a science fair this
> year. This time, I saw a poor kid trying to make a
> crystal set with a pair of walkman type (low
> impedance) earphones. (Well, he followed the instructions in the
> old science book ...), But, you know its not going to
> work. You also know that the problem is impedance and sensitivity
> and that you are not going to be able to communicate that to
> the kid.
>
> So, somewhere, somehow, someone has to know what we can do in
> the 21st century to help beginners make an honest crystal set.
> Maybe there is some adaptation we can do on those walkman earphones.
> An output transformer? I tried a little output transformer from
> Radio Shack and it didn't work. (Of course we know that we can make
> a one transistor impedance matcher/amplifier for the crystal set,
> but then that would be a crystal set anymore.)
>
> The crystal set is such a nice lesson in basic radio. Four parts

> plus antenna and ground and you have a real radio. I hope we can
> find a solution.
>
> If you have a solution, I would appreciate hearing about it
> via email, 'cause our newsgroup connection is so slow I don't use
> it much.
>
> Thanks
>
> Chuck
>
> ctyoung@mtu.edu
>
>

3239. Need PIN Diode Data

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 02:12:49 UTC
From: "Stephen P. Johnson" <stephen.p.johnson@worldnet.att.net>
Message-ID: <B0FO6.38034$4f7.2876394@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52586

Need a datasheet for a Frequency Sources KS1001 PIN
diode.

Steve Johnson, N2FT

3240. Read QSTs on your Mac!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 03:03:14 UTC
From: Bis Wichy <wd0hco@ev1.net>
Message-ID: <3b0b2880_2@newsa.ev1.net>
Source record: 52587

Well, we all know the ARRL sells old QSTs on CD-ROMS for Windows machines -ONLY-.

But what about Macs? We -> ARE <- 12% of the market after all. (AND GROWING!)

Well - NOW - you can do it and the program is FREE.... Yeah -> FREE!

Written by a Ham (me) for other fellow Hams running iMacs and Powerbooks.

I got other MAC radio software I have written as well. Use most of it everyday, in fact.

Free for the rippin' ... so get to it.

http://www.megacycles.com

-Biz WD0HCO

3241. Re: Need PIN Diode Data

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 03:05:29 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <v6amgtogl3n8nchin6c730sijms5fqmf4p@4ax.com>
Source record: 52590

Have you looked here:
http://www.microsemi.com/corporate/products/rf/pinbook.asp

Danny, K6MHE

On Wed, 23 May 2001 02:12:49 GMT, "Stephen P. Johnson"
<stephen.p.johnson@worldnet.att.net> wrote:

>Need a datasheet for a Frequency Sources KS1001 PIN
>diode.
>
>Steve Johnson, N2FT
>

3242. Re: RICOHET INTERNET MOBLIE FREQ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 03:15:20 UTC
From: John Bradley <k5mwe@austin.rr.com>
Message-ID: <cXFO6.18722$y_3.7121855@typhoon.austin.rr.com>
Source record: 52588
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.space,rec.radio.amateur.swap

Bill,

I think they are 902-928 MHz Part 15 spread spectrum devices (FH).

73, John

"Bill N0MNB" <N0MNB@MINN.NET> wrote in message
news:uOxO6.292$SM.13634@news.corpcomm.net...
> ANYONE KNOW WHAT FREQ THERE ON.
> THANKS BILL
>
>

3243. Re: FS: IC706/ant./swr/wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 03:46:16 UTC
From: mf <mavericktcf@bellsouth.net>
Message-ID: <3B0B3288.5A2D27BF@bellsouth.net>
Source record: 52589
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi Fred
sounds good
what brand is the screwdriveer does it has the tuning head and cables. any
pics?
chris ni4l

fred-palmer wrote:

> FS: by Fred WA5WZD
> Reduced price, need the cash! ICOM IC-706 Mk1 in excellent condition
> with box and packing. Power cord (about 6 ft) and all written material.
> Included is a good working screwdriver antenna with the mounts used on a
> pickup tool box and braces. Also included is an MFJ-815B HF peak reading
> SWR/Wattmeter. This is the cross needles meter and makes tune up very easy.
> The tuning system uses the inductor shunt at the base that allows tune up
> any where within the HF range instead of having to switch caps with relays.
> I'm an ex ICOM manager in Dallas so it's been treated with kid gloves.
> Most operation has been on 40m and 2m ssb.
> Asking $650 for the package and buyer pays a nominal shipping fee of $25
> insured. Fred fred-palmer@msn.com 940-321-2029

3244. Re: Dentron MLA2500 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 04:17:28 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <sRGO6.300$9d.52978@newshog.newsread.com>
Source record: 52591

"Tom W8JI" <2w8ji@akorn.net> wrote in message
news:3ae0e670.445362553@news.accessunited.com...
> On Fri, 20 Apr 2001 06:48:15 -0400, Bill Russell
> <willy@global2000.net> wrote:
>
> >I am doing the modification to the MLA2000 outlined in the May 96
> >article adding a 4CX800A. I have noticed a couple of mistakes on the
> >schematic. I tried to email the author but the address is no longer
> >active. Does anyone know where I can get a corrected schematic.
> >Thanks much,
> >Bill Russell
>
> I'm not so sure that is a good mod to make Bill. The screen regulation
> will be poor, and it overloads the transformer winding.
>
> It also drives too easy.

Go swamped grid, or passive as in my HT-33B, however I'd agree that the
regulation will most likely be poor. If I were going to use one of the
bigger 4CX series, I'd want a better power supply.

Roger (K8RI)
>
> As I recall there were some backwards electrolytic capacitors in the
> schematic of the voltage multiplier system.

3245. Re: off topic, 10 meter amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 04:29:17 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <x0HO6.302$9d.53583@newshog.newsread.com>
Source record: 52592

"Jim" <inagaddadavida@webtv.net> wrote in message
news:10559-3AE34A42-19@storefull-116.iap.bryant.webtv.net...
> first, to clear any confusion let it be understood that "babbit" is my
> wifes account. it was still me in an earlier post. the consensus of my
> private e-mail responses leads me to believe that this amp must be
> useless cb junk. i am slightly disappointed but i got what i wanted,
> answers. now let me eat crow here. i said that i didnt need moral input,
> but now i am asking for just that. as HAMS, and knowing that this
> useless junk has more value when used illegally, would you throw it
> into the parts box

I've used things that were far, far, more expensive than that rig for parts.
<LOL>

I finally cleaned out the parts box and sold off a lot of it. Now I wish I
had a lot of it back. <sigh>

Roger (K8RI)

>or would you put it back into circulation? i could
> possibly trade it for something useful if i gave it to a cb nerd. on the
> other hand, it would then be turned into a weapon of mass rf destruction
> and used against innocent hams who are minding their own business. am i
> responsible for the radio wreckage that this cb amp might cause even if
> i am not doing it myself? and if i am then would that outweigh the
> legitimate receiver or something that i might be able to trade for?
>

3246. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 04:30:35 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <L1HO6.303$9d.53811@newshog.newsread.com>
Source record: 52593

They are advertised in QAT

Roger (K8RI)

"PDRUNEN" <pdrunen@aol.com> wrote in message
news:20010422093802.10317.00000445@ng-ci1.aol.com...
> Hi Group,
>
> Is the old issues of QST available on CD?
> I do recall seeing them a few years back but now can not locate them on
> the http://www.arrl.org or amateur electronic supply web site.
>
> Thanks,
>
> Paul

3247. Battery Charger for 12V 7AH Sealed Battery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 06:54:52 UTC
From: Richard Schultz <roschult@jps.net>
Message-ID: <jcnmgtc0i4g2jjf6rpiopvd2cjpj3cc8oc@4ax.com>
Source record: 52594

Can anybody recommend a small trickle charger to charge and maintain 12V 7AH Sealed Battery? I just want to maintain a charge over long periods of time. The battery does not get used very much but when I want to use it once a month or so, I need it fully charged. Once the battery is drained I would want to charge it back up again and if it takes a full 2 days to recharge, that is ok.
Thanks in advance, Richard .

3248. meridian navigation box

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 07:39:16 UTC
From: stephen pearce <g_and_s_pearce@xtra.co.nz>
Message-ID: <3b0b6924@zfree.co.nz>
Source record: 52595

Hi,
Does anyone have info on the Navigation Communication
Systems meridian satellite navigation hardware ... other trade name involved
is intech ... it is circa 1984 and has an 8085 micro processor board in in
connected to an amphenol connector backplane.

I believe the satellite system is now inactivated .. however the box has
a nice 16*2 lcd display , 16 key pad .. micro controller board and
a 5 MHx crystal oscillator .. all quite nice

I would like to use the micro and display/keypad and box to be the basis
of a receiver I wish to build ...

If anyone has info on the hardware or firmware please let me
know

Thanks

Stephen
zl1any

http://www.zfree.co.nz

3249. Re: Battery Charger for 12V 7AH Sealed Battery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 08:32:12 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9eg3nuask1@newsg2.svr.pol.co.uk>
Source record: 52596

"Richard Schultz" <roschult@jps.net> wrote in message
news:jcnmgtc0i4g2jjf6rpiopvd2cjpj3cc8oc@4ax.com...
> Can anybody recommend a small trickle charger to charge and maintain
> 12V 7AH Sealed Battery? I just want to maintain a charge over long
> periods of time. The battery does not get used very much but when I
> want to use it once a month or so, I need it fully charged. Once the
> battery is drained I would want to charge it back up again and if it
> takes a full 2 days to recharge, that is ok.
> Thanks in advance, Richard .
==========
For a comprehensive article on a sealed (lead acid) battery charger see
QST -May 2001 , pages 43 - 47

Good Luck

Frank gm0csz.kn6wh@ukrs.org

3250. Radio Mods Library

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 14:22:22 UTC
From: Daniel Hicks <w8mmq-no-spam@email.com>
Message-ID: <3b0bc89e$0$88186$2c3e98f8@news.voyager.net>
Source record: 52447

Check out the W8MMQ Antique Radio Page:
http://www.w8mmq.com/

Also, check out the W8MMQ Radio Mods Library:
http://www.w8mmq.com/mods/

3251. Prom programmer information?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 15:49:40 UTC
From: "tr.wiltshire" <tr.wiltshire@ntlworld.com>
Message-ID: <s_QO6.17406$yA4.3370153@news2-win.server.ntlworld.com>
Source record: 52449

Hi guys

I've got myself a Prom Programmer made by Data I/O of Redmond, Washington in 1984. It's a Model S22 Version VO2 and I'm trying to obtain some spec, and driving instructions. Anybody got a manual? I'll cheerfully pay costs, 'cos I'd really like to get my Storno and Midland ex-pmr rigs reprogged.

73 de Trevor, G8AKA in uk

3252. Re: where to find QST on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 15:50:39 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <j%QO6.2773$gA.1072608@monger.newsread.com>
Source record: 52448

"Roger Halstead" <rdhalste@tm.net> wrote in message
news:L1HO6.303$9d.53811@newshog.newsread.com...
> They are advertised in QAT

QAT?? How about QST.
That's what I get for typing a post after midnight.

Roger (K8RI)

>
> Roger (K8RI)
>
>
> "PDRUNEN" <pdrunen@aol.com> wrote in message
> news:20010422093802.10317.00000445@ng-ci1.aol.com...
> > Hi Group,
> >
> > Is the old issues of QST available on CD?
> > I do recall seeing them a few years back but now can not locate them on
> > the http://www.arrl.org or amateur electronic supply web site.
> >
> > Thanks,
> >
> > Paul
>
>

3253. Icom706MkIIG HL Linear Key Line Modification

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 16:03:49 UTC
From: jackgxyz@one.net
Message-ID: <tgnnpkgoqa9a4@corp.supernews.com>
Source record: 52450

Hi,

If you are interested in adding an HF linear keying connector to your 706MkIIG
without having to use the 13 pin ACC connector and an external relay box,
check my web page.

http://w3.one.net/~jackg/

Emails? Please remove the xyz from the email address.

3254. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 20:28:40 UTC
From: geoff@nospam.demon.co.uk
Message-ID: <oh6he9.7qc.ln@nospam.demon.co.uk>
Source record: 52469
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

GeoffB <geofftb@btinternet.com> wrote:
> You will need to generate some short duration pulses (a few milliseconds),
> and then repeat them at a rate known as the pulse repatition frequency
> (PRF). The range of the radar depends on this frequency, and also the rate
> of the rotation of the scanner head (aerial), basically the lower the prf
> and speed of rotation the greater the range.
> Another crucial part is to switch the transmitter and receiver at a fairly
> quick speed, pin diodes may be okay up to a few Ghz, or even better use a
> circulator to isolate the Rx from the large Tx pulses, that way you could
> leave the Rx running.
> The PRF generator could be buffered to fire the timebase of an
> oscilloscope...
> Talking of scope, there is definately plenty of scope for experimentation,
> dunno what the RA would make of it, but sounds like a fun project .

> Best of luck.
> Geoff (G8PPQ).

Erm the pulses will have to be a few uSecs wide at the best. A pulsed magentron and a thyratron triggerd delay like is the classic way of producing a few kW (peak) of pulsed RF. I believe that IMPATT diodes can be pulsed and I know that transistor based radars are commonplace.

The receiver is isolated by things like TR cells, circulators and 1/4 wave lines, generally PIN diodes are too slow (but not in certain specialized systems).

Of course the range is defined by things like PRF, pulse width, antennae gain aand RCS. Get a copy of Skolnic.

Methinks that a good solution may be to digitise the azimuth and use a FFT processor on the IF and trigger from the PRF generator. Feed that lot into a good bit of software on a PC (NOT windows) and simulate a raster scanned PPI display.

Incidentally the UK amateur licence used to allow pulse mod with a mean input of 25W and 25kW peak pulse on bands above 23cms - I don't know if that is still valid.

Geoff
g8gnz

--
Geoff Blake geoff (at) palaemon . co . uk Linux 2.2.15
Chelmsford Sparc - Intel
====================== A Microsoft free zone ======================

3255. pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 20:59:44 UTC
From: caheaton@my-deja.com
Message-ID: <d0372cf9.0105231259.54465c91@posting.google.com>
Source record: 52451

Hello...recently here at work I had to ditch an "old" IBM 486SX pc into the dumpster. Being the good ham that I am, I first stripped it for parts. (Saved the drives, screws, cables, LED's, power supply, RAM, etc.) Last night I noticed that the rechargable lead acid battery (sealed) I use as my HT's 'base station' power supply no longer seems to be holding a charge. My idea is this...how suitable is an AT power supply for use as a ham power supply. I did a little research and supposedly these units are not good at providing stable power unless all voltage outputs are under load. Is this true? The power supply I have is rated (among its many ratings) 12V at 8 amps. This seems like it would be perfect for powering the HT. Anybody have any experience with this? I did put a volt meter on the supply while it was without any load (except for the exhaust fan built into the unit) and the meter read a little over 11 volts.
Craig KB8FGC

3256. Anyone Use MC1489 for MAX232 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 21:35:03 UTC
From: w1ksz@tiac.net
Message-ID: <3b0c2cad.1373498@news.tiac.net>
Source record: 52452

I am trying to use a MC1489 chip instead of the MAX232 chip (less components). Has anyone had any success ? I have a couple of questions.

Thanks, Dick, W1KSZ

3257. Re: Anyone Use MC1489 for MAX232 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-23 22:54:49 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3B0C3FA4.27B0641F@cmcorp.com>
Source record: 52453

You need a 1488 and a 1489 to replace a MAX232.
You also need a +/- 15 volt source, AND a +5 volt source.
Less components, I don't think so.

w1ksz@tiac.net wrote:

> I am trying to use a MC1489 chip instead of the MAX232 chip (less
> components). Has anyone had any success ? I have a couple of
> questions.
>
> Thanks, Dick, W1KSZ

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

3258. Re: Battery Charger for 12V 7AH Sealed Battery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 00:55:19 UTC
From: brokebob@aol.com
Message-ID: <20010523205519.08114.00000994@ng-cr1.aol.com>
Source record: 52454

I use such a battery to start my model airplane engines and I charge it about once a month using a Radio Shack 12V, 500 ma DC wall rat. I never let my batter get all that low so I have no Idea how long it would take from dead but I charge my battery about 24 hours and it has worked for three years now.
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

3259. WTB: 50K 4 watt wirewound Pot

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 01:39:20 UTC
From: Michael Wachur <KA1YY@EROLS.COM>
Message-ID: <9ehoobnuh1@bob.news.rcn.net>
Source record: 52455

Looking for a 50K, 4 watt wirewound pot. Let me know if you have one you can part with, and the cost...

Thanks and 73,
Michael
K3OR
ka1yy@erols.com

3260. Re: pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 01:42:43 UTC
From: Bill & Suzie Whatley <spud@verinet.com>
Message-ID: <2EZO6.73$E_i.185509888@news.frii.net>
Source record: 52456

The power supply you have salvaged is a switching type supply. It may be usable for supplying power but it may also be noisy.

A switching supply with multiple outputs usually uses only one of the secondary outputs to provide feedback to the PWM (Pulse width modulation) circuit. That particular secondary supply is the one that needs to be properly loaded in order for the feedback system to work as expected. The feedback is commonly provided by the secondary that provides the highest power (not necessarily voltage) for the system to which it is normally connected.

Hope this info might help you get the result you want from it.

WA5VRL
Willis

3261. Re: pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 02:15:17 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u6_O6.30650$FB5.1674768@e420r-sjo3.usenetserver.com>
Source record: 52457

"Bill & Suzie Whatley" wrote ...
> The power supply you have salvaged is a switching
> type supply. It may be usable for supplying power
> but it may also be noisy.
>
> A switching supply with multiple outputs usually uses
> only one of the secondary outputs to provide feedback
> to the PWM (Pulse width modulation) circuit. That
> particular secondary supply is the one that needs to be
> properly loaded in order for the feedback system to
> work as expected. The feedback is commonly
> provided by the secondary that provides the highest
> power (not necessarily voltage) for the system to
> which it is normally connected.

And that would generally be the +5V supply to the mother board (the parallel-connected red wires on the motherboard connector(s). For the latest power supplies, this may be something less than 5V because of the requirements of modern CPU chips. (Can't run them at those 100s of MHz and GHz rates when you have to swing a full 5 volts!) VCC <1V is coming!

RC

3262. UNBUILT Heathkit GR-104C 12” black and white portable television

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 02:48:50 UTC
From: yardleyite@aol.com
Message-ID: <20010523224850.15558.00001855@ng-fo1.aol.com>
Source record: 52458

On ebay: Item# 1240560126:
unbuilt Heathkit GR-104C 12” black and white portable television. It was originally purchased through a correspondence shool electronics course (please find a picture of the postmark of Sept. 27’76). It was opened once when new to inspect the upper layer of it’s contents, and then again by me to see if everything was there and to take a picture of it’s contents out of the box to show on ebay. I also have a picture from the manual of what it looks like when completed. All components appear to be in their unused excellent original condition, and free of mildew, etc. It was stored in a bedroom closet for the last 25 years to protect it from dampness, bugs, etc and it shows it. The original factory cartons appear a bit faded but are still intact and in good condition. The CRT was never removed from it’s carton and still has the plug protecting the pins at the end of it. . I obtained this item from a friend who explained to me that he never “got around” to putting it together. I don’t think I’ll ever get “aroundtuit” since I have many other projects to complete before I could ever get to it as well. It has all factory documentation, stickers, warranty card, manual (crisp and new) and a wonderful fold out schematic etc. It was explained to me that the CRT came in a separate box to avoid shipping damage. This would make an excellent project for anyone who ever wanted to build their own Heathkit television, or just keep as is for an investment. I have never seen an unbuilt Heathkit television before, and it is likely I will never see another one like this again. I have set a very modest reserve on it so bid up and enjoy the auction. You can purchase unbuilt Heathkit test equiptment, Radios etc. but you will rarely see a television. Thank you for reading about my item and the best of luck!

3263. Re: Anyone Use MC1489 for MAX232 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 04:15:49 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <IW%O6.3963$Mr5.188729@news1.atl>
Source record: 52459

Hi Dick,

MAX233 has no external caps. Bigger DIP package, though, and costs a lot more than the newer version of the -232 and a few .1uF 50v ceramics.

1488's and 1489's are power hungry little beasties too. I quit using them a LONG time ago...

Have you downloaded the Maxim Interface chip datasheet?

73, Rory, N7CR

<w1ksz@tiac.net> wrote in message news:3b0c2cad.1373498@news.tiac.net...
> I am trying to use a MC1489 chip instead of the MAX232 chip (less
> components). Has anyone had any success ? I have a couple of
> questions.
>
> Thanks, Dick, W1KSZ

3264. Test without image

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 05:32:46 UTC
From: Lars Brandt <lov.brandt@telia.com>
Message-ID: <221P6.12208$sk3.3291326@newsb.telia.net>
Source record: 52460

This is a test for see if I can send some message of all.

3265. Re: pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 07:02:30 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B0CB206.5D25DBCF@clifto.com>
Source record: 52461

Richard Crowley wrote:
> (Can't run them at those 100s of MHz and
> GHz rates when you have to swing a full 5 volts!) VCC <1V is coming!

00 gauge wire connecting your 0.86V, 150A supply. And we thought ECL was
funky.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3266. Re: Battery Charger for 12V 7AH Sealed Battery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 07:22:18 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9ejou3$2k8$1@news6.svr.pol.co.uk>
Source record: 52473

> I use such a battery to start my model airplane engines and I charge it
about
> once a month using a Radio Shack 12V, 500 ma DC wall rat. I never let my
> batter get all that low so I have no Idea how long it would take from dead
but
> I charge my battery about 24 hours and it has worked for three years now.
> brokebob@aol.com (broke=not working, retired=not working, retired=broke)
==========
In order to give them a long useful life , these sealed and other lead acid
batteries should not be discharged below approx 11.5 Volts .
If almost continuously in a fully charged state and used very little ,it is
advisable to discharge lead acid batteries to 11.5 VS. every three months.
Some time ago ,in response to a previous message on this NG , someone
reported that to keep the battery of his vintage car (used infrequently) in
a good condition ,he discharged it at regular intervals to 11.5 VS.

Frank gm0csz.kn6wh@ukrs.org

3267. Re: Test with attached image

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 07:30:53 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <eW2P6.17840$LT4.1701638@e420r-sjo2.usenetserver.com>
Source record: 52462

"Lars Brandt" <lov.brandt@telia.com> wrote ...
> This is only a test for see if I can attach an image on this server.

Mr. Brandt,
You have transgressed two major Usenet newsgroup rules:

1) NEVER (never, Never) post attachments, particularly binaries (pictures, documents, rich text, HTML, etc.) in a text-only newsgroup. It not only violates the charter, but also makes it difficult for people with text-only newsreaders, not to mention those who must pay by the minute for connectivity.

Furthermore, it jeopardizes the very existence of this newsgroup because many newsservers are not equipped with sufficient disk buffer size to handle large postings to what ought to be text-only newsgroups. News server administrators have been known to drop newsgroups that did not abide by the no-binaries charter.

2) AVOID posting "test" messges to regular newsgroups. Please use "test" newsgroups for testing your posting mechanism. There are literally dozens of them to choose from and nobody cares what you post to them.

If you wish to reference an image or other binary document, post it on the internet and provide a URL pointer to it. You have posted this image here twice now. Please stop. Following the rules makes it easier on everybody.

RC

3268. Re: Battery Charger for 12V 7AH Sealed Battery

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 07:51:48 UTC
From: griffin@larpcook.com
Message-ID: <GDtxuC.64u@larpcook.com>
Source record: 52463

Quoth Richard Schultz (roschult@jps.net):
> Can anybody recommend a small trickle charger to charge and maintain
> 12V 7AH Sealed Battery? I just want to maintain a charge over long
> periods of time. The battery does not get used very much but when I
> want to use it once a month or so, I need it fully charged. Once the
> battery is drained I would want to charge it back up again and if it
> takes a full 2 days to recharge, that is ok.
> Thanks in advance, Richard .

I built such a charger, albeit for a 9.5Ah battery. Look at
http://www.larpcook.com/ham/charger.gif for the schematics.

73,
Jens, DB9LL
--
You can't out-sarcasm reality.

3269. Alinco's DJC1T Antenna Modifcation?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 08:41:48 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010524044148.22020.00000854@ng-mj1.aol.com>
Source record: 52464

Hi All,

I was wondering if anyone here has modified a DJC1T for an external antenna?
If so which connector did you use? SMA?

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3270. Re: pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 10:39:32 UTC
From: N3WWN <n3wwn@futuretek.cx>
Message-ID: <4hkje9.tbe.ln@ns2.ecommanagement.com>
Source record: 52474

Hi Craig!

I've used several single AT power supplies to power different projects.

The only time I;ve had a problem running off the 12v output is, on one supply, there is a "heart beat" that is only present during transmit. Receive is perfect.

If you use the 12v output of an AT power supply, ask for some signal quality reports to make sure you aren't introducing noise or "heart beats" into your transmissions. Also, if you're within range of a repeater which supports DVR (digital voice recorder, I believe) tests, you can tell the repeater to record the next transmission, which it then replays back to you. This feature of some repeaters can be invaluable when aiming directional antennas or troubleshooting radios!

Using a different supply solved my heart beat issue, so not all AT power supplies are alike.

If you're in need of a power supply which is more stable and more power, check out:
http://www.antennex.com/preview/archive3/powers.htm

This article by August Hoecker, W8MIA, describes how to use the +5v outputs from several AT type PC power supplies to build a quite functional power supply.

I've built one of these using 3 power supplies rated 5v @ 20amp and can pull about 22-24amps before the supplies shut down.

One major advantage to this setup instead of using the +12v of the PC PSU is that the +12v drops significantly under high loads. My supplies drop to about 10.8-11v when I approach the amp limit of the 12v output. By wiring the supplies in series and fiddling with the 5v regulator pot, under zero load the supply outputs 14.2v and under a small load (less than 2amps) the voltage drops to 13.9v and stays there under all loads up to the 22-24amp upper limit.

As the article will tell you, BE CAREFUL! There are very high voltages in these supplies and you must be careful modifying the supplies to work in series!

August was excellent in answering all of my questions and loves to hear of success stories!

Here is another article:
http://www.procooling.com/articles/html/on_da_edge_of_psu_technology.shtml

This one references August's article and goes into further detail in a couple places.

Keep in mind, this supply is flexible! With my 3 supplies, I have outputs for +5v, +9.5v, and +13.9v outputs (by tapping between the supplies) rated at about 20amps as well!

I hope this helps! Let me know if you have any questions (reply via e-mail).

Good luck and 73,

-Rich
N3WWN

In article <d0372cf9.0105231259.54465c91@posting.google.com>, "Craig KB8FGC" <caheaton@my-deja.com> wrote:

> Hello...recently here at work I had to ditch an "old" IBM 486SX pc into
> the dumpster. Being the good ham that I am, I first stripped it for
> parts. (Saved the drives, screws, cables, LED's, power supply, RAM,
> etc.) Last night I noticed that the rechargable lead acid battery
> (sealed) I use as my HT's 'base station' power supply no longer seems to
> be holding a charge. My idea is this...how suitable is an AT power
> supply for use as a ham power supply. I did a little research and
> supposedly these units are not good at providing stable power unless all
> voltage outputs are under load. Is this true? The power supply I have
> is rated (among its many ratings) 12V at 8 amps. This seems like it
> would be perfect for powering the HT. Anybody have any experience with
> this? I did put a volt meter on the supply while it was without any
> load (except for the exhaust fan built into the unit) and the meter read
> a little over 11 volts.
> Craig KB8FGC

3271. Re: Test with attached image

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 12:04:17 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B0CF8C1.34C7069@coqui.net>
Source record: 52465

Many non-binary news servers will reject a photo attachment, on either
or both the receiving or transmitting side. Its a question of saving
storage space. Your one photo may cause 50 or so text posts to expire
prematurely. As a result, its considered bad practice to post them.
You can use alt.binaries.pictures.radio

Regards,
Bill WX4A

Lars Brandt wrote:
>
> This is only a test for see if I can attach an image on this server.
>
> [Image]
servers
--

Bill Meacham
Vieques, PR

3272. Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 13:35:28 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9gq0dq.9op.w9wi@linux1.localdomain>
Source record: 52466

I'm working on an antenna-switching project. Had hoped to use a Basic Stamp, but I forgot to read the specs before starting - and found the Stamps don't have nearly enough I/O.. so I'm looking for suggestions on other devices/boards..

I need at least 10 digital inputs and at least 10 digital outputs. (12 of each would be real nice. No analog or serial I/O necessary.) I've never worked with microcontrollers before, so something with flash or some other form of reprogrammable program memory is important. External EPROMs will do. (the chances I'll get the software right on the first try are essentially zero!) Needs to be reasonably priced - $150 or less for the controller and any "glue"/monitor ROMs/etc. Size, speed, and power consumption are not important. (I have even considered using a PC with ISA I/O cards though the I/O cards seem to fail the price criteria)

Suggestions anyone? Thanks!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3273. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 15:17:01 UTC
From: Rory Davis <n7cr@bellsouth.net>
Message-ID: <kC9P6.4293$Mr5.206123@news1.atl>
Source record: 52467

PIC 16F877 has 40 pins, 33 i/o ports, built in UART, 8K Flash program storage, lots of register RAM. Do-all-be-all piece of silicon wizardry.

Development kit can be as cheap as FREE (MPLAB/ASM available on website) if you homebrew a programmer, but their ICD is about $150 which will program any of the 87x parts plus give a nice little platform to test circuits. Chip is available in stock from Digikey. You can also get various flavors of C and BASIC if you're not an assembly language fanatic.

http://www.microchip.com

You can also increase the number of ports on a Stamp with some latches. I did a 16 x 16 (yes, 16 receivers looking at 16 antennas, any receiver with any antenna) antenna switching matrix project a few years ago with some HCT 16 port latches, optoisolators, a PIC 16C84, and about 2000 bucks worth of hybrid splitters and MMICs from MCL.

"Doug Smith " <w9wi@linux1.localdomain> wrote in message news:slrn9gq0dq.9op.w9wi@linux1.localdomain...
> I'm working on an antenna-switching project. Had hoped to use a Basic
> Stamp, but I forgot to read the specs before starting - and found the Stamps
> don't have nearly enough I/O.. so I'm looking for suggestions on other
> devices/boards..
>
> I need at least 10 digital inputs and at least 10 digital outputs. (12 of
> each would be real nice. No analog or serial I/O necessary.) I've never
> worked with microcontrollers before, so something with flash or some other
> form of reprogrammable program memory is important. External EPROMs will
> do. (the chances I'll get the software right on the first try are
> essentially zero!) Needs to be reasonably priced - $150 or less for the
> controller and any "glue"/monitor ROMs/etc. Size, speed, and power
> consumption are not important. (I have even considered using a PC with ISA
> I/O cards though the I/O cards seem to fail the price criteria)
>
> Suggestions anyone? Thanks!
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
>

3274. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 16:59:27 UTC
From: Randy Ott <k5hj@qsl.net>
Message-ID: <J4bP6.34$Tq3.20102@nnrp3.sbc.net>
Source record: 52468

Doug,

You might want to look at the Atmel AVR series. You can get the entire development system for about $80. See http://www.atmel.com/atmel/ad/mcu_order.html for information.

Randy Ott K5HJ

"Doug Smith " <w9wi@linux1.localdomain> wrote in message news:slrn9gq0dq.9op.w9wi@linux1.localdomain...
> I'm working on an antenna-switching project. Had hoped to use a Basic
> Stamp, but I forgot to read the specs before starting - and found the Stamps
> don't have nearly enough I/O.. so I'm looking for suggestions on other
> devices/boards..
>
> I need at least 10 digital inputs and at least 10 digital outputs. (12 of
> each would be real nice. No analog or serial I/O necessary.) I've never
> worked with microcontrollers before, so something with flash or some other
> form of reprogrammable program memory is important. External EPROMs will
> do. (the chances I'll get the software right on the first try are
> essentially zero!) Needs to be reasonably priced - $150 or less for the
> controller and any "glue"/monitor ROMs/etc. Size, speed, and power
> consumption are not important. (I have even considered using a PC with ISA
> I/O cards though the I/O cards seem to fail the price criteria)
>
> Suggestions anyone? Thanks!
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
>
>

3275. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 18:07:28 UTC
From: Martin Trump <Martin@wmeadow.demon.co.uk>
Message-ID: <gf0pnrAg3UD7Ewo5@wmeadow.demon.co.uk>
Source record: 52470
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

In article <oh6he9.7qc.ln@nospam.demon.co.uk>, geoff@nospam.demon.co.uk
writes
>Erm the pulses will have to be a few uSecs wide at the best. A pulsed
>magentron and a thyratron triggerd delay like is the classic way of
>producing a few kW (peak) of pulsed RF. I believe that IMPATT diodes can be
>pulsed and I know that transistor based radars are commonplace.

It's peak power that kills semiconductors. FMCW or Doppler radar might
be a better way to go though I don't know what the regulations say about
amateurs using this.

Regards.

--
Martin Trump

3276. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 19:08:09 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <thmqgt8ncbfa0077m08ftoheqqk98doq26@4ax.com>
Source record: 52471

On Thu, 24 May 2001 13:35:28 GMT, w9wi@linux1.localdomain (Doug Smith)
wrote:

>I'm working on an antenna-switching project. Had hoped to use a Basic
>Stamp, but I forgot to read the specs before starting - and found the Stamps
>don't have nearly enough I/O.. so I'm looking for suggestions on other
>devices/boards..
>

I use Microchip PICs with CCS C compiler and love that environment, but
you would have to learn how to do all this and get a programmer.

I haven't used the Stamp but I'm thinking, one possibility is to use the
stamp and add external shift registers for the input and output lines
you need. The stamp would use 3 lines (clock, data, enable) and the
clock and data lines can be shared between both in and out chips. I
have done this with smaller PICs to get more I/O. Its a little slower
than dedicated inputs and outputs, but probably not important in most
apps.

-Rex, KK6MK

3277. Re: pc power supply use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 19:31:12 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <h74qgtcevrm7q2k06ieqneppm4vd7au9a7@4ax.com>
Source record: 52472

On Thu, 24 May 2001 02:02:30 -0500, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>Richard Crowley wrote:
>> (Can't run them at those 100s of MHz and
>> GHz rates when you have to swing a full 5 volts!) VCC <1V is coming!

>00 gauge wire connecting your 0.86V, 150A supply. And we thought ECL was
>funky.

Most RS-232 interface chips have on chip switchers generating the
required +/-12 V lines. Why couldn't we have super fast processors
with on-chip switching regulators generating 0.86 V from +5 V or +12
V, thus avoiding the huge currents required :-). With high enough
switching frequency, the inductors and/or capacitors would not have to
be very large.

3278. Re: Steepping motor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 22:08:00 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9ek0ft$9je$1@plutonium.btinternet.com>
Source record: 52475

N1IQO <n1iqo@yahoo.com> wrote in message
news:pvzN6.2106$0e6.795568@typhoon1.ba-dsg.net...
> Hi all,
>
> Well I could use some help
> I was surfing the net and came across Magnetic Loop Antennas (looks like
> fun) so I set out to make myself one.
>
> located the page on homebrewing air caps from JO21FF (looks easy)
> Here: http://www.qsl.net/mnqrp/Loop/Mag_Loops.htm
>
> Now to remote control the cap with a stepping motor
> (Brick wall) I never even herd of a stepping motor before this.
> after some reading I find out that printers have stepping motors(cool I
have
> some old printers)
>
> This is what I pulled from one of the printers:
> Stepping Motor
> #PJJQ148ZA-K
> Volt - 4V
> Coil - 5ohm
> DEG/STEP - 1.8
> 6 - WIRE
> KYUSHU MATSUSHITA ELECTRIC CO. LTD.
>
> It's big and heavy it should work
> Now for some help
> How in the world do you control this

You need to find out how the wires are connected, either by getting hold of the data for the motor, or with an ohm-meter. You can then connect driver transistors to the coils (don't forget diodes to protect the transistors), and devise a circuit to apply the correct pulse sequence. A PC printer port and some simple software will do for testing., and a microcontroller is ideal for the final version.

73, Leon

3279. Re: RF Amplifier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 23:20:29 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9ek4vt$2v8$4@woodrow.ucdavis.edu>
Source record: 52476

Ebay for the sockets and the http://sonic.ucdavis.edu server amateur
radio pages for amplifier projects.

cheers
skipp

: Norm Melick <henmel@worldnet.att.net> wrote:
: I have 3, new 4X150G's. I'd like to build an amplifier with them,
: preferably HF. First, could someone point me towards some schematics and
: articles using this tube, and second, I need the sockets for these
: tubes.
: Any help would be greatly appreciated.
: Norm/KQ6SD

3280. Re: 477Mhz Amplifier plans wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 23:21:59 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9ek52n$2v8$5@woodrow.ucdavis.edu>
Source record: 52477

Your talking a very common tpl brand amplifier often seen for sale on Ebay
pretty darn cheap.

cheers
skipp

: "Narelle Walch / Adam Aitken" <nwalch@netspace.net.au> wrote:
: I am looking for an amplifier for the 477Mhz FM band with up to 5 watt input and 15 to 35 watt output. Can anyone help me please ? afaitken@hotmail.com

3281. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-24 23:27:45 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9ek5d702j59@enews1.newsguy.com>
Source record: 52478

"Rory Davis" <n7cr@bellsouth.net> wrote in message
news:kC9P6.4293$Mr5.206123@news1.atl...
>
> Development kit can be as cheap as FREE (MPLAB/ASM available
> on website) if you homebrew a programmer

Take a look at http://covingtoninnovations.com/noppp/index.html for a 16F84 programmer. The 16F84 doesn't have enough I/O for your tastes, but building it for another PIC is as simple as changing the socket. Yeah, you would need to read the spec sheet (http://www.microchip.com/10/lit/pline/picmicro/families/16f87x/index.htm) to figure out which pins to hook up.

This programmer is built from stuff you must have in the junk box. If you have absolutely no junk box, I calculated the parts at $7 at Radio Shack prices! OK, OK, a little more if you fancy it up with a nice ZIF socket.

Rummage through DigiKey's catalog (http://info.digikey.com/T012/V4/200-211.pdf) ... there are a ton of different PICs, all the 16F ones program the same, but there are all sorts of variations on number of I/O's, A/D's, prescalers, timers, etc.

As Rory points out, the development environment is free, (http://www.microchip.com/10/tools/index.htm) the price of the PIC varies with the capability but the sort you're looking for is likely around ten bucks.

didleydadidah

3282. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 02:14:44 UTC
From: dennyd@attglobal.net
Message-ID: <3B0DC014.FE339BEE@attglobal.net>
Source record: 52479

Doug Smith wrote:
>
> I'm working on an antenna-switching project. Had hoped to use a Basic
> Stamp, but I forgot to read the specs before starting - and found the Stamps
> don't have nearly enough I/O.. so I'm looking for suggestions on other
> devices/boards..
>
> I need at least 10 digital inputs and at least 10 digital outputs. (12 of
> each would be real nice. No analog or serial I/O necessary.) I've never
> worked with microcontrollers before, so something with flash or some other
> form of reprogrammable program memory is important. External EPROMs will
> do. (the chances I'll get the software right on the first try are
> essentially zero!) Needs to be reasonably priced - $150 or less for the
> controller and any "glue"/monitor ROMs/etc. Size, speed, and power
> consumption are not important. (I have even considered using a PC with ISA
> I/O cards though the I/O cards seem to fail the price criteria)
>
> Suggestions anyone? Thanks!

I personally use PICs - they have a large following. Another possibility
are the AVR series. Check around locally and see if anyone is into
microcontrollers and if you find someone willing to help use what they
do.

If you are going to expand using shift regs look at the 74HC595 and
74HC597 - they have built in latches so you can get all the bits to
change at the same time.

3283. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 03:01:56 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9eki03$65u$1@nntp9.atl.mindspring.net>
Source record: 52480

Of course, you COULD use a "cheap and dirty" approach. A PC can use
the parallel port with some latching to give you all the I/O pins you want
plus more.

Yeah, I know, a big and clunky way to go but it could be used as part of
a more sophisticated program control for the entire station.

I have built versions of this over the years for several applications and
found it a simple way to gather data from ATE gear and then number crunch it
on the spot, so to speak.

The good part is, it's MIGHTY cheap if you have an old PC around and for
a one-off solution is probably the simplest to get operating.

Jim Pennell
N6BIU

3284. Re: HF PLL design???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 03:21:31 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <%ckP6.44915$4f7.3276469@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52481

I've got a circuit that me and a friend developed; a sequencer that will
interface an optical encoder to the 16-bit parallel inputs of a chip such
as an MC145152.
I abandoned that approach when I started using PICs to control a DDS.

Pete Gianakopoulos
Chicago, Il.

WB8RCR <wb8rcr_NOSPAM@qsl.net> wrote in message
news:9dmncg02omr@news2.newsguy.com...
> I suppose if someone was in love with the complexity of those muxes and
all
> those lines, then adding a shift register to the mix wouldn't be all
that
> bad, but a PIC sure does simplify the whole thing.
>
> I'm not sure I understand what you are thinking about for frequency
input.
> I agree that shaft encoders are bloody expensive, and keypads are
> operationally annoying, at least for HF. The only other thing I could
think
> of would be BCD switches, which would work just as well for a PIC as
not.
> If you used a common PIC like the 16F84, you wouldn't have any lines
left
> for a display, but you wouldn't need one, either.
>
> I suppose you could use up/down buttons, but then you would need a
display
> for your hardwired circuit as well, and again, it would be an order of
> magnitude simpler with a PIC.
>
> See:
> http://www.qsl.net/wb8rcr/lcdcnt.html
> and also
> http://www.qsl.net/wb8rcr/cwreadr.html
>
> didleydadidah
>
> "Gary Tait, The Real" <tait@primeline.net> wrote in message
> news:3AFEA9F9.885BF80@primeline.net...
> >
> >
> > Not if you don't want to code a micro. With a
> > micro you will aslo have to wire in a display

> >
>
>
>

3285. This girl is perfect. No doubt. teen48.jpg 8039 [1/7]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 08:50:32 UTC
From: allison@allison19.REMOVE.com
Message-ID: <s1pP6.574$4q2.523107@news2.mia>
Source record: 52482

npjpgkihbwlewdqcptrndcmzdyfvbjybcqjoqptuzneeeljdbswltbvllelzwoehyvxztrsw

3286. FA: Dual paddle iambic keyer by Ham-Key

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 10:10:38 UTC
From: abuse@hotmail.com
Message-ID: <abuse-2505010010500001@192.168.1.4>
Source record: 52483
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

For auction on eBay, Dual paddle iambic keyer. See URL

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?MfcISAPICommand=ViewItem&item=1240022897

3287. Re: Test with attached image

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 10:18:24 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <ghble9.p61.ln@localhost.localdomain>
Source record: 52484

Lars Brandt wrote:

> This is only a test for see if I can attach an image on this server.

Doh! Please don't post binaries to discussion groups.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://www.qsl.net/ei9gq

Linux 2.4.4

3288. Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 17:55:40 UTC
From: jimbo@unknown.demon.co.uk
Message-ID: <3b0e9a28.40682005@news.demon.co.uk>
Source record: 52485

I am In the process of building a pll board for the vhf region. The thing doesnt work basically, and i have put it down to the dividing chip,(but i know these do work at this frequency) Im using a 74hc4024 to divide around 90megs to half. This then feeds a 4059 divide by n counter. The problem seems to be that the output of the 4024 is not strong enough to drive the 4059, but, if you choose one of the outputs of around say 5 meg from the counter, the wave looks fine and drives the 4059. It just doesnt want to drive it with the output at half frequency, or half that. Wonder if anyone has any ideas on the matter ?

Is it anything to do with the coupling from the oscillator to the 4024? I couldnt get a value of the cap from the pll i copied so i just used a 27 p. Anyone have any ideas there ?

Would it be advisable to chop all the legs off from those remaining on the 4024 ?

Any help would be appreciated.

Jimbo

3289. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 19:04:59 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105251442030.25189-100000@gloria.cam.org>
Source record: 52486

On Fri, 25 May 2001, Jimbo wrote:

> I am In the process of building a pll board for the vhf region. The
> thing doesnt work basically, and i have put it down to the dividing
> chip,(but i know these do work at this frequency) Im using a 74hc4024
> to divide around 90megs to half. This then feeds a 4059 divide by n
> counter. The problem seems to be that the output of the 4024 is not
> strong enough to drive the 4059, but, if you choose one of the outputs
> of around say 5 meg from the counter, the wave looks fine and drives
> the 4059. It just doesnt want to drive it with the output at half
> frequency, or half that. Wonder if anyone has any ideas on the matter
> ?
>
> Is it anything to do with the coupling from the oscillator to the
> 4024? I couldnt get a value of the cap from the pll i copied so i just
> used a 27 p. Anyone have any ideas there ?
>
> Would it be advisable to chop all the legs off from those remaining on
> the 4024 ?
>
> Any help would be appreciated.
>
> Jimbo
>
>

Right off you have two problems. The first is that according to the databook, the 74HC4024 is only good to a clocking frequency of 32MHz at best (and the lower the supply voltage, the lower the top frequency goes).

The second is that if you are using it to divide a 90MHz frequency by two, the device that is following it has to be able to clock at that frequency, ie 45MHz. Since you only say it's a "4059" we must assume that it's just the regular 4000 series of CMOS. And that will only clock at a maximum of a few MHz. Again, the lower the supply voltage, the lower the maximum clock frequency. If the thing works when you use the 4024 to divide by more than 2, what is happening is that you are getting your input frequency of 90Mhz down to a range where the 4059 can work.

Go back and read the theory books. YOu're clutching at ideas, "the output isn't strong enough" and "should I cut off the extra pins" rather than understand the basics.

The whole point of a fixed divider ahead of the programmable
divider is to get the frequency down to a range where the latter
will clock properly. If you had a programmable divider that
ran fine at 90MHz, there would be no need for the prescaler.

YOu need a strong enough signal into the prescaler, though you
don't want to load the oscillator. IN some cases, you may need
to buffer the oscillator signal and maybe use some circuit
to square it up for the counter. Then you need a counter that
will operate properly at the input frequency. Throw out the
CMOS, and use a logic family appropriate at that frequency,
I can never remember all the combinations, but it will be something
lie teh AS series. You won't find a "4024" in the proper family,
so you'll have to go to something like a flip-flop of some kind,
set up to divide by two.

Then, you either need to move to a programmable divider that will
clock at 45MHz, methinks at that range you'll have to make it
up with a number of programmable decade counters. Or cascade
some other flip-flops after the first one to get the frequency
down to the needed range for the 4059.

Note that the fixed divider ahead of the 4059 will affect the
operation of the rest of the circuit. The steps of the PLL (ie
the channel spacing) will be the reference frequency multiplied
by the fixed divider rate. So say you have a PLL reference
frequency of 1KHz. If the fixed divider between the oscillator
and the 4059 is 2, then the steps will be 2KHz. If the fixed
divider is 4, the steps will be 4KHz. 90Mhz divided by 16
gets you to a frequency just under 6MHz, so your steps with
that divisor will be 16KHz apart.

Michael VE2BVW

3290. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-25 20:06:57 UTC
From: jimbo@unknown.demon.co.uk
Message-ID: <3b0ebb58.49179965@news.demon.co.uk>
Source record: 52487

Just had a look at the circuit diagram for the vco. It appears (i think) it follows a doubling circuit so i should have tuned it down to half the freqwuency. Sound a bit more like it ?

On Fri, 25 May 2001 15:04:59 -0400, Michael Black <blackm00@gloria.cam.org> wrote:

>
>
>On Fri, 25 May 2001, Jimbo wrote:
>
>> I am In the process of building a pll board for the vhf region. The
>> thing doesnt work basically, and i have put it down to the dividing
>> chip,(but i know these do work at this frequency) Im using a 74hc4024
>> to divide around 90megs to half. This then feeds a 4059 divide by n
>> counter. The problem seems to be that the output of the 4024 is not
>> strong enough to drive the 4059, but, if you choose one of the outputs
>> of around say 5 meg from the counter, the wave looks fine and drives
>> the 4059. It just doesnt want to drive it with the output at half
>> frequency, or half that. Wonder if anyone has any ideas on the matter
>> ?
>>
>> Is it anything to do with the coupling from the oscillator to the
>> 4024? I couldnt get a value of the cap from the pll i copied so i just
>> used a 27 p. Anyone have any ideas there ?
>>
>> Would it be advisable to chop all the legs off from those remaining on
>> the 4024 ?
>>
>> Any help would be appreciated.
>>
>> Jimbo
>>
>>
>Right off you have two problems. The first is that according to the
>databook, the 74HC4024 is only good to a clocking frequency of 32MHz
>at best (and the lower the supply voltage, the lower the top frequency
>goes).
>
>The second is that if you are using it to divide a 90MHz frequency
>by two, the device that is following it has to be able to clock
>at that frequency, ie 45MHz. Since you only say it's a "4059" we
>must assume that it's just the regular 4000 series of CMOS. And
>that will only clock at a maximum of a few MHz. Again, the lower
>the supply voltage, the lower the maximum clock frequency. If the

>thing works when you use the 4024 to divide by more than 2, what
>is happening is that you are getting your input frequency of 90Mhz
>down to a range where the 4059 can work.
>
>Go back and read the theory books. YOu're clutching at ideas,
>"the output isn't strong enough" and "should I cut off the extra
>pins" rather than understand the basics.
>
>The whole point of a fixed divider ahead of the programmable
>divider is to get the frequency down to a range where the latter
>will clock properly. If you had a programmable divider that
>ran fine at 90MHz, there would be no need for the prescaler.
>
>YOu need a strong enough signal into the prescaler, though you
>don't want to load the oscillator. IN some cases, you may need
>to buffer the oscillator signal and maybe use some circuit
>to square it up for the counter. Then you need a counter that
>will operate properly at the input frequency. Throw out the
>CMOS, and use a logic family appropriate at that frequency,
>I can never remember all the combinations, but it will be something
>lie teh AS series. You won't find a "4024" in the proper family,
>so you'll have to go to something like a flip-flop of some kind,
>set up to divide by two.
>
>Then, you either need to move to a programmable divider that will
>clock at 45MHz, methinks at that range you'll have to make it
>up with a number of programmable decade counters. Or cascade
>some other flip-flops after the first one to get the frequency
>down to the needed range for the 4059.
>
>Note that the fixed divider ahead of the 4059 will affect the
>operation of the rest of the circuit. The steps of the PLL (ie
>the channel spacing) will be the reference frequency multiplied
>by the fixed divider rate. So say you have a PLL reference
>frequency of 1KHz. If the fixed divider between the oscillator
>and the 4059 is 2, then the steps will be 2KHz. If the fixed
>divider is 4, the steps will be 4KHz. 90Mhz divided by 16
>gets you to a frequency just under 6MHz, so your steps with
>that divisor will be 16KHz apart.
>
> Michael VE2BVW
>
>

3291. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 00:02:51 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <MzCP6.2479$Tj4.769985@news2-win.server.ntlworld.com>
Source record: 52488
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,sci.engr.radar+sonar

<geoff@nospam.demon.co.uk> wrote in message
news:oh6he9.7qc.ln@nospam.demon.co.uk...
> GeoffB <geofftb@btinternet.com> wrote:
>
>
>
> Methinks that a good solution may be to digitise the azimuth and use a FFT
> processor on the IF and trigger from the PRF generator. Feed that lot into
a
> good bit of software on a PC (NOT windows) and simulate a raster scanned
PPI
> display.

Don't think I'll do anything as complicated as that, but I have some ideas
for using an oscilloscope as the display. One is to feed the X and Y inputs
with sine-cosine waves, (a cosine wave is a sine wave of the same frequency
but phase-shifted by 90 deg.), this should result in a circular sweep, then
if you amplitude modulate both with a sawtooth at PRF you should get a PPI
(plan position indicator, the usual kind of radar display), Z-modulation
(trace brightness) indicating targets.

>
> Incidentally the UK amateur licence used to allow pulse mod with a mean
> input of 25W and 25kW peak pulse on bands above 23cms - I don't know if
that
> is still valid.
>
From the current BR68, pulse transmission is only permitted above 1000 MHz.

3292. dallas surplus parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 01:43:22 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tgu2i086hc4932@corp.supernews.com>
Source record: 52489

what's left in dallas for surplus electronics parts besides Tanners?
how about ham gear, new and used?
tnx
73
hank wd5jfr

3293. looking for satellite tracking software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 02:56:41 UTC
From: kd7axg@aol.com
Message-ID: <20010525225641.16654.00001314@ng-mf1.aol.com>
Source record: 52490

I am going to try out the 2m to 70cm satellites. Any kind of software tracking programs out there? Pete n/vegas KD7AXG

3294. dBm/hz?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 04:41:45 UTC
From: Shawn Reeves <kleptein@hotmail.com>
Message-ID: <oocugt8des58k4vgim095fnvviadp5h37k@4ax.com>
Source record: 52491

I went out to a site recently with a friend who is a paging tech, and the receiver he was working on puzzled me a bit. Apparently this receiver is for 901.25625 MHz (seems a bit odd to me), it uses 2 antennas, and he couldn't check sensitivity.. only noise levels?! When he checked it, he had -174 dBm/Hz on one antenna, and -144 dBm/Hz on the other antenna.

When he initially tried to check the readings, they wouldn't read out until some data came through the receiver.

Can someone please explain how this all relates to sensitivity? Is there a way to tell how sensitive the receiver is from the noise readings? He told me that one antenna was quiet, and one was noisy?

Any help or pointers would be appreciated.

Shawn

3295. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 04:55:33 UTC
From: KK7HO <KK7HO@worldnet.att.net>
Message-ID: <3B0F3AB5.7619D335@worldnet.att.net>
Source record: 52492
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

Boy, this is a good example of why one has to "study" to get a ham license. :-)

HelmutSweenie wrote:

> A 2 watt carrier? do you just sit there and throw dead keys or do you talk.
> If you do talk I am sure it is more than 2 watts so your deadkey figure is
> irrelavent.
>
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3AF25F37.669914B6@spam.me.not...
> > Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> > so I must have done something right.
> >
> > ::shrug::
> >
> > -SSB
> >
> > "David G. Nagel" wrote:
> > >
> > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > configuration will not make a truly efficient antenna. Read up on
> > > collinear antenna's and dipole antenna's. You will see that what you
> > > have is nothing. However for you sake I do hope it works to your
> > > satisfaction. I prefer something else...
> > >
> > > Dave WD9BDZ
> > >
> > > Sideband wrote:
> > > >
> > > > Doug:
> > > >
> > > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > >
> > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> > > > have said 1 1/4 wave dipole?
> > > >
> > > > -SSB
> > > >
> > > > Doug Smith wrote:
> > > > >
> > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not>
> > wrote:

> > > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> > > > > >
> > > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is
> 1/4 wave,
> > > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > >
> > > > > > (you should try a 102" whip, I think you're likely to find it more
> effective
> > > > > > than the twin four-footers. Because you won't have loading-coil
> losses.
> > > > > > Mine worked *fantastically* well on 10 meters with a converted SSB
> CB.)
> > > > > > --
> > > > > > Doug Smith W9WI
> > > > > > Pleasant View (Nashville), TN EM66
> > > > > > http://www.w9wi.com

3296. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 08:01:50 UTC
From: geoff@nospam.demon.co.uk
Message-ID: <etnne9.o4f.ln@nospam.demon.co.uk>
Source record: 52496
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,sci.engr.radar+sonar

squilsh <squilsh@ntlworld.com> wrote:

> <geoff@nospam.demon.co.uk> wrote in message
> news:oh6he9.7qc.ln@nospam.demon.co.uk...
>> GeoffB <geofftb@btinternet.com> wrote:
>>
>>
>>
>> Methinks that a good solution may be to digitise the azimuth and use a FFT
>> processor on the IF and trigger from the PRF generator. Feed that lot into
> a
>> good bit of software on a PC (NOT windows) and simulate a raster scanned
> PPI
>> display.

> Don't think I'll do anything as complicated as that, but I have some ideas
> for using an oscilloscope as the display. One is to feed the X and Y inputs
> with sine-cosine waves, (a cosine wave is a sine wave of the same frequency
> but phase-shifted by 90 deg.), this should result in a circular sweep, then
> if you amplitude modulate both with a sawtooth at PRF you should get a PPI
> (plan position indicator, the usual kind of radar display), Z-modulation
> (trace brightness) indicating targets.

Yes, a magnetic scan version of this was indeed done in "static coil"
displays before raster scan systems became practical (memory arrays etc),
but unless you have a P7 type phosphor, the PPI on a scope display will
hardly be readable. The asimuth info was derived by the use of 360 deg
rotation sine/cosine pots and used to control variable gain X and Y
amplifiers that were fed via an "A scan" ramp.

>> Incidentally the UK amateur licence used to allow pulse mod with a mean
>> input of 25W and 25kW peak pulse on bands above 23cms - I don't know if
> that
>> is still valid.
>>
> From the current BR68, pulse transmission is only permitted above 1000 MHz.

23cm is above 1000MHz isn't it?

Geoff
--
Geoff Blake geoff (at) palaemon . co . uk Linux 2.2.15
Chelmsford Sparc - Intel
====================== A Microsoft free zone ======================

3297. Re: Respect For Freebanders

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 08:20:56 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3B0F6768.3D1A8FC7@spam.me.not>
Source record: 52493
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.policy

And this is a good example of why one shouldn't jump the gun and come to
a conclusion before he's read the rest of the thread.

73 de KC8RKQ

KK7HO wrote:
>
> Boy, this is a good example of why one has to "study" to get a ham license. :-)
>
> HelmutSweenie wrote:
>
> > A 2 watt carrier? do you just sit there and throw dead keys or do you talk.
> > If you do talk I am sure it is more than 2 watts so your deadkey figure is
> > irrelavent.
> >
> > "Sideband" <sideband@spam.me.not> wrote in message
> > news:3AF25F37.669914B6@spam.me.not...
> > > Well, I'm heard with a 2 watt carrier over 20 miles away straight shot,
> > > so I must have done something right.
> > >
> > > ::shrug::
> > >
> > > -SSB
> > >
> > > "David G. Nagel" wrote:
> > > >
> > > > No. Two 5/8 wave loaded antenna's do not make a 1 1/4 wave dipole. They
> > > > make a dipole composed of two 5/8 wave loaded antenna's. This
> > > > configuration will not make a truly efficient antenna. Read up on
> > > > collinear antenna's and dipole antenna's. You will see that what you
> > > > have is nothing. However for you sake I do hope it works to your
> > > > satisfaction. I prefer something else...
> > > >
> > > > Dave WD9BDZ
> > > >
> > > > Sideband wrote:
> > > > >
> > > > > Doug:
> > > > >
> > > > > Hit Wilson's site and read up on what a Wilson Silver Load is....
> > > > >
> > > > > Better yet, I'll explain it. a 4' Wilson Silver Load is a 5/8 (on 11M)
> > > > > top loaded coil antenna. Two of them make 1 1/4 wave. Maybe I should
> > > > > have said 1 1/4 wave dipole?

> > > > >
> > > > > -SSB
> > > > >
> > > > > Doug Smith wrote:
> > > > > >
> > > > > > On Thu, 03 May 2001 09:31:36 -0400, Sideband <sideband@spam.me.not>
> > wrote:
> > > > > > >them as well. Granted, I run a 5/8 dipole on the car (two 4' Wilson
> > > > > >
> > > > > > Uh, 8 feet is not 5/8 wave on 11 meters. A 102" (8-1/2') whip is
> > 1/4 wave,
> > > > > > so a 5/8 wave would be a bit more than 17 feet long.
> > > > > >
> > > > > > (you should try a 102" whip, I think you're likely to find it more
> > effective
> > > > > > than the twin four-footers. Because you won't have loading-coil
> > losses.
> > > > > > Mine worked *fantastically* well on 10 meters with a converted SSB
> > CB.)
> > > > > > --
> > > > > > Doug Smith W9WI
> > > > > > Pleasant View (Nashville), TN EM66
> > > > > > http://www.w9wi.com

3298. Re: looking for satellite tracking software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 10:12:04 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B0F8174.CA1CBF24@dialpoint.net>
Source record: 52494

Go to www.amsat.org and look under the files section. Also get the
latest Keplian elements while you are there.

Kd7axg wrote:
>
> I am going to try out the 2m to 70cm satellites. Any kind of software tracking
> programs out there? Pete n/vegas KD7AXG

3299. Re: dBm/hz?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 11:09:24 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <m10vgtksqe6avoit3139956l5qhvfd2htm@4ax.com>
Source record: 52495

On Sat, 26 May 2001 00:41:45 -0400, Shawn Reeves
<kleptein@hotmail.com> wrote:

>I went out to a site recently with a friend who is a paging tech, and
>the receiver he was working on puzzled me a bit. Apparently this
>receiver is for 901.25625 MHz (seems a bit odd to me), it uses 2
>antennas, and he couldn't check sensitivity.. only noise levels?!
>When he checked it, he had -174 dBm/Hz on one antenna, and -144 dBm/Hz
>on the other antenna.

In white noise, there is always the same amount of noise power in a
specific bandwidth regardless at which absolute frequency it is
measured, thus the noise density is the same. The notation -174 dBm/Hz
means that when using a 1 Hz measuring bandwidth, the noise power is
-174 dB below 1 mW.

Thus, if your receiver bandwidth would be 10 Hz, the noise power would
be 10 times (+10 dB) stronger, thus the total noise power would be
-164 dBm.

Assuming a SSB receiver with 3 kHz bandwidth, the total noise power
would be 3000 times (about +35 dB) stronger than at 1 Hz, thus, the
total noise power at the receiver input (including the noise generated
by the receiver) would be -139 dBm.

By the way, the -174 dBm/Hz noise corresponds to a 300 K noise
temperature and since the average temperature on earth is just below
300 K, so you will typically get this amount of noise in the UHF and
microwave bands, when you point your antenna to any terrestrial
object. Lower noise temperatures can be obtained by pointing the
antenna to an "empty" region in the sky, but the final limit is the
cosmic 3 K background radiation from all directions (at about -195
dBm/Hz noise density).

>Can someone please explain how this all relates to sensitivity?

In order to be able to transfer some true information (something that
was not known before), the signal must be stronger than noise (in
spread spectrum systems, this must be measured after despreading). In
order to be able to reliably extract the information, the signal must
in practical system often be several times stronger than the noise,
for SSB we are usually talking about levels at least 10 dB stronger
than noise. Thus, if the receiver had a noise level of -139 dBm, the
signal would have to be -129 dBm to get a 10 dB SNR. This is the
sensitivity of the receiver. This can then be converted to microvolts
when you know the impedance level (typically 50 or 75 ohms). For a 50

ohm system, that is about 0.08 ï¿½V.

The sensitivity can be calculated from

P = ND + 10log(BW) + SNR

in which P is the receiver sensitivity in dBm, ND is noise density in dBm/Hz, BW is the receiver bandwidth in Hz and the required SNR is in dB.

Paul OH3LWR

3300. Kachina going out of the amateur biz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 12:06:30 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <a%MP6.145912$K5.13924755@news1.rdc1.nj.home.com>
Source record: 52397

from the ARRL broadcast this morning -- Kachina is discontinuing their DSP transceiver.

3301. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 12:10:45 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <93NP6.145926$K5.13926634@news1.rdc1.nj.home.com>
Source record: 52398

I agree -- almost everyone has a Windows 3.01 laptop lying around somewhere. I have a Toshiba '486 which I use in DOS, and for data logging, control and and experimentation it's excellent in what I guess you would call it's "native mode".

You might suggest "Parallel Port Complete" or "Serial Port Complete". two readily available books which explain with schematics and code how to get it done.

Jack

"Jim Pennell" <me-nobody@killspam.com> wrote in message news:9eki03$65u$1@nntp9.atl.mindspring.net...
> Of course, you COULD use a "cheap and dirty" approach. A PC can use
> the parallel port with some latching to give you all the I/O pins you want
> plus more.
>
> Yeah, I know, a big and clunky way to go but it could be used as part
of
> a more sophisticated program control for the entire station.
>
> I have built versions of this over the years for several applications
and
> found it a simple way to gather data from ATE gear and then number crunch
it
> on the spot, so to speak.
>
>
> The good part is, it's MIGHTY cheap if you have an old PC around and
for
> a one-off solution is probably the simplest to get operating.
>
>
>
> Jim Pennell
> N6BIU
>
>
>

3302. Re: looking for satellite tracking software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 12:40:50 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <3B0FA452.6060305@oceanfree.net>
Source record: 52399

Kd7axg wrote:

> I am going to try out the 2m to 70cm satellites. Any kind of software tracking
> programs out there? Pete n/vegas KD7AXG
>

A bit off topic for this NG. There is a good selection
of free, shareware and commercial satellite tracking
programs. I use SatTrack and Predict for Linux.

Have a look at www.amsat.org

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://www.qsl.net/ei9gq
Linux 2.4.5

3303. Re: looking for satellite tracking software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 14:39:02 UTC
From: Trek <trek@starbase.com>
Message-ID: <jePP6.1697$WD.361246@news2-win.server.ntlworld.com>
Source record: 52400

Try this one it's good and it's FREE!!

http://www.satscape.co.uk/

73 de G3OMK

"Eamon Skelton" <Xnospam@oceanfree.net> wrote in message
news:3B0FA452.6060305@oceanfree.net...
> Kd7axg wrote:
>
> > I am going to try out the 2m to 70cm satellites. Any kind of software
tracking
> > programs out there? Pete n/vegas KD7AXG
>

3304. Vist my HB web site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 15:09:01 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b0fc6d7$1_2@newsa.ev1.net>
Source record: 52401

www.qsl.net/kk5dr

Lots of home brew stuff and more.
Stop in, look around, have fun, learn something.
Lots of links too.

73 de Matt KK5DR

3305. Re: what is the US electronic forum ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 21:12:46 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <jaVP6.2573$WD.689326@news2-win.server.ntlworld.com>
Source record: 52402

POISSONDANLO <poissondanlo@aol.com> wrote in message
news:20010522093151.01278.00000865@ng-fb1.aol.com...
> hi,
> i will be happy if someone give me the US electronic forum adress
> good afternoon
> Serge
> excuse me for approximative US langage
> F5JTM /french hamradio

The newsgroup address, or whatever the proper term is,

sci.electronics.misc

3306. Re: Datasheets BF981 and or BF966

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 21:37:36 UTC
From: p1112 <tbugeja@kemmunet.net.mt>
Message-ID: <3B10221F.79EFFF7C@kemmunet.net.mt>
Source record: 52403

Hi

can u plse forward me a copy.

Tnx & 73.

Tony

Jean Paul Mertens wrote:

> TNX to all who have send the datasheets.
>
> 73's
>
> ON1AMI

3307. FREE PCB ASSEMBLY TECHNIQUES E-MAIL COURSE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-26 23:24:30 UTC
From: harvey_twyman@yahoo.com
Message-ID: <6d32c0e5.0105261524.22c6a390@posting.google.com>
Source record: 52404

_/

"I'm sure you've noticed the RAPID decline in the AVAILABILITY
of certain DUAL-IN-LINE COMPONENTS.

The devices MIGHT still be available but ONLY in their SURFACE
MOUNT form.

So how DO YOU construct PCBs using these TINY devices?

To enable you to KEEP UP with the TECHNOLOGY, I've created a
FREE EMAIL COURSE that contains a series of special techniques
to address these problems.

The course uses techniques that ONLY require LOW COST HAND TOOLS
and is mainly intended for PROTOTYPE PCB DESIGNS.

The course consists of ONE EMAIL EVERY DAY covering the following
topics:-

* Working Practices
* Good and Bad Joints
* Soldering Rules
* SMT Pads
* VIA Holes
* IC Sockets
* SMT Components
* Solder Levelling
* Fine Pitch SMTs
* Handling SMTs
* Removing SMTs
* PCB Example
* FAQs
* Course Summary

To ENROL on the course please EMAIL:-

PCB-Course@biz-e-bot.com

with the word SUBSCRIBE inserted in the SUBJECT LINE.

"Throughout the course there is FEEDBACK available to answer
ANY of your questions and the option to TERMINATE the course
at ANYTIME."

Harvey Twyman

_/

3308. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 01:55:17 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <98ZP6.46768$t12.3595320@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52405

This may be a little off the beaten track; I am not sure if you are copying a design or not. At the last place that I was working, we used to use the 74AC family of chips. They are current hogs, but they provide the fast edge rates to the phase detector that are important for keeping the phase noise of the synthesizer down.

Pete Gianakopoulos
Chicago, Il.

Jimbo <jimbo@unknown.demon.co.uk> wrote in message news:3b0ebb58.49179965@news.demon.co.uk...
> Just had a look at the circuit diagram for the vco. It appears (i
> think) it follows a doubling circuit so i should have tuned it down to
> half the freqwuency. Sound a bit more like it ?
>
>
>
> On Fri, 25 May 2001 15:04:59 -0400, Michael Black
> <blackm00@gloria.cam.org> wrote:
>
> >
> >
> >On Fri, 25 May 2001, Jimbo wrote:
> >
> >> I am In the process of building a pll board for the vhf region. The
> >> thing doesnt work basically, and i have put it down to the dividing
> >> chip,(but i know these do work at this frequency) Im using a 74hc4024
> >> to divide around 90megs to half. This then feeds a 4059 divide by n
> >> counter. The problem seems to be that the output of the 4024 is not
> >> strong enough to drive the 4059, but, if you choose one of the
outputs
> >> of around say 5 meg from the counter, the wave looks fine and drives
> >> the 4059. It just doesnt want to drive it with the output at half
> >> frequency, or half that. Wonder if anyone has any ideas on the matter
> >> ?
> >>
> >> Is it anything to do with the coupling from the oscillator to the
> >> 4024? I couldnt get a value of the cap from the pll i copied so i
just
> >> used a 27 p. Anyone have any ideas there ?
> >>
> >> Would it be advisable to chop all the legs off from those remaining
on
> >> the 4024 ?
> >>

> >> Any help would be appreciated.
> >>
> >> Jimbo
> >>
> >>
> >Right off you have two problems. The first is that according to the
> >databook, the 74HC4024 is only good to a clocking frequency of 32MHz
> >at best (and the lower the supply voltage, the lower the top frequency
> >goes).
> >
> >The second is that if you are using it to divide a 90MHz frequency
> >by two, the device that is following it has to be able to clock
> >at that frequency, ie 45MHz. Since you only say it's a "4059" we
> >must assume that it's just the regular 4000 series of CMOS. And
> >that will only clock at a maximum of a few MHz. Again, the lower
> >the supply voltage, the lower the maximum clock frequency. If the
> >thing works when you use the 4024 to divide by more than 2, what
> >is happening is that you are getting your input frequency of 90Mhz
> >down to a range where the 4059 can work.
> >
> >Go back and read the theory books. YOu're clutching at ideas,
> >"the output isn't strong enough" and "should I cut off the extra
> >pins" rather than understand the basics.
> >
> >The whole point of a fixed divider ahead of the programmable
> >divider is to get the frequency down to a range where the latter
> >will clock properly. If you had a programmable divider that
> >ran fine at 90MHz, there would be no need for the prescaler.
> >
> >YOu need a strong enough signal into the prescaler, though you
> >don't want to load the oscillator. IN some cases, you may need
> >to buffer the oscillator signal and maybe use some circuit
> >to square it up for the counter. Then you need a counter that
> >will operate properly at the input frequency. Throw out the
> >CMOS, and use a logic family appropriate at that frequency,
> >I can never remember all the combinations, but it will be something
> >lie teh AS series. You won't find a "4024" in the proper family,
> >so you'll have to go to something like a flip-flop of some kind,
> >set up to divide by two.
> >
> >Then, you either need to move to a programmable divider that will
> >clock at 45MHz, methinks at that range you'll have to make it
> >up with a number of programmable decade counters. Or cascade
> >some other flip-flops after the first one to get the frequency
> >down to the needed range for the 4059.
> >
> >Note that the fixed divider ahead of the 4059 will affect the
> >operation of the rest of the circuit. The steps of the PLL (ie
> >the channel spacing) will be the reference frequency multiplied
> >by the fixed divider rate. So say you have a PLL reference

> >frequency of 1KHz. If the fixed divider between the oscillator
> >and the 4059 is 2, then the steps will be 2KHz. If the fixed
> >divider is 4, the steps will be 4KHz. 90Mhz divided by 16
> >gets you to a frequency just under 6MHz, so your steps with
> >that divisor will be 16KHz apart.
> >
> > Michael VE2BVW
> >
> >
>

3309. Heathkit HM9 wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 02:19:03 UTC
From: arm@helix.nih.gov
Message-ID: <ruZP6.36$Ob.18095@mencken.net.nih.gov>
Source record: 52406

I have a Heathkit HM-9 QRP wattmeter. It was built for 2 meters,
but it could be rebuilt for HF work. Does anyone know what
toroid I need to convert this to HF?

Thanks.
Andy

arm@gnode.org

3310. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 05:26:17 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3B108FF9.9D79AC8@snet.net>
Source record: 52407
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

I thought about playing with pulse radar on the amateur bands about 10 years back, inspired by an article in Sept or Oct 1983 of Ham Radio Magazine, about constructing a WX radar on 3cm band using a gunnplexor. It wasn't really pulsed but was chirped! Question of course was the legality and also the article seemed to be incomplete. I never completed it.
Then I was talking to some other amateur at the time who was knowledgeable about radar and his recomendation was to try a boat radar which of course is legal to use in the marine bands, forget about the amateur bands. These use magnatrons operating around 9.4 ghz with peak powers ranging from maybe 2kw to much higher. I did some experimenting and found that with a 3kw unit it could detect thunderstorms out to 20 km or more. Pretty neat! As far as legality, I am not a lawyer but I believe in the U.S. that there is no license requirement for operating these so long as you don't try to repair one. Then it requires a commercial license.
On the otherhand be careful and don't put your eyes to near the antenna or especially if it is not rotating. Worst of all the peering into the open waveguide as the energy comes right out from the magnitron.
Hope this Helps,
Vince Coppola

Rupert Goodwins wrote:

> On Mon, 21 May 2001 23:41:48 +0100, "squilsh" <squilsh@ntlworld.com> wrote:
>
> >lwilliams <lwilliams@guernsey.net> wrote in message
> >news:3b059bda.0@news.guernsey.net...
> >> Worked on the collision avoidance radar (Philips) for BMW, Merc, Volvo, GM
> >> etc, 77Ghz
> >> <pkearn@eircom.net> wrote in message
> >news:3ad63215.1175650@news1.tinet.ie...
> >> > "squilsh" <squilsh@ntlworld.com> wrote:
> >> > ::Has anybody considered doing amateur radar?
> >> >
> >> > Yes. years ago around late 1980's
> >> >
> >> > thought of 432mhz or use a Solfan Head using FMCW on 3cms
> >> >
> >> > main reason for my interest in all this Radar:
> >> > I am involved in Aero Radar (fixing of) and have always wondered
> >> > if I could get something going to at least see if its ''do-able''
> >> > without a huge r'n'd department behind me.
> >> >
> >> >
> >> > Either way.

> >> > I wish you all the best with your experiments.
> >> >
> >> > Its nice to see someone WONDERING OUT LOUD.
> >>
> >>
> >I'm currently halfway through building a simple ultrasonic pulse radar, from
> >a design in the book "Electronic Projects for Experimenters", by Robert
> >Penfold, published by Babani.
> >
> >This consists of a hand-held box containing ultrasonic Tx and Rx
> >transducers, oscillator and detector circuits, batteries, and a row of LED's
> >to indicate distance of targets, same concept as an A-scope but using
> >brightness to indicate signal strength. I will fit sockets to allow
> >connection to an oscilloscope for a proper A-scope display.
> >
> >Range is stated as 5 metres.
> >
> >When I get a 'round tuit' I might write a letter to Practical Wireless about
> >amateur radar.
> >
>
> But that's sonar! I did something similar for a school project a long time
> ago... fun, but not radar. The only time I've done anything like amateur radio
> was when I was a friend's shack playing with their EME equipment. I did some
> clumsy morse, and a moment later it came back having bounced off some large
> lump of rock nearby.
>
> R

3311. yeasu ft11R user manual wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 06:05:14 UTC
From: nase <mnsckb@hotmail.com>
Message-ID: <3b109ab8.0@news.tm.net.my>
Source record: 52408

hi!
please tell me where can i download the matter above

thanks

3312. Re: what is the US electronic forum ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 08:38:07 UTC
From: poissondanlo@aol.com
Message-ID: <20010527043807.21800.00001390@ng-fs1.aol.com>
Source record: 52409

Hi ,
many thinks for the link
Good afternoon
Serge

3313. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 10:35:01 UTC
From: jimbo@unknown.demon.co.uk
Message-ID: <3b10d7e3.4531397@news.demon.co.uk>
Source record: 52410

Thanks for the advice all, i did manage to get the thing working today
after hours of frustration and testing. The 74hc4024 manages to
cope with 45 megs, the oscillator is on f / 2, but the signal coming
out of the 4059 into the pll
is very weak. I found out by looking on a scope the reason for the
diode and cap on the input to the pll. Seems to make the signal a bit
more square like, it was these that i didnt put in that made the thing
not work, and the frequency being too high also.

cheers

Jimbo

On Sun, 27 May 2001 01:55:17 GMT, "NANCY GIANAKOPOULOS"
<n.gianakopoulos@worldnet.att.net> wrote:

>This may be a little off the beaten track; I am not sure if you are
>copying a design or not. At the last place that I was working, we used to
>use the 74AC family of chips. They are current hogs, but they provide the
>fast edge rates to the phase detector that are important for keeping the
>phase noise of the synthesizer down.
>
>Pete Gianakopoulos
>Chicago, Il.
>
>Jimbo <jimbo@unknown.demon.co.uk> wrote in message
>news:3b0ebb58.49179965@news.demon.co.uk...
>> Just had a look at the circuit diagram for the vco. It appears (i
>> think) it follows a doubling circuit so i should have tuned it down to
>> half the freqwuency. Sound a bit more like it ?
>>
>>
>>
>> On Fri, 25 May 2001 15:04:59 -0400, Michael Black
>> <blackm00@gloria.cam.org> wrote:
>>
>> >
>> >
>> >On Fri, 25 May 2001, Jimbo wrote:
>> >
>> >> I am In the process of building a pll board for the vhf region. The
>> >> thing doesnt work basically, and i have put it down to the dividing
>> >> chip,(but i know these do work at this frequency) Im using a 74hc4024
>> >> to divide around 90megs to half. This then feeds a 4059 divide by n
>> >> counter. The problem seems to be that the output of the 4024 is not

>> >> strong enough to drive the 4059, but, if you choose one of the
>outputs
>> >> of around say 5 meg from the counter, the wave looks fine and drives
>> >> the 4059. It just doesnt want to drive it with the output at half
>> >> frequency, or half that. Wonder if anyone has any ideas on the matter
>> >> ?
>> >>
>> >> Is it anything to do with the coupling from the oscillator to the
>> >> 4024? I couldnt get a value of the cap from the pll i copied so i
>just
>> >> used a 27 p. Anyone have any ideas there ?
>> >>
>> >> Would it be advisable to chop all the legs off from those remaining
>on
>> >> the 4024 ?
>> >>
>> >> Any help would be appreciated.
>> >>
>> >> Jimbo
>> >>
>> >>
>> >Right off you have two problems. The first is that according to the
>> >databook, the 74HC4024 is only good to a clocking frequency of 32MHz
>> >at best (and the lower the supply voltage, the lower the top frequency
>> >goes).
>> >
>> >The second is that if you are using it to divide a 90MHz frequency
>> >by two, the device that is following it has to be able to clock
>> >at that frequency, ie 45MHz. Since you only say it's a "4059" we
>> >must assume that it's just the regular 4000 series of CMOS. And
>> >that will only clock at a maximum of a few MHz. Again, the lower
>> >the supply voltage, the lower the maximum clock frequency. If the
>> >thing works when you use the 4024 to divide by more than 2, what
>> >is happening is that you are getting your input frequency of 90Mhz
>> >down to a range where the 4059 can work.
>> >
>> >Go back and read the theory books. YOu're clutching at ideas,
>> >"the output isn't strong enough" and "should I cut off the extra
>> >pins" rather than understand the basics.
>> >
>> >The whole point of a fixed divider ahead of the programmable
>> >divider is to get the frequency down to a range where the latter
>> >will clock properly. If you had a programmable divider that
>> >ran fine at 90MHz, there would be no need for the prescaler.
>> >
>> >YOu need a strong enough signal into the prescaler, though you
>> >don't want to load the oscillator. IN some cases, you may need
>> >to buffer the oscillator signal and maybe use some circuit
>> >to square it up for the counter. Then you need a counter that
>> >will operate properly at the input frequency. Throw out the

>> >CMOS, and use a logic family appropriate at that frequency,
>> >I can never remember all the combinations, but it will be something
>> >lie teh AS series. You won't find a "4024" in the proper family,
>> >so you'll have to go to something like a flip-flop of some kind,
>> >set up to divide by two.
>> >
>> >Then, you either need to move to a programmable divider that will
>> >clock at 45MHz, methinks at that range you'll have to make it
>> >up with a number of programmable decade counters. Or cascade
>> >some other flip-flops after the first one to get the frequency
>> >down to the needed range for the 4059.
>> >
>> >Note that the fixed divider ahead of the 4059 will affect the
>> >operation of the rest of the circuit. The steps of the PLL (ie
>> >the channel spacing) will be the reference frequency multiplied
>> >by the fixed divider rate. So say you have a PLL reference
>> >frequency of 1KHz. If the fixed divider between the oscillator
>> >and the 4059 is 2, then the steps will be 2KHz. If the fixed
>> >divider is 4, the steps will be 4KHz. 90Mhz divided by 16
>> >gets you to a frequency just under 6MHz, so your steps with
>> >that divisor will be 16KHz apart.
>> >
>> > Michael VE2BVW
>> >
>> >
>>
>
>

3314. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 11:25:24 UTC
From: geoff@nospam.demon.co.uk
Message-ID: <47oqe9.t7g.ln@nospam.demon.co.uk>
Source record: 52411
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

vincent coppola <vinyc@snet.net> wrote:
> I thought about playing with pulse radar on the amateur bands about 10 years back,
> inspired by an article in Sept or Oct 1983 of Ham Radio Magazine, about
> constructing a WX radar on 3cm band using a gunnplexor. It wasn't really pulsed
> but was chirped! Question of course was the legality and also the article seemed
> to be incomplete. I never completed it.

> Then I was talking to some other amateur at the time who was knowledgeable about
> radar and his recomendation was to try a boat radar which of course is legal to
> use in the marine bands, forget about the amateur bands. These use magnatrons
> operating around 9.4 ghz with peak powers ranging from maybe 2kw to much higher. I
> did some experimenting and found that with a 3kw unit it could detect
> thunderstorms out to 20 km or more. Pretty neat! As far as legality, I am not a
> lawyer but I believe in the U.S. that there is no license requirement for
> operating these so long as you don't try to repair one. Then it requires a
> commercial license.

For reference, marine radar requires licencing in the UK. Not particularly
onerous, you fill in a form, pay 20GBP to SSL and switch on. Oh, and you
have to operate it from a boat!

> On the otherhand be careful and don't put your eyes to near the antenna or
> especially if it is not rotating. Worst of all the peering into the open waveguide
> as the energy comes right out from the magnitron.

That can guarantee blindness. I was taught many years back that the only way
you EVER look into a length of waveguide is after you have put your
hand/finger/whatever (waveguide comes in a wide range of sizes!) in the
other end. The output power of a gunn or klystron local oscillator can cause
damage, the output of a magnetron WILL cause damage to your eyes or other
parts (think of a microwave oven).

Geoff
--
Geoff Blake geoff (at) palaemon . co . uk Linux 2.2.15
Chelmsford Sparc - Intel
====================== A Microsoft free zone ========================

3315. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 12:57:31 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3b10efc9$0$19688@echo-01.iinet.net.au>
Source record: 52412

PLL circuits are not for ther faint hearted and the design of the loop filter will be a problem. You cannot use CMOS logic at the frequencies you are talking about. There are lots of app notes at various manufacturer's websites on PLL circuits. I have some articles on the topic and I have a design for a generic PLL board to work at 50 MHz, though it could be used at other frequencies.
See http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

Jimbo" <jimbo@unknown.demon.co.uk> wrote in message
news:3b0e9a28.40682005@news.demon.co.uk...
> I am In the process of building a pll board for the vhf region. The
> thing doesnt work basically, and i have put it down to the dividing
> chip,(but i know these do work at this frequency) Im using a 74hc4024
> to divide around 90megs to half. This then feeds a 4059 divide by n
> counter. The problem seems to be that the output of the 4024 is not
> strong enough to drive the 4059, but, if you choose one of the outputs
> of around say 5 meg from the counter, the wave looks fine and drives
> the 4059. It just doesnt want to drive it with the output at half
> frequency, or half that. Wonder if anyone has any ideas on the matter
> ?
>
> Is it anything to do with the coupling from the oscillator to the
> 4024? I couldnt get a value of the cap from the pll i copied so i just
> used a 27 p. Anyone have any ideas there ?
>
> Would it be advisable to chop all the legs off from those remaining on
> the 4024 ?
>
> Any help would be appreciated.
>
> Jimbo

3316. Re: Modulator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 16:07:46 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105271151530.640-100000@gloria.cam.org>
Source record: 52416

On Sun, 27 May 2001, Bill Meara wrote:

> I made my first QSO with the 17 meter DSB rig, but it was more of a
> test than a QSO: after much fruitless calling I was forced to resort
> to a sked. CU2BD pointed his beam at me from the other side of Ponta
> Delgada (3km)...and still had trouble hearing me. He said the audio
> sounded OK, but very weak.
>
> The problem is low output in the DSB mode. I think I've localized the
> trouble to the Balanced Modulator. This is a simple transformer/two
> diode circuit. It appears on Page 139 of W1FB's QRP Notebook.
>
> I am able to 'balance out' the RF. When I unbalance the modulator
> (using the balance pot), I get about 1 watt out of the final (this is
> about right). But when I once again balance out the carrier and try
> to modulate, I can barely make the SWR/Output meter wiggle. Even when
> whistling, I can barely get the meter to move. I am modulating the
> signal, but just not enough.
>
> I don't think the problem is insufficient audio. My audio amplifier (a
> 741 op amp) is working fine. And I tried injecting a 1 khz tone (at
> about 1 volt rms) into the AF port of the balance modulator -- no joy.
> I put the same signal into the input of the Op amp. Again, no luck.
>
> So it is as if half of the balanced modulator (the RF half) is
> working fine (I can null out the carrier) but the audio portion seems
> unable to "unbalance" the modulator properly. I think the audio
> should be able to produce a level of "unbalancing" similar to what
> happens when I turn the balance pot to either end, but so far it is
> not even close.
>
> I'm using two Motorola IN5821977 Hot carrier diodes. The both show
> forward resistance of about 5 ohms. (This is what I had in the junk
> box -- do you guys think this is a suitable component?)
>
> I'm stumped. Anyone have any ideas on what's wrong or how I should
> proceed?
>
> Thanks,
> 73 de CU2JL (aka N2CQR)
> n2cqr@clix.pt

There's nothing special about that modulator, and it's the sort of
circuit that has shown up plenty of times before. Note that he
doesn't even bother using fancy diodes, but simply specifies

"1N914's".

Actually, just to see if the circuit was correct, I went looking and while simple two-diode balanced modulators are common, this one isn't quite. You see it in reverse, ie the signal comes off the toroid transformer and the oscillator feeds the pot, and you see other variations of the same basic parts. Without digging through magazines, the only similar circuit I found was in Doug's W1FB's Design Notebook, where he shows a similar circuit, but no pot.

It can't be the circuit. I assume you've checked the circuit to make sure the toroid is wired right and the diodes are properly in place.

Try putting some voltage, current limited, at the junction of R9 and the transformer. That should unbalance things and give you a strong output. If not, the thing must not be working. Maybe you've got a false null, that for some reason the pot isn't balancing things, but just reducing output.

Michael VE2BVW

3317. www.on4cay.com has been updated ...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 16:11:09 UTC
From: Ronny <Ronny.Stobbaerts@pandora.be>
Message-ID: <xG9Q6.11616$X03.1003485@afrodite.telenet-ops.be>
Source record: 52414

Hi dr OMs,

I just moved all content of my website to www.on4cay.com and updated several pages ...
So please visit it, and report me all missing links and/or errors !!

Do not forget to sign the new guestbook please ....

Thanks and 73s de ON4CAY, Ronny

www.on4cay.com

3318. amp for telephone receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 16:59:07 UTC
From: Robert John <RAJohnGM@worldnet.att.net>
Message-ID: <vnaQ6.49322$4f7.3622998@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52415

Anyone have a simple schematic for an amplifier to increase the audio in the handset of a telephone receiver.Should be powered via the receive audio.
Tnx, AA8X Bob

3319. Modulator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 18:02:49 UTC
From: n2cqr@clix.pt
Message-ID: <3b1140a8.24413723@news.clix.pt>
Source record: 52413

I made my first QSO with the 17 meter DSB rig, but it was more of a test than a QSO: after much fruitless calling I was forced to resort to a sked. CU2BD pointed his beam at me from the other side of Ponta Delgada (3km)...and still had trouble hearing me. He said the audio sounded OK, but very weak.

The problem is low output in the DSB mode. I think I've localized the trouble to the Balanced Modulator. This is a simple transformer/two diode circuit. It appears on Page 139 of W1FB's QRP Notebook.

I am able to 'balance out' the RF. When I unbalance the modulator (using the balance pot), I get about 1 watt out of the final (this is about right). But when I once again balance out the carrier and try to modulate, I can barely make the SWR/Output meter wiggle. Even when whistling, I can barely get the meter to move. I am modulating the signal, but just not enough.

I don't think the problem is insufficient audio. My audio amplifier (a 741 op amp) is working fine. And I tried injecting a 1 khz tone (at about 1 volt rms) into the AF port of the balance modulator -- no joy. I put the same signal into the input of the Op amp. Again, no luck.

So it is as if half of the balanced modulator (the RF half) is working fine (I can null out the carrier) but the audio portion seems unable to "unbalance" the modulator properly. I think the audio should be able to produce a level of "unbalancing" similar to what happens when I turn the balance pot to either end, but so far it is not even close.

I'm using two Motorola IN5821977 Hot carrier diodes. The both show forward resistance of about 5 ohms. (This is what I had in the junk box -- do you guys think this is a suitable component?)

I'm stumped. Anyone have any ideas on what's wrong or how I should proceed?

Thanks,
73 de CU2JL (aka N2CQR)
n2cqr@clix.pt
Bill Meara
Sao Miguel Island,
The Azores, Portugal
http://planeta.clix.pt/n2cqr

3320. Re: Modulator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 18:29:49 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <lKbQ6.7533$Uo3.278347@news6.giganews.com>
Source record: 52417

There is no substitute for looking at the circuit with an oscilloscope. Make sure the output of the amplifier is substantial; if it's not working the modulator won't work either. Check the output of the amplifier and see that it's giving you the gain you expect and that it isn't distorting the signal.

73, Bob K6DDX

3321. ICOM UX14 CIRCUIT ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 19:03:11 UTC
From: Dave deSouza <g3vfp@btinternet.com>
Message-ID: <9erj1b$7o9$1@plutonium.btinternet.com>
Source record: 52418

Hi guys.

Does anyone have a circuit, and or info on the Icom UX14 interface. I am looking to add one into my old IC751A.

Cheers,

Dave G3VFP.

3322. Re: Pll question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 19:26:01 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3B1154C9.5E2C978F@sympatico.ca>
Source record: 52419

Greetings! At the frequency that you are operating (90Mhz), I use in one of my designs a prescaler (divide by 2) made by NEC/CEL number UPB1509GV because it will run on sinewaves from the VCO at 50 Mhz and upper. The pre-scaler also can devide by 4 and 8 and is well compatible with the Motorola MC145151P2 PLL. Using the IC's that you mention, may require a "SQUARER" between the VCO and the divider by 2 which may be done by a schmitt trigger if you can find one that will work at 90 Mhz. The VCO output level must also be capable of triggering the squarer. The UPB1509 will work with -20 DBM at the input at 90 Mhz. VE2AUC

Jimbo wrote:

> I am In the process of building a pll board for the vhf region. The
> thing doesnt work basically, and i have put it down to the dividing
> chip,(but i know these do work at this frequency) Im using a 74hc4024
> to divide around 90megs to half. This then feeds a 4059 divide by n
> counter. The problem seems to be that the output of the 4024 is not
> strong enough to drive the 4059, but, if you choose one of the outputs
> of around say 5 meg from the counter, the wave looks fine and drives
> the 4059. It just doesnt want to drive it with the output at half
> frequency, or half that. Wonder if anyone has any ideas on the matter
> ?
>
> Is it anything to do with the coupling from the oscillator to the
> 4024? I couldnt get a value of the cap from the pll i copied so i just
> used a 27 p. Anyone have any ideas there ?
>
> Would it be advisable to chop all the legs off from those remaining on
> the 4024 ?
>
> Any help would be appreciated.
>
> Jimbo

3323. FA:13.8V 400W transformer.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 22:35:09 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9ervdt$g22$1@iac5.navix.net>
Source record: 52421

FA:13.8V 400W transformer.
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1601605076
-t

3324. Re: FA:13.8V 400W transformer.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 22:52:44 UTC
From: amdx <amdx@att.net>
Message-ID: <0zfQ6.47565$t12.3694288@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52422

From the pictures it looks like 13.8v with no load.
What is the voltage with a thirty amp load?

3325. Re: Modulator Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-27 23:38:37 UTC
From: n2cqr@clix.pt
Message-ID: <3b118dee.929880@news.clix.pt>
Source record: 52420

On Sun, 27 May 2001 12:07:46 -0400, Michael Black
<blackm00@gloria.cam.org> wrote:

>
>
>On Sun, 27 May 2001, Bill Meara wrote:
>
>> I made my first QSO with the 17 meter DSB rig, but it was more of a
>> test than a QSO:

>
>It can't be the circuit. I assume you've checked the circuit
>to make sure the toroid is wired right and the diodes are
>properly in place.
>
>Try putting some voltage, current limited, at the junction
>of R9 and the transformer. That should unbalance things and
>give you a strong output. If not, the thing must not be working.
>Maybe you've got a false null, that for some reason the pot
>isn't balancing things, but just reducing output.

Michael: I put 2 volts at the junction of R9 and the transformer. I got some small increase in output, but not much. It was sort of similar to the levels I get with the microphone -- I can see the output meter moving, but it is not swinging up to anywhere near the 1 watt level I get when I unbalance the modulator.

A guy who's worked with these circuits e-mailed me saying that modulated output from this type of balanced modularot SHOULD be about 10db below the level you get when you unbalance the circuit. If that is correct, my device is performing to specs! (But I can't believe W1FB woulldn't have mentioned this and designed for it -- I'm using both his DSSC generator circuit and the RF amp that he designed to go with it. And he said it would yield 1 watt PEP.)

I'm now thinking that one more stage of RF amplification might bring me up to the 1 watt level. I am getting some generation of a Double Sideband sig -- just not enough. What do you think of an additional stage of RF AMP?

73 de Bill N2CQR CU2JL
http;//planeta.clix.pt/n2cqr

3326. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 00:07:00 UTC
From: Johan Vannebo <vannebo@online.no>
Message-ID: <sGgQ6.2212$vu4.214845@news3.oke.nextra.no>
Source record: 52423

If you like programming in assembly language, (I do, because then I know exactly what I'm doing), the Atmel series of microcontrollers is superb. (Of course, there are also efficient C-compilers available). The chip can be reprogrammed on board after it is soldered in place. You get free assembler and simulator from Atmel, and a free programmer using the parallel port on the PC (software by Jerry Meng http://www.qsl.net/ba1fb). One drawback, however, if you have Windows 2000 or NT the programmer will not work (in that case you are not allowed to write directly to the printer port).

Johan

"Doug Smith " <w9wi@linux1.localdomain> wrote in message news:slrn9gq0dq.9op.w9wi@linux1.localdomain...
> I'm working on an antenna-switching project. Had hoped to use a Basic
> Stamp, but I forgot to read the specs before starting - and found the Stamps
> don't have nearly enough I/O.. so I'm looking for suggestions on other
> devices/boards..
>
> I need at least 10 digital inputs and at least 10 digital outputs. (12 of
> each would be real nice. No analog or serial I/O necessary.) I've never
> worked with microcontrollers before, so something with flash or some other
> form of reprogrammable program memory is important. External EPROMs will
> do. (the chances I'll get the software right on the first try are
> essentially zero!) Needs to be reasonably priced - $150 or less for the
> controller and any "glue"/monitor ROMs/etc. Size, speed, and power
> consumption are not important. (I have even considered using a PC with ISA
> I/O cards though the I/O cards seem to fail the price criteria)
>
> Suggestions anyone? Thanks!
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
>
>

3327. Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 01:13:43 UTC
From: aswa <ASWA2@bigpond.com>
Message-ID: <h0sQ6.25752$hV3.33159@newsfeeds.bigpond.com>
Source record: 52431

Hi all,
i am trying to save some dollars and build my own rotator.(for a 10m 4el Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
cheers
Andre

3328. Re: amp for telephone receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 02:31:44 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B11B890.9FA9B635@nf.sympatico.ca>
Source record: 52424

Robert John wrote:
>
> Anyone have a simple schematic for an amplifier to increase the audio in the
> handset of a telephone receiver.Should be powered via the receive audio.
> Tnx, AA8X Bob

Some years back there were special "Hard of hearing handsets' (some had a volume control built in) for the then conventional type 500, type 2500 etc. Bell System phones. IIRC they were powered by the DC sent out from the telephone exchange to provide signalling and to energiize the transmiiter (microphone) in the telephone handset. A typical loop current would have been between 30 and 80 milliamps. The carbon granule microphone and later the electret microphone only required a volt or two to operate.
Suggest you might try a telecomm news group, but chances are there are some "Telephone Industry (maybe even Telephone Pioneers)", here who could comment?
Hold on a mo. I've got an old subscriber equipment Bell System I and R handbook somewhere ....
Telephone set 532B containing a 151B amplifier (has adjustable gain) described as "Amplifier set for impaired hearing". There is only a general diagram of the single transistor 151B amp.
Many later telephone sets have either a slide switch volume control or slide potentiometer with an amplifier built into the telphone 'network' that is within each phone. AFIK all of these need/use the DC energization from the telephone exchange. Since only a few milliamps would probably be required maybe it could be got from the DC supply of a radio receiver? And perhaps you could use one of these out of a phone?
Terry.

3329. Re: amp for telephone receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 02:32:40 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B11B8C8.FC57B640@nf.sympatico.ca>
Source record: 52425

Robert John wrote:
>
> Anyone have a simple schematic for an amplifier to increase the audio in the
> handset of a telephone receiver.Should be powered via the receive audio.
> Tnx, AA8X Bob

Some years back there were special "Hard of hearing handsets' (some had a volume control built in) for the then conventional type 500, type 2500 etc. Bell System phones. IIRC they were powered by the DC sent out from the telephone exchange to provide signalling and to energize the transmitter (microphone) in the telephone handset. A typical loop current would have been between 30 and 80 milliamps. The carbon granule microphone and later the electret microphone only required a volt or two to operate.
Suggest you might try a telecom news group, but chances are there are some "Telephone Industry (maybe even Telephone Pioneers)", here who could comment?
Hold on a mo. I've got an old subscriber equipment Bell System I and R handbook somewhere ....
Telephone set 532B containing a 151B amplifier (has adjustable gain) described as "Amplifier set for impaired hearing". There is only a general diagram of the single transistor 151B amp.
Many later telephone sets have either a slide switch volume control or slide potentiometer with an amplifier built into the telephone 'network' that is within each phone. AFIK all of these need/use the DC energization from the telephone exchange. Since only a few milliamps would probably be required maybe it could be got from the DC supply of a radio receiver? And perhaps you could use one of these out of a phone?
Terry.

3330. Re: amp for telephone receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 02:45:21 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <5ZiQ6.32317$v5.2665037@news1.rdc1.ct.home.com>
Source record: 52426

We ordered amplified Bell handsets for our older
4-wire digital phones at work. The amplifier was
in the handset, and there was a small sideways
pot to set the volume.

Pete

"Terry S" <tsanford@nf.sympatico.ca> wrote in message
news:3B11B8C8.FC57B640@nf.sympatico.ca...
>
>
> Robert John wrote:
> >
> > Anyone have a simple schematic for an amplifier to increase the audio in
the
> > handset of a telephone receiver.Should be powered via the receive audio.
> > Tnx, AA8X Bob
>
> Some years back there were special "Hard of hearing handsets' (some had
> a volume control built in) for the then conventional type 500, type 2500
> etc. Bell System phones. IIRC they were powered by the DC sent out from
> the telephone exchange to provide signalling and to energize the
> transmitter (microphone) in the telephone handset. A typical loop
> current would have been between 30 and 80 milliamps. The carbon granule
> microphone and later the electret microphone only required a volt or two
> to operate.
> Suggest you might try a telecom news group, but chances are there are
> some "Telephone Industry (maybe even Telephone Pioneers)", here who
> could comment?
> Hold on a mo. I've got an old subscriber equipment Bell System I and R
> handbook somewhere ....
> Telephone set 532B containing a 151B amplifier (has adjustable gain)
> described as "Amplifier set for impaired hearing". There is only a
> general diagram of the single transistor 151B amp.
> Many later telephone sets have either a slide switch volume control or
> slide potentiometer with an amplifier built into the telephone 'network'
> that is within each phone. AFIK all of these need/use the DC
> energization from the telephone exchange. Since only a few milliamps
> would probably be required maybe it could be got from the DC supply of a
> radio receiver? And perhaps you could use one of these out of a phone?
> Terry.

3331. FS: MRF136 : 400 MHz, 15 W N Channel Broadband RF Power

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 03:52:31 UTC
From: markaren1@earthlink.nospam.net
Message-ID: <3b14c9fc.36560411@news.earthlink.net>
Source record: 52427

Linear, usable up to 500Mhz (they work fine @ 144MHz).

Check out the data:

http://e-www.motorola.com/webapp/sps/prod_cat/prod_summary.jsp?code=MRF136&catId=M939843277324#documentation

Remove nospam from my email address.

$7 each, flat rate Priority Mail $5 (as many as you want)

These are BRAND NEW and in the Motorola plastic shipping tubes.

Mark - markaren1@earthlink.net.

3332. How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 05:12:30 UTC
From: Tim Willson <tim.willson@state.mn.us>
Message-ID: <3B11DE3E.EA5ADEC6@state.mn.us>
Source record: 52428
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

Anyone have any success or or suggestions about the method and equipment used to recover spread spectrum cordless telephone transmissions? They are in the 902 to 927 mHz range. Thanks for answering here, so that all may benefit.

3333. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 11:41:08 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9etdfm02eg@enews1.newsguy.com>
Source record: 52430

"Johan Vannebo" <vannebo@online.no> wrote in message
news:sGgQ6.2212$vu4.214845@news3.oke.nextra.no...

> The chip can be reprogrammed on board after it
> is soldered in place.

This is also true of the MicroChip parts, however there are some constraints on your circuit, and I suspect that's also the case with Atmel.

> One drawback, however, if you have Windows 2000 or
> NT the programmer will not work (in that case you are
> not allowed to write directly to the printer port).

I think you are going to find that to be the case for most of the programmers at least as far as Win2K is concerned. Many have resolved the issue with NT but on either NT or Win2K it's pretty tough sledding and not enough folks are using Win2K yet to make it worth the effort. Certainly the cheap/free programmers this will be the case.

didleydadidah

3334. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 12:17:23 UTC
From: Dave Shrader <W1MCE@arrl.net>
Message-ID: <3B1241BE.33CA104E@arrl.net>
Source record: 52429
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

You're not supposed to be able to decode spread spectrum. It is a secure mode!

Tim Willson wrote:
>
> Anyone have any success or or suggestions about the method and
> equipment used to recover spread spectrum cordless telephone
> transmissions? They are in the 902 to 927 mHz range. Thanks
> for answering here, so that all may benefit.

3335. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 13:34:10 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <mtsQ6.156027$K5.15366371@news1.rdc1.nj.home.com>
Source record: 52432

You might be able to find a "prop pitch" motor.

"aswa" <ASWA2@bigpond.com> wrote in message
news:h0sQ6.25752$hV3.33159@newsfeeds.bigpond.com...
> Hi all,
> i am trying to save some dollars and build my own rotator.(for a 10m 4el
> Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
> cheers
> Andre
>
>

3336. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 14:14:10 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <th4nbdqamrggd2@corp.supernews.com>
Source record: 52433
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.spac

Educational purposes only, I'm certain.

"Dave Shrader" <W1MCE@arrl.net> wrote in message
news:3B1241BE.33CA104E@arrl.net...
> You're not supposed to be able to decode spread spectrum. It is a secure
> mode!
>
> Tim Willson wrote:
> >
> > Anyone have any success or or suggestions about the method and
> > equipment used to recover spread spectrum cordless telephone
> > transmissions? They are in the 902 to 927 mHz range. Thanks
> > for answering here, so that all may benefit.

3337. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:07:14 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <CQtQ6.42270$9D5.2556394@newsread2.prod.itd.earthlink.net>
Source record: 52437
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.spac

I suppose it is illeagal to monitor ypur own phone system?

Bill

Dave Shrader <W1MCE@arrl.net> wrote in message
news:3B1241BE.33CA104E@arrl.net...
> You're not supposed to be able to decode spread spectrum. It is a secure
> mode!
>
> Tim Willson wrote:
> >
> > Anyone have any success or or suggestions about the method and
> > equipment used to recover spread spectrum cordless telephone
> > transmissions? They are in the 902 to 927 mHz range. Thanks
> > for answering here, so that all may benefit.
>

3338. Re: Yaesu FT50 - setting VFO to PMR446 channel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:09:09 UTC
From: n8blk@aol.com
Message-ID: <20010528110909.18977.00001676@nso-fa.aol.com>
Source record: 52435

In article <9ebqp8vot1@news8.svr.pol.co.uk>, "Richard"
<Dickus@dial.pipex.com> writes:

>Subject: Yaesu FT50 - setting VFO to PMR446 channel
>From: "Richard" <Dickus@dial.pipex.com>
>Date: Mon, 21 May 2001 20:33:22 +0100
>
>Can anyone help with the following problem:
>
>I have an FT50 which I want to set to a PMR446 channel frequency e.g.
>Channel 2 = 446.01875
>
>When setting VFO the closest I can get is 446.0125 (step of 12.5) or 446.020
>(step 5.0).
>
>The Yaesu has wideband mods applied and is set to "Freeband" (not sure if
>this matters) and I'd like to be able to talk to PMR446 users on specific
>PMR446 channels.
>
>Is there any way of setting precise channel?
>

One trick which may work if you have computer control software for it, is
entering the frequency desired in with said software. There is the freeware
software from Russia, as well as the ADMS software (which isn't freeware) which
might work. I remember typing in several frequencies which didn't quite match
normal steps, and having them show up until I "corrected" them. You do of
course need an interface, but once again it is possible to homebrew one cheaply
rather than using the one associated with ADMS. I'm not sure if the
frequencies entered that way would actually work, I just noted what were to me
oddball frequencies that I had entered, apparently in a state of previously
unknown dyslexia, and showed up on the display as such.
-art clemons-

3339. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:13:43 UTC
From: markaren1@earthlink.nospam.net
Message-ID: <3b126992.77414656@news.earthlink.net>
Source record: 52436

There are some PIC programmers on the market which do use LPT: under NT4.0. ePIC / MicroEngineering Labs ~ $60 distributed by Jameco etc. I do my professional development using one of these and it works just fine - and faster than the programmer from Microchip.

For the PIC16F87x series, you need a 2x5 0.1" header and you can use the ePIC to program in-circuit.

I have used the Mot. 68HCxx series for years and the PIC with a decent C compiler blows the Mot. out of the water for $ / bang (or is it bang per $?).

Mark.

On Mon, 28 May 2001 07:41:08 -0400, "WB8RCR" <wb8rcr_NOSPAM@qsl.net> wrote:

>"Johan Vannebo" <vannebo@online.no> wrote in message
>news:sGgQ6.2212$vu4.214845@news3.oke.nextra.no...
>
>> The chip can be reprogrammed on board after it
>> is soldered in place.
>
>This is also true of the MicroChip parts, however there are some constraints
>on your circuit, and I suspect that's also the case with Atmel.
>
>> One drawback, however, if you have Windows 2000 or
>> NT the programmer will not work (in that case you are
>> not allowed to write directly to the printer port).
>
>I think you are going to find that to be the case for most of the
>programmers at least as far as Win2K is concerned. Many have resolved the
>issue with NT but on either NT or Win2K it's pretty tough sledding and not
>enough folks are using Win2K yet to make it worth the effort. Certainly the
>cheap/free programmers this will be the case.
>
>didleydadidah

3340. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:15:54 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <KYtQ6.42279$9D5.2558571@newsread2.prod.itd.earthlink.net>
Source record: 52434

I once saw an article about a homebrew hydraulic antenna rotator. The rotating shaft had a pin that rode in a spiral slot. When the operator pumped up the hydraulic system the rotating shaft rose forcing the it to turn at the same time because of the pin in the spiral slot. Opening a release valve a bit allowed the rotating shaft to lower again of its own weight turning it back the other way.

The hydraulic system was from an old automotive jack as I remember. The hydraulic system was the same. Pump it up to turn one way. Release oil back to the reservoir to go back the other way. This one did not generate any electrical noise and it worked even in rolling blackouts.

Bill KU8H

aswa <ASWA2@bigpond.com> wrote in message
news:h0sQ6.25752$hV3.33159@newsfeeds.bigpond.com...
> Hi all,
> i am trying to save some dollars and build my own rotator.(for a 10m 4el
> Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
> cheers
> Andre
>
>

3341. Re: Microcontroller advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:27:12 UTC
From: c_moss@bigfoot.com
Message-ID: <oer4htkra5bpjqvk69m9e0s2qf2b6f9f2t@4ax.com>
Source record: 52438

The Atmel RISC chips are 4 times faster than microchips version as the Atmel chips are mostly single cycle execution times where as microchip devices (PIC's) are 4-cycle.

Depends what speed you want out of the chip really.

Clive

3342. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:39:16 UTC
From: aduffy@sprint.ca
Message-ID: <3B127124.9F5BEA57@sprint.ca>
Source record: 52440

The rotating part is the easy one. You could even use bearing plates and clamps to hold the mast up while you turned the other end from the bottom of the tower (remember to include a locking system too). Aiming it would be the fun part. Unless you use visual to aim the antenna and maybe a compass, you'll need a feedback system to show you where it's at if you have a remote system.

You can't find an old tv rotor around cheap at a junk shop or yard sale. Maybe try an ad in the local paper for one?

73,
Tony

aswa wrote:

> Hi all,
> i am trying to save some dollars and build my own rotator.(for a 10m 4el
> Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
> cheers
> Andre

3343. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 15:52:34 UTC
From: mcalhoun@ksu.edu
Message-ID: <9ets82$mcj@unix1.cc.ksu.edu>
Source record: 52441

aswa <ASWA2@bigpond.com> wrote in message
news:h0sQ6.25752$hV3.33159@newsfeeds.bigpond.com...
> i am trying to save some dollars and build my own rotator.(for a 10m 4el
> Yagi) but cant find any info. Anyone tried it before? any ideas welcome.

There's also the old "Armstrong" rotator; the name says it all.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

3344. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 17:08:35 UTC
From: Macgman <macgyver9@iname.com>
Message-ID: <nCvQ6.2145$_%1.280404@paloalto-snr1.gtei.net>
Source record: 52442
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,alt.ham-radio.vhf-uhf

I worked on RF hardware and software design of spread spectrum phones. The US government would have a serverly hard time decoding a spread spectrum signal phone (its easier to just tap the line...hehehe). The base unit passes the handset a "seed" this seed corresponds to a psuedo-random high speed code on which the multichipped audio stream is EX-OR'ed with. Also there are control signals passed back and forth between base and handset....not to mention channel selection...etc. Sounds complicated yet?.....well there is more.....Your receiver archetecture only takes care of the physical radio demodulation......there is the software layer that is the BIG unknown, that layer takes care of EVERYTHING, if you have no clue how or what it does you will be spinning your wheels for years.

Best Regards,
MacGmaN

3345. Thumbwheel prgmr for Ramsey FM rig ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 17:14:34 UTC
From: Radiohead <hduff@ica.net>
Message-ID: <3B12877A.A06C4CC2@ica.net>
Source record: 52443

I recently picked up a used Ramsey VHF FM transceiver (already built
from a kit) at Dayton.
These radios are synthesized but limited to 12 channels through a rotary
switch and diode programming matrices.

I seem to recall a magazine article some years ago on interfacing BCD
thumbwheel switches to the rig for frequency agility.
Can anyone recall the article date or send me a copy of the article ?

(NOTE: I'm not interested in the pc interface...I need it to be
portable and not tied into a computer.)

Thanks de
Hugh VA3TO

3346. Re: 17mtr DSB - modulator fixed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 17:29:44 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <8u1ue9.bd5.ln@localhost.localdomain>
Source record: 52445

Bill Meara wrote:

> finally decided to pull out the Schottky diodes I had in there and try
> some
> ordinary diodes. (I don't even know the designation for the new ones

Small red ones with a black stripe are the best for balanced modulators.
Small red ones with a green stripe are pretty good too :-)

73, C U on 17M.

Ed. EI9GQ.

--
Remove 'X' to reply.
http://www.qsl.net/ei9gq

Linux 2.4.4

3347. Re: Thumbwheel prgmr for Ramsey FM rig ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 17:44:43 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9eu2ucvkd1@slb6.atl.mindspring.net>
Source record: 52444

Hmmm.... As I recall, the actual programming is a binary code.
Probably the "best" by way of being relatively simple to build and fit in the ramsey radio would be a prom. The thing to do is to program it so the input address is BCD and the output is the actual binary.

Seems to me there is a need to set the program on frequency while Tx and add an offset while Rx to allow for the Rx intermediate frequency.

You could allow for that as well, by using one of the input address lines as the Tx/Rx select.
And, of course, two more lines to allow for the simplex/duplex offsets.

All this will require a fair amount of fooling around to sort out the actual data to put in the prom, but it IS possible and a fairly simple solution once the code has been sorted out.

Oh yeah, you should include one of the output data lines as a "TX Enable" which would enable the Tx only when programmed for a legal ham frequency. Otherwise you might wind up transmitting out of band since this system could be set up to allow tuning across the public service frequencies.

You could, of course, make a dedicated prom, set for the local frequencies of interest and then use a simple up-down button to feed a counter and a display to show the frequency. Kinda depends on how complex you want to make it all

==========

Otherwise, I think it'd take a PIC or something similar to compute the conversion "on the go" which means figuring out the program to do it, programming the pic, and installing it.

The PIC is perhaps a more elegant solution, since you could add pushbutton entry and an LCD display. Otherwise, you'd have to add a method of scanning the thumbwheels....

Jim Pennell
N6BIU

3348. Re: Thumbwheel prgmr for Ramsey FM rig ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 18:08:34 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10105281357350.5855-100000@gloria.cam.org>
Source record: 52348

On Mon, 28 May 2001, Radiohead wrote:

> I recently picked up a used Ramsey VHF FM transceiver (already built
> from a kit) at Dayton.
> These radios are synthesized but limited to 12 channels through a rotary
> switch and diode programming matrices.
>
> I seem to recall a magazine article some years ago on interfacing BCD
> thumbwheel switches to the rig for frequency agility.
> Can anyone recall the article date or send me a copy of the article ?
>
> (NOTE: I'm not interested in the pc interface...I need it to be
> portable and not tied into a computer.)
>
> Thanks de
> Hugh VA3TO
>

I think there was an article in 73 about this, but since mine aren't in any sense of order, I can't easily search for it. I'm pretty sure they used a switch between the BCD switches and the board for the diode matrix.

Significantly, all of this had been done years before, with the ICom IC-22S. It had 22 position switch, but like the Ramsey one programmed the specific frequencies by diodes on a board. It seemed like almost as soon as the rig hit the market, there were articles about easily making it tune all the frequencies. There was a wide variety of solutions, and probably most if not all would translate to the Ramsey.

The simplest solution is to go with DIP switches. INstead of hardwiring diodes each time you need a new frequency, the switches emulate the diodes. You'd need a lookup table handy, just as you would when changing diodes. But it is simple and cheap.

Rotary switches are more convenient. I've found switches that had 16 positions that put out some kind of digital output. Right at the moment, I can't remember what code they put out, but there were four outputs. Again, have a chart handy to do the conversion.

Michael VE2BVW

3349. Need circuit diagram for PYE T40

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 18:19:56 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <eNwQ6.9080$WD.2372761@news2-win.server.ntlworld.com>
Source record: 52446
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew,uk.radio.amateur

Anyone got one (or a photocopy) for the VHF AM unit ?

Thanks

Alec M1BNK

3350. W9INN Antennas Page - Online Now

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 18:56:33 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <BbxQ6.44653$9D5.2603205@newsread2.prod.itd.earthlink.net>
Source record: 52347
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Bill (W9INN) has authorized me to publish a page about his great wire antennas. He has several models.

Contact information for Bill is on the page as well as measured data (from my QTH) on his most popular MPD-5C "max performance dipole" antenna.

- click on the " W9INN Antennas " button at the site listed below

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3351. 17mtr DSB - modulator fixed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 19:46:48 UTC
From: n2cqr@clix.pt
Message-ID: <3b12ab16.4401524@news.clix.pt>
Source record: 52439

With lots of help and advice from list members, I got the modulator working
on my homebrew 17 meter DSB rig. I checked and re-checked everything and
finally decided to pull out the Schottky diodes I had in there and try some
ordinary diodes. (I don't even know the designation for the new ones -- I
picked them up at a Radio Shack a long time ago and they have been lurking
in my junk box ever since.)

BINGO! With the new diodes I was able to null out the carrier and get
approximately 1 Watt PEP our of the rig. I'm sure the audio doesn't sound
great, but I can work on that later. For now, I'm very happy to see the
power output/SWR meter bouncing nicely as I call (futile!) CQ's!

I don't know why the other diode's didn't work. They tested fine, with high
reverse and low forward resistance.

Thanks again to all those who helped. I will continue to keep you posted
on progress (and I will probably be asking for more help on future
problems).

I think I'll be building another RF amp stage to get me up to 5-10 watts or
so. Then it will be on to the companion Direct Conversion Receiver. This
is, after all, a Direct Conversion transmitter!

73 de CU2JL (aka N2CQR)
Bill Meara
Sao Miguel Island,
The Azores, Portugal
http://planeta.clix.pt/n2cqr

3352. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 20:04:43 UTC
From: aswa <ASWA2@bigpond.com>
Message-ID: <CAIQ6.26394$hV3.37011@newsfeeds.bigpond.com>
Source record: 52353

Thanks for all the ideas...given me some food for thougt...
73s
Andre
"Rolando Milin" <9a3mr@usa.net> wrote in message
news:1104_991113643@as5-m20.net.hinet.hr...
> I made homebrew rotator with car wiper motor.
> This rotator is heavy and rotate whole mast.
> Motor is DC and it's easy to change rotation but its necessary
> to block terminals with caps to avoid QRN during rotation.
> Potentiometer, rubber belt (from tape recorder) and cheap
> instrument consist direction indicator.
> This rotator was rotating 2x 5ele yagi last weekend in WPX
> contest effort of my friend Alen 9A3MA.
>
> GL de Roland 9A3MR
>

3353. Selectronics SB100 "Sound Bridge" Mini FM Transmitter (need mfr. contact info or schematics)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 20:25:21 UTC
From: prototech@usa.net
Message-ID: <9euc7h$6hn$1@news.netmar.com>
Source record: 52349
Cross-posted to: sci.electronics.equipment,sci.electronics.misc,rec.audio.marketplace,rec.audio.tech,rec.radio.amateur.equipment, rec.radio.amateur.homebrew,rec.radio.amateur.swap

There used to be a mini FM transmitter made by Selectronics called the "Sound Bridge" model SB100.

I would like to know if anyone might have any contact information from that company or the company from whom these units may have been obtained?

At one point in time, they were sold by All Electronics and by Parts-Express. I have written to both of these companies with no luck.

At some point in time, these units were also given away free to customers ordering a certain CD player or players. If that rings a bell with anyone who might remember which company offered them as a free bonus, that might help me track them down.

I'm looking to either order some in quantity, find a company who made them or distributed them, or find a schematic.

You can see a photo of the SB100 at:
http://mem.tcon.net/users/5010/5491/sb100.gif

Thanks very much,

William E. Miller, ASEET
Chesterfield, Indiana US
Need Mfr. Info on SB100 "Sound Bridge" FM Transmitters!
See pic @ http://mem.tcon.net/users/5010/5491/sb100.gif

----- Posted via NewsOne.Net: Free (anonymous) Usenet News via the Web -----
http://newsone.net/ -- Free reading and anonymous posting to 60,000+ groups
NewsOne.Net prohibits users from posting spam. If this or other posts
made through NewsOne.Net violate posting guidelines, email abuse@newsone.net

3354. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-28 20:41:16 UTC
From: cjX@hth.com
Message-ID: <3b118c01.24169678@news.sverige.net>
Source record: 52350
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

3355. Re: dallas surplus parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 03:52:19 UTC
From: tac1138@aol.comChance
Message-ID: <20010528235219.01264.00002399@ng-fb1.aol.com>
Source record: 52352

>what's left in dallas for surplus electronics parts besides Tanners?
>how about ham gear, new and used?
>tnx
>73
>hank wd5jf

Just My 2 cents but I have found that you can still find parts at the first saturday sale

BTW What is tanners?

Chance

3356. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 05:20:43 UTC
From: 9a3mr@usa.net
Message-ID: <1104_991113643@as5-m20.net.hinet.hr>
Source record: 52351

I made homebrew rotator with car wiper motor.
This rotator is heavy and rotate whole mast.
Motor is DC and it's easy to change rotation but its necessary
to block terminals with caps to avoid QRN during rotation.
Potentiometer, rubber belt (from tape recorder) and cheap
instrument consist direction indicator.
This rotator was rotating 2x 5ele yagi last weekend in WPX
contest effort of my friend Alen 9A3MA.

GL de Roland 9A3MR

3357. Re: dallas surplus parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 12:58:36 UTC
From: Adam Adkins <km5nNoSpam@earthlink.net>
Message-ID: <MPG.157d59531edb11c4989691@news.earthlink.net>
Source record: 52354

[This followup was posted to rec.radio.amateur.homebrew and a copy was sent to the cited author.]

In article <tgu2i086hc4932@corp.supernews.com>, wd5jfr@oklahoma.net says...
> what's left in dallas for surplus electronics parts besides Tanners?
> how about ham gear, new and used?

If you don't mind going to Ft. Worth, and getting a little bit dirty, there is a place called Nortex that puts Tanners to shame. Here is the URL: http://www.montagar.com/~patj/nortex.htm

Adam, KM5N

3358. Re: looking for satellite tracking software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 13:54:09 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <9f09m1$id2$1@ausnews.austin.ibm.com>
Source record: 52355

In <20010525225641.16654.00001314@ng-mf1.aol.com>, kd7axg@aol.com (Kd7axg) writes:
>I am going to try out the 2m to 70cm satellites. Any kind of software tracking
>programs out there? Pete n/vegas KD7AXG

I've always been a fan of STS-PLUS:

http://users.sedona.net/~dransom/stsplus.html

It will track and plot the position of a satellite over a variety of map
formats.

Dave
WA4QAL

P.S. Standard Disclaimer: I work for them, but I don't speak for them.

3359. Re: FA:13.8V 400W transformer.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 18:40:10 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9f0qee$9de$1@iac5.navix.net>
Source record: 52356

AmDX-

Alas, no load so no brute force answer.

Meter reads to 0.1 Ohm.

Measuring windings R
Secondary reads zero so worst case is less than 0.05 Ohm
Primary reads 0.6 Ohm

My math says WORST 30A will be 12.5 Volts.

-t

In old days of Usenet it was considered bad form
not to CC the poster via email when replying to the
group.

"amdx" <amdx@att.net> wrote in message
news:0zfQ6.47565$t12.3694288@bgtnsc05-news.ops.worldnet.att.net...
> From the pictures it looks like 13.8v with no load.
> What is the voltage with a thirty amp load?

3360. Re: dallas surplus parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 21:20:45 UTC
From: k5vmu@aol.com
Message-ID: <20010529172045.05030.00001884@ng-fy1.aol.com>
Source record: 52357

```
>Subject: Re: dallas surplus parts?
>Path:
>lobby!newstf02.news.aol.com!portc03.blue.aol.com!howland.erols.net!feed2.
news.rcn.net!rcn!newsfeed1.earthlink.net!newsfeed.earthlink.net!newsmaster
1.prod.itd.earthlink.net!newsread2.prod.itd.earthlink.net.POSTED!not-for-mail
>From: Adam Adkins km5nNoSpam@earthlink.net
>Newsgroups: rec.radio.amateur.homebrew
>Message-ID: <MPG.157d59531edb11c4989691@news.earthlink.net>
>References: <tgu2i086hc4932@corp.supernews.com>
>X-Newsreader: MicroPlanet Gravity v2.30
>Lines: 13
>Date: Tue, 29 May 2001 12:58:36 GMT
>NNTP-Posting-Host: 166.35.230.220
>X-Complaints-To: abuse@earthlink.net
>X-Trace: newsread2.prod.itd.earthlink.net 991141116 166.35.230.220 (Tue, 29
>May 2001 05:58:36 PDT)
>NNTP-Posting-Date: Tue, 29 May 2001 05:58:36 PDT
>Organization: EarthLink Inc. -- http://www.EarthLink.net
>X-Received-Date: Tue, 29 May 2001 05:56:40 PDT
>(newsmaster1.prod.itd.earthlink.net)
>
>
>
>[This followup was posted to rec.radio.amateur.homebrew and a copy was
>sent to the cited author.]
>
>In article <tgu2i086hc4932@corp.supernews.com>, wd5jfr@oklahoma.net
>says...
>> what's left in dallas for surplus electronics parts besides Tanners?
>> how about ham gear, new and used?
>
> If you don't mind going to Ft. Worth, and getting a little bit
>dirty, there is a place called Nortex that puts Tanners to shame. Here
>is the URL: http://www.montagar.com/~patj/nortex.htm
>
>Adam, KM5N

=====================
WIW,,, I HAVE NOT BEEN THERE FOR YEARS....IF LIKE IT USED TO BE...WEAR BOOTS TO
WADE IN THE WATER IN THE AREAS WHERE THE ROOF LEAKS AND THE STUFF STORED
OUTSIDE ON GROUND...THE HIGH PILES KEEP MOST OF THE STUFF DRYER,,,IF NOT
DRY...FANTSTIC INVENTORY OF MYRID STUFF FROM WW2 ON...I HAD ASSUMED THE SHUT
DOWN OF DALLAS NAVAL AIR STATION AND CARSWELL AFB HAD PROBASNBLY LEAD TO DEMISE
OF THE STORE...AND THE OWNER WHO WAS A GREAT GUY TO TALK WITH WAS PRETTY OLD
```

BACK THEN...
HAVE FUN IF YOU GO,,AND PREPARE TO STAY A LONG TIME...OR GO BACK
...
73, DALE CROFT

3361. Re: Kachina going out of the amateur biz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-29 22:49:52 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <th89v4c1jqt6cf@corp.supernews.com>
Source record: 52358

...and selling them off cheap. Interesting letter on their web site
regarding the state of producing amateur radio tranceivers.
http://www.kachina-az.com/hf_products.htm

Bob
kb8tl@yahoo.com

"Schatzie" <jdwalton@home.com> wrote in message
news:a%MP6.145912$K5.13924755@news1.rdc1.nj.home.com...
> from the ARRL broadcast this morning -- Kachina is discontinuing their DSP
> transceiver.
>

3362. fluke 103a?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 00:11:53 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <th8emkqdtde40c@corp.supernews.com>
Source record: 52359

can someone please give me an outline of the specs on the subject..
is it a phase comparator?
what freq range and tube or solid state?
are they any good or what old piece is better?
i want to campare the phase of an tcxo to wwvb..
tnx
hank wd5jfr

3363. FS:RCA 826 Gonset RF AMP TUBES (NEW)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 00:20:42 UTC
From: R S Stashenko <rlstash@minn.net>
Message-ID: <R0XQ6.478$SM.18939@news.corpcomm.net>
Source record: 52360

I have 4 of these tubes for sale at $20.00 each plus shipping from Minnesota
TNX Bob K1WVE/0

3364. Radio info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 01:43:08 UTC
From: Billy and Tracy <vo1bil@rac.ca>
Message-ID: <3b144f27.0@209.128.1.3>
Source record: 52361
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I recently was donated a bunch of Marconi DP93 VHF HT radios. These radios are 16ch and have a TNC antenna connector not a BNC. I was wondering if anyone could tell me if it is possible to convert these to 2M, and if so how? There was also a FTC-2205 HT that I would like to convert. I also acquired a Century II mobile 25W VHF radio that I was wondering the same about. It is very similar to the GE Phoenix SX but a little different inside. I am planning on selling these for a club fund raiser. If you have any info on these radios please let me know. Thanks.

Bill Crann

3365. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 02:46:25 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <5aZQ6.25241$Rh7.813881@newsread1.prod.itd.earthlink.net>
Source record: 52362

I just noticed the cross posting to everybody@everywhere and removed all but "my" group.

I suspected that trying to monitor spread spectrum would not be practical and might only be a possibility with your own equipment. You would have the "keys" to your own equipment. Something along the line of a one-way intercom.

I bought some of those cheap intercom sets that use the homestead power wiring to communicate. Works fine... no hassles, no aggravation. One each in the kitchen, the parlor, the basement, and the barn. I suppose those could be homebrewed, too.

Bill KU8H

Macgman <macgyver9@iname.com> wrote in message news:nCvQ6.2145$_%1.280404@paloalto-snr1.gtei.net...
> I worked on RF hardware and software design of spread spectrum phones. The
> US government would have a serverly hard time decoding a spread spectrum
> signal phone (its easier to just tap the line...hehehe). The base unit
> passes the handset a "seed" this seed corresponds to a psuedo-random high
> speed code on which the multichipped audio stream is EX-OR'ed with. Also
> there are control signals passed back and forth between base and
> handset....not to mention channel selection...etc. Sounds complicated
> yet?.....well there is more.....Your receiver archetecture only takes care
> of the physical radio demodulation......there is the software layer that
is
> the BIG unknown, that layer takes care of EVERYTHING, if you have no clue
> how or what it does you will be spinning your wheels for years.
>
> Best Regards,
> MacGmaN
>

3366. Re: dallas surplus parts?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 16:27:09 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0105300827.3ae100bb@posting.google.com>
Source record: 52363

Adam Adkins <km5nNoSpam@earthlink.net> wrote in message
news:<MPG.157d59531edb11c4989691@news.earthlink.net>...

> If you don't mind going to Ft. Worth, and getting a little bit
> dirty, there is a place called Nortex that puts Tanners to shame.
> Here is the URL: http://www.montagar.com/~patj/nortex.htm

Hear! Hear!

Nortex is amazing - the classic Surplus Electronic Junk Store.
An endangered species, alas...

Go there. Spend lots of money. It's not difficult. :-)

I also spent quite a bit at Tanner's my last trip to DFW.
I don't see Tanner's and Nortex as competition: they sell
different things.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

3367. Valveshops in Praha, Firenze or Salzburg?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 19:20:55 UTC
From: arnoldg@enitel.no
Message-ID: <3b154754.1347140@news.enitel.no>
Source record: 52364
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.antiques.radio+phono,rec.radio.amateur.homebrew

I'm will have a one month holiday from the middle of June. I will be
visiting with my family and some good friends, Praha (Prague),
Firenze, Salzburg in Austria and Luzern in Switzerland.
If anyone of you knows of any shop that sell valves and/or surplus
electronics in these towns, I would be very glad to know.
Thank you.

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

3368. Re: Valveshops in Praha, Firenze or Salzburg?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 19:33:19 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B154AFF.37620AB0@coqui.net>
Source record: 52365
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.antiques.radio+phono,rec.radio.amateur.homebrew

You may find this page interesting. Maybe the owner can help you in
regard to Prague.
http://freeweb.coco.cz/oldradio.cz/english.htm

Regards,
Bill

"DEMOSTENES A. Goksï¿½yr" wrote:
>
> I'm will have a one month holiday from the middle of June. I will be
> visiting with my family and some good friends, Praha (Prague),
> Firenze, Salzburg in Austria and Luzern in Switzerland.
> If anyone of you knows of any shop that sell valves and/or surplus
> electronics in these towns, I would be very glad to know.
> Thank you.
>
> Regards,
>
> Arnold Goksï¿½yr
>
> DEMOSTENES - N6899 Balestrand, Norway
> Tlf. +47 5769 1340 Fax +47 5769 1267
> http://www.demostenes.no
>
> Thousands of different valves in stock as well as
> sockets,transformers,books and components.

3369. Intercom via electricity AC supply system ; was: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 20:43:33 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9f3tbqfrm1@newsg4.svr.pol.co.uk>
Source record: 52368

> I bought some of those cheap intercom sets that use the homestead power
> wiring to communicate. Works fine... no hassles, no aggravation. One each
in
> the kitchen, the parlor, the basement, and the barn. I suppose those could
> be homebrewed, too.
> Bill KU8H
==========
I also have a pair make Realistic (Rat Shack) The signal (somewhere in the
Long Wave band) can also be received on a tuned BC radio.
Only problem is its sensitivity to switching lights ,thermostats etc
,producing clicks.

Frank gm0csz.kn6wh@ukrs.org

3370. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 20:44:50 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9f3m45$2j7$1@madmax.keyway.net>
Source record: 52366
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.spac

I'll do it for $3,500,000. 2 year contract. No guarantees.

Jim Bradshaw, ac6tk@cybertime.net
http://www.cybertime.net/~ac6tk

"Tim Willson" <tim.willson@state.mn.us> wrote in message
news:3B11DE3E.EA5ADEC6@state.mn.us...
: Anyone have any success or or suggestions about the method and
: equipment used to recover spread spectrum cordless telephone
: transmissions? They are in the 902 to 927 mHz range. Thanks
: for answering here, so that all may benefit.
:

3371. Re: Valveshops in Praha, Firenze or Salzburg?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-30 22:27:31 UTC
From: Raymond Koonce <rkoonce@tyler.net>
Message-ID: <3B1573D3.52505612@tyler.net>
Source record: 52367
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.antiques.radio+phono,rec.radio.amateur.homebrew

Hi Arnold,

You might try visiting Jura Apotheke in Bern (not too far from Luzern).
Miroslav Kubala, the owner, used to post to the Joe List, but I haven't
seen anything from him in some time. His webpage still has some hifi
equipment listed. Check it out at http://www.jurapharmacy.ch/

Regards,

Raymond

"DEMOSTENES A. Goksï¿½yr" wrote:
>
> I'm will have a one month holiday from the middle of June. I will be
> visiting with my family and some good friends, Praha (Prague),
> Firenze, Salzburg in Austria and Luzern in Switzerland.
> If anyone of you knows of any shop that sell valves and/or surplus
> electronics in these towns, I would be very glad to know.
> Thank you.
>
> Regards,
>
> Arnold Goksï¿½yr
>
> DEMOSTENES - N6899 Balestrand, Norway
> Tlf. +47 5769 1340 Fax +47 5769 1267
> http://www.demostenes.no
>
> Thousands of different valves in stock as well as
> sockets,transformers,books and components.

--
Raymond
TX USA

3372. HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 00:08:53 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <NmkR6.54350$WG2.1335539@e420r-atl3.usenetserver.com>
Source record: 52372
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

Hello. Thanks for reading this. I have purchased an HP 8443A Tracking Generator for my 141 spectrum analyzer. It did not come with the interconnect cable, but I have managed to find all the pieces needed for constructing one. What I need know is how this cable is wired --that is, do I connect pin one to pin one, pin two to pin two, etc.? thanks again, John

3373. Re: Intercom via electricity AC supply system ; was: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 01:24:56 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <l3hR6.4247$S2.205725@newsread2.prod.itd.earthlink.net>
Source record: 52369

You probably paid too much at Radio Shack and thats why they're touchy about electrical noise. I bought el-cheapo units at Office Depot. They aren't sensitive enough to receive line noises <grin>

Bill

Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:9f3tbqfrm1@newsg4.svr.pol.co.uk...
>
> > I bought some of those cheap intercom sets that use the homestead power
> > wiring to communicate. Works fine... no hassles, no aggravation. One each
> in
> > the kitchen, the parlor, the basement, and the barn. I suppose those could
> > be homebrewed, too.
> > Bill KU8H
> ============================
> I also have a pair make Realistic (Rat Shack) The signal (somewhere in the
> Long Wave band) can also be received on a tuned BC radio.
> Only problem is its sensitivity to switching lights ,thermostats etc
> ,producing clicks.
>
> Frank gm0csz.kn6wh@ukrs.org
>
>
>
>

3374. For Sale!- Dentron MLA-2500B Desktop Amplifier.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 04:13:14 UTC
From: Steve <odin13@optonline.net>
Message-ID: <uxjR6.148643$MR1.18683351@news02.optonline.net>
Source record: 52370
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Excellent condition electrically and cosmetically. Eimac 8875 x 2. Full output 160-10 meters. Non-smoking environment. Original manual. $500.00 plus shipping from New York.

TNX for reading!

Steve N2ET

3375. Need 3SK74 Data Sheet (NEC)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 04:42:53 UTC
From: wb4lnm@aol.com
Message-ID: <20010531004253.15518.00004968@ng-fo1.aol.com>
Source record: 52371

Can anyone point me to a copy of an NEC 3SK74 DG FET data sheet? I'm drawing a blank with the search engines. The search features on the NEC (Japan) and California Eastern web sites come back with nothing.

Thanks. John... WB4LNM

3376. Antenna T-match Network Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 13:27:21 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9f5h82$1lq$5@uranium.btinternet.com>
Source record: 52373

NEW PROGRAM " T_TUNER.exe "

This program assists with selecting maximum component values
necessary to secure an impedance match when confronted with a
specified wide range of feeder or antenna input impedances.

For given coil and capacitor Q's, and power input, the power
dissipated and lost in each component is calculated. Also all
currents and voltages.

Input and ouput image impedances are calculated. The program will
demonstrate that the output image impedance is the conjugate of the
feedline input imedance. By first of all setting Q values to
infinity, it will also demonstrate that when a conjugate match
exists at one end of a network a conjugate match will exist at the
other end only when the network is lossless. Or conversely, if a
conjugate match exists at one end of a lossy network, a conjugate
match cannot exist at the other end.

51 kilobytes. One file only. Not zipped up. Download program
T_MATCH in a few seconds. Run immediately.

****
Regards, Reg, G4FGQ
Free radio design & modelling software
http://www.btinternet.com/~g4fgq.regp

****

3377. Re: Antenna T-match Network Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 19:55:37 UTC
From: goldreged@aol.comJUNKBLOK
Message-ID: <20010531155537.00555.00002292@ng-mr1.aol.com>
Source record: 52374

Reg... You are Awesome !!!
Ed G.
KB1DQX
(Please Remove "JUNKBLOK" to E-mail.
Unless it's a Flame.)

3378. For sale 2N94A transistors !!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 19:58:05 UTC
From: Riccardo <gaggior@tin.it>
Message-ID: <hnxR6.10132$vt.101185@news1.tin.it>
Source record: 52375

Hello, I have to sell 5 old, still packed in them original "Sylvania" yellow and black cardboard boxes, 2N94A transistors. If someone is interested (for collection or other), please let me know your offer via email at the following address : gaggior@tin.it

73 de Riccardo

3379. Auto radio info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 20:20:33 UTC
From: w4pqwhs@aol.com
Message-ID: <20010531162033.26606.00002451@ng-fe1.aol.com>
Source record: 52376

can someone tell me how to remove a BC radio from the dash of a 1998 Plymouth Valiant mini van... I haven`t removed a car radio in 50 years ,I guess I`ve lost it (the touch that is) thanks Harold W4PQW

3380. Re: HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 20:53:01 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <jCCR6.20535$k4.319972@e420r-atl2.usenetserver.com>
Source record: 52382
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

John: Thanks for your comments. I wish I had this info before I ordered the parts for making one myself. Believe it or not, the connectors are still being made and are sold by Mouser, should anyone else need them. I have had several emails that contain the info that I needed to build one, including one that pointed out that the tracking generator is not compatible with my 8553L rf section. Win some and lose some.
thanks again.
John
KC4ZXX
"John Miles" <jmiles@pop.removethistomailme.net> wrote in message news:3B16EC46.282A@pop.removethistomailme.net...
> John D. Farr wrote:
> >
> > Hello. Thanks for reading this. I have purchased an HP 8443A Tracking
> > Generator for my 141 spectrum analyzer. It did not come with the
> > interconnect cable, but I have managed to find all the pieces needed for
> > constructing one. What I need know is how this cable is wired --that is, do
> > I connect pin one to pin one, pin two to pin two, etc.? thanks again, John
>
> That's probably a safe approach, although not all the pins will need to
> be connected. Talk to George Kerber at glkinst@earthlink.net; he makes
> a lot of these cables for people and will probably be glad to advise you
> on the pinout.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --
>

3381. The Spontaflex Reflex Page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 21:35:45 UTC
From: geoffrey brown <vac.spares@virgin.net>
Message-ID: <tHyR6.3492$%_1.810243@news2-win.server.ntlworld.com>
Source record: 52377

http://freespace.virgin.net/spontaflex.reflex/

3382. FA: Racal RA1792 HF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-05-31 22:02:48 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B16BF88.5010503@armscroft.demon.co.uk>
Source record: 52378

Scarce RA1792 Racal HF receiver on eBay now. Check it out!

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1242062463

GL!

Mark

3383. F.S. Heath SB-10 ssb adapt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 00:07:44 UTC
From: wa4uso@aol.com
Message-ID: <20010531200744.10079.00002219@ng-fl1.aol.com>
Source record: 52379

I have one Heath SB-10 ssb adapter for sale or trade. Unit in working condition with good cosmo. and manual. Price is $65.00 or best offer. Please return email direct to WA4USO@aol.com.

TNX D. Darby

3384. Re: HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 01:04:20 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B16EC46.282A@pop.removethistomailme.net>
Source record: 52380
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

John D. Farr wrote:
>
> Hello. Thanks for reading this. I have purchased an HP 8443A Tracking
> Generator for my 141 spectrum analyzer. It did not come with the
> interconnect cable, but I have managed to find all the pieces needed for
> constructing one. What I need know is how this cable is wired --that is, do
> I connect pin one to pin one, pin two to pin two, etc.? thanks again, John

That's probably a safe approach, although not all the pins will need to
be connected. Talk to George Kerber at glkinst@earthlink.net; he makes
a lot of these cables for people and will probably be glad to advise you
on the pinout.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3385. trc-485 modification

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 01:28:54 UTC
From: FM 3-metre <tals@dsuper.net>
Message-ID: <p3CR6.3629$Mb7.284569@brie.direct.ca>
Source record: 52381

HI, if you know how I obtain more channels to my Radio Shack TRC 485 send me the instructions or procedure, thanks for your care. Sys01

3386. FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 02:22:12 UTC
From: marathon <marathon@tiac.net>
Message-ID: <9f6u8t$sb3$1@news-central.tiac.net>
Source record: 52383
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Could someone recommend a good FM Transmitter for MP3 playaround house. I would like 12 v and 120v capability, Stereo, and appx 1/4 mile range. Had a Canakit, but destroyed it trying to set it up in a case with switching for voltages so would like something already built and in a case. Am in US and would like it to be in $100 or about range.
Any suggestions?

Thanks,
John

3387. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 02:33:06 UTC
From: JL Webb <jlwebb@iname.com>
Message-ID: <3B16FF16.96BE666F@iname.com>
Source record: 52384
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

marathon wrote:

> Could someone recommend a good FM Transmitter for MP3 playaround house. I
> would like 12 v and 120v capability, Stereo, and appx 1/4 mile range.

your house is 1/4 mile long?

> Had a Canakit, but destroyed it trying to set it up in a case with switching
> for voltages so would like something already built and in a case. Am in US
> and would like it to be in $100 or about range.
> Any suggestions?

Still not sure if you want a 1/4 mile pirate transmitter, or a "just around the house" repeater like you first mentioned. These are two completely different items.

3388. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 02:36:48 UTC
From: ham_guy@webtv.net
Message-ID: <27635-3B16FFC0-27@storefull-137.iap.bryant.webtv.net>
Source record: 52385

My station runs off solar / battery power, so I don't want to waste electricity needed for the transmitter. My plan is to fashion a manually cranked rotator, made from a discarded garage door opener. It is gear-reduced 3 times, with the final drive shaft intended to turn the entire mast from the bottom end.
A compass rose marked on the tower base will indicate the direction of the beam. The crank is going to be bolted onto the motor drive pulley. Best of all, it is practically cost free. 73 JJ

3389. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 05:23:29 UTC
From: marathon <marathon@tiac.net>
Message-ID: <9f78ss$4qk$1@news-central.tiac.net>
Source record: 52386
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Reason I say 1/4 mile is that we have some dock parties at a Marina and thought it would be great to be able to transmit around the marina for those. Also, Canakit was a bit weak while it worked throughout the house, it was not a great signal.

Perhaps you could recommend a couple different types, a home and a pirate transmitter?

3390. Re: HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 06:25:35 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <bDg5LpAfVzF7EAe2@ifwtech.com>
Source record: 52387
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

John D. Farr wrote:
>Believe it or not, the connectors are still
>being made and are sold by Mouser, should anyone else need them. I have
>had several emails that contain the info that I needed to build one,

Before this thread dies, please can you post a summary of any useful information you've received. Other readers of this newsgroup are interested too!

I know that many people prefer not to post to newsgroups, but you can share their information while still preserving their privacy.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

3391. New CD: Heathkit - The Early Years

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 13:40:41 UTC
From: Terry Perdue <terryp@halcyon.com>
Message-ID: <9f860b$m9p$2@brokaw.wa.com>
Source record: 52388

Now available! Over 900 high quality .JPG scans of professionally taken plant and product photos, catalogs and flyers, Heath publications and documents, and newspaper clippings, plus a 30 minute .WAV recording of Director of Engineering Gene Fiebich's memories of Heathkit's early years. Approx. 530 MB of history, nostalgia and insight.

Send a check or money order for $25 to:

Terry Perdue
18617 - 65th Court N.E.
Kenmore, WA 98028-7920

Price includes first class postage in U.S. Shipped next working day.

3392. Re: HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 14:48:24 UTC
From: Dan Rae <ac6ao@arrl.net>
Message-ID: <9f8a0j$k39$1@slb5.atl.mindspring.net>
Source record: 52389
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

John,

I'm pretty sure you can adapt the older RF sections for use with the 8443A, I've done it, but without the 3 appropriate manuals you will be lost; up the proverbial creek....

As far as I can remember, it is "simply" a question of bringing the 3MHz IF from the 8552, thru the RF/IF interconnect, to the connector (you'll have to get the insert) at the rear of the RF unit. If your unit has any of the inserts A2 thru A7 missing at the 8 way D-sub combo connector; that is what you will need to get. If you have a really old 141T it may also be lacking that connection to the outside world....

Dan

John D. Farr wrote in message ...

I have had
>several emails that contain the info that I needed to build one, including
>one that pointed out that the tracking generator is not compatible with my
>8553L rf section. Win some and lose some.
>thanks again.

3393. Re: Need 3SK74 Data Sheet (NEC)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 16:07:21 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <Z4PR6.706$v4.25825@www.newsranger.com>
Source record: 52390

In article <20010531004253.15518.00004968@ng-fo1.aol.com>, WB4LNM says...
>
>Can anyone point me to a copy of an NEC 3SK74 DG FET data sheet? I'm drawing a
>blank with the search engines. The search features on the NEC (Japan) and
>California Eastern web sites come back with nothing.
>
>Thanks. John... WB4LNM
>
The NTE455 is a replacement for it. There is a link at
http://www.reselec.com/catpages/page0172/ which shows minimal data:

dual gate MOSFET
BVgss=20v
Vp1=2v
Vp2=.7v
IDSS=.5-8mA
Ciss=2.5pF
Cres=.03pF
gfs=22000umho=22mmho
Pdiss=200mW

Package=?

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3394. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 17:14:15 UTC
From: Huw Waters <huwwaters@eidosnet.co.uk>
Message-ID: <9f8ipo$116$1@uranium.btinternet.com>
Source record: 52391
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Here's a good website to purchase a FM Transmitter. It's in the UK but they ship all around the world and the distance these transmitters cover are huge and in stereo at a very cheap price. I'm 14 and I've got a 1 mile stero transmitter for about £35 ($70).

Here's the address.

http://www.veronicafm.co.uk/

Huw

"marathon" <marathon@tiac.net> wrote in message
news:9f6u8t$sb3$1@news-central.tiac.net...
> Could someone recommend a good FM Transmitter for MP3 playaround house. I
> would like 12 v and 120v capability, Stereo, and appx 1/4 mile range.
> Had a Canakit, but destroyed it trying to set it up in a case with
switching
> for voltages so would like something already built and in a case. Am in
US
> and would like it to be in $100 or about range.
> Any suggestions?
>
> Thanks,
> John
>
>
>

3395. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 22:19:21 UTC
From: berd-pee@perthmail.com
Message-ID: <3b181457.2194528@news.m.iinet.net.au>
Source record: 52392
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew

Hasn't anybody heard of CW radar? Better still what aboput PRN
modulated radar. The process gain can be made quite large and
therefore the radiated power can be quite moderate. Get with the
STRENGTH.

On Mon, 21 May 2001 23:41:48 +0100, "squilsh" <squilsh@ntlworld.com>
wrote:

>lwilliams <lwilliams@guernsey.net> wrote in message
>news:3b059bda.0@news.guernsey.net...
>> Worked on the collision avoidance radar (Philips) for BMW, Merc, Volvo, GM
>> etc, 77Ghz
>> <pkearn@eircom.net> wrote in message
>news:3ad63215.1175650@news1.tinet.ie...
>> > "squilsh" <squilsh@ntlworld.com> wrote:
>> > ::Has anybody considered doing amateur radar?
>> >
>> > Yes. years ago around late 1980's
>> >
>> > thought of 432mhz or use a Solfan Head using FMCW on 3cms
>> >
>> > main reason for my interest in all this Radar:
>> > I am involved in Aero Radar (fixing of) and have always wondered
>> > if I could get something going to at least see if its ''do-able''
>> > without a huge r'n'd department behind me.
>> >
>> >
>> > Either way.
>> > I wish you all the best with your experiments.
>> >
>> > Its nice to see someone WONDERING OUT LOUD.
>>
>>
>I'm currently halfway through building a simple ultrasonic pulse radar, from
>a design in the book "Electronic Projects for Experimenters", by Robert
>Penfold, published by Babani.
>
>This consists of a hand-held box containing ultrasonic Tx and Rx
>transducers, oscillator and detector circuits, batteries, and a row of LED's
>to indicate distance of targets, same concept as an A-scope but using
>brightness to indicate signal strength. I will fit sockets to allow
>connection to an oscilloscope for a proper A-scope display.
>
>Range is stated as 5 metres.

>
>When I get a 'round tuit' I might write a letter to Practical Wireless about
>amateur radar.
>
>
>
>
>
>
>

-- email: <berd-peemix@perthmail.com>
for email delete the thousand and nine

3396. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-01 22:22:54 UTC
From: berd-pee@perthmail.com
Message-ID: <3b181556.2450039@news.m.iinet.net.au>
Source record: 52393
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,sci.engr.radar+sonar

With a bit of clever programming one could convert a PPI display to be
stored digitally on a PC or other computer/micro. This would get over
the P7 phosphor problem.

On Sat, 26 May 2001 09:01:50 +0100, geoff@nospam.demon.co.uk wrote:

>squilsh <squilsh@ntlworld.com> wrote:
>
>> <geoff@nospam.demon.co.uk> wrote in message
>> news:oh6he9.7qc.ln@nospam.demon.co.uk...
>>> GeoffB <geofftb@btinternet.com> wrote:
>>>
>>>
>>>
>>> Methinks that a good solution may be to digitise the azimuth and use a FFT
>>> processor on the IF and trigger from the PRF generator. Feed that lot into
>> a
>>> good bit of software on a PC (NOT windows) and simulate a raster scanned
>> PPI
>>> display.
>
>> Don't think I'll do anything as complicated as that, but I have some ideas
>> for using an oscilloscope as the display. One is to feed the X and Y inputs
>> with sine-cosine waves, (a cosine wave is a sine wave of the same frequency
>> but phase-shifted by 90 deg.), this should result in a circular sweep, then
>> if you amplitude modulate both with a sawtooth at PRF you should get a PPI
>> (plan position indicator, the usual kind of radar display), Z-modulation
>> (trace brightness) indicating targets.
>
>Yes, a magnetic scan version of this was indeed done in "static coil"
>displays before raster scan systems became practical (memory arrays etc),
>but unless you have a P7 type phosphor, the PPI on a scope display will
>hardly be readable. The asimuth info was derived by the use of 360 deg
>rotation sine/cosine pots and used to control variable gain X and Y
>amplifiers that were fed via an "A scan" ramp.
>
>>> Incidentally the UK amateur licence used to allow pulse mod with a mean
>>> input of 25W and 25kW peak pulse on bands above 23cms - I don't know if
>> that
>>> is still valid.
>>>
>> From the current BR68, pulse transmission is only permitted above 1000 MHz.
>
>23cm is above 1000MHz isn't it?

>
>Geoff
>--
> Geoff Blake geoff (at) palaemon . co . uk Linux 2.2.15
> Chelmsford Sparc - Intel
> ====================== A Microsoft free zone ========================

-- email: <berd-peemix@perthmail.com>
for email delete the thousand and nine

3397. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 00:28:48 UTC
From: JL Webb <jlwebb@iname.com>
Message-ID: <3B183376.BD86130E@iname.com>
Source record: 52394
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

marathon wrote:

> Reason I say 1/4 mile is that we have some dock parties at a Marina and
> thought it would be great to be able to transmit around the marina for
> those. Also, Canakit was a bit weak while it worked throughout the house,
> it was not a great signal.
>
> Perhaps you could recommend a couple different types, a home and a pirate
> transmitter?

The Veronica one watt pl unit listed here is more than enough to cover your
Marina and then some.
http://www.ldbrewer.com/lpfm/index.html

This is the best in house unit I have seen and also is pl so it will not drift
off frequency.
http://www.ccrane.com/fm_transmitter.asp

3398. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 02:54:26 UTC
From: marathon <marathon@tiac.net>
Message-ID: <9f9khi$5eo$1@news-central.tiac.net>
Source record: 52395
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Thanks, for your help.

Anyone like the Ramsey FM25 ?

is it hard to assemble. I don't solder too well.

The Veronica would be a bit pricey by the time you make it stereo.

Appreciate all the input I can get.
Thanks
John

3399. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 03:09:03 UTC
From: It's Dave <enginr@earthlink.net>
Message-ID: <3B1858C4.BFC@earthlink.net>
Source record: 52396
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Drifting off of frequency is bad. I hate chasing those little birdies
across the band! :)

(Oh laugh and loosen up a bit)

3400. Re: HP141/HP8443A Help Needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 03:11:39 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <bw1S6.1007$h7.15396@e420r-atl2.usenetserver.com>
Source record: 52297
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

"Ian White, G3SEK" <G3SEK@ifwtech.com> wrote in message
news:bDg5LpAfVzF7EAe2@ifwtech.com...
> Before this thread dies, please can you post a summary of any useful
> information you've received. Other readers of this newsgroup are
> interested too!
>
> I know that many people prefer not to post to newsgroups, but you can
> share their information while still preserving their privacy.
>

OK. Here it is the original query and a summary of info received. I don't know if it is tacky or not but I didn't cite the people that wrote because of privacy issues. I do sincerely thank everybody that wrote.

Hello. Thanks for reading this. I have purchased an HP 8443A Tracking Generator for my 141 spectrum analyzer. It did not come with the interconnect cable, but I have managed to find all the pieces needed for constructing one. What I need know is how this cable is wired --that is, do I connect pin one to pin one, pin two to pin two, etc.? thanks again, John

First, I found that the 8553L does not have the cabling to support the 8443A tracking generator. An 8553B plug-in goes with it. I have heard nothing about the compatibility of the 8553A. Unfortunately, mine is the L version. Fortunately, the B versions are available and not terribly expensive.Win some and loose some.

It was confirmed that the connections are pin 1 to pin 1, pin 2 to pin 2, etc. Not all the pins are used.

The 8553L can be modified adding a cable from the 8552 IF section 3 MHz IF to the interconnect that is between the RF section and the IF section. A cable needs to be added to the 8553 that goes from this connection to the rf connector at the rear of the RF unit. The gentleman that told me that this mod would be hopeless without the manuals. Also, a connector plate and rf connector will need to be added to the rear of the 8553 that mates with the one inside the 141T.

Early 141T's lack the connector to the outside world required for the 8443A. I didn't get in any trouble here.

I checked with the usual vendors for a manual for the 8443A. I found only one that had it. It was way too expensive for my meager budget. If someone has one, I would love to buy it, pay for a copy or borrow it and copy it myself.

ITT Canon still manufactures the connectors with many pin variations. This info was found at their web site. I did not pursue this because I found them at Mouser.

Mouser has the connectors and pins in their catalog for RG174. I placed an order with them. The pins were in stock and the housings were back-ordered. I have not heard from them yet on the ETA of the housings.

George Kerber at glkinst@earthlink.net makes these cables.

Again, thanks all who replied.
John KC4ZXX

3401. PLEASE INFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 11:21:37 UTC
From: HYPERSPACE <hyperspace@inet.hr>
Message-ID: <9fai3m$ik6$1@sunce.iskon.hr>
Source record: 52298

I need any information about MOTOROLA transistor type SFRE 007

3402. 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 13:07:33 UTC
From: Andreas Weller <weller@andreas-weller.de>
Message-ID: <3B18E515.C696F303@andreas-weller.de>
Source record: 52299
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

Hallo!

Some weeks ago I bought a Video Transmitter that can transmit the signal
from a Video-Recorder to a distant TV.
Today I opened this device and documented this with my digicam. I
uploaded the pictures to
http://www.andreas-weller.de/13cm-Video-Transmitter/
Now I have some questions:
Is it possible to expand the transmitting power of this device? What are
the 3 variable resistors used for?

Thank you!

Andreas Weller [DM2PAW]
--
PGP Key available: mail to get.pgp-key@andreas-weller.de
or download it at: http://www.andreas-weller.de/key.asc
verify Fingerprint: EB0A1D57AE264791F4A3 F0DF6405122DF8CA9E46

3403. Re: Thumbwheel prgmr for Ramsey FM rig ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 13:19:39 UTC
From: rshprd <ka9flx@arrl.net>
Message-ID: <LJ5S6.13230$mG4.7468553@news1.mntp1.il.home.com>
Source record: 52300

A really simple solution would be to use a couple of 74x192 binary up/down counters. Each device takes either an up or down logic input (can be a simple push-button), and will step out a binary count. The chips can be chained to provide as many bits as required to span the frequency range you desire.

A simple example of such a circuit can be found in the old Radio-Shack "engineer's notebook".

If you are handy, you could have a breadboard design running in about 3 hours or less.

Good Luck
Bob - KA9FLX

"Radiohead" <hduff@ica.net> wrote in message
news:3B12877A.A06C4CC2@ica.net...
> I recently picked up a used Ramsey VHF FM transceiver (already built
> from a kit) at Dayton.
> These radios are synthesized but limited to 12 channels through a rotary
> switch and diode programming matrices.
>
> I seem to recall a magazine article some years ago on interfacing BCD
> thumbwheel switches to the rig for frequency agility.
> Can anyone recall the article date or send me a copy of the article ?
>
> (NOTE: I'm not interested in the pc interface...I need it to be
> portable and not tied into a computer.)
>
> Thanks de
> Hugh VA3TO
>

3404. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 15:27:49 UTC
From: marathon <marathon@tiac.net>
Message-ID: <9fb0lk$p74$1@news-central.tiac.net>
Source record: 52301
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.amateur,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Anyone have any experience with the Decade MS 100s?

3405. Re: trc-485 modification

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 15:43:44 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3B1909B0.CA8A4286@primeline.net>
Source record: 52302

FM 3-metre wrote:
>
> HI, if you know how I obtain more channels to my Radio Shack TRC 485 send me
> the instructions or procedure, thanks for your care. Sys01

IIRC, that is a CB radio, and 40 Chs is all you that are allocated to CB
anyway.
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3406. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 15:49:34 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <X38S6.7839$tm5.285416@e420r-sjo2.usenetserver.com>
Source record: 52303
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

"Andreas Weller" wrote...
> Some weeks ago I bought a Video Transmitter that can transmit the signal
> from a Video-Recorder to a distant TV.
> Today I opened this device and documented this with my digicam. I
> uploaded the pictures to
> http://www.andreas-weller.de/13cm-Video-Transmitter/
> Now I have some questions:
> Is it possible to expand the transmitting power of this device?

Are you concerned about what is legal in your country?
It is possible that devices like that are already at the maximum legal
power.

If you want to increase transmitting range you could try the usual
techniques:
* Position TX and RX line of sight aimed at each other.
* Decrease or eliminate objects (walls, etc.) between TX and RX. Even if you
have to run video and audio cables over to a window, it is far less loss
than running low-power RF through walls(!)
* Investigate tapping the RF (on TX and/or RX) and sending to larger/more
efficient antenns.

> What are the 3 variable resistors used for?

I'd bet that they are NOT involved in setting RF output levels.
I wouldn't touch them without at least a schematic diagram.

3407. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 17:31:11 UTC
From: "jack.donio" <jack.donio@home.nl>
Message-ID: <zp9S6.237031$Uo2.5758725@zwoll1.home.nl>
Source record: 52304
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

The small vertical PCboard is the actual transmitter
Those tree var. resistors are part of the video modulator

increasing power is very hard to do , try to remove the RF part from the
unit build it into a connectionbox
from a real 13 cm yagi antenna and reconect it by a multiwire screened
cable
Do the same with the RF part from the reception unit

For tapping the RF from the tx and feeding it in a antenna you'l need a very
low loss coax cable , so that is not adviseble
transporting the video signal to the remote RF unit is much easier
With good 13 cm yagi antenna's over open space , even with this small power
, range cuild be 20 km and more

Richard Crowley <rcrowley7@xprt.net> schreef in berichtnieuws
X38S6.7839$tm5.285416@e420r-sjo2.usenetserver.com...
> "Andreas Weller" wrote...
> > Some weeks ago I bought a Video Transmitter that can transmit the signal
> > from a Video-Recorder to a distant TV.
> > Today I opened this device and documented this with my digicam. I
> > uploaded the pictures to
> > http://www.andreas-weller.de/13cm-Video-Transmitter/
> > Now I have some questions:
> > Is it possible to expand the transmitting power of this device?
>
> Are you concerned about what is legal in your country?
> It is possible that devices like that are already at the maximum legal
> power.
>
> If you want to increase transmitting range you could try the usual
> techniques:
> * Position TX and RX line of sight aimed at each other.
> * Decrease or eliminate objects (walls, etc.) between TX and RX. Even if
you
> have to run video and audio cables over to a window, it is far less loss
> than running low-power RF through walls(!)
> * Investigate tapping the RF (on TX and/or RX) and sending to larger/more
> efficient antenns.
>
> > What are the 3 variable resistors used for?
>
> I'd bet that they are NOT involved in setting RF output levels.
> I wouldn't touch them without at least a schematic diagram.

>
>
>

3408. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 19:25:08 UTC
From: "G.G." <elgeorgio3@hotmail.com>
Message-ID: <9fbei1$p9p$1@usenet.otenet.gr>
Source record: 52305
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

See if there are resistors from the emitters of the driver / output
transistors to the earth. You can try lowering their value. Do it only if
you feel lucky.. -) You can cause damage !!!
Safer bt not foolprooof: try puting a small capacitor in parallel with
them...

Be carefull and good luck..
And... let us know if it worked..

George
"Andreas Weller" <weller@andreas-weller.de> wrote in message
news:3B18E515.C696F303@andreas-weller.de...
> Hallo!
>
> Some weeks ago I bought a Video Transmitter that can transmit the signal
> from a Video-Recorder to a distant TV.
> Today I opened this device and documented this with my digicam. I
> uploaded the pictures to
> http://www.andreas-weller.de/13cm-Video-Transmitter/
> Now I have some questions:
> Is it possible to expand the transmitting power of this device? What are
> the 3 variable resistors used for?
>
> Thank you!
>
>
> Andreas Weller [DM2PAW]
> --
> PGP Key available: mail to get.pgp-key@andreas-weller.de
> or download it at: http://www.andreas-weller.de/key.asc
> verify Fingerprint: EB0A1D57AE264791F4A3 F0DF6405122DF8CA9E46

3409. FA Collins F455 FA21 Mechanical Filter with Marconi XH14 HF-SSB receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 19:32:28 UTC
From: Steve Lenaghan <SteveLenaghan@southwest-telephone.com>
Message-ID: <3B193F4B.BF979D40@southwest-telephone.com>
Source record: 52306

Collins F455 FA21 Mechanical Filter

Includes free Marconi XH14 Receiver !!, Filter available without radio
if requested

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1243109206

Reference for Mechanical Filter at http://www.wa3key.com/filters.html

TECHNICAL SUMMARY
Equipment Dual channel transistorized superhetrodyne receiver for single
sideband (SSB) and/or amplitude modulation (AM) operation

Type Number DOT Type No. CMC 6904 (Canadian Marconi Model No. XH14)

DOT Type approval RSS 122

Frequency Range1.6 MHz to 24 MHz

Intermediate Frequency 455 KHz

Frequency Stability
At ambient temperature of 0ï¿½ to + 50ï¿½C better than 1 ppm
At ambient temperature of -30ï¿½C to + 60ï¿½ C and +/- 10% supply voltage
better than 2 ppm

Power Requirements
Receiver circuit only 9.6VDC:150 MA
Receiver with xtal ovens: 7W average
Receiver on AC- 30VA

RF Channels 1 or 2
(2nd channel available for opposite sideband or separate frequency up to
l% from 1st channel)

Sensitivity
SSB: 0.5 uV for 12 db (S+N+D)/N
AM: 1.0 uV for 6 db (S+N+D)/N

Selectivity
SSB: 2.0 KHz at 6 db down and 6.0 Khz at 60 db down
AM: 6.0 Khz at 6 db down and 30.0 Khz at 60 db down

Spurious Response Rejection
IF (455 KHz) better than 90 db down
RF Below 10 MHz: all better than 60 db down
RF Above 10 MHz: all better than 50 db down

Radiation:
At Antenna Terminal IF: less than 1.0 uV all others less than 20 uV
To next Receiver IF: un-measurable, all others less than 1.0 uV

Speech Clarifier Range
1.6 to 4.0 MHz + 0.002%
4 to 24.0 MHz + 0.005%

Operating Temperature Range -30ï¿½C to +60 C, Warm -up period - less than 5 minutes

Type of Reception
6A3 - AM
A3H Compatible AM
A3J Suppressed carrier SSB

MeteringMeter selection of signal level or AF Line Output

AF Output 11 dbm at 5% distortion to 600 ohm balanced line
I watt at 5% distortion via loudspeaker amplifier, accessory not available

AGC Range Output varies less than 12 db for signal variations between 5 uV and I volt

AGC Response 100 milliseconds

Hum and NoiseBetter than 40 db below rated output

Long Term Stability Better than 1 ppm per month

Remote Control Provides operation of SSB/AM Mode Switch and Motordriven Speech Clarifier via the AF output line - one per receiver

Crystal Information
Beat Frequency Oscillator - 453.500 KHz
High Frequency Oscillator Crystal is selected for desired channel of operation

AM or USB
Fx = Fc - 453.5 for AM or
Fx = Fc + 453.5 for LSB

where- Fx = Xtal Frequency, Fc = Carrier Frequency

All crystals may be ordered as per CMC Drawing 188-151. Specify LSB or USB and frequency.

Voice Operated Squelch
Input sensitivity 6 db (S+N+D)/(N+D) for an input of 10 mv
Dynamic range will trigger for 7 db (S+N+D)/(N+D) worst case over a signal input range of 40 db

A coil kits is included but again first come first serve based on availability.
1.6 - 2.25 MHz, @ 2

2.25 - 3.25 MHz @ 1
3.25 - 4.6 MHz not available
6.6 - 6.4 MHz @ 3
6.4 - 9.0 MHz not available
All include Collins 455 KHz SSB mechanical filters
A manual is available for copying at cost.

All prices in US Dollars

Shipping by prepaid Canada Post minimum.
There may be brokerage charges, these are the responsibility of the buyer.

There is a $5 packing fee

AMEX and Master Card ONLY

3410. Kenwood VC-10 for a Kenwood VC-20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-02 20:17:28 UTC
From: G Clute <gclute@home.com>
Message-ID: <sRbS6.98854$p33.2079660@news1.sttls1.wa.home.com>
Source record: 52307

Looking for a Kenwood VC-20 for the R-5000 receiver. I have the VC-10, but it is for the R-2000 anyone know how to make the VC-10 work in the R-5000 or have a VC-20 for sale.

George W7LFD

3411. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 03:49:11 UTC
From: jiva*@humboldt1.com
Message-ID: <3b19b331.40790222@news.humboldt1.com>
Source record: 52308
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

>transporting the video signal to the remote RF unit is much easier
>With good 13 cm yagi antenna's over open space , even with this small power
>, range cuild be 20 km and more

a corner reflector for that wavelength will be small and much easier to build
than a yagi.

3412. A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 05:31:09 UTC
From: Lars Brandt <lov.brandt@telia.com>
Message-ID: <xYjS6.558$WW6.142844@newsb.telia.net>
Source record: 52309

Hello
This is a simple superregenerative receiver. The scematic can you see on:
http://w1.409.telia.com/~u40910460/supreg.jpg
Is there anybody who can answer on 2 questions?

1.What is R6 on the schematic for? Is it only a volumecontrol or is a regenerationcontrol?
2. What components are for quenceoscillation?

Thank You

Regards
Lars

3413. Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 07:56:10 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <t4mS6.7836$zG.978626@paloalto-snr1.gtei.net>
Source record: 52310
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hello all,

Does anybody have any experience in disassembling the Kenwood MC-60 microphone? What I would like to try is to replace the stock mike element with a Heil element.

It would appear simple enough, with most similar mikes you simply unscrew the front windscreen cover to access the element. However, the windscreen on this MC-60 appears to be on really tight, and I wanted to make sure there were no hidden set screws or some other trick before I used any significant force in my attempt to unscrew it.

Thanks and 73 de W6DKN

3414. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 12:17:33 UTC
From: c_moss@bigfoot.com
Message-ID: <bjakhtsfe0dptekuisav5lc41jo9sdoctr@4ax.com>
Source record: 52311

The allowed output power in the UK is 10mW so that's probably what the tx output is, you can add a MMIC chip (4 legs) to the output to increase it to 80mW but if you've not done any microwave building/modding before you might find that difficult - the smallest of wires/legs acts like a nice inductor.

Clive

3415. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 14:33:26 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B1A4AB6.622D19AA@alltel.net>
Source record: 52312
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

MC-50 KENWOOD - The Kenwood MC-50 is very simple to retrofit with a HEIL element. The big problem is getting it
apart. The O.E.M. manufacturer uses lots of epoxy cement on the threads, thus making it almost impossible with the bare
hands to unscrew the stainless steel 'head' or end cap. Heating that threaded area up with a hair dryer for about 60 seconds
will liquefy the epoxy and the end cap will unscrew easily. You may want to wrap a towel around it as you probabl6y will
have to use a pair of pliers to unscrew and it WILL be hot. Cut a piece of stiff foam to put back into the area where the
original cartridge was fit. Lay the HC on top and screw the end cap back in place.

W6DKN wrote:
>
> Hello all,
>
> Does anybody have any experience in disassembling the Kenwood MC-60
> microphone? What I would like to try is to replace the stock mike element
> with a Heil element.
>
> It would appear simple enough, with most similar mikes you simply unscrew
> the front windscreen cover to access the element. However, the windscreen
> on this MC-60 appears to be on really tight, and I wanted to make sure
> there were no hidden set screws or some other trick before I used any
> significant force in my attempt to unscrew it.
>
> Thanks and 73 de W6DKN

--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3416. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 17:24:47 UTC
From: Prozac <Prozac@BayshoreNetwork.com>
Message-ID: <zpuS6.27029$lP5.12063607@news1.rdc2.pa.home.com>
Source record: 52313
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Does a heil element work in a MC-85?

--
X-No-archive: yes
"Bob Dodson" <wb5apd@alltel.net> wrote in message
news:3B1A4AB6.622D19AA@alltel.net...
> MC-50 KENWOOD - The Kenwood MC-50 is very simple to retrofit with a HEIL
> element. The big problem is getting it
> apart. The O.E.M. manufacturer uses lots of epoxy cement on the threads,
> thus making it almost impossible with the bare
> hands to unscrew the stainless steel 'head' or end cap. Heating that
> threaded area up with a hair dryer for about 60 seconds
> will liquefy the epoxy and the end cap will unscrew easily. You may want
> to wrap a towel around it as you probabl6y will
> have to use a pair of pliers to unscrew and it WILL be hot. Cut a piece
> of stiff foam to put back into the area where the
> original cartridge was fit. Lay the HC on top and screw the end cap back
> in place.
>
> W6DKN wrote:
> >
> > Hello all,
> >
> > Does anybody have any experience in disassembling the Kenwood MC-60
> > microphone? What I would like to try is to replace the stock mike
element
> > with a Heil element.
> >
> > It would appear simple enough, with most similar mikes you simply
unscrew
> > the front windscreen cover to access the element. However, the
windscreen
> > on this MC-60 appears to be on really tight, and I wanted to make sure
> > there were no hidden set screws or some other trick before I used any
> > significant force in my attempt to unscrew it.
> >
> > Thanks and 73 de W6DKN
>
> --
> 73
> Bob Dodson WB5APD My Web Page
> Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
> FAX Number 775-514-2688

> ==========
> I MONITOR 144.200
> 144mhz [2m] Station 432mhz [70cm] Station
> 8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
> MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
> [EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
> ==========

3417. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 20:13:06 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <kTwS6.4676$Kg4.419044@paloalto-snr1.gtei.net>
Source record: 52314
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"Bob Dodson" <wb5apd@alltel.net> wrote in message
news:3B1A4AB6.622D19AA@alltel.net...
> MC-50 KENWOOD - The Kenwood MC-50 is very simple to retrofit with a HEIL
> element. The big problem is getting it
> apart. The O.E.M. manufacturer uses lots of epoxy cement on the threads,
> thus making it almost impossible with the bare
> hands to unscrew the stainless steel 'head' or end cap. Heating that
> threaded area up with a hair dryer for about 60 seconds
> will liquefy the epoxy and the end cap will unscrew easily. You may want
> to wrap a towel around it as you probabl6y will
> have to use a pair of pliers to unscrew and it WILL be hot. Cut a piece
> of stiff foam to put back into the area where the
> original cartridge was fit. Lay the HC on top and screw the end cap back
> in place.
>
>
> --
> 73
> Bob Dodson WB5APD My Web Page
> Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
> FAX Number 775-514-2688

Many thanks Bob - and also the the several other persons who responded via private e-mail. This is the "trick" I was looking for.

Take care and 73,

Dan K Nelson - W6DKN

3418. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 20:40:43 UTC
From: la8ak@online.no
Message-ID: <3b1a9f6e.176810426@news.online.no>
Source record: 52315
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

On Sun, 03 Jun 2001 03:49:11 GMT, jiva*@humboldt1.com (JeB) wrote:

>>transporting the video signal to the remote RF unit is much easier
>>With good 13 cm yagi antenna's over open space , even with this small power
>>, range cuild be 20 km and more
>
>a corner reflector for that wavelength will be small and much easier to build
>than a yagi.
>
and dishes are even more available

3419. Problems with an interdigital filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 21:05:07 UTC
From: Peter Bolch <Peter.Bolch@t-online.de>
Message-ID: <9fe8up$9c6$04$1@news.t-online.com>
Source record: 52316

Hi

I've built an interdigital filter as described in the UTAH ATV page. Ground plane spacing of my filter is 0.35 inches, the rod diameter is 0.16 inches and the center frequency is 1.6 GHz . The side walls were made of rectangular rods, bottom and cover plate were made 0.04 inches sheet metal. All elements are brass.

As I have no suitable test equipment at the moment I did the testing with a MiniCircuits VCO and power meter. The power level of the output signal in the pass band was approx. 35 dBm below the level of the input signal and I also could not observe a clear bandpass response. What could be the reason for these effects? Wrong dimensions or relation of ground plane spacing an rod diameter? As no end plates are used with the interdigital filter described in the ARRL UHF/Microwave Experimenters Manual I left them away to ease construction. The distance from the end rod to the end of bottom/cover and sidewalls is approx.1 inch. Will this do or are end plates mandatory?

Peter

3420. Re: Amateur radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-03 21:46:04 UTC
From: Ken James <kgj@bristec-radar.co.uk>
Message-ID: <9feb81$m1l$1@news6.svr.pol.co.uk>
Source record: 52317
Cross-posted to: uk.radio.amateur,rec.radio.amateur.homebrew,sci.engr.radar+sonar

Been there - done that!

Remember 33 MHz 386s? When they were in their prime, my company produced a system using a small network of Inmos Transputers to capture radar video and do a radar to raster scan conversion to put a full colour PPI picture on a 1024 by 768 PC display. 99% of the work (interference suppression, range scaling and off-centering, radar to raster conversion) was done by 4 of the 7 Transputers in the net, each one having about the same performance as a 33 MHz 386. 4 x 33 MHz = 132 MHz, and today we are talking GHz, so guess what we do with PCs today! No flicker, variable "phosphor" persistence, screen capture, you name it - we do it.

Azimuth capture - may need customising. Incremental encoders, synchros, sin-cos pots, etc.

Trigger - not usually a problem.

Video - someone mentioned FFT, but why? PPIs are driven at baseband, but there may be a need for CFAR, swept gain, interference suppression, etc - but FFT? If you're talking MTI or Doppler, any radar with that capability has its own signal processor that does all the clever stuff anyway.

Ken James
www.bristec-radar.co.uk

"Rolie Baldock" <berd-pee@perthmail.com> wrote in message
news:3b181556.2450039@news.m.iinet.net.au...
> With a bit of clever programming one could convert a PPI display to be
> stored digitally on a PC or other computer/micro. This would get over
> the P7 phosphor problem.
>
> On Sat, 26 May 2001 09:01:50 +0100, geoff@nospam.demon.co.uk wrote:
>
> >squilsh <squilsh@ntlworld.com> wrote:
> >
> >> <geoff@nospam.demon.co.uk> wrote in message
> >> news:oh6he9.7qc.ln@nospam.demon.co.uk...
> >>> GeoffB <geofftb@btinternet.com> wrote:
> >>>
> >>>
> >>>
> >>> Methinks that a good solution may be to digitise the azimuth and use a
FFT
> >>> processor on the IF and trigger from the PRF generator. Feed that lot
into

> >> a
> >>> good bit of software on a PC (NOT windows) and simulate a raster
scanned
> >> PPI
> >>> display.
> >
> >> Don't think I'll do anything as complicated as that, but I have some
ideas
> >> for using an oscilloscope as the display. One is to feed the X and Y
inputs
> >> with sine-cosine waves, (a cosine wave is a sine wave of the same
frequency
> >> but phase-shifted by 90 deg.), this should result in a circular sweep,
then
> >> if you amplitude modulate both with a sawtooth at PRF you should get a
PPI
> >> (plan position indicator, the usual kind of radar display),
Z-modulation
> >> (trace brightness) indicating targets.
> >
> >Yes, a magnetic scan version of this was indeed done in "static coil"
> >displays before raster scan systems became practical (memory arrays etc),
> >but unless you have a P7 type phosphor, the PPI on a scope display will
> >hardly be readable. The asimuth info was derived by the use of 360 deg
> >rotation sine/cosine pots and used to control variable gain X and Y
> >amplifiers that were fed via an "A scan" ramp.
> >
> >>> Incidentally the UK amateur licence used to allow pulse mod with a
mean
> >>> input of 25W and 25kW peak pulse on bands above 23cms - I don't know
if
> >> that
> >>> is still valid.
> >>>
> >> From the current BR68, pulse transmission is only permitted above 1000
MHz.
> >
> >23cm is above 1000MHz isn't it?
> >
> >Geoff
> >--
> > Geoff Blake geoff (at) palaemon . co . uk Linux 2.2.15
> > Chelmsford Sparc - Intel
> > ====================== A Microsoft free zone
========================
>
> -- email: <berd-peemix@perthmail.com>
> for email delete the thousand and nine

3421. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 00:49:15 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <ZYAS6.22092$Uo3.792176@news6.giganews.com>
Source record: 52318

It does appear that R6, by controlling the bias on the transistor, can bring it into a region where the gain is sufficient for oscillation. Of course there is no way to tell from the values given, how much gain would be needed. No tuning component values are given.

However, L3-C4 appear to be one tuned circuit and L2-C3 (plus a couple of other parts) are another. One of these is the receiving frequency and the other, perhaps the squegging frequency.

I'm not really hot on superregenerative circuits so I'm doing some guessing here.

73, Bob K6DDX

3422. FS: 1948 "Radio Fundamentals" by Arthur Albert, $9

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 00:57:17 UTC
From: oldbooks78@aol.com
Message-ID: <20010603205717.27586.00002970@ng-xb1.aol.com>
Source record: 52319

I currently have for sale a First Edition copy of "Radio Fundamentals" by Arthur Lemuel Albert, published in 1948 by McGraw-Hill. The 595 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Green cloth covers with gold lettering on the spine. The text covers all of the basic acoustical and electrical principles of radio. A very nice copy. Available for $9 plus $2.50 postage (book rate within the US). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

3423. Re: Problems with an interdigital filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 01:27:27 UTC
From: "Al, N2NKB"
Message-ID: <3uBS6.64023$4f7.4818348@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52320

You need to see what is really going on here with a vector impedance
analyzer (S-parameter analyzer), or a spectrum analyzer with a built in tracking
generator. Your best bet is to find someone near you who works in a lab that
has this type of equipment. Even if you built the filter mechanically "perfectly", it still
needs
precision active tuning in order for it to work properly. And expect to see quite a bit of
passband loss even in a properly tuned filter of this size- the ground plane spacing does
not allow
much Qu.
Al

Peter Bolch wrote in message <9fe8up$9c6$04$1@news.t-online.com>...
>Hi
>
>
>I've built an interdigital filter as described in the UTAH ATV page. Ground
>plane spacing of my filter is 0.35 inches, the rod diameter is 0.16 inches
>and the center frequency is 1.6 GHz . The side walls were made of
>rectangular rods, bottom and cover plate were made 0.04 inches sheet metal.
>All elements are brass.
>
>As I have no suitable test equipment at the moment I did the testing with a
>MiniCircuits VCO and power meter. The power level of the output signal in
>the pass band was approx. 35 dBm below the level of the input signal and I
(I suppose dB, not dBm)
>also could not observe a clear bandpass response. What could be the reason
>for these effects? Wrong dimensions or relation of ground plane spacing an
>rod diameter? As no end plates are used with the interdigital filter
>described in the ARRL UHF/Microwave Experimenters Manual I left them away to
>ease construction. The distance from the end rod to the end of bottom/cover
>and sidewalls is approx.1 inch. Will this do or are end plates mandatory?
Yes, to prevent radiation.
>Peter
>
>

3424. 38 Special IF filter help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 01:35:20 UTC
From: awiecek@hotmail.com
Message-ID: <7234248e.0106031735.4489247@posting.google.com>
Source record: 52321

Hi all.. I'm in the process of building a 38 Special transceiver
from a schematic obtained at the Norcal site. I'm almost done with it, except
a few finishing touches. Radio works great except I'd like to sharpen the
response of the IF filter. The original filer utilizes only one crystal which
gives very little wrong sideband attenuation. As far as I know, there is a
provision for an expanded filter on the once available PC board. This modification
hasn't been documented on the Norcal site.
I was wondering if anyone is using such filter in their 38S and if so, would
you be able to provide me with its schematic?
My radio has been modified to operate on the 40 meter band and it uses 9.216 MHz
crystal for the IF filter.

Any help would be greatly appreciated..

73's Alex VE3GOP

3425. PC Route - Printed Circuit Board Design Program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 01:43:13 UTC
From: John Bechtoldt <jbi3@home.com>
Message-ID: <RIBS6.16777$mG4.10041824@news1.mntp1.il.home.com>
Source record: 52322

Does anyone out there have a copy of the Shareware program PC Route (Printed Circuit Board/Routing program) for making Printed Circuit Boards. I had early 90's vintage version of the program (I believe it was PC Route 5.0) but through the years misplaced it. I created some PC Board with it and now need to make some modifications, but no way to edit the files. Please let me know if you have a version perhaps you can E-mail it to me as a Zip attachment.

John, wb9fhl@arrl.net

3426. CRYSTAL OSCILLATORs THE EASY WAY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 01:59:54 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3B1AEB9A.4FECFEEC@sympatico.ca>
Source record: 52323

See Motorola Application note AND8053/D "Designing Crystals Oscillators with Modern CMOS Gates." Using MC74VHCU04D Unbuffered Gate. Regards! VE2AUC

3427. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 02:52:51 UTC
From: arm@helix.nih.gov
Message-ID: <7KCS6.63$Ob.60015@mencken.net.nih.gov>
Source record: 52324

Bob (balbert@cnmnetwork.com) wrote:
: It does appear that R6, by controlling the bias on the transistor, can bring
: it into a region where the gain is sufficient for oscillation. Of course
: there is no way to tell from the values given, how much gain would be
: needed. No tuning component values are given.
:
: However, L3-C4 appear to be one tuned circuit and L2-C3 (plus a couple of
: other parts) are another. One of these is the receiving frequency and the
: other, perhaps the squegging frequency.
:
: I'm not really hot on superregenerative circuits so I'm doing some guessing
: here.
:
: 73, Bob K6DDX
:

Like Bob, I am going to do some guessing. First, I am not completely certain
if this is a regen or superregen. I would need to see the oscillations on the
test bench. R6 is the regen control. I think L3 is acting like an RF
choke. Alternatively, it could be self-resonant and would thus could be
a Hazeltine-Fremodyne circuit. I would guess the former over the latter.
The quench frequency is probably determined by C5 and R5+R6.

Charles Kitchen is the real expert. Perhaps he will chime in.

-- andy

3428. FS: 4CX1000/1500 Eimac Socket X667

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 03:23:16 UTC
From: millerke6f@aol.com
Message-ID: <20010603232316.23980.00000559@ng-cb1.aol.com>
Source record: 52325

For Sale: Nice socket for the home brew amp using the 4CX1000 tube and relatives. This is the one with the built in Screen Bypass capacitor. It is in great condition, no broken ceramic parts and the bypass capacitor is in good shape, check 1600 pf and no leakage at 20 megs test. very little tarnish and was carefully removed from a comercial amplifier sub assembly. $65.00 and will ship priority mail conus insured for an additional $4.00. Thanks for the read es 73
Bob Miller, KE6F

3429. Re: Problems with an interdigital filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 07:10:50 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <RZNup0A6RzG7EAHl@ifwtech.com>
Source record: 52327

Peter Bolch wrote:
>
>I've built an interdigital filter as described in the UTAH ATV page.

Thanks for the tip-off - that's a very nice resource page for designing and building interdigital filters.

>Ground
>plane spacing of my filter is 0.35 inches, the rod diameter is 0.16 inches
>and the center frequency is 1.6 GHz . The side walls were made of
>rectangular rods, bottom and cover plate were made 0.04 inches sheet metal.
>All elements are brass.
>
>As I have no suitable test equipment at the moment I did the testing with a
>MiniCircuits VCO and power meter. The power level of the output signal in
>the pass band was approx. 35 dBm below the level of the input signal and I
>also could not observe a clear bandpass response. What could be the reason
>for these effects? Wrong dimensions or relation of ground plane spacing an
>rod diameter?

Interdigital filters can be designed to need little or no tuning. If you copied the design EXACTLY then you should see a clear bandpass response straight away.

How exact was the copy you made? The key dimensions are the *ratio* of (rod diameter)/(groundplane spacing) and the *ratios* of (rod spacings)/(groundplane spacing).

There's a program for design of interdigital filters in a BASIC software collection by myself and G4PMK, at
http://www.marsport.demon.co.uk/rf.zip

DIGIFILT.BAS is a version of the Hinshaw/Monemzadeh program published many years ago in 'Ham Radio' - same as the one referenced in the Utah ATV page - but with better I/O using MS-DOS line drawing characters. It also supports both metric and inch dimensions. This is a design program, so it will not analyse the geometry of an existing filter, but you could still use it to check whether the dimensions from the Utah program make sense.

>As no end plates are used with the interdigital filter
>described in the ARRL UHF/Microwave Experimenters Manual I left them away to
>ease construction. The distance from the end rod to the end of bottom/cover
>and sidewalls is approx.1 inch. Will this do or are end plates mandatory?

This may be part of your problem. It's not quite clear what "approx.1 inch" means. "Approx. 1 inch" would be fine - it's a standard

constructional technique to leave a large overhang at each end (say 2-3x the groundplane spacing) and not use any end walls. The overhangs acts as a waveguide beyond cutoff, and the fields at the open ends are negligible. On the other hand, "approx. 0.1 inch" would be a very small overhang, and could mean trouble due to fringing fields, or serious detuning of the end resonators if you add covers.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

3430. 17mtr DSB: DSB DX!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 09:48:13 UTC
From: n2cqr@clix.pt
Message-ID: <3b1b58a1.590993@news.clix.pt>
Source record: 52326

After fixing my balanced modulator problem, this week I was trying to get the audio coming out of my 17 meter DSB rig to sound, well, human. There was clearly something wrong, something very nonlinear, in the RF amp that I'd cobbled together.

Yesterday morning, as I considered my options, I remembered that the 30 meter CW QRP rig that I'd built while in the Dominican Republic had a very nice, robust broadband driver and RF amp (to MRF472s in parallel). I haven't been using the 30 meter rig very much (I really hate using the DC receiver that I built with it), so it didn't take long for me to convince myself to pull out the transmitter board and convert it into the PA for my 17 meter DSB rig.

It looked like all stages in the 30 meter rig (VXO controlled 6 watter from QRP Classics) were class A -- except, of course, the class C final. I quickly built a little diode-based circuit to lift the bases of the MRF472 to a voltage that would keep things in Class A. I disconnected the 30 meter output filter (I'll rebuild it for 17 later) and hooked the 17 meter dipole to the .1 cap that goes to the final.

The driver transistor was running a bit hot so I improvised a heat sink out of a few inches of copper tubing and some heat sink compound.

I used the microphone from an old Yaesu memorizer transceiver. I had a bit of trouble getting the mic to stay connected so I whipped out some duct tape and stuck the connector and cables right to the desk.

T-R switching is accomplished via the T-R relay that usually connects my Drake 2-B to my HT-37. So to transmit I must connect the DSB transmitter's ground lead to the Gel Cell and then put the HT-37 in transmit mode. This will all get easier, of course, when this rig is mounted in a cabinet.

This morning I had another schedule with Felipe, CU2BD to test the rig. I made the final connections with just minutes to spare. While I was waiting for Felipe to arrive on freq, I heard CT2FYI calling from Lisbon. I gave him a shout, got a good signal report (Lisbon is about 900 miles east of me!). Then Felipe came on and told me the audio sounded good. A few minutes later I worked D44BS in the Cape Verde Islands (I got a 55). Then came GB2RN on the HMS Belfast in London - he also gave me 55.

It was a lot of fun getting this thing to work. It looks like I'm getting about 2 watts PEP out. And I don't see any signs of distortion. I'm going to see who else I can work.

Next step will be to put the rig in a cabinet and build a more comfortable T-R arrangement. Then I'll be looking for suggestions on Direct Conversion RX circuits.

Thanks again to all those who've been helping out with advice and encouragement.

73 de CU2JL (aka N2CQR)
Bill Meara
Sao Miguel Island,
The Azores, Portugal
http://planeta.clix.pt/n2cqr

3431. Re: 17mtr DSB: DSB DX!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 13:01:25 UTC
From: Randy <randy28@swbell.net>
Message-ID: <CIMS6.726$IL3.303836@nnrp3.sbc.net>
Source record: 52328

Wow! A regular McGyver type! <grin>

Bill Meara <n2cqr@clix.pt> wrote in message
news:3b1b58a1.590993@news.clix.pt...
> After fixing my balanced modulator problem, this week I was trying to
> get the audio coming out of my 17 meter DSB rig to sound, well, human.
> There was clearly something wrong, something very nonlinear, in the RF
> amp that I'd cobbled together.
>
> Yesterday morning, as I considered my options, I remembered that the
> 30 meter CW QRP rig that I'd built while in the Dominican Republic had
> a very nice, robust broadband driver and RF amp (to MRF472s in
> parallel). I haven't been using the 30 meter rig very much (I really
> hate using the DC receiver that I built with it), so it didn't take
> long for me to convince myself to pull out the transmitter board and
> convert it into the PA for my 17 meter DSB rig.
>
> It looked like all stages in the 30 meter rig (VXO controlled 6 watter
> from QRP Classics) were class A -- except, of course, the class C
> final. I quickly built a little diode-based circuit to lift the bases
> of the MRF472 to a voltage that would keep things in Class A. I
> disconnected the 30 meter output filter (I'll rebuild it for 17 later)
> and hooked the 17 meter dipole to the .1 cap that goes to the final.
>
> The driver transistor was running a bit hot so I improvised a heat
> sink out of a few inches of copper tubing and some heat sink compound.
>
>
> I used the microphone from an old Yaesu memorizer transceiver. I had
> a bit of trouble getting the mic to stay connected so I whipped out
> some duct tape and stuck the connector and cables right to the desk.
>
> T-R switching is accomplished via the T-R relay that usually connects
> my Drake 2-B to my HT-37. So to transmit I must connect the DSB
> transmitter's ground lead to the Gel Cell and then put the HT-37 in
> transmit mode. This will all get easier, of course, when this rig is
> mounted in a cabinet.
>
> This morning I had another schedule with Felipe, CU2BD to test the
> rig. I made the final connections with just minutes to spare. While I
> was waiting for Felipe to arrive on freq, I heard CT2FYI calling from
> Lisbon. I gave him a shout, got a good signal report (Lisbon is about
> 900 miles east of me!). Then Felipe came on and told me the audio
> sounded good. A few minutes later I worked D44BS in the Cape Verde

> Islands (I got a 55). Then came GB2RN on the HMS Belfast in London -
> he also gave me 55.
>
> It was a lot of fun getting this thing to work. It looks like I'm
> getting about 2 watts PEP out. And I don't see any signs of
> distortion. I'm going to see who else I can work.
>
> Next step will be to put the rig in a cabinet and build a more
> comfortable T-R arrangement. Then I'll be looking for suggestions on
> Direct Conversion RX circuits.
>
> Thanks again to all those who've been helping out with advice and
> encouragement.
>
> 73 de CU2JL (aka N2CQR)
> Bill Meara
> Sao Miguel Island,
> The Azores, Portugal
> http://planeta.clix.pt/n2cqr
>
>

3432. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 15:57:18 UTC
From: "jack.donio" <jack.donio@home.nl>
Message-ID: <ydOS6.248594$Uo2.6041278@zwoll1.home.nl>
Source record: 52329

R 6 is the transistor bias controll , this adjust the transistor gain , so this is the regeneration control
At low level , at some point the transistor starts to oscilate and acts as a old tickler controlled receiver
at a certan point the stage starts to overoscilate , At this point , its a superregenerative receiver
at the end overoscilating is so strong that reception is zero , but at the point where superreg starts is a very sensitive receiver
for AM signals and wideband FM signals at the very beginning of the oscilation point , before superregeneration starts
strong CW and SSB cuild be received , but tuning is very tricky at this mode
IMPORTANT !! the loudspeaker must be a 150 ohm type , otherwise the BC458 will be distroyd

for 6 mtr L1 will be 1 - 2 turns L2 4 - 8 turns turns For L3 use a 10 - 22 uHy choke L4 = 100 mH or more
This receivertype is often used as a remote controll receiver in the '60
It's very sensitive for AM or pulse signals but will transmit lots of noise to nearby receivers
first 27 walky talky's used this also
Greetings Jack PE1BWT

Andrew R Mitz <arm@helix.nih.gov> schreef in berichtnieuws 7KCS6.63$Ob.60015@mencken.net.nih.gov...
> Bob (balbert@cnmnetwork.com) wrote:
> : It does appear that R6, by controlling the bias on the transistor, can bring
> : it into a region where the gain is sufficient for oscillation. Of course
> : there is no way to tell from the values given, how much gain would be
> : needed. No tuning component values are given.

3433. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 17:31:49 UTC
From: Ken Ashcroft <ken@g3msw.demon.co.uk>
Message-ID: <5SbrBjAFY8G7EwiR@g3msw.demon.co.uk>
Source record: 52336
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Could you post the tricks, as I have an MC85 I would like to rework. Ken
In article <kTwS6.4676$Kg4.419044@paloalto-snr1.gtei.net>, W6DKN
<w6dkn@qsl.net> writes
>"Bob Dodson" <wb5apd@alltel.net> wrote in message
>news:3B1A4AB6.622D19AA@alltel.net...
>> MC-50 KENWOOD - The Kenwood MC-50 is very simple to retrofit with a HEIL
>> element. The big problem is getting it
>> apart. The O.E.M. manufacturer uses lots of epoxy cement on the threads,
>> thus making it almost impossible with the bare
>> hands to unscrew the stainless steel 'head' or end cap. Heating that
>> threaded area up with a hair dryer for about 60 seconds
>> will liquefy the epoxy and the end cap will unscrew easily. You may want
>> to wrap a towel around it as you probabl6y will
>> have to use a pair of pliers to unscrew and it WILL be hot. Cut a piece
>> of stiff foam to put back into the area where the
>> original cartridge was fit. Lay the HC on top and screw the end cap back
>> in place.
>>
>>
>> --
>> 73
>> Bob Dodson WB5APD My Web Page
>> Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
>> FAX Number 775-514-2688
>
>
>Many thanks Bob - and also the the several other persons who responded via
>private e-mail. This is the "trick" I was looking for.
>
>Take care and 73,
>
>Dan K Nelson - W6DKN
>
>

--
Ken Ashcroft

3434. help - need to make a 3-phase...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 17:45:33 UTC
From: jt <jtaylor@spamkiller.hfx.andara.com>
Message-ID: <4JPS6.244604$Z2.2778935@nnrp1.uunet.ca>
Source record: 52330

Well this might not be in the mainstream of topics here but you gouys probably either know how or where to find out how to do this -

What I have is a neat old tach from an airplane. It wants a three-phase signal from a tach generator. I want to use the signal made by my sports car as an input to control a three-phase electronic generator that will run the tach.

Pointers, solutions (um, except anything using vacuum tubes), questions all welcome

3435. Stop over to - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 18:24:14 UTC
From: Charles Johnston <ctj92@earthlink.net>
Message-ID: <inQS6.1524$Kx2.194609@newsread2.prod.itd.earthlink.net>
Source record: 52331
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Lots of STUFF to do at www.ab7sl.com such as...

BRAND NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3436. Re: Problems with an interdigital filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 19:57:19 UTC
From: Zack Lau <zlau@arrl.org>
Message-ID: <0MRS6.27$tK5.13336@news.ntplx.net>
Source record: 52332

I've had little difficulty building no-tune 2.3 GHz interdigital filters with a sharp knife for cutting and an accurate dial caliper for measuring. It is a bit tougher at 3.5 GHz, but I've done it.

Paul Wade described in QEX a clever technique using surplus waveguide for better accuracy of the cavity.

However, this is 80s technology. I'd imagine that products like Sonnet-Lite make it possible to design microstrip bandpass filters without spending $$$--Zack W1VT

3437. FA: Surplus Gear Conversion Book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-04 20:50:47 UTC
From: Deja User <Use-Author-Address-Header@[127.1]>
Message-ID: <200106042050.NAA03861@mail16.bigmailbox.com>
Source record: 52333
Cross-posted to: rec.radio.amateur.equipment,alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

For auction on Ebay:

"How To Buy & Convert Surplus Electronic Equipment" (military receivers, transmitters and walkie-talkies):

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1243546872

Scarce hardcover book, like new.

..Thanks for looking.

--== Sent via Deja.com ==--
http://www.deja.com/

3438. Re: help - need to make a 3-phase...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 03:27:21 UTC
From: w4pqwhs@aol.com
Message-ID: <20010604232721.08094.00002862@ng-ce1.aol.com>
Source record: 52334

JT, this is a good question...a neat project ...most 12 V alternators are basically 3 phase ,but the alternator usually runs at about 1.4 to one rpm ratio, forget that. I believe you can build a 3 phase pickup using a rotor with 3 magnets..drive the tach generator from one of the belts. ..output from this tach gen can be used to drive three power transistors and a transformer to give 3 phase output at about 30 vac .. simple answer is to get a regular aircraft tach gen that matches the indicator that you have...check with aircraft mechanic at local airport or get a copy of TRADE-A_PLANE publication ,they have all this stuff for sale,,planes and accessories and everything, most pilots subscribe to this ..good luck,,Harold W4PQW

3439. Re: CRYSTAL OSCILLATORs THE EASY WAY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 04:13:39 UTC
From: kdgreen <kdgreen@optushomex.com.au>
Message-ID: <T%YS6.6349$25.22937@news1.eburwd1.vic.optushome.com.au>
Source record: 52335

This application note is from ON Semi; see
http://www.onsemi.com/pub/Collateral/AND8053-D.PDF

regards ... David
VK3DGN

"jos" <soj@sympatico.ca> wrote in message
news:3B1AEB9A.4FECFEEC@sympatico.ca...
> See Motorola Application note AND8053/D "Designing Crystals Oscillators
> with Modern CMOS Gates." Using MC74VHCU04D Unbuffered Gate. Regards!
> VE2AUC
>

3440. 3CX3000A7 TUBE ANDD SOCKET

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 13:18:20 UTC
From: rh3333@aol.com
Message-ID: <20010605091820.12914.00000910@ng-cg1.aol.com>
Source record: 52337

ONLY TWO MOR DAYS TO BID ON THESE ITEMS ON EBAY!!!

ITEM#
1241671795~~~ 3CX3000A7 Transmitting Tube-NEW With Warranty
1241674266~~~SOCKET/CHIMNEY/GRID RING FOR 3CX3000A7

3441. Re: help - need to make a 3-phase...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 15:53:35 UTC
From: jt <jtaylor@spamkiller.hfx.andara.com>
Message-ID: <8a7T6.244889$Z2.2789401@nnrp1.uunet.ca>
Source record: 52338

W4pqw HS wrote in message <20010604232721.08094.00002862@ng-ce1.aol.com>...
>JT, this is a good question...a neat project ...most 12 V alternators are
>basically 3 phase ,but the alternator usually runs at about 1.4 to one rpm
>ratio, forget that.

I never thought about using the car alternator - with luck that just even work. The speed ratio thing might be a problem anyay - the aircraft tach generator probably wasn't 1:1 anyway.

>I believe you can build a 3 phase pickup using a rotor
>with 3 magnets..drive the tach generator from one of the belts. ..output
from
>this tach gen can be used to drive three power transistors and a
transformer to
>give 3 phase output at about 30 vac ..

After posting I thunk some more and got this far myself. The car has one of those everything on one toothed belt arrangements, so I was thinking about three bits of reflecting tape and ir pickups.

>simple answer is to get a regular
>aircraft tach gen that matches the indicator that you have...check with
>aircraft mechanic at local airport or get a copy of TRADE-A_PLANE
publication
>,they have all this stuff for sale,,planes and accessories and everything,
most
>pilots subscribe to this ..good luck,,Harold W4PQW

Plane was a Lockheed F-80 Shooting Star. Not many around these days.

Anyway, the other routes I was thinking about were:
a) get a microcontroller to take the input voltage and write software to get it to drive three function generators
b) get dc motor and drive it off the existing signal, possible with some interface/driver stuff inbetween.

3442. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 16:35:23 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <fT7T6.789$SQ2.34920@www.newsranger.com>
Source record: 52339

In article <ydOS6.248594$Uo2.6041278@zwoll1.home.nl>, jack.donio says...
>
>R 6 is the transistor bias controll , this adjust the transistor gain , so
>this is the regeneration control
>At low level , at some point the transistor starts to oscilate and acts as a
>old tickler controlled receiver
>at a certan point the stage starts to overoscilate , At this point , its a
>superregenerative receiver
>at the end overoscilating is so strong that reception is zero , but at the
>point where superreg starts is a very sensitive receiver
>for AM signals and wideband FM signals at the very beginning of the
>oscilation point , before superregeneration starts
>strong CW and SSB cuild be received , but tuning is very tricky at this mode
>IMPORTANT !! the loudspeaker must be a 150 ohm type , otherwise the BC458
>will be distroyd
>
>for 6 mtr L1 will be 1 - 2 turns L2 4 - 8 turns turns For L3 use a
>10 - 22 uHy choke L4 = 100 mH or more
>This receivertype is often used as a remote controll receiver in the '60
>It's very sensitive for AM or pulse signals but will transmit lots of noise
>to nearby receivers
>first 27 walky talky's used this also
>Greetings Jack PE1BWT
>
>Andrew R Mitz <arm@helix.nih.gov> schreef in berichtnieuws
>7KCS6.63$Ob.60015@mencken.net.nih.gov...
>> Bob (balbert@cnmnetwork.com) wrote:
>> : It does appear that R6, by controlling the bias on the transistor, can
>bring
>> : it into a region where the gain is sufficient for oscillation. Of
>course
>> : there is no way to tell from the values given, how much gain would be
>> : needed. No tuning component values are given.
>
>
>

This circuit has the look of something that actually works and it's always fun
and instructive to reverse engineer that type thing.

Having built regen's using 6C4's and 6AQ5's in the 50's I would say L3 is a
large inductor (millihenry-value transformer primary with terminals numbered?)
which resonates with C6 to make T1 oscillate heavily ("squegg") at an audio
rate, say ~5kHz. As Jack suggests, you want the regenerative RF oscillations
to START on the RF signal, but NOT be sustained on their own--this is the basis

of superregen receivers. For that to happen you need control over the RF negative small signal resistance looking in the collector of T1 during oscillation startup. The 5kHz oscillation provides the transitions to start up on RF noise (or real small RF signal). So I would say R6 is the super regen control which changes T1's bias--with the R6 wiper to the right, T1 is off and you get nothing out of the audio stages; with wiper to the left, T1 is active and you probably will get some squeeky sounds. In between you might get amplified noise plus detected a.m. or f.m. signals near the r.f. oscillation freq of T1 determined by the L2C3 product.

To squegg at 5kHz L3 would be .25mH.

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3443. homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 18:33:21 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <RB9T6.10968$mR5.753159@afrodite.telenet-ops.be>
Source record: 52340
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Dear OM's and YL's

As a result of my previous posting about portable antennas, I want to *try*
to make an antennatuner myself (I'm on a tight budget).
Range: 160m to 10m, 100W max (mostly CW).

I had in mind a T-network with a coil to ground (antenna DC grounded for
static). Is this a good setup, or are there any better suggestions?
A pi-network with two coils is cheaper of course... But is this better?
And what would the values have to be?
I can twist a thick copper wire round a tube to make a coil, but how many
turns, what space between turns, and what diameter?
I have a 500pF variable air-capacitor rated +3kV I'd like to use (left-over
from previous experiment).

As a little extra, I want to incorporate my own SWR bridge / meter.
How should I do this? I was given the idea of taking a thick straight wire
(12cm or 5") between 2 PL's that will be in series with the feedline and
carry the RF, and put a wire parallel on both sides, with a resistor and a
Ge-diode to a coil-meter with a switch, the diodes being forward and
reflected power thus pointing in opposite directions.Is this a good idea, or
will this destroy the 50ohm impdedance I'd like to match to? And do I put
this right after the TRX (guess so) or after the tuner?

Once again: all input (comments, remarks, design ideas) is appreciated!
73 to all de Franki ON4CLN

3444. tr-2600 for packet and aprs : pls help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 18:45:30 UTC
From: Ronny <Ronny.Stobbaerts@pandora.be>
Message-ID: <eN9T6.11025$mR5.755464@afrodite.telenet-ops.be>
Source record: 52341

Hi dr OMs,

I just finished my packet/aprs station using a soundcard. Now i want to use my old TR2600E for this goal. However, i don't find the pin layout for the connections for the mic and spc at the top of the tr2600 anywhere. Is there anyone that can tell me where to connect TX audio and PTT ? The ground and speaker (rx output) is obvious, but i need the other two as well :)
Thanks in advance, and o yes, by the way : i found a frequency modification for the TR2600A model but i wonder if it also applies to the TR2600E model that i have here. It would be nice to be able to listen outside the 2m band, wouldn't it ?

Thanks in advance !

73s de Ronny

ON4CAY www.on4cay.com

3445. tr-2600e for packet/aprs ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 18:47:58 UTC
From: Ronny <Ronny.Stobbaerts@pandora.be>
Message-ID: <yP9T6.11038$mR5.758716@afrodite.telenet-ops.be>
Source record: 52342

Hi dr OMs,

I just finished my packet/aprs station using a soundcard. Now i want to use my old TR2600E for this goal. However, i don't find the pin layout for the connections for the mic and spc at the top of the tr2600 anywhere. Is there anyone that can tell me where to connect TX audio and PTT ? The ground and speaker (rx output) is obvious, but i need the other two as well :)
Thanks in advance, and o yes, by the way : i found a frequency modification for the TR2600A model but i wonder if it also applies to the TR2600E model that i have here. It would be nice to be able to listen outside the 2m band, wouldn't it ?

Thanks in advance !

73s de Ronny

ON4CAY www.on4cay.com

3446. FA: Racal RA1792 - last few hours!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 19:32:41 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B1D33D9.7000207@armscroft.demon.co.uk>
Source record: 52343

Non-backlit version of this scarce professional grade receiver available on eBay
but not for much longer. Into the last few hours so check it out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1242062463

GL if you decide to bid!

73

Mark

3447. FS: 6U5 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 19:37:10 UTC
From: arnoldg@enitel.no
Message-ID: <3b1d349e.15397796@news.enitel.no>
Source record: 52344
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi,

6U5 valves NOS are in stock again. The label on them is 'Haltron', but
they never made valves themselves (as far as I know) so they are
obvious rebranded. They look just like an RCA 6U5.
The price is NOK 186.70 each or about US$ 20.30 I can send a picture.
E-mail me if interested

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

3448. pls help explain abbreviation of kenwood plug (attached)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 20:51:47 UTC
From: Ronny <Ronny.Stobbaerts@pandora.be>
Message-ID: <DDbT6.11342$mR5.809816@afrodite.telenet-ops.be>
Source record: 52345

Hi dr OMs,

I just found the connections for the TR2600e i was searching for. However, i really don't know what the abbreviations mean.
It says : sm. tip ; sm. sleeve ; lg.ring and lg. sleeve. I attachted the part of the pic that is giving those abbrevs. If you know what they mean, pls let me know, i want to make a cable with separate MIC en SPK input (2.5 mm and 3.5 mm jack) so i really want to know before i go soldering here :)

Thanks in advance !

73s de ON4CAY

www.on4cay.com

And o yes, by the way : i found a frequency modification for the TR2600A model but i wonder if it also applies to the TR2600E model that i have here. It would be nice to be able to listen or measure swr etc. outside the 2m band, wouldn't it ?

3449. Re: pls help explain abbreviation of kenwood plug (attached)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 22:08:06 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B1D5846.36BB947D@dialpoint.net>
Source record: 52247

Connectors like this have or can have 3 things. The tip is the very end
of the connector. The ring (if used) is the middle and the sleeve is
the long part. The sm is the small plug and the lg is the large one.
The sleeve is usuall the ground part of the plug.

You now need to know what goes where. Probably the speaker to the small
tip and ring.
The put the plug in and see if shorting the large sleeve to the large
ring or tip is the one that keys the rig. Then the one that is left is
the hot side of the mic.

Ronny wrote:
>
> Hi dr OMs,
>
> I just found the connections for the TR2600e i was searching for. However, i
> really don't know what the abbreviations mean.
> It says : sm. tip ; sm. sleeve ; lg.ring and lg. sleeve. I attachted the
> part of the pic that is giving those abbrevs. If you know what they mean,
> pls let me know, i want to make a cable with separate MIC en SPK input (2.5
> mm and 3.5 mm jack) so i really want to know before i go soldering here :)
>
> Thanks in advance !
>
> 73s de ON4CAY
>
> www.on4cay.com
>
> And o yes, by the way : i found a frequency modification for the TR2600A
> model but i wonder if it also applies to the TR2600E model that i have here.
> It would be nice to be able to listen or measure swr etc. outside the 2m
> band, wouldn't it ?

3450. Re: help - need to make a 3-phase...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 22:48:42 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <9clohtsamtes51bt55bk4e15g3iu6qnmtu@4ax.com>
Source record: 52346

"jt" <jtaylor@spamkiller.hfx.andara.com> wrote:

>What I have is a neat old tach from an airplane. It wants a three-phase
>signal from a tach generator. I want to use the signal made by my sports
>car as an input to control a three-phase electronic generator that will run
>the tach.

If your car has an alternator, then you might be able to tap into it
and get an appropriate signal. They ARE 3 phase, but you didn't say
how much voltage you needed.

OTOH, this will give you the RPM of the alternator, but you could do
the math in your head, or make a new dial or perhaps recalibrate the
old one.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

3451. Re: pls help explain abbreviation of kenwood plug (attached)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-05 23:20:55 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B1D6957.AF7FF591@dialpoint.net>
Source record: 52248

Slight mix up. The tip is the end, the sleeve is the middle part and
the ring is the longer outer part..

Ralph Mowery wrote:
>
> Connectors like this have or can have 3 things. The tip is the very end
> of the connector. The ring (if used) is the middle and the sleeve is
> the long part. The sm is the small plug and the lg is the large one.
> The sleeve is usuall the ground part of the plug.
>

3452. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 02:24:07 UTC
From: "Guillermo G. Lloréns" <nagato@arnet.com.ar>
Message-ID: <3B1D9446.4B0FC2FD@arnet.com.ar>
Source record: 52249
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Hello OM:

ON4CLN escribii¿½:
>
> Dear OM's and YL's
>
> As a result of my previous posting about portable antennas, I want to *try*
> to make an antennatuner myself (I'm on a tight budget).
> Range: 160m to 10m, 100W max (mostly CW).
>
> I had in mind a T-network with a coil to ground (antenna DC grounded for
> static). Is this a good setup, or are there any better suggestions?
> A pi-network with two coils is cheaper of course... But is this better?

A T network has a high-pass response, so it's not desirable if you also
want to attenuate harmonics.
A PI network is a better choice regarding attenuation of harmonics. To
choose from them, you must take care of matching range. In this item I
am not sure which is better. I believe T has the advantage.
If you don't need to match "anything" (i don't believe T can, also),
:), just accomodate small SWR, maybe a Pi network a better choice.
Time ago I've used a PI network in my station, either as PI, L-C, or C-L
configuration (just disconnect one of the two variable caps, or at least
use one of them fully open).

> And what would the values have to be?
> I can twist a thick copper wire round a tube to make a coil, but how many
> turns, what space between turns, and what diameter?
> I have a 500pF variable air-capacitor rated +3kV I'd like to use (left-over
> from previous experiment).

It is a good one to begin with. If you need more pF, you can add fixed
caps in parallel.

>
> As a little extra, I want to incorporate my own SWR bridge / meter.
> How should I do this? I was given the idea of taking a thick straight wire
> (12cm or 5") between 2 PL's that will be in series with the feedline and
> carry the RF, and put a wire parallel on both sides, with a resistor and a
> Ge-diode to a coil-meter with a switch, the diodes being forward and
> reflected power thus pointing in opposite directions.Is this a good idea, or
> will this destroy the 50ohm impdedance I'd like to match to? And do I put
> this right after the TRX (guess so) or after the tuner?

You must be careful with the layout to maintain line impedance, distance
and position of parallel wires. Also it is very sensitive to frequency,
its sensitivity increase with shorter wavelenghts.
I suggest you to build a Bruene type SWR bridge, with a toroid coil.
This has also the extra advantage of work as an accurate power meter.

>
> Once again: all input (comments, remarks, design ideas) is appreciated!
> 73 to all de Franki ON4CLN

73's & DX de LU8EYW
Guillermo.

3453. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 02:30:56 UTC
From: "Guillermo G. Lloréns" <nagato@arnet.com.ar>
Message-ID: <3B1D95E0.4747E433@arnet.com.ar>
Source record: 52250
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

ON4CLN escribiï¿½:

> As a little extra, I want to incorporate my own SWR bridge / meter.
> How should I do this? I was given the idea of taking a thick straight wire
> (12cm or 5") between 2 PL's that will be in series with the feedline and
> carry the RF, and put a wire parallel on both sides, with a resistor and a
> Ge-diode to a coil-meter with a switch, the diodes being forward and
> reflected power thus pointing in opposite directions.Is this a good idea, or
> will this destroy the 50ohm impdedance I'd like to match to? And do I put
> this right after the TRX (guess so) or after the tuner?
>
> Once again: all input (comments, remarks, design ideas) is appreciated!
> 73 to all de Franki ON4CLN

Just forgotten to tell you. SWR bridge goes between your TCVR and
matching network.
Right after the TCVR. You can build SWR bridge inside your matching
network, for simplicity.

TCVR >>> [SWR Bridge > PI or T network] >>> Antenna system

Good luck
Guillermo.

3454. Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 03:05:24 UTC
From: N1IQO <n1iqo@yahoo.com>
Message-ID: <U5hT6.1676$nf.772200@typhoon1.ba-dsg.net>
Source record: 52251

Hi all,

I have a R-200A power transformer
400-0-400 @ 400Ma
6.3 V @ 3.0 A
6.3 V @ 3.0 A

I would like to know If I do not use the 6.3 V Taps.
how much more current can I draw from the 400-0-400 line.
this may be for an 811A amp. I know it will run 2 tubes
but how about 3

David

3455. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 05:06:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B1DBA6B.61EF26DE@eznec.com>
Source record: 52252
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

"Guillermo G. Llorï¿½ns" wrote:

> A T network has a high-pass response, so it's not desirable if you also
> want to attenuate harmonics.
> A PI network is a better choice regarding attenuation of harmonics. To
> choose from them, you must take care of matching range. In this item I
> am not sure which is better. I believe T has the advantage.
> If you don't need to match "anything" (i don't believe T can, also),
> :), just accomodate small SWR, maybe a Pi network a better choice.
> Time ago I've used a PI network in my station, either as PI, L-C, or C-L
> configuration (just disconnect one of the two variable caps, or at least
> use one of them fully open).
> . . .

It's poor practice to rely on a tuner for harmonic reduction. The amount of reduction you'll get will depend on the tuner settings and the antenna and rig impedances, so you'll never know if you're getting enough. If your rig is generating harmonics which you need to attenuate, it's much better practice to match the rig to 50 ohms or other known impedance, build and attach a filter that attenuates the harmonics the required amount, then match your antenna to 50 ohms. That is: Rig -> matching network if required -> filter -> tuner -> antenna. This way, the filter is always working from and to defined impedances, so the harmonic attenuation can be predicted. It's even better practice to design the rig so that no external harmonic attenuation is required. If the rig is properly designed or an outboard filter is properly used, you can design your tuner for the best efficiency and matching range without being concerned about its frequency response. Filter with filters and match with matching networks. If you try to do both at the same time you're likely to do a poor job of both.

Roy Lewallen, W7EL

3456. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 06:40:37 UTC
From: Corné Janssen <cjan@oce.nl>
Message-ID: <3B1DD065.2519AC4F@oce.nl>
Source record: 52253

AA1LL wrote:
>
> In article <ydOS6.248594$Uo2.6041278@zwoll1.home.nl>, jack.donio says...
> >
> >R 6 is the transistor bias controll , this adjust the transistor gain , so
> >this is the regeneration control
> >At low level , at some point the transistor starts to oscilate and acts as a
> >old tickler controlled receiver
> >at a certan point the stage starts to overoscilate , At this point , its a
> >superregenerative receiver
> >at the end overoscilating is so strong that reception is zero , but at the
> >point where superreg starts is a very sensitive receiver
> >for AM signals and wideband FM signals at the very beginning of the
> >oscilation point , before superregeneration starts
> >strong CW and SSB cuild be received , but tuning is very tricky at this mode
> >IMPORTANT !! the loudspeaker must be a 150 ohm type , otherwise the BC458
> >will be distroyd
> >
> >for 6 mtr L1 will be 1 - 2 turns L2 4 - 8 turns turns For L3 use a
> >10 - 22 uHy choke L4 = 100 mH or more
> >This receivertype is often used as a remote controll receiver in the '60
> >It's very sensitive for AM or pulse signals but will transmit lots of noise
> >to nearby receivers
> >first 27 walky talky's used this also
> >Greetings Jack PE1BWT
> >
> >Andrew R Mitz <arm@helix.nih.gov> schreef in berichtnieuws
> >7KCS6.63$Ob.60015@mencken.net.nih.gov...
> >> Bob (balbert@cnmnetwork.com) wrote:
> >> : It does appear that R6, by controlling the bias on the transistor, can
> >bring
> >> : it into a region where the gain is sufficient for oscillation. Of
> >course
> >> : there is no way to tell from the values given, how much gain would be
> >> : needed. No tuning component values are given.
> >
> >
> >
>
> This circuit has the look of something that actually works and it's always fun
> and instructive to reverse engineer that type thing.

I does work. This design was part of the Philips EE2030 electronics
experimenters kit. I build this circuit some 20 years ago and it worked

fine but it generates lots of noise interfering with reception of other radios tuned to the same station or stations close to it.

Corne

3457. Re: the plug i was talking about ...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 06:42:47 UTC
From: Hannu Ylioja <hannu.ylioja@ntlworld.com>
Message-ID: <PgkT6.11248$fs6.585900@news6-win.server.ntlworld.com>
Source record: 52254

"Ronny" <Ronny.Stobbaerts@pandora.be> wrote in message
news:PEbT6.11344$mR5.809985@afrodite.telenet-ops.be...
> Sorry, forgotten to attach (happens me more) ....
>
Small Tip = Microphone
Small Sleeve= Microphone ground
Large Ring=Earphone
Large Sleeve=Earphone Ground

---Hannu

3458. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 08:21:33 UTC
From: Wayne Davis <waydavis@home.com.NOSPAM>
Message-ID: <hKIT6.7679$L4.1479916@news1.rdc1.az.home.com>
Source record: 52255

If the 400-0-400 winding is rated 400 ma, that is the max you want to pull.
It is independent of other windings.
"N1IQO" <n1iqo@yahoo.com> wrote in message
news:U5hT6.1676$nf.772200@typhoon1.ba-dsg.net...
> Hi all,
>
> I have a R-200A power transformer
> 400-0-400 @ 400Ma
> 6.3 V @ 3.0 A
> 6.3 V @ 3.0 A
>
> I would like to know If I do not use the 6.3 V Taps.
> how much more current can I draw from the 400-0-400 line.
> this may be for an 811A amp. I know it will run 2 tubes
> but how about 3
>
> David
>
>

3459. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 09:29:05 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B1DF7E1.7DC06D6@dialpoint.net>
Source record: 52256

The high voltage is still rated for 400 ma. You may be able to push the ratings up slightly depending on the transformer. If the wire size on the primary is the limiting factor then you can get about another 36 watts out of the transformer. Not nearly enough to run three tubes.

N1IQO wrote:
>
> Hi all,
>
> I have a R-200A power transformer
> 400-0-400 @ 400Ma
> 6.3 V @ 3.0 A
> 6.3 V @ 3.0 A
>
> I would like to know If I do not use the 6.3 V Taps.
> how much more current can I draw from the 400-0-400 line.
> this may be for an 811A amp. I know it will run 2 tubes
> but how about 3
>
> David

3460. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 12:25:56 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <ojpT6.208836$K5.21345792@news1.rdc1.nj.home.com>
Source record: 52257

Not really, it's the size of the wire AND the size of the core will
determine how much current you can pull through.

The difference, though, is not going to add the dot of an iota to the
signal received at the other end.

"Wayne Davis" <waydavis@home.com.NOSPAM> wrote in message
news:hKlT6.7679$L4.1479916@news1.rdc1.az.home.com...
> If the 400-0-400 winding is rated 400 ma, that is the max you want to
pull.
> It is independent of other windings.
> "N1IQO" <n1iqo@yahoo.com> wrote in message
> news:U5hT6.1676$nf.772200@typhoon1.ba-dsg.net...
> > Hi all,
> >
> > I have a R-200A power transformer
> > 400-0-400 @ 400Ma
> > 6.3 V @ 3.0 A
> > 6.3 V @ 3.0 A
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> > this may be for an 811A amp. I know it will run 2 tubes
> > but how about 3
> >
> > David
> >
> >
>
>

3461. Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 17:33:08 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9hsniu.fpe.w9wi@linux1.localdomain>
Source record: 52258

Thanks to the many folks who made suggestions on this subject a couple of weeks ago.

I ordered the Atmel prototyping kit from DigiKey along with a AT90S8515 controller. (which they put on back order until August - but they also shipped one already in the socket in the prototyping kit...) It certainly seems capable of doing what I need to do, now just to hack out the machine code to do it...
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3462. SV: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 17:55:58 UTC
From: Lars Brandt <lov.brandt@telia.com>
Message-ID: <O8uT6.2240$WW6.288592@newsb.telia.net>
Source record: 52259

Thanks all for the answer on my first question.
My second question was what components determine start and stop (50000khz quenchfreqency) of the superregenerative function?

And a question to Corn�. Thats correct that I have picked the scematic from a Philips experimenters kit. When I build it to for30 years ago and I didn't get it to work well because I got most sqeekie sound out of it.
I want to build it again today when I know how R6 works. I haven't the kit left today but I have a part of the instructionbook left. But I have not the partslist of the containing components. I want to know what is the value of the chokecoil (L4) in the kit? And is the value critical of the hf choke (the MW coil) after the emitter on the hf transistor?
I can't find a 150ohm loudspeaker today so I take 8 ohms instead and replace the LF stage with a LM386.

Is it correct that this curcuit can work as a clean regenerative receiver for shortwave? If you don't turn R6 to the point for superregenerative function.

Regards
Lars

Corn� Janssen <cjan@oce.nl> skrev i diskussionsgruppsmeddelandet:3B1DD065.2519AC4F@oce.nl...
>
>
> AA1LL wrote:
> >
> > In article <ydOS6.248594$Uo2.6041278@zwoll1.home.nl>, jack.donio says...
> > >
> > >R 6 is the transistor bias controll , this adjust the transistor gain , so
> > >this is the regeneration control
> > >At low level , at some point the transistor starts to oscilate and acts as a
> > >old tickler controlled receiver
> > >at a certan point the stage starts to overoscilate , At this point , its a
> > >superregenerative receiver
> > >at the end overoscilating is so strong that reception is zero , but at the
> > >point where superreg starts is a very sensitive receiver
> > >for AM signals and wideband FM signals at the very beginning of the
> > >oscilation point , before superregeneration starts
> > >strong CW and SSB cuild be received , but tuning is very tricky at this

mode
> > >IMPORTANT !! the loudspeaker must be a 150 ohm type , otherwise the
BC458
> > >will be distroyd
> > >
> > >for 6 mtr L1 will be 1 - 2 turns L2 4 - 8 turns turns For L3
use a
> > >10 - 22 uHy choke L4 = 100 mH or more
> > >This receivertype is often used as a remote controll receiver in the
'60
> > >It's very sensitive for AM or pulse signals but will transmit lots of
noise
> > >to nearby receivers
> > >first 27 walky talky's used this also
> > >Greetings Jack PE1BWT
> > >
> > >Andrew R Mitz <arm@helix.nih.gov> schreef in berichtnieuws
> > >7KCS6.63$Ob.60015@mencken.net.nih.gov...
> > >> Bob (balbert@cnmnetwork.com) wrote:
> > >> : It does appear that R6, by controlling the bias on the transistor,
can
> > >bring
> > >> : it into a region where the gain is sufficient for oscillation. Of
> > >course
> > >> : there is no way to tell from the values given, how much gain would
be
> > >> : needed. No tuning component values are given.
> > >
> > >
> > >
> >
> > This circuit has the look of something that actually works and it's
always fun
> > and instructive to reverse engineer that type thing.
>
> I does work. This design was part of the Philips EE2030 electronics
> experimenters kit. I build this circuit some 20 years ago and it worked
> fine but it generates lots of noise interfering with reception of other
> radios tuned to the same station or stations close to it.
>
> Corne

3463. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 18:41:16 UTC
From: "Edward A. Feustel" <efeustel@ists.dartmouth.edu>
Message-ID: <3B1E794C.E33EF1C1@ists.dartmouth.edu>
Source record: 52260
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Why not build an L section rather than a T. One capacitor and one
inductor
(ideally a variable inductor). A good model for this is in the 2001 ARRL
handbook.

You do not say if you have a long wire to tune or a balanced line. If a
balanced
line, try using a 1-1 balun at the input. This will be important for 160
meters
where impedances are likely to be very low. This rather than a 1-4 or
1-9 balun on
the output.

The capacitor in such a circuit should be switchable so that it is
attached on
the transmitter side of the inductor or on the output side of the coil.
You may
also wish to have a fixed capacitor, see the antenna tuner mentioned
above.

You will get some harmonic suppression from this arrangement. It is a
basic form of
high pass filter. But it will not be much.

Regards,
Ed, N5EI

ON4CLN wrote:
>
> Dear OM's and YL's
>
> As a result of my previous posting about portable antennas, I want to *try*
> to make an antennatuner myself (I'm on a tight budget).
> Range: 160m to 10m, 100W max (mostly CW).
>
> I had in mind a T-network with a coil to ground (antenna DC grounded for
> static). Is this a good setup, or are there any better suggestions?
> A pi-network with two coils is cheaper of course... But is this better?
> And what would the values have to be?
> I can twist a thick copper wire round a tube to make a coil, but how many
> turns, what space between turns, and what diameter?
> I have a 500pF variable air-capacitor rated +3kV I'd like to use (left-over
> from previous experiment).
>
> As a little extra, I want to incorporate my own SWR bridge / meter.

> How should I do this? I was given the idea of taking a thick straight wire
> (12cm or 5") between 2 PL's that will be in series with the feedline and
> carry the RF, and put a wire parallel on both sides, with a resistor and a
> Ge-diode to a coil-meter with a switch, the diodes being forward and
> reflected power thus pointing in opposite directions.Is this a good idea, or
> will this destroy the 50ohm impdedance I'd like to match to? And do I put
> this right after the TRX (guess so) or after the tuner?
>
> Once again: all input (comments, remarks, design ideas) is appreciated!
> 73 to all de Franki ON4CLN

--
Edward A. Feustel Research Associate
efeustel@ists.dartmouth.edu Institute for Security Technology Studies
phone - (603)646-0671 Cybersecurity Research Group
fax - (603)646-0660 Dartmouth College, Hinman Box 6226
http://www.ists.dartmouth.edu Hanover, NH 03755

3464. L.O.S.A - List of Stamp Applications [010605]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 19:13:51 UTC
From: cjX@hth.com
Message-ID: <3b1cea00.63824070@news.sverige.net>
Source record: 52261
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

Hi,

Below is the latest index of L.O.S.A and it now contains 225+
BASIC Stamp projects. You can download the complete L.O.S.A
from the following places...

WWW:

http://www.hth.com/losa/

FTP:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

1.0 What is L.O.S.A all about?

This list was started back in -95 when I heard about (more or less)
uniqe problems that was solved by using a BASIC Stamp. Especially Guy
Gustavson's story (see #001) about how he saved his beloved cat Kesha
gave me the inspiration to start writing L.O.S.A. I hope Kesha still
is alive and having a great life. Now 6 years later there are 225+
applications described and I hope you will enjoy reading all (or
parts) of them.

The main purpose of this list is to get an idea of what other people
are using their BASIC Stamps for and maybe get some inspiration or
hints for your own projects. Some of the projects described in the
list also have links to source code and schematics for download.

1.1 How can I contribute to this list ?

If you have done something (big or small) with the BASIC Stamp that
you are willing to tell others please use the form given below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better but
it's not necessary.

Visit the following Web site and fill in the contribution form...

http://www.hth.com/losa/

1.2 Why are some links dud's ?

Since people changes their e-mail and web addresses some links may be
dud's. If you previously contributed with one (or more) of the

applications please take a quick look and check your e-mail address
and/or web-links. I'm only able to keep the list updated if I'm
informed about changes, thanks in advance.

1.3 List of contributions

> = Indicates a new or updated application since last time.

001 Robo-Cat
002 Logic Rudder
003 Interfacing MAX186 8 channel 12bit A/D
004 Scrolling LED Sign
005 Tone Decoder
006 Pager
007 HexWalker Mobile Robot
008 Robo Bug
009 EXPBOT Robot controlled by Stamp
010 Andrews Ever Evolving Lego Robot
011 Factory Monitoring System
012 Wave to the Cats/Desk Temperature
013 Gamer's Die Roller
014 Stamp II Serial I/O
015 Voice and CW Fox Hunt Transmitter IDer
016 Lift (elevator) Controller
017 Paging with the Stamp
018 Switching Sytem
019 Door Entry Card Reader
020 Telephone Card Reader
021 DTMF Decoder
022 Ion chamber radiation monitor
023 Barn Monitor
024 Dallas one-wire interface
025 Sculpture control
026 Commercial clothes dryer controler
027 Morse Code Keyer
028 Traffic Light Controller
029 Automotive Lamp Control
030 Single Switch Scanning Device for Disabled
031 Bell timer for school bell control
032 RIMS controller for beer making
033 Stamp 1 and ISD 25XX Sound Chip Application
034 Camera Wireless Controller
035 Simple Battery Check using the BS2-IC
036 Photocell MIDI Controller
037 DCF-Clock
038 Radio-controlled Digital Clock
039 Weather Station I
040 Private Aid To Navigation
041 Stamp II in Space
042 MAT32 long integer math routines

043 Distinctive Ring Detector
044 Extended Stamp Memory
045 Debate Stoplite
046 Digital nametag
047 ST506 Disk Seeking Demo Controller
048 Robot: Multi-Stamps Communicate via Shared Memory
049 NiMH Battery Charger/Conditioner
050 555 Timer as A/D Converter
051 Bits of Light
052 Process Control
053 Near Space Capsule
054 PIC Debugger
055 DS1820 Temp Sensor
056 Air muscle hexapod robot
057 Lights
058 Caller-ID Interface
059 Wind speed and wind direction measurement device
060 Calibrated Dust Feeder for Air Cleaner Tests
061 Use of a Serial EEPROM as a Lookup Table
062 Displaying Quantities on a 200 mV Panel Meter
063 Programmable Proportional Air Valve
064 Basic Stamp machine control application
065 Compass Interface for Navigation
066 Truck + ? identification
067 Meteoreological Station
068 Stamp Controls Electronic Tester for flex circuits
069 Game Timer
070 Photoghrapic light meter
071 Data System Remote Control on unmanned aircraft
072 Speaking Instructor
073 Small Mobile Robot
074 R/C helicopter altitude control unit
075 Automobile Rally Odometer Interface to Laptop
076 LCD drivers
077 Stamp I / PC Interface Demo
078 Stamp Photo Meter
079 Stiquito(TM) 97 HexaPod Robot
080 XRaCS DTMF Radio X10 Control with Voice Response
081 Interfacing the Basic Stamp 2 with I2C Devices
082 The WeatherStamp Meteorological Station
083 Maxxum 7000 Remote Release Widget
084 Xs And Os games for college project
085 Stamp II Mouse Emulator (Version 6)
086 Basic Alarm System
087 Interfacing with a Printer
088 Dinosaur Quiz Game
089 Chemical Injection System
090 RS-232 connections between Stamp and host
091 Video Character Overlay Generator Controller
092 Suction tube depth measurement display

093 Electronic Compass with Basic Stamp 2
094 Event Logger with 8K 24C65 I2C memory
095 Fixing the depth of a suction-pipe with the BS 2
096 Superchaser
097 Corky'z Robotz
098 Cloudrider: analog network with BS2 and BS1's
099 Yet Another Real Time Clock, Dallas DS1287
100 Amateur RadioSatellite Tracking (Az/El) Controller
101 DTMF Decoder
102 PC to STAMP via RS232 routines
103 PC Frequency Counter
104 Sub-Millisecond Reaction Timer
105 Computerized Dynamics Cart
106 Ham Radio Interface Using the Basic Stamp 2
107 Remote tempsensors communicates over the power lines
108 Interfacing a BASIC Stamp to SRAM
109 Stepper controller pulse generator
110 Automatic rang caller
111 Automatic emergency broadcast system
112 BASIC Stamp I as an welding machine
113 PLM-24 to X-10 Gateway
114 Semi-Automated Combusitible Gas Indicator Tester
115 Counter-rotating Servos
116 Joystick Controlled Robotic Arm
117 Anti Traction Control Device
118 Cat Chasing Lego Robot and Other Circuits
119 Camlift
120 Control 15 Servos in Parallel
121 8 Digit "Smart" Alphanumeric Display
122 Cycle Testing AC Motor Controller
123 Controlling an LCD by BS2 via I2C Bus
124 The Newcastle Robotic Bilby Project
125 The EM1 (Electric mule)
126 Distance Measurement with GP2D02 SHARP Sensor
127 TI82 Interface
128 Operator Interface for Multiple Stamps
129 Infrared Glucose (Blood Sugar) Monitor
130 Fox For ham radio or Automated Propogation Beacon
131 GPS Data Overlay on Video
132 10Base-T Cable Tester
133 Kodak DC40/50/120 camera control
134 Implement S.N.A.P network protocol in a BASIC Stamp
135 Stamp/PC RS-485 Network
136 Easy-to-build BS keyboard/display w/ 10 keys/LEDs
137 Joystick control: BS2, 2 motors & 2 HBridges
138 Basic Stamp 2 Mobile Robot
139 Home Automation and Security System
140 UM3750 Read Code
141 Magnetic Stripe Reader
142 Telephone Remote Control and Remote Alarm

143 Tube preamplifier control section
144 Interrupt for PBASIC
145 dLOG
146 Compass
147 BS-2 serial VISCA interface
148 Servo tester
149 Small-bot
150 Repeater Controller
151 ESD Tester for Foot and Wrist Straps
152 Beneficial Insect Dispenser
153 Bugsey
154 Vector2X Compass Module with the new BS2SX Stamp
155 Serial Mouse to BS2 Interface
156 Radio Repeater Controller
157 Keypad reader
158 Automatic Vehicle Location / Mobile Asset Tracking
159 Interfacing a 4X4 keypad to the stamp II
160 Interfacing a Max186 8 Channel ADC to a stamp II
161 Realistic Manual Shifter for PC Driving Games
162 Contact ID handshake board
163 Basic Stamp II I2C protocol for several ICs
164 Home Controller
165 Coinmachine
166 Navigation system for the blind
167 Robot Fighters
168 Octobot
169 SPI interface chip
170 Implementing TCP/IP functionallity
171 Home Security System
172 Garage Door Opener
173 New Method Of Home Automation
174 Water Volume Meter
175 Table-Top Practice ROBOT for USFirst Competition
176 Model-rocket acceleration measurement
177 Interface to SPECTRON MICRO-50 2 Axis Inclinometer
178 Interface for electromechanical coinpasser
179 RCS (Remote Controlled Stepper)
180 Making robots really small
181 Basic Stamp Freezer Alarm
182 X-10 Command Expander
183 Slide Projector Timer
184 Complete Traffic Light Controller - RS232 display
185 Call Rejection Box
186 A very simple DTMF decoder
187 Supercomputer Node Board Diagnostic Tool
188 Bipede
189 Digital D.J mouse driven mixer
190 Geiger Counter Interface/Display/Computer/Logger
191 Stamp-1 as 6-Bit Serial A/D Converter
192 Simple Robot for Table Area Coverage Competition

193 IR Garage Parking Helper
194 Archery Timer
195 Fift Injector Controller
196 PC diagnostic port decoder
197 LED bar graph
198 ZVEI 5 and 6 tone decoder
199 Audio matrix controller
200 Watch dog module
201 Air Data Sensor (Test Set)
202 Using the BS-2 to send MIDI note on/off
203 Plant Engineer
204 Specialty Frequency Generator
205 Wireless Model Rocket Launch Controller
206 8243 I/O Expander
207 Autonomous Miniature Robot
208 CW Keyboard
209 Using a Maxim 3110 UART
210 BASIC Stamp Wireless Serial Transmitt
211 X-10 Multi-Housecode Transceiver
212 Entrances and Exits
213 Event Logger with 8k 24C65 I2C memory
214 Step motor ctrl for Swibot-ST
215 Smart PC-Case Cooling System
216 Crosswire Alignment Sensors
217 Modular Lab Automation and Control System
218 Digital Speedometer/Tach
219 Dynamometer
220 Counter with memory
># 221 Thunder and Lightning FX
222 R/C Glider Flight Data Collection
># 223 Stamp Teaching Interface
># 224 Controler for shootingrange
># 225 Two Brained Robot
># 226 Cheap accurate timing source
># 227 ANODE, BS1 Video Game
># 228 TOKEN-CATCHER/PUSHER for remote download to BS2SX

Enjoy,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
-=-

3465. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 19:20:45 UTC
From: N1IQO <n1iqo@yahoo.com>
Message-ID: <hovT6.4287$rg.1191761@typhoon2.ba-dsg.net>
Source record: 52262

Thanks for all the reply's
Not big enough..maybe for a sweep-tube amp....but not for real transmitter
tubes
anyone play with the EL509s from Svetlana yet?
This transformer should run 2 of these.
as you all know the iron is where the cost is

This is my plan a small 40 meter tube transmitter...and a small desk top amp
that should do the trick

Dave

"N1IQO" <n1iqo@yahoo.com> wrote in message
news:U5hT6.1676$nf.772200@typhoon1.ba-dsg.net...
> Hi all,
>
> I have a R-200A power transformer
> 400-0-400 @ 400Ma
> 6.3 V @ 3.0 A
> 6.3 V @ 3.0 A
>
> I would like to know If I do not use the 6.3 V Taps.
> how much more current can I draw from the 400-0-400 line.
> this may be for an 811A amp. I know it will run 2 tubes
> but how about 3
>
> David
>
>

3466. 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 20:15:34 UTC
From: brian <bhannah@mc.net>
Message-ID: <3b1e9121$0$150@wodc7nh6.news.uu.net>
Source record: 52263

I am looking to get into ham what I am looking for is a schematic for a 2
meter xcever
does any one have a link for one. I am on a limited budget and could afford
to buy one but thought it would be more fun to build and this way I could
also learn more about the rig.
Thanks
Brian Hannah

3467. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 21:37:03 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B1EA27F.80E32578@coqui.net>
Source record: 52264

The bottom line is that 800 volts at 400 ma is going to deliver roughly
320 watts, presumably continuous duty, so it does depend on what you
plan to use it for. CW, SSB, AM, Audio???
Different tubes won't make any difference unless the efficiency of one
design is notably better than another.
-Bill

N1IQO wrote:
>
> Thanks for all the reply's
> Not big enough..maybe for a sweep-tube amp....but not for real transmitter
> tubes
> anyone play with the EL509s from Svetlana yet?
> This transformer should run 2 of these.
> as you all know the iron is where the cost is
>
> This is my plan a small 40 meter tube transmitter...and a small desk top amp
> that should do the trick
>
> Dave
>
> "N1IQO" <n1iqo@yahoo.com> wrote in message
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> > Hi all,
> >
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> > how much more current can I draw from the 400-0-400 line.
> > this may be for an 811A amp. I know it will run 2 tubes
> > but how about 3
> >
> > David
> >
> >

--

Bill Meacham
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3468. FS: German 10-pin socket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 21:42:18 UTC
From: arnoldg@enitel.no
Message-ID: <3b1ea481.25721539@news.enitel.no>
Source record: 52265

Hi,

I have now this weird and difficult to find socket in stock. It is
suitable for the German EL 12, EL 156, EZ 150 valves. I has 10-pins
and is made of a bakelite material. Very high quality. Brand new.
The price is NOK 107.30 /each or about $ 11.50.
I can send a picture or you can see it at my web page. It is the 10Y
socket.
E-mail me if interested

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

3469. Re: 13 cm Video Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 22:45:28 UTC
From: Andreas Weller <weller@andreas-weller.de>
Message-ID: <3B1EB288.79C6AB0E@andreas-weller.de>
Source record: 52266
Cross-posted to: alt.ham-radio.atv,alt.ham-radio.vhf-uhf,rec.radio.amateur.misc,rec.radio.amateur.homebrew,sci.electronics.misc

"G.G." wrote:
>
> See if there are resistors from the emitters of the driver / output
> transistors to the earth. You can try lowering their value. Do it only if
> you feel lucky.. -) You can cause damage !!!
> Be carefull and good luck..
> And... let us know if it worked..

Hallo!

Now I know what the 3 variable resistors are used for:
One is for the Video level. The other one is used to tune the
transmitting frequency. The last resistor alters the "channel interval"
- sorry for my bad english but I don't know the word to describe the MHz
difference between two channels :-)

I now think about building an amplifier for this module - anybody here
who knows something about MMICs? How to use them? Which gain can be
reached? Can I cascade them?

Thank you!

Andreas Weller [DM2PAW]

--
PGP Key available: mail to get.pgp-key@andreas-weller.de
or download it at: http://www.andreas-weller.de/key.asc
verify Fingerprint: EB0A1D57AE264791F4A3 F0DF6405122DF8CA9E46

3470. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-06 23:58:10 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9fmg3k074n@enews1.newsguy.com>
Source record: 52268

Brian

I'm a builder, and I really believe it is the way to get the most fun out of amateur radio, so it's a little hard for me to say this, but I don't think this is the right approach.

2 meters is a very tough place to build primarily for 2 reasons:
- construction practices are very critical
- most operation is FM which is a little more complex than, say, CW

Now, if you are in a very large city, say New York or LA, then perhaps there is enough CW activity that you could take that approach. Even sideband is not all that tough. But unless you are in a very densely populated area, non-FM QSOs on 2 meters are going to be months apart.

Not that FM is impossible to build, but when you take into account all that means, it's tough sledding.

Stability is a big issue on 2 meters, because at that frequency it's hard to come by, and in most parts of the country, the FM part of the spectrum is well occupied, so a dirty, wobbling signal won't be very well received. To get stability, you have really 2 choices; either you use crystal control and have only one frequency, or you use synthesis, which is complex and expensive.

And the cost is something of an issue as well. I know of only one decent 2MFM transceiver kit, and it costs about half again as much as full featured commercial rig. By the time you buy the synthesizer chip and a set of finals, I suspect you are already above the price of something like the Icom 2100H. By the time you bought the parts, unless you already have a really great junk box, I suspect your homebrew 2 meter radio will cost 2-3 times as much as an Icom. (I say Icom because I'm familiar with their stuff and the past couple of years they have been a slightly better buy on the low end than the other manufacturers, but Alinco, Kenwood, Yaesu, etc. aren't far off. When you get away from the cheapest 2MFM stuff, the best buy changes from day to day. And even 'best buy' is a little subjective. I'd probably rather get twice the features than save 5 or 10 bucks.)

Now you might consider 6 meters. There other modes are more popular, construction practices aren't quite so critical, and most of the cheap parts that work for HF work almost as well. You might take a peek at Jim Kortge's 6 meter homebrew rig (http://www.qsl.net/k8iqy). Trouble with 6 is that there tends not to be a lot of local activity in most places, and the band is only open sporadically, but when it is open it's a pile of fun.

Building is a bunch of fun, and it's perfectly possible to build a 2 meter radio. I just wouldn't recommend it as a first attempt, especially as your

only radio.

Oh yes, as you budget, remember whether you build or buy, you are also going to have to come up with a power supply. When you are talking about a low end 2 meter radio, an adequate commercial power supply is going to cost as much as the rig. Remember, a 10 watt FM transceiver is going to draw around 10 amps, and a 50 watt radio, around 20 (there's a lot of overhead). Here, you can save a bundle by building, or taking some alternate approach, like a car battery and a trickle charger (which has an advantage in a power outage!) This can make an HT appealing, although the low power of an HT, especially the smaller ones, and the sometimes weird antenna connections, can make the HT annoying.

didleydadidah

"brian" <bhannah@mc.net> wrote in message
news:3b1e9121$0$150@wodc7nh6.news.uu.net...
> I am looking to get into ham what I am looking for is a schematic for a 2
> meter xcever
> does any one have a link for one. I am on a limited budget and could
afford
> to buy one but thought it would be more fun to build and this way I could
> also learn more about the rig.
> Thanks
> Brian Hannah
>
>
>

3471. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 00:44:02 UTC
From: Gary Danaher <gdanaher@home.com>
Message-ID: <393D9AA0.463DC23D@home.com>
Source record: 52267
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I put a Heil element in my MC60 mic. Yep, it was tough to open. The head screws on but Kenwood uses some sort of hot glue to seal it tight. I got my wife's monster hair drier and heated it up for several minutes and kept twisting on it until it broke loose. Snipped the old element out and found enough foam to pack and position the Heil element just right and then soldered it in. Works great.

W6DKN wrote:

> Hello all,
>
> Does anybody have any experience in disassembling the Kenwood MC-60
> microphone? What I would like to try is to replace the stock mike element
> with a Heil element.
>
> It would appear simple enough, with most similar mikes you simply unscrew
> the front windscreen cover to access the element. However, the windscreen
> on this MC-60 appears to be on really tight, and I wanted to make sure
> there were no hidden set screws or some other trick before I used any
> significant force in my attempt to unscrew it.
>
> Thanks and 73 de W6DKN

3472. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 02:53:47 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10106062230230.18048-100000@gloria.cam.org>
Source record: 52272

On Wed, 6 Jun 2001, WB8RCR wrote:

> Brian
>
> I'm a builder, and I really believe it is the way to get the most fun out of
> amateur radio, so it's a little hard for me to say this, but I don't think
> this is the right approach.
>
> 2 meters is a very tough place to build primarily for 2 reasons:
> - construction practices are very critical
> - most operation is FM which is a little more complex than, say, CW
>[stuff deleted]

FM is virtually no more complicated than a CW transmitter. Before
the 2M FM boom of thirty or os years ago, the times you'd see FM
transmitters described in the ham magazines was because it
was a really easy way to add voice to a CW transmitter.

All you need is some element that changes capacitance with voltage,
and a very low level audio signal to modulate it.

FM receivers are sort of more complicated than a CW receiver, though
depending on the design, it may simply be different. One can pull
a narrow-band FM IF strip out of various consumer equipment, it can
be cheaper and handier than ordering the IC and filters from somewhere,
and then build the RF amplifer, mixer and oscillator to go ahead of
it. Thgat circuitry would be identical whether you are receiving FM,
CW or whatever. And years ago, plenty of hams built two-meter converters
to go ahead of their shortwave receivers, proving it can't be too
difficult.

Yes, you're just going to get a crystal controlled unit this way, but
it is a start. FOr the sake of building, it is better to build
something simple than veer towards a commercial unit because of
bells and whistles. Again, when 2M FM took off thirty or so years ago,
crystal controlled was the norm. When it got crowded enough, synthesizers
did make their entry, but initially they were external units, just like
external VFO's on the low bands. There is nothing to stop someone from
building a crystal controlled unit, and then later building a synthesizer
to go with it.

When you are building your own equipment, there are all kinds of options.
Take an IF strip out of a portable phone, and add a tuneable converter
ahead of it. Or add an intermediate converter stage, so the unit tunes
14-18MHz like in the old days, and then add a crystal controlled converter
ahead of it. Thus you get a tuneable receiver, but without the stability

problem of an oscillator running at144MHz plus or minus 10.7MHz.

In the old days, one would build transmitters that started with a six or eight Mhz crystal and multiply up. People did use VFOs at that frequency and inject it into the crystal socket. Or one could use a mixer type transmitter, with a low frequency VFO mixed with a high frequency crystal oscillator. Or nowadays, build a VCO that runs on the signal frequency, but lock it to one of those old six or eight Mhz crystals. It gives the same results as those old multiplying transmitters, but you shouldn't have to worry about filtering out the unwanted multiples of the crystal frequency. You can pull prescalers out of cable converters or even FM broadcast radios that will do the division easily.

There are all kinds of possibilities. With understanding, one can work around perceived problems.

As for critical construction practices, it's all relative. You can't be as sloppy at 2M as at 10MHz, but 144Mhz surely is less critical than at 432MHz. Plenty of people were able to build converters and transmitters for the VHF and even UHF bands in the days of tubes, when components were a lot bigger. One has to be careful, and 2M probably isn't the place to start if you haven't soldered before, but I don't think it's that big an issue. Making something small is prbably more difficult than making something that works.

Michael VE2BVW

3473. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 03:26:02 UTC
From: Mary Anne Olsen <wolsen@erols.com>
Message-ID: <3B1EF44A.C4836E72@erols.com>
Source record: 52271
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Is there something inherently wrong with the Kenwood mikes that you're replacing them with Heil elements? Bill N3TVU

Gary Danaher wrote:

> I put a Heil element in my MC60 mic. Yep, it was tough to open. The head
> screws on but Kenwood uses some sort of hot glue to seal it tight. I got my
> wife's monster hair drier and heated it up for several minutes and kept
> twisting on it until it broke loose. Snipped the old element out and found
> enough foam to pack and position the Heil element just right and then
> soldered it in. Works great.
>
> W6DKN wrote:
>
> > Hello all,
> >
> > Does anybody have any experience in disassembling the Kenwood MC-60
> > microphone? What I would like to try is to replace the stock mike element
> > with a Heil element.
> >
> > It would appear simple enough, with most similar mikes you simply unscrew
> > the front windscreen cover to access the element. However, the windscreen
> > on this MC-60 appears to be on really tight, and I wanted to make sure
> > there were no hidden set screws or some other trick before I used any
> > significant force in my attempt to unscrew it.
> >
> > Thanks and 73 de W6DKN

3474. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 04:31:49 UTC
From: "Guillermo G. Lloréns" <nagato@arnet.com.ar>
Message-ID: <3B1F03B5.C7657156@arnet.com.ar>
Source record: 52273
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Hello Roy; I'm very glad to contact you. Your explanation clarifies me
a lot more. But, what I want to help ON4CLN was that if he ALSO want to
reduce some harmonics would be better a PI network.
Continues below.

Roy Lewallen escribiï¿½:
>
> "Guillermo G. Llorï¿½ns" wrote:
>
> > A T network has a high-pass response, so it's not desirable if you also
> > want to attenuate harmonics.
> > A PI network is a better choice regarding attenuation of harmonics. To
> > choose from them, you must take care of matching range.

> It's poor practice to rely on a tuner for harmonic reduction. The amount
> of reduction you'll get will depend on the tuner settings and the
> antenna and rig impedances, so you'll never know if you're getting
> enough. If your rig is generating harmonics which you need to attenuate,
> it's much better practice to match the rig to 50 ohms or other known
> impedance, build and attach a filter that attenuates the harmonics the
> required amount, then match your antenna to 50 ohms. That is: Rig ->
> matching network if required -> filter -> tuner -> antenna. This way,

This is the way modern HF tcvrs are built (with AT tuners included
also), isn't it?.

> the filter is always working from and to defined impedances, so the
> harmonic attenuation can be predicted. It's even better practice to
> design the rig so that no external harmonic attenuation is required. If
> the rig is properly designed or an outboard filter is properly used, you
> can design your tuner for the best efficiency and matching range without
> being concerned about its frequency response. Filter with filters and
> match with matching networks. If you try to do both at the same time
> you're likely to do a poor job of both.

Very clear.
Thank you very much.
73's & DX de LU8EYW
Guillermo.

3475. Want 20 pin ZIFF Socket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 04:53:44 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <thtnf27pgahocd@corp.supernews.com>
Source record: 52269

For a programmer I am building.

Doug N4IJ

3476. Need 62K 25 watt or so resistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 05:02:32 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <thtnvinj35rl86@corp.supernews.com>
Source record: 52270

Please look in ur junk box. I would buy one of these from Digikey or other
but just need one thing. A fairly compact 62,000 ohm at 25 watt or so.
For a screen dropping resistor.

Doug N4IJ

3477. Re: SV: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 06:48:17 UTC
From: Corné Janssen <cjan@oce.nl>
Message-ID: <3B1F23B1.40B63A3F@oce.nl>
Source record: 52274

Lars Brandt wrote:
>
> Thanks all for the answer on my first question.
> My second question was what components determine start and stop (50000khz
> quenchfreqency) of the superregenerative function?
>
> And a question to Cornï¿½. Thats correct that I have picked the scematic from
> a Philips experimenters kit. When I build it to for30 years ago and I didn't
> get it to work well because I got most sqeekie sound out of it.
> I want to build it again today when I know how R6 works. I haven't the kit
> left today but I have a part of the instructionbook left. But I have not the
> partslist of the containing components. I want to know what is the value of
> the chokecoil (L4) in the kit? And is the value critical of the hf choke
> (the MW coil) after the emitter on the hf transistor?
> I can't find a 150ohm loudspeaker today so I take 8 ohms instead and replace
> the LF stage with a LM386.
>
> Is it correct that this curcuit can work as a clean regenerative receiver
> for shortwave? If you don't turn R6 to the point for superregenerative
> function.
>
> Regards
> Lars
>

When I build it L3 was replaced with an air inductor I don't remember
if R3 was used. If I remember correctly L3 was 28 turns of the silver
plated 0.5mm wire wound on the ferroxcube rod with about 1mm spacing.
After finishing the coil the ferroxcube rod was removed. I suspect
Philips change L3 because the parasitic capacitance between the tightly
wound MW coil turns was to large for proper operation of the circuit.
I'm not sure what the value of L4 was but it I think it was something
like 2.5mH. In this design it's used as part of the low pass filter
(R8,C8,L4,C9) so it's not critical but it does affect the sound quality.
The quench frequency is determined by R7,C7 and R6 is used as
regeneration
control.
By removing C7 this design should work as a normal regenerative
receiver.

Cornï¿½

3478. Re: Need 62K 25 watt or so resistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 11:00:49 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9fnu24hiq1@news8.svr.pol.co.uk>
Source record: 52277

> Please look in ur junk box. I would buy one of these from Digikey or
other
> but just need one thing. A fairly compact 62,000 ohm at 25 watt or so.
> For a screen dropping resistor.
==========
62KOhms @25 W means a max current of approx 20 mA
If not 1 resistor ,you could go for 6 pcs 10 KOhm , 4 W or 4 pcs 15KOhm , 6
W or 3 pcs 20KOhm, 8 W + 1 pce 2KOhm , 1 W resistors in series.

Alternatively you could go for a combined parallel/series arrangement.

Look for very compact ceramic resistors on approx 25 mm (1 inch) 'stilts '
for PCB mounting .
I have quite a number for a HV supply bleeder ,15 KOhms ,5 W ,with the
resistor body measuring 25 x 10 x 10 mm (1x 3/8 x 3/8 inch)
So a bleeder for 3500 V ,16 mA would need 15 of these resistors ,dissipating
a total of 54 W ,acceptable for 15 x 5 =75 W installed , resulting in 233 V
across each resistor.

The advantage of multiple resistors is that each resistors takes only part
of the total voltage drop , hence no need for HV resistors and better heat
dissipation , yet a compact unit. And also low cost and readily available.

In the UK ,Mainline Surplus in Leicester is a good source. I bought the
above 15KOhms resistors from them for equivalent US $ 0.15 per unit.

GL

73 Frank gm0csz.kn6wh@ukrs.org

3479. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 12:04:12 UTC
From: Richard Heindel <rheindel@sprintmail.com>
Message-ID: <05KT6.5034$9m.412850@newsread2.prod.itd.earthlink.net>
Source record: 52275

Hi Brian,
Try TenTec at http://www.tentec.com/Xcvrkit.htm . Their 2 meter transceiver is easy to build and works good, mine has been on the air for 4 years now. If you run into trouble just call the fine folks at TenTec and they'll be more than willing to help you out.

73
Richard WB8KRN

3480. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 12:50:53 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <jhtuhts366ecin4rs5qb23hjnpnehjgc3v@4ax.com>
Source record: 52276

On Wed, 6 Jun 2001 15:15:34 -0500, "brian" <bhannah@mc.net> wrote:

>I am looking to get into ham what I am looking for is a schematic for a 2
>meter xcever
>does any one have a link for one. I am on a limited budget and could afford
>to buy one but thought it would be more fun to build and this way I could
>also learn more about the rig.

Try this: http://www.bright.net/~kanga/kanga/kk7b.htm

By the way, though limited in frequency range, this kit has better
receiver performance and transmitter linearity than nearly all
commercial radios on this band.

And those who claim that home brew construction on the two meter band
is any more difficult than other frequencies are in very bad need of a
reality check. Are they different? Yes. Difficult? No.

Whatever you buy, I wish you good luck and have lots of fun.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

3481. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 14:16:06 UTC
From: troglodite@aol.com
Message-ID: <20010607101606.11963.00002147@ng-fc1.aol.com>
Source record: 52278

>I ordered the Atmel prototyping kit from DigiKey along with a AT90S8515
>controller. (which they put on back order until August - but they also
>shipped one already in the socket in the prototyping kit...) It certainly
>seems capable of doing what I need to do, now just to hack out the machine
>code to do it...

Doug,

From experience I learned that planning your approach and making a flowchart
before you start writing code can save you a lot of time. Making the transision
to sequential logic is easy for some, hard for others. Your best bet is a
logical approach. (No pun intended.)

Doug Moore

3482. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 15:44:43 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3B1FA16B.83E93606@primeline.net>
Source record: 52279

brian wrote:
>
> I am looking to get into ham what I am looking for is a schematic for a 2
> meter xcever
> does any one have a link for one. I am on a limited budget and could afford
> to buy one but thought it would be more fun to build and this way I could
> also learn more about the rig.
> Thanks
> Brian Hannah

You could also look into getting a commerical 2M rig and modifying it
for 2M amateur band.
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3483. FS: EF 14 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 16:37:57 UTC
From: arnoldg@enitel.no
Message-ID: <3b1fae5a.5889424@news.enitel.no>
Source record: 52280
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi,

I have 3 pcs EF 14 valves. The are Telefunken and one of them have
even a 'Wehrmacht' label and the datecoding 05 45 The are all unused
and two have original boxes. I can send a picture.
E-mail me if interested

Regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

3484. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 17:27:17 UTC
From: c_moss@bigfoot.com
Message-ID: <75evhtshb9tiir1uh37b0mvtc8tvo2v6i5@4ax.com>
Source record: 52281

>>I ordered the Atmel prototyping kit from DigiKey along with a AT90S8515
>>controller. (which they put on back order until August - but they also
>>shipped one already in the socket in the prototyping kit...) It certainly
>>seems capable of doing what I need to do, now just to hack out the machine
>>code to do it...

Once you get the hang of the atmel code i suspect you'll quite like it, we're using the AT90S8515 to control a very heavy (several tons) XY punch machine, due to it's mostly single cycle instruction set it can do quite a lot of work in a short space of time :) ... nice chips !

Don't forget to set the stack pointer before much else though :)

Clive

3485. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 18:45:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B1FCBCC.8D020118@eznec.com>
Source record: 52282
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

No modern commercial rig, whether or not it includes a tuner, should require additional harmonic suppression. If it does, it should be repaired or replaced. Any other rig should have a proper filter designed and installed. If ON4CLN or anyone else needs to match an antenna AND reduce harmonics, he should build a filter to reduce the harmonics, and use the tuner to do the matching.

I hate to see people limit their choices for tuners because of a problem that doesn't exist, or to try and make a tuner do a job (harmonic suppression) that it's not able to do predictably.

Roy Lewallen, W7EL

"Guillermo G. Llorï¿½ns" wrote:
>
> Hello Roy; I'm very glad to contact you. Your explanation clarifies me
> a lot more. But, what I want to help ON4CLN was that if he ALSO want to
> reduce some harmonics would be better a PI network.
> Continues below.
>
> Roy Lewallen escribiï¿½:
> >
> > "Guillermo G. Llorï¿½ns" wrote:
> >
> > > A T network has a high-pass response, so it's not desirable if you also
> > > want to attenuate harmonics.
> > > A PI network is a better choice regarding attenuation of harmonics. To
> > > choose from them, you must take care of matching range.
>
> > It's poor practice to rely on a tuner for harmonic reduction. The amount
> > of reduction you'll get will depend on the tuner settings and the
> > antenna and rig impedances, so you'll never know if you're getting
> > enough. If your rig is generating harmonics which you need to attenuate,
> > it's much better practice to match the rig to 50 ohms or other known
> > impedance, build and attach a filter that attenuates the harmonics the
> > required amount, then match your antenna to 50 ohms. That is: Rig ->
> > matching network if required -> filter -> tuner -> antenna. This way,
>
> This is the way modern HF tcvrs are built (with AT tuners included
> also), isn't it?.
>
> > the filter is always working from and to defined impedances, so the
> > harmonic attenuation can be predicted. It's even better practice to
> > design the rig so that no external harmonic attenuation is required. If

> > the rig is properly designed or an outboard filter is properly used, you
> > can design your tuner for the best efficiency and matching range without
> > being concerned about its frequency response. Filter with filters and
> > match with matching networks. If you try to do both at the same time
> > you're likely to do a poor job of both.
>
> Very clear.
> Thank you very much.
> 73's & DX de LU8EYW
> Guillermo.

3486. MFJ-941C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 19:52:33 UTC
From: N1IQO <n1iqo@yahoo.com>
Message-ID: <5YQT6.6816$rg.2000102@typhoon2.ba-dsg.net>
Source record: 52283

Hi all,
Anyone have an owners manual for a MFJ-941C versa tuner II
If you do can you zip it up and E-Mail it to me.

Thank you very much in advance.
David
n1iqo@yahoo.com
n1iqo@hotmail.com

3487. Re: FS: EF 14 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 20:19:08 UTC
From: la8ak@online.no
Message-ID: <3b1fe1a5.213653279@news.online.no>
Source record: 52284
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Thu, 07 Jun 2001 16:37:57 GMT, arnoldg@enitel.no (DEMOSTENES A.
Goks&#65533;yr) wrote:

```
>Hi,
>
>I have 3 pcs EF 14 valves. The are Telefunken and one of them have
>even a 'Wehrmacht' label and the datecoding 05 45 The are all unused
>and two have original boxes. I can send a picture.
>E-mail me if interested
>
you obviously seems to have made good luck in Hungary....?
```

3488. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 20:22:49 UTC
From: kb7qhc@home.com
Message-ID: <3b1fdf74.1656518547@news.seanet.com>
Source record: 52285
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

On Thu, 07 Jun 2001 11:45:32 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>No modern commercial rig, whether or not it includes a tuner, should
>require additional harmonic suppression. If it does, it should be
>repaired or replaced. Any other rig should have a proper filter designed
>and installed. If ON4CLN or anyone else needs to match an antenna AND
>reduce harmonics, he should build a filter to reduce the harmonics, and
>use the tuner to do the matching.
>
>I hate to see people limit their choices for tuners because of a problem
>that doesn't exist, or to try and make a tuner do a job (harmonic
>suppression) that it's not able to do predictably.
>
>Roy Lewallen, W7EL
>

Hi All,

What Roy says is important, but it falls short of describing what
could be confusing indications. The SWR indicator is not frequency
sensitive (except in the broad scope of HF where it does not operate
very well for VHF or LF) and as a consequence may indicate the power
in the reflected spurs!

Your tuner will only match at one of these frequencies (probably the
fundamental if you are lucky) and your meter will be left with the
same problematic indication (it is positioned before the tuner where
those spurs reside). In other words, you may have the ability to tune
a match, but your ability to observe the match indication as either a
SWR or a reflected power reduction will be negligible if spurs are
large.

Hence the issue of how high the spurs are, are what dominate this
potential problem. As most equipment already meets FCC mandates for
spurious emission, this is an unlikely occurrence. If you have
altered, broken, or old equipment (very little filtering) the problem
emerges in inverse proportion to filtering present. As Roy points
out, the problem/solution is in the rig.

73's
Richard Clark, KB7QHC

3489. Re: FS: EF 14 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 20:29:04 UTC
From: arnoldg@enitel.no
Message-ID: <3b1fe474.19741043@news.enitel.no>
Source record: 52286
Cross-posted to: rec.audio.tubes,rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On Thu, 07 Jun 2001 20:19:08 GMT, la8ak@online.no (J M Noeding) wrote:

>>I have 3 pcs EF 14 valves.
>>
>you obviously seems to have made good luck in Hungary....?

Well, I havn't been in Hungary, but I'm going the Praha in about a
week. The EF 14 valves were from an old stock of valves I bought
recently - in Norway!
Hope I have luck in Praha, too.

Regards,

Arnold

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

3490. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 20:29:15 UTC
From: Bill Turner W7TI <w7ti@jps.net>
Message-ID: <adovhtcjfq4tbvkn7ep7p2crjpbqeboqjp@4ax.com>
Source record: 52287

On Wed, 06 Jun 2001 17:37:03 -0400, Bill Meacham <NOSPAMexray@coqui.net> wrote:

>The bottom line is that 800 volts at 400 ma is going to deliver roughly
>320 watts, presumably continuous duty, so it does depend on what you
>plan to use it for. CW, SSB, AM, Audio???
>Different tubes won't make any difference unless the efficiency of one
>design is notably better than another.

You need to be real careful interpreting the 400 ma rating. Some transformer mfrs rate it as current drawn from the entire 800 volt winding and some rate it as DC current drawn from a 400-0-400 full wave center-tapped two-diode circuit. Quite a difference.

The limiting factor for transformer current is heat, so if the specs are not available, put a load on it for 20-30 minutes and feel the temperature. Increase the load up to the point where it's too hot to leave your hand on it. That's the max. Crude but effective for amateur purposes.

Of course there are those among us who would say crank it up till it smokes - you may join whichever group you like. :-)

Bill, W7TI

3491. Re: Need 62K 25 watt or so resistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 21:53:35 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC809025351@www.premiersi.com>
Source record: 52288

Try http://www.partsexpress.com. They sell some really big honkers (like 100W).

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:9fnu24hiq1@news8.svr.pol.co.uk...
> > Please look in ur junk box. I would buy one of these from Digikey or
> other
> > but just need one thing. A fairly compact 62,000 ohm at 25 watt or so.
> > For a screen dropping resistor.
>

3492. FA: Very scarce backlit Racal RA1792

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 22:10:25 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B1FFBD1.5020807@armscroft.demon.co.uk>
Source record: 52289

Hi,

Check out http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1244606083 for
a fine example of this very rare HF receiver now on eBay.

GL if you decide to bid!

73

Mark

3493. 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 22:24:20 UTC
From: Anthony <anthonyicq@hotmail.com>
Message-ID: <9fous8$r50$1@neptunium.btinternet.com>
Source record: 52290

Hi, Im looking for a sub-audio circut for using on my 70's tv transmitter.
Can u Help?
Also., could anyone tell me, what frequency a standard television rx's audio
on? ie 6mhz and is it fm or am. Thanks
Anthony

3494. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 22:53:17 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3B2005DD.2781E494@rupert.tds-az.lmco.com>
Source record: 52295

Anthony wrote:
>
> Hi, Im looking for a sub-audio circut for using on my 70's tv transmitter.
> Can u Help?
> Also., could anyone tell me, what frequency a standard television rx's audio
> on? ie 6mhz and is it fm or am. Thanks
> Anthony

A Single TV channel is 6 MHz wide.

The video carrier is offset from the bottom of the TV channel
by 1.25 MHz. Video information is transmitted in
vestigial-sideband AM.

The audio for a television receiver is always 4.5 MHz above
the video carrier frequency, for NTSC type broadcasts, and is FM.

Go to "http://www.yahoo.com" and do a search on "NTSC standard".
You will get all the infomation you can stand.

You should be able to generate a composite video signal, complete
with color burst and audio channel, with one little chip now.

--
Martin E. Meserve, K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

3495. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 22:54:26 UTC
From: Dave Shrader <W1MCE@arrl.net>
Message-ID: <3B20060D.C9269201@arrl.net>
Source record: 52291
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Using a tuner and a filter has one nice benefit. The tuner, once
adjusted for match, will provide a 50 ohm load for the filter. This
assures optimum filter performance as both input and output circuits are
terminated in'50' ohms.

e.g. rig -> filter -> tuner -> antenna

73, Deacon Dave, W1MCE

Roy Lewallen wrote:
>
> No modern commercial rig, whether or not it includes a tuner, should
> require additional harmonic suppression. If it does, it should be
> repaired or replaced. Any other rig should have a proper filter designed
> and installed. If ON4CLN or anyone else needs to match an antenna AND
> reduce harmonics, he should build a filter to reduce the harmonics, and
> use the tuner to do the matching.
>
> I hate to see people limit their choices for tuners because of a problem
> that doesn't exist, or to try and make a tuner do a job (harmonic
> suppression) that it's not able to do predictably.
>
> Roy Lewallen, W7EL
>
> "Guillermo G. Llorï¿½ns" wrote:
> >
> > Hello Roy; I'm very glad to contact you. Your explanation clarifies me
> > a lot more. But, what I want to help ON4CLN was that if he ALSO want to
> > reduce some harmonics would be better a PI network.
> > Continues below.
> >
> > Roy Lewallen escribiï¿½:
> > >
> > > "Guillermo G. Llorï¿½ns" wrote:
> > >
> > > > A T network has a high-pass response, so it's not desirable if you also
> > > > want to attenuate harmonics.
> > > > A PI network is a better choice regarding attenuation of harmonics. To
> > > > choose from them, you must take care of matching range.
> > >
> > > It's poor practice to rely on a tuner for harmonic reduction. The amount
> > > of reduction you'll get will depend on the tuner settings and the
> > > antenna and rig impedances, so you'll never know if you're getting
> > > enough. If your rig is generating harmonics which you need to attenuate,

> > > it's much better practice to match the rig to 50 ohms or other known
> > > impedance, build and attach a filter that attenuates the harmonics the
> > > required amount, then match your antenna to 50 ohms. That is: Rig ->
> > > matching network if required -> filter -> tuner -> antenna. This way,
> >
> > This is the way modern HF tcvrs are built (with AT tuners included
> > also), isn't it?.
> >
> > > the filter is always working from and to defined impedances, so the
> > > harmonic attenuation can be predicted. It's even better practice to
> > > design the rig so that no external harmonic attenuation is required. If
> > > the rig is properly designed or an outboard filter is properly used, you
> > > can design your tuner for the best efficiency and matching range without
> > > being concerned about its frequency response. Filter with filters and
> > > match with matching networks. If you try to do both at the same time
> > > you're likely to do a poor job of both.
> >
> > Very clear.
> > Thank you very much.
> > 73's & DX de LU8EYW
> > Guillermo.

3496. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 22:56:33 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <4tnthtcp6souvkdovkrotn4jn5kkktd654@4ax.com>
Source record: 52292

"Schatzie" <jdwalton@home.com> wrote:

>Not really, it's the size of the wire AND the size of the core will
>determine how much current you can pull through.

Nope, the core has nothing to do with the current rating. The core must have sufficient cross section that it does not saturate and that is determined by the voltage waveform (divided by the number of turns.)

The core DOES however have to have a large enough winding window to allow big enough wires to bw wrapped thru it to allow the current to flow without overheating.

The short answer is that when designing a transformer, the core is determined by the voltage and the wire gauge is determined by the current.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

3497. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 23:10:15 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <e920itku73eq7ug4n8ngtnbke9butfpqm4@4ax.com>
Source record: 52293

Jim Adney <jadney@vwtype3.org>
shared these priceless pearls of wisdom:

->The short answer is that when designing a transformer, the core is
->determined by the voltage and the wire gauge is determined by the
->current.

Ah, no sir, that doesn't happen to be true. There are two forms of loss in a transformer, both of which wind up as heat. There are core losses (eddy current losses) and wire resistance losses. In a well-designed power transfomer, both losses (as measured by heat) are approximately equal. Thus, for a given current, half the heat is generated by the wire, the other half by the core. Core certainly then is a major factor on how much current you can draw from the transformer.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3498. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-07 23:12:47 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <qf20itc7fv0r4cbtjqtb6nvk3gq34fh5h2@4ax.com>
Source record: 52294

"Anthony" <anthonyicq@hotmail.com>
shared these priceless pearls of wisdom:

->Hi, Im looking for a sub-audio circut for using on my 70's tv transmitter.
->Can u Help?
->Also., could anyone tell me, what frequency a standard television rx's audio
->on? ie 6mhz and is it fm or am. Thanks

A broadcast television signal has the audio modulated on a 4.5 MHz. subcarrier
with FM deviation of 25 kHz. for 100% modulation.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3499. WANTED: Manual Ballentine 303-06

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 01:11:32 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b2025c8.131250871@news.triconet.org>
Source record: 52296
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I'm looking for a manual (copy is OK) for a Ballentine RMS voltmeter Model 303-06.

Wes n7ws@arrl.net

3500. Re: MFJ-941C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 01:46:00 UTC
From: rcnixon@mindspring.com
Message-ID: <3b202dc1.3052726@news.mindspring.com>
Source record: 52147

It's available on the MFJ website for download as a .pdf file.
http://www.mfjenterprises.com/index.php

Look in "manuals".

Russ - kf4wxd

"N1IQO" <n1iqo@yahoo.com> wrote:

>Hi all,
>Anyone have an owners manual for a MFJ-941C versa tuner II
>If you do can you zip it up and E-Mail it to me.
>
>Thank you very much in advance.
>David
>n1iqo@yahoo.com
>n1iqo@hotmail.com
>
>
>

3501. Re: MFJ-941C

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 02:26:18 UTC
From: N1IQO <n1iqo@yahoo.com>
Message-ID: <eJWT6.6974$rg.2266668@typhoon2.ba-dsg.net>
Source record: 52148

Russell
That's the first place I looked it's not there wish it was

David

"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message
news:3b202dc1.3052726@news.mindspring.com...
> It's available on the MFJ website for download as a .pdf file.
> http://www.mfjenterprises.com/index.php
>
> Look in "manuals".
>
> Russ - kf4wxd
>
> "N1IQO" <n1iqo@yahoo.com> wrote:
>
> >Hi all,
> >Anyone have an owners manual for a MFJ-941C versa tuner II
> >If you do can you zip it up and E-Mail it to me.
> >
> >Thank you very much in advance.
> >David
> >n1iqo@yahoo.com
> >n1iqo@hotmail.com
> >
> >
> >
>

3502. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 04:59:12 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9i0k5d.634.w9wi@linux1.localdomain>
Source record: 52149

On 07 Jun 2001 14:16:06 GMT, Troglodite <troglodite@aol.com> wrote:
>From experience I learned that planning your approach and making a flowchart
>before you start writing code can save you a lot of time. Making the transision
>to sequential logic is easy for some, hard for others. Your best bet is a
>logical approach. (No pun intended.)

I've been sketching flowcharts even before I ordered the hardware.

Actually, I have a first cut of the code running (but not properly<g>) on
the provided simulator. It's off to a reasonable start - I don't feel
nearly as lost as I did 18 hours ago!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3503. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 05:03:50 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9i0ke3.634.w9wi@linux1.localdomain>
Source record: 52150

On Thu, 07 Jun 2001 17:27:17 GMT, c_moss@bigfoot.com <c_moss@bigfoot.com> wrote:
>Once you get the hang of the atmel code i suspect you'll quite like it, we're
>using the AT90S8515 to control a very heavy (several tons) XY punch machine, due
>to it's mostly single cycle instruction set it can do quite a lot of work in a
>short space of time :) ... nice chips !
>
>Don't forget to set the stack pointer before much else though :)

OK, what happens if I forget to set the stack pointer?
(here's where it becomes obvious how much of a novice I am at machine code!)

(I'm not directly using the stack but I do have a couple of simple
subroutines which I understand do use it to know where to return to. At
least in the simulator they do seem to be returning properly but I've not
exercised all the subs yet because of a problem in one of the branching
instructions.)

(this is a rather simple application, it's probably using less than 10% of
the capability of the device)

I ordered a 8515 at the same time as the starter kit, and was rather badly
disappointed to see they backordered it until August. Then less
disappointed when I found an 8515 in the starter kit box. And even less
disappointed when the "backordered until August" chip appeared on my
doorstep this morning... sure hope I didn't sleep through two months of
summer<grin>!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3504. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 06:51:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <kcs0itk3igf5f30rj9i441qn3j0lr3gkiu@4ax.com>
Source record: 52151

On Thu, 7 Jun 2001 23:24:20 +0100, "Anthony" <anthonyicq@hotmail.com>
wrote:

>Also., could anyone tell me, what frequency a standard television rx's audio
>on? ie 6mhz and is it fm or am.

Based on your message headers, it appears that you are in the UK, so
that would be System I with FM at a 6 MHz subcarrier and the UHF
channel width of 8 MHz.

In most of Western Europe, the System B/G is used with 7 MHz channel
spacing and 8 MHz on UHF with an FM subcarrier at 5.5 MHz. The former
OIRT countries had 8 MHz channel spacing with system D/K and 6.5 MHz
FM subcarrier, although some seem to be converting to B/G.

The FM audio subcarriers are usually with 25 kHz deviation.

France is System L with 8 MHz channels and 6.5 MHz AM subcarrier and
positive video modulation :-).

Paul OH3LWR

3505. Murata Ceramic Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 08:05:55 UTC
From: Jim <jim-p.remove@ihug.co.nz>
Message-ID: <9fq1g0vjq1@lust.ihug.co.nz>
Source record: 52152

I have a Murata Ceramic Filter, type CFR-555 F .

Does anyone have the data sheets for this?

I would like to know the characteristics of this filter - the Murata site does not have it at all, and a Dogpile search yielded nothing.

Thanks in anticipation.

Jim, ZL2APE.
jim-p@ihug.co.nz

3506. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 13:22:27 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9i1hl1.7ej.w9wi@linux1.localdomain>
Source record: 52154

On Fri, 08 Jun 2001 09:51:38 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>Based on your message headers, it appears that you are in the UK, so
>that would be System I with FM at a 6 MHz subcarrier and the UHF
>channel width of 8 MHz.

I might mention that at least in North America, broadcasters generally do not transmit the sound as a subcarrier; rather, a second, pretty much separate, transmitter is used. (isn't this also the case in Europe?)

The resulting signal, on the other hand, is impossible to distinguish from the effect of using a subcarrier, and indeed when American (and presumably European?) radio amateurs transmit TV they frequently *do* use subcarriers.

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

3507. Re: Murata Ceramic Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 13:22:34 UTC
From: crabtreejr@aol.com
Message-ID: <20010608092234.00438.00002941@ng-fr1.aol.com>
Source record: 52153

Jim, ZL2APE, jim-p@ihug.co.nz on 6/8/01 wrote:

>I have a Murata Ceramic Filter, type CFR-555 F .
>Does anyone have the data sheets for this?
>I would like to know the characteristics of this filter - the Murata site
>does not have it at all, and a Dogpile search yielded nothing.

You will find the information in the Murata catalog at
http://www.iijnet.or.jp/murata/products/english/catalog/p05e9.pdf

3508. Re: Murata Ceramic Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 13:30:31 UTC
From: crabtreejr@aol.com
Message-ID: <20010608093031.00438.00002944@ng-fr1.aol.com>
Source record: 52155

Jim, ZL2APE, jim-p@ihug.co.nz on: 6/8/01wrote:

>I have a Murata Ceramic Filter, type CFR-555 F .
>Does anyone have the data sheets for this?
>I would like to know the characteristics of this filter - the Murata site
>does not have it at all, and a Dogpile search yielded nothing.

You will find the information on the Murata web site at:
http://www.iijnet.or.jp/murata/products/english/catalog/p05e9.pdf

Murata are updating their catalogs and have removed the link to this particular one, but it is still there. I advise printing out anything which you might need for reference.

73 John KC0GGH

PS. Apologies for the first very terse reply - I sent it by mistake.

3509. Re: FM Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 15:02:06 UTC
From: PCS ELECTRONICS <you@know.me>
Message-ID: <9fqp8h$47u$2@planja.arnes.si>
Source record: 52156
Cross-posted to: alt.pirate.radio,alt.radio,alt.radio.broadcasting,alt.radio.college,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

PC MAX is the best for playing MP3 around the house,
its based on PC (its an addon card) so you can actually
control power and frequency with a click of a mouse.
Just need a piece of wire as an antenna...

http://www.pcs-electronics.com

--
Best regards,
Marko - PCS Electronics

Turn your PC into a FM radio station!
http://www.pcs-electronics.com

"JL Webb" <jlwebb@iname.com> wrote in message
news:3B16FF16.96BE666F@iname.com...
> marathon wrote:
>
> > Could someone recommend a good FM Transmitter for MP3 playaround house.
I
> > would like 12 v and 120v capability, Stereo, and appx 1/4 mile range.
>
> your house is 1/4 mile long?
>
> > Had a Canakit, but destroyed it trying to set it up in a case with
switching
> > for voltages so would like something already built and in a case. Am in
US
> > and would like it to be in $100 or about range.
> > Any suggestions?
>
> Still not sure if you want a 1/4 mile pirate transmitter, or a "just
around the
> house" repeater like you first mentioned. These are two completely
different
> items.
>
>

3510. Please send me information how to get started into serious Remote Ham Radio Operation.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 15:53:24 UTC
From: Klinger Global Enterprises <klinger.family@home.com>
Message-ID: <Ux6U6.398749$166.8522365@news1.rdc1.bc.home.com>
Source record: 52157

Please reply with info on how to get started into SERIOUS good Ham Radio Operations from a remote home, including independant energy sources seperate from Hydro companies please.

Thanks alot.

Markus Klinger (604) 525-2941

3511. T/R switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 18:26:58 UTC
From: PA5KE <pa5ke@euronet.nl>
Message-ID: <9fr5fg$2h0j$1@beast.euro.net>
Source record: 52158

Dear OM,

I am looking for a diagram for a (electronical) T/R switch that can be used
in a 200W HF solid-state lineair amplifier as an alternative for relais.

Where to find this, your help is appreciated!

73 de PA5KE
Peter Kerklaan

3512. Crystal wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-08 23:33:50 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <9frncu$b7d$1@news.hawaii.edu>
Source record: 52159
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I'm trying to move an older crystal-controlled Marine Band transceiver down to the 2m band. I just need it to transmit on 146.28, the input of our Diamond Head repeater. To xmit on 146.28, the crystal frequency should be 146.280 / 12 = 12.190 MHz. (I'm not going to attempt to re-tune the receiver stages to cover 2m; I'll use a spare scanner to receive with.)

Does anyone have a junkbox 12.190 MHz xtal they'd like to part with? I don't know any of the xtal oscillator's parameters; this is just a hit or miss project.

Thanks in advance, Jeff KH6O

3513. Re: Transformer Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 04:55:49 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <bta3it86si3guc0r17qqrh2ssmqv6cgs88@4ax.com>
Source record: 52160

Jim Weir <jim@rst-engr.com> wrote:

>Jim Adney <jadney@vwtype3.org>
>shared these priceless pearls of wisdom:
>
>->The short answer is that when designing a transformer, the core is
>->determined by the voltage and the wire gauge is determined by the
>->current.
>
>Ah, no sir, that doesn't happen to be true. There are two forms of loss in a
>transformer, both of which wind up as heat. There are core losses (eddy current
>losses) and wire resistance losses. In a well-designed power transfomer, both
>losses (as measured by heat) are approximately equal. Thus, for a given
>current, half the heat is generated by the wire, the other half by the core.
>Core certainly then is a major factor on how much current you can draw from the
>transformer.

Only half right. Core losses don't go up with current. They are only a
function of the flux excursions in the core, and this is strictly a
function of the voltage waveform.

The equal power dissipation point sounds like an economic question; I
really can't comment on that.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

3514. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 05:10:38 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <bub3itkfa4h2jmkv1kmj61v9h21bhe0p11@4ax.com>
Source record: 52161

There are three things I'd like to try along those lines. Here goes,
in no particular order.

1) Use a PC to control the tuner. We all got one and anybody could
write a better version. Open source, of course. There are digital
I/O boards for reasonable prices.

2) The PC would also "know" what values were used in the matching
network and software could translate that into impedence seen at the
tuner output (resistance+reactance). Sort of like rolling an antenna
analyzer in at the same time.

3) Use a varactor for the variable capacitor. "Look ma, no relays."
Not the greatest idea for high power levels, just something to try.

Comments?

73,
Jim
N2VNO

On Tue, 05 Jun 2001 23:24:07 -0300, Guillermo G. Llorï¿½ns
<nagato@arnet.com.ar> wrote:

>Hello OM:
>
>ON4CLN escribiï¿½:
>>
>> Dear OM's and YL's
>>
>> As a result of my previous posting about portable antennas, I want to *try*
>> to make an antennatuner myself (I'm on a tight budget).
>> Range: 160m to 10m, 100W max (mostly CW).
>>
>> I had in mind a T-network with a coil to ground (antenna DC grounded for
>> static). Is this a good setup, or are there any better suggestions?
>> A pi-network with two coils is cheaper of course... But is this better?

3515. RC car schematics and info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 06:02:45 UTC
From: John B <robotwizard@nospamnospamworldnet.att.net>
Message-ID: <9_iU6.71727$4f7.5490783@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52162

Can anyone tell me where to find schematics for Nikko RC car transmitter/receiver ? Are there any sites that have theory/technical data and waveforms for RC models? I would like to modify a Nikko RC car for experimantation.

thanx,
John
KB9WTK

3516. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 10:38:09 UTC
From: John Seney <wd1v@mediaone.net>
Message-ID: <wd1v-4A36F6.06380909062001@enews.newsguy.com>
Source record: 52163
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

In article <3B1EF44A.C4836E72@erols.com>, Mary Anne Olsen
<wolsen@erols.com> wrote:

> Is there something inherently wrong with the Kenwood mikes that you're
> replacing them with Heil elements? Bill N3TVU

You need to hear the differences. Heil mics are simply the best as
they accentuate the frequencies of voice for SSB radios. If you
own an Icom, you'll also probably need a small preamp.

Check out http://www.heilsound.com/

--
John Seney
http://www.qsl.net/wd1v
Scope & Jitter Measurements FAQ

3517. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 11:40:52 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9ft9e0$3l$1@news6.svr.pol.co.uk>
Source record: 52164
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

> > Is there something inherently wrong with the Kenwood mikes that you're
> > replacing them with Heil elements? Bill N3TVU
>
> You need to hear the differences. Heil mics are simply the best as
> they accentuate the frequencies of voice for SSB radios. If you
> own an Icom, you'll also probably need a small preamp.
==========
The reponse of any mike for the range of voice freqs can be enhanced by a simple mike preamp with freq boost control.
Ref: QST -August 1989 ,pages 19-20-21 Build a Low Cost "Booster" Microphone.

The design is meant for an electret capsule ,but by deleting R1= 1000 Ohms (which provides a low DC voltage to an electret mike) a dynamic mike can be used readily.
The design involves a 2N3904 NPN transistor ,a 741 opamp and 3 presettable trimpots for audio output - low boost and high boost. A PCB Layout is included ,but the circuit can be equally well built on a piece of perf board

Making one yourself is probably cheaper than buying a Heil mike element.....and it's good fun.

73 Frank gm0csz.kn6wh@ukrs.org

3518. Re: Need 62K 25 watt or so resistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 11:55:40 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <9ft9ve$fj9$1@news5.svr.pol.co.uk>
Source record: 52165

> > Please look in ur junk box. I would buy one of these from Digikey or
> other
> > but just need one thing. A fairly compact 62,000 ohm at 25 watt or so.
> > For a screen dropping resistor.
> ==========

62KOhms @25 W means a max current of approx 20 mA
If not 1 resistor ,you could go for 6 pcs 10 KOhm , 4 W or 4 pcs 15KOhm , 6 W or 3 pcs 20KOhm, 8 W + 1 pce 2KOhm , 1 W resistors in series.

Alternatively you could go for a combined parallel/series arrangement.

Look for very compact ceramic resistors on approx 25 mm (1 inch) 'stilts ' for PCB mounting .
I have quite a number for a HV supply bleeder ,15 KOhms ,5 W ,with the resistor body measuring 25 x 10 x 10 mm (1x 3/8 x 3/8 inch)
So a bleeder for 3500 V ,16 mA would need 15 of these resistors ,dissipating
a total of 54 W ,acceptable for 15 x 5 =75 W installed , resulting in 233 V across each resistor.

The advantage of multiple resistors is that each resistors takes only part of the total voltage drop , hence no need for HV resistors and better heat dissipation , yet a compact unit. And also low cost and readily available.

In the UK ,Mainline Surplus in Leicester is a good source. I bought the above 15KOhms resistors from them for equivalent US $ 0.15 per unit.

GL

73 Frank gm0csz.kn6wh@ukrs.org

3519. Re: A simple superregenerative receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 15:42:19 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B2243DB.A70C8411@inreach.com>
Source record: 52166

I am going to guess that r6 is regen control, and that the tank circuit
is L2 and C1, C1 tunes, antenna is across L3, T1 is the detector, and
the rest is filters and the audio amp and output circuits. There is no
volume control.

Lars Brandt wrote:
>
> Hello
> This is a simple superregenerative receiver. The scematic can you see on:
> http://w1.409.telia.com/~u40910460/supreg.jpg
> Is there anybody who can answer on 2 questions?
>
> 1.What is R6 on the schematic for? Is it only a volumecontrol or is a
> regenerationcontrol?
> 2. What components are for quenceoscillation?
>
> Thank You
>
> Regards
> Lars

3520. FS: Amp. w/ pair 4-400c's.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 16:04:52 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <EOrU6.5252$p%4.555461@newsread2.prod.itd.earthlink.net>
Source record: 52167
Cross-posted to: rec.radio.amateur.homebrew,alt.ham-radio.marketplace

Homebrewed GG linear amp deck consists of the tubes, coils, band switch, meters, filament xformers, variable caps. With case but no HV P.S. or blower.

Was in use for several years, then several years idle. Not set up to check it in operation at this time but it worked great before it was shut down. 1kw+ out. Tubes just checked showing no inter-electrode shorts and filaments ok.

Common GG circuit.

$175. plus packing and shipping. If interested, can e-mail photos.

73, Marty K1FHR

3521. Coupling Freq.Counter to RF circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 18:29:57 UTC
From: rbarrios@gmx.net
Message-ID: <ab7385fd.0106091029.7e892b5d@posting.google.com>
Source record: 52168

Hello everybody,

I've got an OPTOELECTRONICS Handi-Counter 2300 and the need of align the PLL section in YAESU FT-480R VHF transceiver. I've got the service manual and the alignment procedure, but also a problem. Since the counter has only a low impedance imput (50 ohm) I think that direct-coupling of its input to the circuit will cause too much effect on its characteristics and will detune it. My question is, how can I measure the frequency on the test points with the counter without affecting the sensitive RF circuit?

Thanks to everybody
EB4EQA, Roberto Barrios, Madrid, Spain

3522. Re: Coupling Freq.Counter to RF circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 18:32:44 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B226BCC.69129D08@dialpoint.net>
Source record: 52169

Unless you are coupling directly to the circuit where you are mesuring the frequency you should be ok. While this won't help you, I had a problem while trying to do the same thing to a Yaesu 757. Could not get thecounter to count as there was not enough signal. I bought a used service monitor which has a receiver rated for about 2 microvolts input to get the rig aligned.

EB4EQA wrote:
>
> Hello everybody,
>
> I've got an OPTOELECTRONICS Handi-Counter 2300 and the need of align
> the PLL section in YAESU FT-480R VHF transceiver. I've got the service
> manual and the alignment procedure, but also a problem. Since the
> counter has only a low impedance imput (50 ohm) I think that
> direct-coupling of its input to the circuit will cause too much effect
> on its characteristics and will detune it. My question is, how can I
> measure the frequency on the test points with the counter without
> affecting the sensitive RF circuit?
>
> Thanks to everybody
> EB4EQA, Roberto Barrios, Madrid, Spain

3523. Beta testers wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 19:37:13 UTC
From: George Ioannu <g-ioannu@usa.net>
Message-ID: <9fttt4$9tc$1@usenet.otenet.gr>
Source record: 52170

Hi all.
I have just uploaded a small utility to automatically set any RS232 capable receiver for reception of weather satellites.

The program will also automatically record the APT audio signal from each satellite pass.

If any of you are willing to provide some feedback of what works as planned and what not, it would be of great help (and your operating system).

You will also need David Taylor's Satelite tracking program (if you haven't got it you're missing a lot) from www.satsignal.net

You need to set up an "ini" file with commands and optionally responses to your receiver. If you want, please send me this file along with your receiver make and model (and your name !!), so I can distribute it with the program.

Download the program (WX Receiver) from www.nhreas.com. Go to "Satelite" page. It's at the very top.

Thank you all in advance and I hope you like it

George Ioannu

SV8ARJ

g-ioannu@usa.net

3524. Re: RC car schematics and info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 20:27:34 UTC
From: "Philip L. Carter" <pcarter@gcfn.org>
Message-ID: <3B2286B6.F3CC5766@gcfn.org>
Source record: 52171

Unless it operates on 6 meters, you would not be authorized to modify it. If it is a part 15 device you probably will not find too much information on it.

Phil

3525. Philadelphia Selectronics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 20:32:55 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <ZJvU6.46243$aW5.518811@dfw-read.news.verio.net>
Source record: 52172

Finding my way to a reunion in Delaware County, I stumbled onto Grays Ferry Avenue and drove by a Selectronics sign. I bought a Navy HF receiver ($75, unused, with a box of spares) there forty years ago. As I recall, the Silver brothers ran it then. Is it the same place?

Tom Becker
--... ...--
GTBecker@RighTime_com GTBecker@OnRamp_net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

3526. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 21:00:10 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <8rGvHDAa5oI7EwxK@g3ohx.demon.co.uk>
Source record: 52173

In article <kcs0itk3igf5f30rj9i441qn3j0lr3gkiu@4ax.com>, Paul Keinanen
<keinanen@sci.fi> writes
>On Thu, 7 Jun 2001 23:24:20 +0100, "Anthony" <anthonyicq@hotmail.com>
>wrote:
>
>
>>Also., could anyone tell me, what frequency a standard television rx's audio
>>on? ie 6mhz and is it fm or am.
>
>Based on your message headers, it appears that you are in the UK, so
>that would be System I with FM at a 6 MHz subcarrier and the UHF
>channel width of 8 MHz.
>
>In most of Western Europe, the System B/G is used with 7 MHz channel
>spacing and 8 MHz on UHF with an FM subcarrier at 5.5 MHz. The former
>OIRT countries had 8 MHz channel spacing with system D/K and 6.5 MHz
>FM subcarrier, although some seem to be converting to B/G.
>
>The FM audio subcarriers are usually with 25 kHz deviation.
>
No. In both Systems I and B/G, the max deviation is +/-50kHz.

>France is System L with 8 MHz channels and 6.5 MHz AM subcarrier and
>positive video modulation :-).
>
>Paul OH3LWR
>

3527. Re: Coupling Freq.Counter to RF circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 21:02:53 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B228EFD.165FEBE0@one.net>
Source record: 52174

Roberto:

I sometimes use a small coil to avoid direct coupling to a circuit.

Try making a very small coil of about 3 or 4 turns at the end of a
wire. Connect the other end of the wire to the input of your counter.
Keep the wire short, and place the coil near the test point or one of
the circuit components that are connected to the test point.

I usually don't even need to complete the circuit -- I leave the coil
just "floating" at the end of the wire. I suspect that the coupling
from the coil to the circuit is actually capacitive rather than
inductive, but it often works and gives me enough signal to count.

... Rich

EB4EQA wrote:
>
> Hello everybody,
>
> I've got an OPTOELECTRONICS Handi-Counter 2300 and the need of align
> the PLL section in YAESU FT-480R VHF transceiver. I've got the service
> manual and the alignment procedure, but also a problem. Since the
> counter has only a low impedance imput (50 ohm) I think that
> direct-coupling of its input to the circuit will cause too much effect
> on its characteristics and will detune it. My question is, how can I
> measure the frequency on the test points with the counter without
> affecting the sensitive RF circuit?
>
> Thanks to everybody
> EB4EQA, Roberto Barrios, Madrid, Spain

3528. Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-09 23:07:15 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010609190715.29644.00001317@ng-mo1.aol.com>
Source record: 52175

Hi Everyone,

I'm looking for a schematic for a 10 meter transmitter suitable for balloon use. Any help would be welcome.

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3529. FA:ACCEL Tango PCB & Schematic Capture

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 03:32:09 UTC
From: "Rufus T. Firefly" <magix@NOWAYspartanburg.net>
Message-ID: <i5q5itksd2evf4mvo7mggda7n6r9h8ro3m@4ax.com>
Source record: 52176

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1245193865

3530. Tektronix T912 Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 03:56:21 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <FdCU6.73301$4f7.5653737@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52177

I have a Tektronix T912 "O" Scope that looses its focus AFTER warm-up. I have no service information; anybody run across this problem before?

Thanks,
Fred
fallen-idc@worldnet.att.net

3531. Re: Coupling Freq.Counter to RF circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 06:36:22 UTC
From: J-R Roy <jean-roger.roy@wanadoo.fr>
Message-ID: <9fv4h8icn1@wanadoo.fr>
Source record: 52178

Hi Roberto,

Two solutions :

Depending of the RF level and the frequency, you insert a small value capacity C (1 to 10 pF for example). Yous can calculate the impedance of C by the relation z = 1/Cw where w = 2 x 3,14 x f (f in Hz). In fact you create a voltage divider got by the impedance of C and the 50 ohms input impedance of your counter. Generally the RF input of modern counters is enough sensible for getting good measurements even with a low RF level.

An other solution is to use an oscilloscope probe with a ratio of 1:10 (the internal part of the probe allows to get a high impedance). Normally the impedance input of an oscilloscope is also high (generally 1 Mohms), but you can get also good results with your counter input. Try it, it's the most simple solution !

Jean-Roger - F6EGK

"EB4EQA" <rbarrios@gmx.net> a crit dans le message news:
ab7385fd.0106091029.7e892b5d@posting.google.com...
> Hello everybody,
>
> I've got an OPTOELECTRONICS Handi-Counter 2300 and the need of align
> the PLL section in YAESU FT-480R VHF transceiver. I've got the service
> manual and the alignment procedure, but also a problem. Since the
> counter has only a low impedance imput (50 ohm) I think that
> direct-coupling of its input to the circuit will cause too much effect
> on its characteristics and will detune it. My question is, how can I
> measure the frequency on the test points with the counter without
> affecting the sensitive RF circuit?
>
> Thanks to everybody
> EB4EQA, Roberto Barrios, Madrid, Spain

3532. Re: Tektronix T912 Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 11:32:46 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <AVIU6.958$6d5.313738@news2-win.server.ntlworld.com>
Source record: 52179

Check for dry joint on CRT base connector and pins on HV generation
circuits. This is a common one on Tek's TAS series scopes so maybe on T912
also

Alec M1BNK

"Fred Allen" <fallen-idc@worldnet.att.net> wrote in message
news:FdCU6.73301$4f7.5653737@bgtnsc06-news.ops.worldnet.att.net...
> I have a Tektronix T912 "O" Scope that looses its focus AFTER warm-up. I
> have no service information; anybody run across this problem before?
>
> Thanks,
> Fred
> fallen-idc@worldnet.att.net
>
>
>

3533. FS: CRT's, magnetrons, klystrons etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 12:59:45 UTC
From: arnoldg@enitel.no
Message-ID: <3b237016.21118705@news.enitel.no>
Source record: 52180

Hello,

The following valves are for sale. They are unused unless otherwise specified, and mostly in original boxes. They are all in stock and can be shipped immediately to anywhere in the world.

2 pcs 3069M Large, round CRT in super heavy duty packing material each in a wooden barrel. One in

completely new, obviously never unpacked (only by me for inspection), the other one seems also to be new and unused but it has

been opened by someone. US$ 250.- each

8 pcs F16-10LD CRT by GEC (some boxes says 'Haltron' on the outside. I have not opened to verify). They

are obviously all unused. US$ 150.- each

1 pcs F16-10LD CRT as above, but made by Mullard. US$ 150.-

1 pcs F16-10LD CRT as above, but this one is used. It has a little spot on the screen. US$ 75.-

4 pcs 7BP7 CRT. The boxes says 'Haltron' I have not looked inside. Unused and unopened. US$ 100.- each

5 pcs 5FP7 CRT. The boxes says 'Haltron'. Some are opened and some are sealed. All the valves are

obviously unused US$ 75.- each

6 pcs P535/1E STC pulse modulator valve. Also coded CV 427. It is similar to 715C. All unused. US$ 50.- each

1 pcs P535/1E Same as above, but this one seems to be used. US$ 30.-

6 pcs C1148 EEV pulse modulator valve. Unused and in original boxes US$ 35.- each

12 pcs C1150/1 EEV pulse modulator valve. Unused and in original boxes US$ 38.- each

3 pcs C1166 EEV pulse modulator valve. Unused and in original boxes. US$ 40.- each

1 pcs QF 451 Ferranti. Looks like a radar TR switch and unused. US$ 20.-

1 pcs KS 9-40D Mullard klystron. Unused in sealed box US$ 20.-

4 pcs M509 EEV magnetron. Also coded CV 3982. Unused in sealed box US$ 50.- each

2 pcs M599 EEV magnetron. Unused in sealed box US$ 50.- each

1 pcs JP 9-75 Mullard magnetron. Unused in sealed box US$ 50.-

7 pcs 24B1 STC trigatron valve. Unused in original box (Strange looking valve) US$ 30.- each

11 pcs 725A Western Electric magnetron. Unused in sealed boxes. US$ 30.- each

Best regards,

Arnold Goks&#65533;yr
- manager -

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books and components.

3534. Re: Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 14:00:48 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <k4LU6.71342$v5.5625417@news1.rdc1.ct.home.com>
Source record: 52181

What sort of modulation? For an unmodulated carrier, look at some
of the surplus catalogs that carry those small TTL oscillator cans
used in computer and digital gear. I believe they do make a few
that cover the ten meter band, and the cost is minimal.

Pete

"CLVANCIL" <clvancil@aol.com.spxmnix> wrote in message
news:20010609190715.29644.00001317@ng-mo1.aol.com...
> Hi Everyone,
>
> I'm looking for a schematic for a 10 meter transmitter suitable for
balloon
> use. Any help would be welcome.
>
> 73,
> Chris Vancil (KD7LRV)
> "Limine fato impedito, perage fenestram"
> "When fate closes a door go in through a window."
> http://members.aol.com/CLVANCIL/MarsBalloon.html

3535. Re: Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 14:06:44 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <U9LU6.71351$v5.5626710@news1.rdc1.ct.home.com>
Source record: 52182

I see a new 28.322 MHz clock oscillator in my Mouser book for
$2.36. Add a simple 2N2222 or such buffer, followed by a simple
pi filter to limit harmonics will get you several mW or so without much
effort. Look to the Solid State Design book by Hayward and DeMaw
(ARRL) for some ideas on the lower power stages to follow the
oscillator--or just use the module with a simple harmonic filter
for real qrp.

Regards

Peter

"CLVANCIL" <clvancil@aol.com.spxmnix> wrote in message
news:20010609190715.29644.00001317@ng-mo1.aol.com...
> Hi Everyone,
>
> I'm looking for a schematic for a 10 meter transmitter suitable for
balloon
> use. Any help would be welcome.
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> 73,
> Chris Vancil (KD7LRV)
> "Limine fato impedito, perage fenestram"
> "When fate closes a door go in through a window."
> http://members.aol.com/CLVANCIL/MarsBalloon.html

3536. WTB: Drake 7 line acc # 1544 and 1548

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 14:29:07 UTC
From: k9sqg@aol.com
Message-ID: <20010610102907.25387.00003558@ng-ma1.aol.com>
Source record: 52183

Fellow Drake enthusiasts, I'm still looking for one more adaptor and cable that allow transcieve operation with the TR-7, R-7, and RV-75. This will bring me close to completing my Drake collection. If you have either or both of these items for sale, I'd certainly enjoy hearing from you.

As a side note, don't forget the Drake nets. 7238 (plus or minus) at 8 PM Eastern time on Sundays, and 3865 at 8 PM on Tuesdays.

Thanks for reading the posting.

73s,

Evan

3537. Re: Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 15:04:19 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9g029j0ne6@enews1.newsguy.com>
Source record: 52184

Chris

Even better than the 28.322 oscillator, the Epson programmable oscillators from DigiKey let you choose the frequency. I've tried these on 15 and they work quite well. They are a little pricier than the 28.322 oscillators ($3.33 instead of $2.36) but you can pick the frequency. DigiKey is amazingly quick at shipping things, how long it takes to actually get to you depends on how much you want to pay. Here in Michigan, the lowest cost shipping generally takes 3 days from MN.

If the 28.322 is OK for you, the New Jersey QRP club has a kit, the Fireball 40, for $10 that includes the voltage regulator and parts for dividing down to get to 40 meters, along with output filtering for 40, and instructions for the other bands. You would need to come up with some T37-6 cores to make a 10 meter output filter. Having the PC card saves a certain amount of fooling around, and they even have foil for a 1 watt amp if you need a little more power. Plus, you get all the plans for the filtering which saves additional tinkering.

didleydadidah

"CLVANCIL" <clvancil@aol.com.spxmnix> wrote in message
news:20010609190715.29644.00001317@ng-mo1.aol.com...
> Hi Everyone,
>
> I'm looking for a schematic for a 10 meter transmitter suitable for
balloon
> use. Any help would be welcome.
>
> 73,
> Chris Vancil (KD7LRV)
> "Limine fato impedito, perage fenestram"
> "When fate closes a door go in through a window."
> http://members.aol.com/CLVANCIL/MarsBalloon.html

3538. 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 16:02:58 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9g05pg.1s0.5@bushnet.he7d26f8e.invalid>
Source record: 52185

Hi,

I am currently working in Mali, West Africa where the temperature reaches almost 50 degrees C in the hot season. To survive we need to use standard ceiling fans or oscillating room fans. However we have no grid connection here so I need to find a solution to run these fans off 12 volts solar power.

I assume that the best solution would probably be to make a hi-efficiency DC/DC converter using an off the shelf standard inductor and then chop the high voltage (170 or 322 VDC) into 50Hz variable duty cycle AC current to feed the fans. Max load would be 100 Watts.

Does anyone of know about a schematic for a suitable converter We really need the slight comfort that such fans can give us here in the bush. Please respond with any tip / URL / schematic or hint you might have.

Thanks a lot in advance for your time.

regards

Tor (TZ6TOR)

3539. Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 16:19:53 UTC
From: Throbber <kd6nrp@earthlink.net>
Message-ID: <J6NU6.1215$eZ6.198537@newsread2.prod.itd.earthlink.net>
Source record: 52186
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

Hi All:

I apologize for posting this to this newsgroup, but there are probably telephone and broadcast technicians here who could help me out. Also, a ham who wants to build a phone patch interface might be interested in this.

Problem: I file radio news stories from remote locations in the western U.S. via analog voice grade lines. Sometimes my editor would like background audio (a missile countdown, jet taking off, etc.). I want to feed good quality audio directly into the phone line (I realize that an analog phone line is limited to 300-3,000 Hz bandwidth).

Here are my questions:

1. What is the impedance of an analog voice grade line?
2. How would I match the 8-Ohm impedance from my audio recorder to the telephone line?
3. The red and green wires in a telephone cord are the audio lines. Which one is signal and which one ground?
4. Could I just feed the audio directly into the line from the recorder using a capacitor to block the DC
from getting into the recorder?
5. If so, what value capacitor would I use to do this?
6. What kind of load (how many Ohms) do I have to put across an analog phone line to maintain the connection?
7. If I feed the audio into an equalizer to boost the audio below 300 Hz and 3,000 Hz before it goes into the phone line, would I increase the quality of the audio or just increase the background noise (would audio outside of the normal phone line bandwidth come across as noise)?

There is an excellent commercial product that performs this function, but it is very expensive.

Thanks,

Brian Webb, KD6NRP
kd6nrp@earthlink.net
http://home.earthlink.net/~kd6nrp

3540. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 16:25:40 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <8cNU6.71488$v5.5654428@news1.rdc1.ct.home.com>
Source record: 52187
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

The actual impedance of the phone line is several hundred ohms--
if memory serves me the typical phone is designed for around
400 ohms.

The phone line is a two-wire balanced circuit--there is NO ground
or signal. Both lines are signal.

A thousand ohms DC should sieze and hold the line. Simply use
the RadioShack telephone line transformer that they sell for a
few dollars. It is designed for 600 to 600 interfacing. Once the
transformer is across the line, it will hold and maintain your
connection, even if the phone is hung up. You don't need a cap.

You can simply drive the 600-ohm winding on the recorder side
with the 8-ohm speaker jack audio. The mismatch will not affect
quality, only the amount of maximum audio level.

An ideal equalizer would have a 600-ohm output to better match
the line transformer.

regards

Peter

"Throbber" <kd6nrp@earthlink.net> wrote in message
news:J6NU6.1215$eZ6.198537@newsread2.prod.itd.earthlink.net...
> Hi All:
>
> I apologize for posting this to this newsgroup, but there are probably
> telephone and broadcast technicians here who could help me out. Also, a
ham
> who wants to build a phone patch interface might be interested in this.
>
> Problem: I file radio news stories from remote locations in the western
U.S.
> via analog voice grade lines. Sometimes my editor would like background
> audio (a missile countdown, jet taking off, etc.). I want to feed good
> quality audio directly into the phone line (I realize that an analog phone
> line is limited to 300-3,000 Hz bandwidth).
>
> Here are my questions:
>
> 1. What is the impedance of an analog voice grade line?
> 2. How would I match the 8-Ohm impedance from my audio recorder to the
> telephone line?

> 3. The red and green wires in a telephone cord are the audio lines. Which
> one is signal and which one ground?
> 4. Could I just feed the audio directly into the line from the recorder
> using a capacitor to block the DC
> from getting into the recorder?
> 5. If so, what value capacitor would I use to do this?
> 6. What kind of load (how many Ohms) do I have to put across an analog
phone
> line to maintain the connection?
> 7. If I feed the audio into an equalizer to boost the audio below 300 Hz
and
> 3,000 Hz before it goes into the phone line, would I increase the quality
of
> the audio or just increase the background noise (would audio outside of
the
> normal phone line bandwidth come across as noise)?
>
> There is an excellent commercial product that performs this function, but
it
> is very expensive.
>
> Thanks,
>
> Brian Webb, KD6NRP
> kd6nrp@earthlink.net
> http://home.earthlink.net/~kd6nrp
>
>
>

3541. six meter schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 16:36:15 UTC
From: rdalton1 <rdalton1@postoffice.swbell.net>
Message-ID: <VpNU6.8$dA4.21200@nnrp3.sbc.net>
Source record: 52188

I realize it would be simple enough to buy an swr meter,but if anyone has a schematic for a six meter swr meter I would appreciate it.73s richard

3542. NEED: PS Schematic Henry 2k-3 amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 17:11:24 UTC
From: BEAR <bearlabs@netzero.net>
Message-ID: <3B23AA3C.11FF2846@netzero.net>
Source record: 52189
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.boatanchor,rec.radio.homebrew

Hi!

I'm refurbishing an old Henry 2k-3 amp - I have the upper deck schematic,
but no power supply schematic. I could trace it, and work on it as is - but there
are a few parts that have been *replaced* that may or may not be appropriate
in type or value.

So, anyone who can supply:

a) emailed - scanned copy
b) emailed - PDF (best!!)
c) snail mailed photocopy
or
d) URL to one on the 'net

PLEASE EMAIL TO ME!!
I may not catch your post - since the braindead admins on this system keep only
3 days maximum worth of posts up. :- (

BTW- If you happen to have any flush mount panel meters (no cut-out needed, just for the
two meter terminals) of *any value*, let me know too - the original ones are toasted here.
I'll have to work out a replacement/retrofit if I can't find any flush mount types)

Thanks,

_-_- bear WB2GCR

--
_-_-bearlabs

http://www.bearlabsUSA.com

3543. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 17:17:31 UTC
From: Hannu Ylioja <hannu.ylioja@ntlworld.com>
Message-ID: <AXNU6.1901$6d5.640147@news2-win.server.ntlworld.com>
Source record: 52190

As this is not a binaries newsgroup, I've emailed you separately
a schematic for a 50W inverter that uses common household components!

Hannu

"Tor Tveitane" <tor@bushsoft.com> wrote in message
news:9g05pg.1s0.5@bushnet.he7d26f8e.invalid...
> Hi,
>
>
> I am currently working in Mali, West Africa where the temperature reaches
> almost 50 degrees C in the hot season. To survive we need to use standard
> ceiling fans or oscillating room fans. However we have no grid connection
> here so I need to find a solution to run these fans off 12 volts solar
> power.
>
> I assume that the best solution would probably be to make a hi-efficiency
> DC/DC converter using an off the shelf standard inductor and then chop the
> high voltage (170 or 322 VDC) into 50Hz variable duty cycle AC current to
> feed the fans. Max load would be 100 Watts.
>
> Does anyone of know about a schematic for a suitable converter We really
> need the slight comfort that such fans can give us here in the bush.
Please
> respond with any tip / URL / schematic or hint you might have.
>
> Thanks a lot in advance for your time.
>
> regards
>
> Tor (TZ6TOR)
>
>
>
>

3544. Re: NEED: PS Schematic Henry 2k-3 amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 17:50:33 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b23b324_2@newsa.ev1.net>
Source record: 52082

Go to http://bama.sbc.edu
You should be able to download the manual from this site.

BEAR <bearlabs@netzero.net> wrote in message
news:3B23AA3C.11FF2846@netzero.net...
> Hi!
>
> I'm refurbishing an old Henry 2k-3 amp - I have the upper deck
> schematic,
> but no power supply schematic. I could trace it, and work on it as is -
> but there
> are a few parts that have been *replaced* that may or may not be
> appropriate
> in type or value.
>
> So, anyone who can supply:
>
> a) emailed - scanned copy
> b) emailed - PDF (best!!)
> c) snail mailed photocopy
> or
> d) URL to one on the 'net
>
>
> PLEASE EMAIL TO ME!!
> I may not catch your post - since the braindead admins on this system
> keep only
> 3 days maximum worth of posts up. :- (
>
>
> BTW- If you happen to have any flush mount panel meters (no cut-out
> needed, just for the
> two meter terminals) of *any value*, let me know too - the original ones
> are toasted here.
> I'll have to work out a replacement/retrofit if I can't find any flush
> mount types)
>
> Thanks,
>
> _-_- bear WB2GCR
>
> --
> _-_-bearlabs
>

> http://www.bearlabsUSA.com
>
>
>

3545. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 18:08:26 UTC
From: Dick Johnson <RLJohnson@cox.rr.com>
Message-ID: <uIOU6.37411$e34.8759930@typhoon.southeast.rr.com>
Source record: 52192
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

You can't make a silk purse from a sow's ear. (Old proverb)

1. Get your boss to buy you a laptop with a telephone modem and an audio
card with a mike input. This puts the cost where the benefit is realized.

2. Record you story as a WAV file at whatever degree of Hi Fi you wish.

3. Attach the WAV file to an e-mail and send it to your station.

4. Let the station engineer figure out how to use it. He can.

PoppaJ

"Throbber" <kd6nrp@earthlink.net> wrote in message
news:J6NU6.1215$eZ6.198537@newsread2.prod.itd.earthlink.net...
> Hi All:
>
> I apologize for posting this to this newsgroup, but there are probably
> telephone and broadcast technicians here who could help me out. Also, a
ham
> who wants to build a phone patch interface might be interested in this.
>
> Problem: I file radio news stories from remote locations in the western
U.S.
> via analog voice grade lines. Sometimes my editor would like background
> audio (a missile countdown, jet taking off, etc.). I want to feed good
> quality audio directly into the phone line (I realize that an analog phone
> line is limited to 300-3,000 Hz bandwidth).
>
> Here are my questions:
>
> 1. What is the impedance of an analog voice grade line?
> 2. How would I match the 8-Ohm impedance from my audio recorder to the
> telephone line?
> 3. The red and green wires in a telephone cord are the audio lines. Which
> one is signal and which one ground?
> 4. Could I just feed the audio directly into the line from the recorder
> using a capacitor to block the DC
> from getting into the recorder?
> 5. If so, what value capacitor would I use to do this?
> 6. What kind of load (how many Ohms) do I have to put across an analog
phone
> line to maintain the connection?
> 7. If I feed the audio into an equalizer to boost the audio below 300 Hz
and

> 3,000 Hz before it goes into the phone line, would I increase the quality
of
> the audio or just increase the background noise (would audio outside of
the
> normal phone line bandwidth come across as noise)?
>
> There is an excellent commercial product that performs this function, but
it
> is very expensive.
>
> Thanks,
>
> Brian Webb, KD6NRP
> kd6nrp@earthlink.net
> http://home.earthlink.net/~kd6nrp
>
>
>

3546. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 18:18:33 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9g0dna.18o.5@bushnet.hf9cba682.invalid>
Source record: 52191

"Hannu Ylioja" <hannu.ylioja@ntlworld.com> wrote in message
news:AXNU6.1901$6d5.640147@news2-win.server.ntlworld.com...
> As this is not a binaries newsgroup, I've emailed you separately
> a schematic for a 50W inverter that uses common household components!
>
> Hannu

Thanks a lot, Hannu,

What about efficiency for this circuit? I hoped to have about 85% as we
don't have more energy than we need, especially in the rainy season...

As I mentioned I need to have a variable duty cycle solution, which means
that I need variable monostables at each transistor input..?

Would a DC/DC solution which convert to hi-voltage DC which are chopped up
to AC be more efficient...?

regards

Tor

>
> "Tor Tveitane" <tor@bushsoft.com> wrote in message
> news:9g05pg.1s0.5@bushnet.he7d26f8e.invalid...
> > Hi,
> >
> >
> > I am currently working in Mali, West Africa where the temperature
reaches
> > almost 50 degrees C in the hot season. To survive we need to use
standard
> > ceiling fans or oscillating room fans. However we have no grid
connection
> > here so I need to find a solution to run these fans off 12 volts solar
> > power.
> >
> > I assume that the best solution would probably be to make a
hi-efficiency
> > DC/DC converter using an off the shelf standard inductor and then chop
the
> > high voltage (170 or 322 VDC) into 50Hz variable duty cycle AC current
to
> > feed the fans. Max load would be 100 Watts.
> >
> > Does anyone of know about a schematic for a suitable converter We

really
> > need the slight comfort that such fans can give us here in the bush.
> Please
> > respond with any tip / URL / schematic or hint you might have.
> >
> > Thanks a lot in advance for your time.
> >
> > regards
> >
> > Tor (TZ6TOR)
> >
> >
> >
> >
>
>

3547. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 18:49:04 UTC
From: Hannu Ylioja <hannu.ylioja@ntlworld.com>
Message-ID: <phPU6.2137$6d5.730380@news2-win.server.ntlworld.com>
Source record: 52193

"Tor Tveitane" <tor@bushsoft.com> wrote in message
news:9g0dna.18o.5@bushnet.hf9cba682.invalid...
> "Hannu Ylioja" <hannu.ylioja@ntlworld.com> wrote in message
> news:AXNU6.1901$6d5.640147@news2-win.server.ntlworld.com...
> > As this is not a binaries newsgroup, I've emailed you separately
> > a schematic for a 50W inverter that uses common household components!
> >
> > Hannu
>
> Thanks a lot, Hannu,
>
> What about efficiency for this circuit? I hoped to have about 85% as we
> don't have more energy than we need, especially in the rainy season...
>
> As I mentioned I need to have a variable duty cycle solution, which means
> that I need variable monostables at each transistor input..?
>
> Would a DC/DC solution which convert to hi-voltage DC which are chopped up
> to AC be more efficient...?
>
> regards
>
> Tor

The efficiency using standard mains transformers is around 80%, using
toroidal transformers around 85%. If you convert first from 12 V DC to
380V DC then chop and filter to sinusoidal 220V AC you're struggling to
get anywhere near 60% efficiency. If the fan does not need a sinusoidal
waveform in the first place the simpler and more efficient square wave
should suffice.
Why do you need a variable duty cycle solution ? Won't a standard 50Hz
drive be what the fan needs ?

Hannu

3548. Sierra QRP final amp modification problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 19:22:34 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3b23c61b.188560@news.sprint.ca>
Source record: 52194

I have just completed the final amplifier circuit modification (written up in past archives of QRP-L) to my Wilderness Sierra QRP rig. The mod involved substituting an RF choke for a 4:1 toroidal transformer, moving the 5k drive level pot from the circuit board to the back panel to make it easily adjustable, and replacing the 2N3553 final RF transistor with a 2SC1971 or equivalent.

The problem I am now having is that the final seems to go in to some oscillation(?) as I am getting weird SWR responses from a dummy load when the drive level control is set at certain levels. This is especially more evident when using the higher bands (21 MHz and up).

Any ideas out there what the problem might be would be appreciated. I am considering doing a second modification which is to change the current 2N2222A drive transistor with a 2N5109, for a better drive level to the new 2SC1971 final and wonder whther this might be the problem. However, I hesistate to make any more mods until I am sure that my problem is not something else.

Larry VE6MK
****
to send direct email remove "fake" from address

3549. Re: RC car schematics and info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 19:25:26 UTC
From: John B <robotwizard@nospamnospamworldnet.att.net>
Message-ID: <GQPU6.74583$4f7.5766545@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52195

Thanx for the reply . I am still a little unclear on the rules for RC in the amateur band, but you answered one of my questions. The following FCC rules are the only information I have been able find so far:

Sec. 97.215 Telecommand of model craft.

An amateur station transmitting signals to control a model craft may be operated as follows:
(a) The station identification procedure is not required for transmissions directed only to the model craft, provided that a label indicating the station call sign and the station licensee's name and address is affixed to the station transmitter.
(b) The control signals are not considered codes or ciphers intended to obscure the meaning of the communication.
(c) The transmitter power must not exceed 1 W.

Are you saying that there are RC priveleges on 6m only? Where does one find this info? I am open to the idea of making new transmitter and reciever boards, but it would sure be nice to have some schematics and timing/waveform info to start out with. Even if I make new boards I have to be able to interface to what is already there (servos, drivers, etc.). I still have many qns such as: What type of modulation does RC use? How is data sent (is it digital, PWM etc) How is data encoded and decoded?
John

"Philip L. Carter" <pcarter@gcfn.org> wrote in message news:3B2286B6.F3CC5766@gcfn.org...
> Unless it operates on 6 meters, you would not be authorized to modify
> it. If it is a part 15 device you probably will not find too much
> information on it.
>
> Phil

3550. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 19:40:48 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9g0j12.1ms.5@bushnet.hee5713a2.invalid>
Source record: 52196

"Hannu Ylioja" <hannu.ylioja@ntlworld.com> wrote in message
news:phPU6.2137$6d5.730380@news2-win.server.ntlworld.com...

> Why do you need a variable duty cycle solution ? Won't a standard 50Hz
> drive be what the fan needs ?

I will run it a 50Hz, but most of the time I just want to run the fan at low speed. Such fans are normally delivered with rheostat-like regulators but they dissipate the unused energy as heat. As I need hi-efficiency I just wanted to shorten the AC pulses (but keep 50Hz) for running the fan at slower speeds.

Is that a bad idea...?

Thanks for these thoughts, and welcome to other hints/tips/schematics...

regards

Tor

3551. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:04:08 UTC
From: gdanner@scitecinc.com
Message-ID: <1416d989.0106101304.4092a729@posting.google.com>
Source record: 52198
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

The Mike Sandman catalog has two different commercially made telephone line audio interfaces. One connects directly to the phone line. The other one connects to the handset cord of any telephone, and so can be used even with digital office/PBX phones and ISDN phones.

http://www.sandman.com/

While these units are NOT sold for peanuts (I think they are around $100-200, new), you might find a used on up for auction on eBay. If you were to try to build your own, the parts would probably cost about $50, but you would have to design it, test it, and put it into some kind of convenient to use carrying case.

One crucial requirement for any telephone interface is to couple the audio through a transformer, so that there aren't any ground loops. Decent audio transformers themselves are not real cheap.

If you really do want to "roll your own" check out the info on this website if you haven't already seen it:

http://www.hut.fi/Misc/Electronics/circuits/teleinterface.html

This URL is part of a much large group of EXCELLENT electronic reference pages found at:

http://www.epanorama.net/

-Greg

3552. FA: Scarce Racal MA1720 exciter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:04:12 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B23E0CC.8030900@armscroft.demon.co.uk>
Source record: 52197

Hi folks,

Check out the scarce Racal MA1720 exciter for auction on eBay now. Find it at;
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1245370631

Good luck if you decide to bid!

73

Mark

Armscroft Communications - where the customer REALLY matters!
Visit us on the web at http://www.armscroft.com

3553. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:06:18 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B23E194.779E@pop.removethistomailme.net>
Source record: 52199

Hannu Ylioja wrote:
>
> "Tor Tveitane" <tor@bushsoft.com> wrote in message
> news:9g0dna.18o.5@bushnet.hf9cba682.invalid...
> > "Hannu Ylioja" <hannu.ylioja@ntlworld.com> wrote in message
> > news:AXNU6.1901$6d5.640147@news2-win.server.ntlworld.com...
> > > As this is not a binaries newsgroup, I've emailed you separately
> > > a schematic for a 50W inverter that uses common household components!
> > >
> > > Hannu
> >
> > Thanks a lot, Hannu,
> >
> > What about efficiency for this circuit? I hoped to have about 85% as we
> > don't have more energy than we need, especially in the rainy season...
> >
> > As I mentioned I need to have a variable duty cycle solution, which means
> > that I need variable monostables at each transistor input..?
> >
> > Would a DC/DC solution which convert to hi-voltage DC which are chopped up
> > to AC be more efficient...?
> >
> > regards
> >
> > Tor
>
> The efficiency using standard mains transformers is around 80%, using
> toroidal transformers around 85%. If you convert first from 12 V DC to
> 380V DC then chop and filter to sinusoidal 220V AC you're struggling to
> get anywhere near 60% efficiency.

This is not representative of real-world devices, FYI. Modern inverters
that perform a DC-DC conversion and chop to a modified-sine waveform
using power FETs can easily do better than 90% efficiency, while
powering just about any device out there.

Look around on the web -- for $100 or so you can buy a 300-400W
modified-sine inverter that'll do the job with amazingly-high
efficiency.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3554. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:06:50 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <MjRU6.46303$aW5.522683@dfw-read.news.verio.net>
Source record: 52200

Why not use 12VDC fans? No inversion loss, and PWM speed control for DC is much easier, perhaps already built in.

Tom Becker
--... ...--
GTBecker@RighTime_com GTBecker@OnRamp_net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

3555. Re: RICOHET INTERNET MOBLIE FREQ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:29:14 UTC
From: nospam.ron.cole@gte.net
Message-ID: <3b23e6eb.28741858@news.gte.net>
Source record: 52201
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.space,rec.radio.amateur.swap

On Tue, 22 May 2001 13:00:38 -0500, "Bill N0MNB" <N0MNB@MINN.NET>
wrote:

>ANYONE KNOW WHAT FREQ THERE ON.
>THANKS BILL
>
>

915Mhz +- 13Mhz Hopping.

3556. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:33:01 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9g0p2h.1ao.5@bushnet.h801ca391.invalid>
Source record: 52202

"GTBecker@RighTime.com" <gtbecker@rightime.com> wrote in message
news:MjRU6.46303$aW5.522683@dfw-read.news.verio.net...
> Why not use 12VDC fans? No inversion loss, and PWM speed control for DC
is
> much easier, perhaps already built in.
>
Hi,

They may be more efficient, but they don't last very long (worn bearings and brushes). And they make a *lot* of noise.

Mains operated fans are quiet and last *almost* forever (at least compared to the DC ones). I don't know which types of 12V fans which are available where you live but in Norway (where I come from) and in Mali they have the disadvantages described above.

Thanks anyway

regards

Tor

3557. Re: 120/230VAC room fan running from 12VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-10 21:36:25 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9g0p8r.25k.5@bushnet.h2a4036bd.invalid>
Source record: 52203

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:3B23E194.779E@pop.removethistomailme.net...

> This is not representative of real-world devices, FYI. Modern inverters
> that perform a DC-DC conversion and chop to a modified-sine waveform
> using power FETs can easily do better than 90% efficiency, while
> powering just about any device out there.
>
> Look around on the web -- for $100 or so you can buy a 300-400W
> modified-sine inverter that'll do the job with amazingly-high
> efficiency.

Hi,

I originally hoped to find a schematic for a simple one of these which could
manage to convert 70-100 watts...

As I need 15-25 converters it would be cheaper to have my own PCBs custom
built and using an off-the-shelf inductor...

regards

Tor

3558. FA:OKI900

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 00:18:24 UTC
From: "Rufus T. Firefly" <magix@NOWAYspartanburg.net>
Message-ID: <ld38itcgnulis6cosseaslcaupcuholcs9@4ax.com>
Source record: 52204

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1245427985

3559. TS-430S PINOUT?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 01:04:20 UTC
From: cooperjim@aol.com
Message-ID: <20010610210420.11287.00004987@ng-mp1.aol.com>
Source record: 52205

I have misplaced/lost the manual for my Kenwood TS-430S.
Is there anywhere I can get information and pinouts for the accessory
connectors on the back of the radio?
I am setting up the rig for PSK31.
73
Jim Cooper NE6O
CooperJim@aol.com

3560. Re: Murata Ceramic Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 01:33:30 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <KdVU6.75328$4f7.5824143@bgtnsc06-news.ops.worldnet.att.net>
Source record: 52206

The F bandwidth is for NBFM.

Pete

John Crabtree <crabtreejr@aol.com> wrote in message
news:20010608093031.00438.00002944@ng-fr1.aol.com...
> Jim, ZL2APE, jim-p@ihug.co.nz on: 6/8/01wrote:
>
> >I have a Murata Ceramic Filter, type CFR-555 F .
> >Does anyone have the data sheets for this?
> >I would like to know the characteristics of this filter - the Murata
site
> >does not have it at all, and a Dogpile search yielded nothing.
>
> You will find the information on the Murata web site at:
> http://www.iijnet.or.jp/murata/products/english/catalog/p05e9.pdf
>
> Murata are updating their catalogs and have removed the link to this
particular
> one, but it is still there. I advise printing out anything which you
might
> need for reference.
>
> 73 John KC0GGH
>
> PS. Apologies for the first very terse reply - I sent it by mistake.

3561. Re: How to receive spread specturm transmissions from cordless phones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 01:53:01 UTC
From: Spurious@StarBand.net
Message-ID: <Xns90BCC9E555D08Frog207Junocom@148.78.248.75>
Source record: 52209
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.spac

>I suppose it is illeagal to monitor ypur own phone system?
>

Is that why you want to monitor spread sprectum phones? Yeah,
suuuuuure! I've got a bridge for you to buy, too.

Ed G.

3562. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 02:29:31 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <I%VU6.16445$zv1.1182856@e420r-sjo3.usenetserver.com>
Source record: 52208
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

"Throbber" wrote ...
> 1. What is the impedance of an analog voice grade line?
600-900 ohms nominal

> 2. How would I match the 8-Ohm impedance from
> my audio recorder to the telephone line?
Traditionally done with a transformer.

> 3. The red and green wires in a telephone cord are the
> audio lines. Which one is signal and which one ground?
Both are signal. Neither is ground (at YOUR end!). Balanced line.

> 4. Could I just feed the audio directly into the line from
> the recorder using a capacitor to block the DC from
> getting into the recorder?
Not a good idea:
A) No protection for your equipment against phone line hazards (HV, etc)
B) If you block DC, you will have to have a phone off hook to "hold" the
line. This will cause unnecessary distortion.

> 5. If so, what value capacitor would I use to do this?
2-4 microfarads, nonpolar, 400V (assumes you have other circuit
requirements like HV protection and line sieze/hold covered!!!)

> 6. What kind of load (how many Ohms) do I have to
> put across an analog phone line to maintain the connection?
Enough to draw 20mA (IIRC, but you can look it up for sure!)

> 7. If I feed the audio into an equalizer to boost the
> audio below 300 Hz and 3,000 Hz before it goes
> into the phone line, would I increase the quality of
> the audio or just increase the background noise
> (would audio outside of the normal phone line
> bandwidth come across as noise)?

Depending on the nature of the connection, this may very well be worth the
effort to try it. However, since you get pot-luck when you dial a
connection, you may have to try several times to get a "better" connection.

> There is an excellent commercial product that
> performs this function, but it is very expensive.

There are also dirt-cheap solutions. Some are sold by Radio Shack. You could
even make your own: http://www.dplay.com/tutorial/Mac2tel.html

RC

3563. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 05:23:36 UTC
From: Da Man <levy_jeff@hotmail.com>
Message-ID: <syYU6.248009$Z2.2850417@nnrp1.uunet.ca>
Source record: 52210
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

They also have 600 to 8 Ohm transformers. Just get one of those.

Jeff

"Peter J. Bertini" <commquart@home.com> wrote in message
news:8cNU6.71488$v5.5654428@news1.rdc1.ct.home.com...
> The actual impedance of the phone line is several hundred ohms--
> if memory serves me the typical phone is designed for around
> 400 ohms.
>
> The phone line is a two-wire balanced circuit--there is NO ground
> or signal. Both lines are signal.
>
> A thousand ohms DC should sieze and hold the line. Simply use
> the RadioShack telephone line transformer that they sell for a
> few dollars. It is designed for 600 to 600 interfacing. Once the
> transformer is across the line, it will hold and maintain your
> connection, even if the phone is hung up. You don't need a cap.
>
> You can simply drive the 600-ohm winding on the recorder side
> with the 8-ohm speaker jack audio. The mismatch will not affect
> quality, only the amount of maximum audio level.
>
> An ideal equalizer would have a 600-ohm output to better match
> the line transformer.
>
> regards
>
> Peter
>
>
> "Throbber" <kd6nrp@earthlink.net> wrote in message
> news:J6NU6.1215$eZ6.198537@newsread2.prod.itd.earthlink.net...
> > Hi All:
> >
> > I apologize for posting this to this newsgroup, but there are probably
> > telephone and broadcast technicians here who could help me out. Also, a
> ham
> > who wants to build a phone patch interface might be interested in this.
> >
> > Problem: I file radio news stories from remote locations in the western
> U.S.
> > via analog voice grade lines. Sometimes my editor would like background
> > audio (a missile countdown, jet taking off, etc.). I want to feed good

> > quality audio directly into the phone line (I realize that an analog
phone
> > line is limited to 300-3,000 Hz bandwidth).
> >
> > Here are my questions:
> >
> > 1. What is the impedance of an analog voice grade line?
> > 2. How would I match the 8-Ohm impedance from my audio recorder to the
> > telephone line?
> > 3. The red and green wires in a telephone cord are the audio lines.
Which
> > one is signal and which one ground?
> > 4. Could I just feed the audio directly into the line from the recorder
> > using a capacitor to block the DC
> > from getting into the recorder?
> > 5. If so, what value capacitor would I use to do this?
> > 6. What kind of load (how many Ohms) do I have to put across an analog
> phone
> > line to maintain the connection?
> > 7. If I feed the audio into an equalizer to boost the audio below 300 Hz
> and
> > 3,000 Hz before it goes into the phone line, would I increase the
quality
> of
> > the audio or just increase the background noise (would audio outside of
> the
> > normal phone line bandwidth come across as noise)?
> >
> > There is an excellent commercial product that performs this function,
but
> it
> > is very expensive.
> >
> > Thanks,
> >
> > Brian Webb, KD6NRP
> > kd6nrp@earthlink.net
> > http://home.earthlink.net/~kd6nrp
> >
> >
> >
>
>

3564. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 05:26:30 UTC
From: Gerry Schneider <gerry.s@sympatico.ca>
Message-ID: <3B245685.6EF82C4@sympatico.ca>
Source record: 52207
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

Throbber wrote:

> Hi All:
>
> I apologize for posting this to this newsgroup, but there are probably
> telephone and broadcast technicians here who could help me out. Also, a ham
> who wants to build a phone patch interface might be interested in this.
>
> Problem: I file radio news stories from remote locations in the western U.S.
> via analog voice grade lines. Sometimes my editor would like background
> audio (a missile countdown, jet taking off, etc.). I want to feed good
> quality audio directly into the phone line (I realize that an analog phone
> line is limited to 300-3,000 Hz bandwidth).

20 years ago when I was in the studio/phone/broadcast audio biz, the standard method for improving the tinny quality of field reporters' telephone audio was a simple analogue frequency convertor at each end. A 300 Hz up-shift at the remote end and a 300 Hz down-shift at the receiving end did wonders for bass response, which is the all-important missing element (you could live with everything else). As I recall, at least one professional (reporter grade) cassette tape recorder had this built in, and there were also a few add-on boxes available.

Current technology allows you to record, digitize, compress and transmit even better quality audio, anywhere from real-time to about 1/10th real time (overnight transmission of professional quality stereo music). People doing Foley add-ons in home studios do this quite regularly with reasonably priced equipment. None of this is a do-it-yourself job, and certainly attaching anything to the phone line unless you have really decent technical knowledge is out of the question. You should be able to find something commercial for under $500, as a first guess.

Gerry

3565. Looking for schematics for older transceivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 09:29:17 UTC
From: OZ1BV <oz1bv@vind.gl_AntiSpam>
Message-ID: <9g231ehsj1@news.inet.tele.dk>
Source record: 52211
Cross-posted to:
alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Hello folks!

I am looking for schematics for these transceivers:
* Zodiac M-5006LM
* Philips M290 (M294 is written on the back side)
* TP Radio TP3000, model no. 21225
* Storno CQM 5332S
* Storno CQM 5110-5290

Hope that anybody can help me so they can be modified for HAM use :o)

Vy 73 de OZ1BV/OX3IO, Brian

P.S. Remember to rmove _AntiSpam if You mail something direct to me.

3566. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 09:50:01 UTC
From: ON4CLN <on4cln@qsl.net>
Message-ID: <dv0V6.27289$mR5.3022445@afrodite.telenet-ops.be>
Source record: 52212
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

OK, this is getting a bit out of hand... ;o)

Some remarks:

1. I think harmonic surpression is ok in my portable rig (Alinco DX-70). No need for extra filtering!

2. In my "fixed" rig (TS-850SAT), I have both SWR-meter and autotuner, so the homebrew tuner should only be used out in the field "portable" ... This exludes pc-driven situations that 'll only consume power...

3. It should only do what a tuner is supposed to do: present a +/- 50ohms load to my rig's output in order not to blow the finals and to get some power out of them... Yes yes, SWR does not indicate good antennas etc etc - we know the dummy load-theory by now... But out in the field, I do not want to be bothered by all that, I just want to be able to tune the load up. I know that good designed antennas do not need tuning at all, but this means I have to take one antenna for each band or be restricted to one band. This antenna question was the topic of a previous post of mine, "portable HF antennas", but the outcome was: get a tuner - so here we are...

4. I just wanted to know if anyone had some P.R.A.C.T.I.C.A.L. hints regarding PI or T, cap or coil to ground, values etc, and would like to know to build an SWR meter / bridge myself.

I think I'll go for the "SPC Transmatch" (series-parallel capacitance), a design found in the ARRL TIS archives. Cheap and easy to build. For budgettary reasons I'll change the rotary inductor by a fixed coil with taps going to a switch.
This leaves the question of the SWR bridge / meter, any tips on that?

Thanks to all who replied so far!
Franki ON4CLN

3567. Re: Murata Ceramic Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 10:38:39 UTC
From: Jim <jim-p.remove@ihug.co.nz>
Message-ID: <9g29fc$tc6$1@lust.ihug.co.nz>
Source record: 52215

Many thanks to those who replied.

I now have the data sheets from the Murata site given by John, KC0GGH

It is a big file - over 900 K long

73,

Jim. ZL2APE
jim-p@ihug.co.nz

Jim <jim-p.remove@ihug.co.nz> wrote in message
news:9fq1g0vjq1@lust.ihug.co.nz...
> I have a Murata Ceramic Filter, type CFR-555 F .
>
> Does anyone have the data sheets for this?
>
> I would like to know the characteristics of this filter - the Murata site
> does not have it at all, and a Dogpile search yielded nothing.
>
> Thanks in anticipation.
>
> Jim, ZL2APE.
> jim-p@ihug.co.nz
>
>

3568. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 10:50:41 UTC
From: Tomi Holger Engdahl <then@jolly.cs.hut.fi>
Message-ID: <lajhexn1e9q.fsf@jolly.cs.hut.fi>
Source record: 52213
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

"Throbber" <kd6nrp@earthlink.net> writes:

> I apologize for posting this to this newsgroup, but there are probably
> telephone and broadcast technicians here who could help me out. Also, a ham
> who wants to build a phone patch interface might be interested in this.

One document on the topic worth to look at is
http://www.epanorama.net/circuits/teleinterface.html

> Problem: I file radio news stories from remote locations in the western U.S.
> via analog voice grade lines. Sometimes my editor would like background
> audio (a missile countdown, jet taking off, etc.). I want to feed good
> quality audio directly into the phone line (I realize that an analog phone
> line is limited to 300-3,000 Hz bandwidth).
>
> Here are my questions:
>
> 1. What is the impedance of an analog voice grade line?

The traditional impedance matching used in telephone systems
is 600 ohms matching. The telephone equipments are typically
matched to that. With modern telephone cables the real line
impedance is typically somewhat lower, but the old 600 ohm
"standard" works still satisfactorily.

> 2. How would I match the 8-Ohm impedance from my audio recorder to the
> telephone line?

Check the circuits at
http://www.epanorama.net/circuits/teleinterface.html

> 3. The red and green wires in a telephone cord are the audio lines. Which
> one is signal and which one ground?

None of those wires is "signal and ground".
Those two lines carry the signals in balanced manner.
Neither of them is connected directly to ground and neither
of them should be connected to ground by user.
Properly designed telephone interfaces which plug
to other devices use an isolation transformer
(or other electronics which does the isolation)
between the line and the audio interface. The
transformer passes audio signal, guarantees signal
balance and provides safety isolation. Usually the transformer
has lots to do with the impedance matching also.

> 4. Could I just feed the audio directly into the line from the recorder
> using a capacitor to block the DC
> from getting into the recorder?

This does not work properly. For safety, protection agains
potential audio equipment failures and best operation
use a proper isolation tranformer between your equipment
and telephone line. A 600:600 ohm telephone transformers
are suitable for this application.

> 5. If so, what value capacitor would I use to do this?

I would not recommend capacitors. So I don't give any
recommendation here.

> 6. What kind of load (how many Ohms) do I have to put across an analog phone
> line to maintain the connection?

The typical DC resistance on telephone equipments connected
to the line is 60-300 ohms. If you try to keep the 600
ohm matching a simple resistor does not do thwe job properly.
The simplest approach for interfacing is to use a "wet" type
telephone transformer which can provide he DC path
(just connect it across the line and t keeps the phone
line in off-hook condition and passes the audio signal).

> 7. If I feed the audio into an equalizer to boost the audio below 300 Hz and
> 3,000 Hz before it goes into the phone line, would I increase the quality of
> the audio or just increase the background noise (would audio outside of the
> normal phone line bandwidth come across as noise)?

I would not recommend any strong equalization. You might get somewhat
more on frequency response, but not much. And boostin too much
can lead to problems.

> There is an excellent commercial product that performs this function, but it
> is very expensive.
>
> Thanks,
>
> Brian Webb, KD6NRP
> kd6nrp@earthlink.net
> http://home.earthlink.net/~kd6nrp
>
>
>

--
Tomi Engdahl (http://www.iki.fi/then/)
Take a look at my electronics web links and documents at
http://www.epanorama.net/

3569. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 10:59:01 UTC
From: Tomi Holger Engdahl <then@jolly.cs.hut.fi>
Message-ID: <lajelsr1dvu.fsf@jolly.cs.hut.fi>
Source record: 52214
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

"Peter J. Bertini" <commquart@home.com> writes:

> The actual impedance of the phone line is several hundred ohms--
> if memory serves me the typical phone is designed for around
> 400 ohms.

600 ohms is the traditional telephone world impedance to which the devices
are built to. But there are also other impedance standards, take a look at
http://www.epanorama.net/circuits/teleinterface.html#linedetails

> The phone line is a two-wire balanced circuit--there is NO ground
> or signal. Both lines are signal.
>
> A thousand ohms DC should sieze and hold the line. Simply use
> the RadioShack telephone line transformer that they sell for a
> few dollars. It is designed for 600 to 600 interfacing. Once the
> transformer is across the line, it will hold and maintain your
> connection, even if the phone is hung up. You don't need a cap.

This is a good advice. A transformer is the best solution.
When selecting the transformer for the circuit described
above the transformer needs to be such type that it can
handle the line DC current without saturation. (usually
called "wet" telephone transformers). Not all small
tranformers can fullfull this criteria.

> You can simply drive the 600-ohm winding on the recorder side
> with the 8-ohm speaker jack audio. The mismatch will not affect
> quality, only the amount of maximum audio level.

Mismatch will affect the quality. Especially on long distance
phones where bad mismatch will cause echo to line. A better
match for the same application is to put a suitable resistor
between the speaker output (very low impedance) and the
transformer. In ideal system that resistance should be
600 ohms. If you take in acount transformer losses etc.
a 470 ohm resistor would provide pretty good impedace
matching.

> An ideal equalizer would have a 600-ohm output to better match
> the line transformer.

If the equipments have 600 ohm output, then it is the best solution.
If interfacin to anything much lower impedance, a matching resitor
is a very good idea.

--
Tomi Engdahl (http://www.iki.fi/then/)
Take a look at my electronics web links and documents at
http://www.epanorama.net/

3570. Help for a problem concerning the TS-950SDX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 13:22:23 UTC
From: Alberto di Bene <dibene@usa.net>
Message-ID: <3B24C60F.3469A87C@usa.net>
Source record: 52217

Hi all,
I swapped recently my TS-850 for a TS-950SDX.
While this latter is a very fine transceiver, on the lower band
(30kHz to 490KHz) it lacks the superb receiver sensitivity
of the TS-850, though the input front ends are quite similar.
Perusing the schematics, I saw that the TS-950 has a small
toroidal wideband transformer, L3, inserted in the signal path,
after the attenuator and just before the filters bank, while the
TS-850 doesn't.
This seems to be the only relevant difference wrt the TS-850.
I strongly suspect that this small transformer has a response that
decays considerably below about 200 kHz.

Is this old hat for anybody ? Any experience about modifying the
TS-950SDX to increase its receiving sensitivity on the lower band?
I am aware of the mod relative to the elimination of the medium wave
T-pad attenuator, but this attenuator is inserted only in the 490 - 1600
kHz band, not below.

TNX for any advice,
73 Alberto I2PHD

3571. Cortland NY Hamfest 6/16

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 13:51:00 UTC
From: Alex Nemeth <amn1@cornell.edu>
Message-ID: <4vh9itgpc3539i7lj212h7f0hg2dduaohd@4ax.com>
Source record: 52218
Cross-posted to: ithaca.marketplace,cornell.marketplace,alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Come to the Annual Skyline Amateur Radio Club Hamfest in Cortland NY

Ham Radio, Computers, lots of misc stuff that every shack needs and shouldn't be without.

VE testing will be available.

Being held at the Cortland County Fairgrounds. More details available at the web site below

http://www.dreamscape.com/sarc/hamfestjune.html

3572. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 15:05:33 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3B24DE09.AFA159B3@ieee.org>
Source record: 52219
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

Tomi Holger Engdahl wrote:
>
> "Peter J. Bertini" <commquart@home.com> writes:
>
> > The actual impedance of the phone line is several hundred ohms--
> > if memory serves me the typical phone is designed for around
> > 400 ohms

The telephone was/is 400 Ohms for DC.

> 600 ohms is the traditional telephone world impedance to which the devices
> are built to. But there are also other impedance standards, take a look at
> http://www.epanorama.net/circuits/teleinterface.html#linedetails
>

600 Ohms is common for interoffice trunks. 900 Ohms is common for
subscriber lines

> > The phone line is a two-wire balanced circuit--there is NO ground
> > or signal. Both lines are signal.
> >
> > A thousand ohms DC should sieze and hold the line. Simply use
> > the RadioShack telephone line transformer that they sell for a
> > few dollars. It is designed for 600 to 600 interfacing. Once the
> > transformer is across the line, it will hold and maintain your
> > connection, even if the phone is hung up. You don't need a cap.
>

The thousand Ohm might work if you are near the Central Office. You
need at least 20 milliamps of current to meet standards.

Bill K7NOM

> This is a good advice. A transformer is the best solution.
> When selecting the transformer for the circuit described
> above the transformer needs to be such type that it can
> handle the line DC current without saturation. (usually
> called "wet" telephone transformers). Not all small
> tranformers can fullfull this criteria.
>
> > You can simply drive the 600-ohm winding on the recorder side
> > with the 8-ohm speaker jack audio. The mismatch will not affect
> > quality, only the amount of maximum audio level.
>
> Mismatch will affect the quality. Especially on long distance

> phones where bad mismatch will cause echo to line. A better
> match for the same application is to put a suitable resistor
> between the speaker output (very low impedance) and the
> transformer. In ideal system that resistance should be
> 600 ohms. If you take in acount transformer losses etc.
> a 470 ohm resistor would provide pretty good impedace
> matching.
>
> > An ideal equalizer would have a 600-ohm output to better match
> > the line transformer.
>
> If the equipments have 600 ohm output, then it is the best solution.
> If interfacin to anything much lower impedance, a matching resitor
> is a very good idea.
>
> --
> Tomi Engdahl (http://www.iki.fi/then/)
> Take a look at my electronics web links and documents at
> http://www.epanorama.net/

3573. Re: TS-430S PINOUT?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 15:10:01 UTC
From: halbert@bbn.com
Message-ID: <halbert.992271744@siu>
Source record: 52220

cooperjim@aol.com (CooperJim) writes:

>I have misplaced/lost the manual for my Kenwood TS-430S.
>Is there anywhere I can get information and pinouts for the accessory
>connectors on the back of the radio?
>I am setting up the rig for PSK31.

Kenwood has the connector diagrams at:
ftp://216.133.235.165/Amateur/Connectors/Connectors.pdf

There's a diagram for one but not the other of the connectors (also for
the mic connector).

However, the TS-430S accessory connectors are not all that interesting
for digital modes. There is no "data input" and no constant-level
audio output. I have a TS-430S, and use the microphone and headphone jacks
(with an attenuator on the mic jack, of course) for input and output.
I listen to the audio on the computer speakers. I also wired up the
"Up" and "Down" microphone button connections to pushbuttons on my
interface box, because my radio is across the room from the computer.
I can tune the radio remotely that way.

Regards,
Dan, KB1RT

3574. Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 16:21:23 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3B24F003.BB93670E@neicoltech.org>
Source record: 52221

Hi gang,
I blew the high current fuse (the big Buss fuse for the 20A range)
in my old Simpson 260 VOM. It's so old I can't read the markings. Is
it a 20A or some smaller value?
Thanks!

Bob L. WB0POQ

3575. spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 16:52:29 UTC
From: Kurt Stocklmeir <kurtstocklmeir@worldnet.att.net>
Message-ID: <01c0f292$dc90d480$7a264f0c@oemcomputer>
Source record: 52222

I would like to know what are the lowest frequencies and highest frequencies that can be created by a spark gap. I would like to understand what can be changed associated with a spark gap to change the frequencies. Like create extra low frequencies and less high frequencies or extra high frequencies and less low frequencies.

Thank you for any answers.

3576. QRP xmtr now w/CRYSTAL!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 17:40:58 UTC
From: ARS--KC8BCR@webtv.net
Message-ID: <24580-3B2502AA-68@storefull-135.iap.bryant.webtv.net>
Source record: 52224
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.swap,rec.radio.amateur.homebrew

By popular demand, we decided to purchase a bulk quantity of new transmitting crystals from JAN Crystals in Florida to offer along with our *PEANUT WHISTLE TWO* 40 meter QRP CW transmitter. We've chosen the internationally recognized QRP frequency of 7.040 MHz. We are selling these crystals AT COST with the purchase of any "Peanut Whistle Two" transmitter. These are assembled transmitters and more details along with a photo can be seen at our website address below. The cost of a PW-2 with crystal is only $29.95. (Plus $6.95 shipping and handling.) Sorry - no individual crystal sales.

Sorry we don't have it up on the website yet, but we're still looking for a replacement webmaster.

73, Bill - WA8MEA @ Jackson Co., MI QRP Club station - KC8BCR
http://qth.com/dwm

3577. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 17:59:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B250707.ACCD7CC0@eznec.com>
Source record: 52223

My 260-6 has one fuse. It's one amp, 250 volt, 3AG, quick acting.

Roy Lewallen, W7EL

Bob Liesenfeld wrote:
>
> Hi gang,
> I blew the high current fuse (the big Buss fuse for the 20A range)
> in my old Simpson 260 VOM. It's so old I can't read the markings. Is
> it a 20A or some smaller value?
> Thanks!
>
> Bob L. WB0POQ

3578. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 18:55:50 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3B251436.CE5CE855@neicoltech.org>
Source record: 52225

Roy Lewallen wrote:

> My 260-6 has one fuse. It's one amp, 250 volt, 3AG, quick acting.
>
> Roy Lewallen, W7EL

Yup, that is the fuse for the low current ranges, volts, etc. There is a big Buss cartrige fuse inside the case that is only for the 20A current range. If it blows, everthing except the 20A range works. I don't know if the full 20A line current flows through this fuse or if there is some kind of shunt around it.

Some of the later 260's had a ckt breaker type of protection in place of this fuse, but mine is an older unit (like it's owner). If you pop the case on yours you will likely see this puppy.

3579. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 19:49:00 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B2520AC.2D05CF2@dialpoint.net>
Source record: 52226

The large one is a BLS-2 which I assume is a 2 amp fuse. The glass one is a 1 amp fuse in my Simpson 260.

Bob Liesenfeld wrote:
>
> Hi gang,
> I blew the high current fuse (the big Buss fuse for the 20A range)
> in my old Simpson 260 VOM. It's so old I can't read the markings. Is
> it a 20A or some smaller value?
> Thanks!
>
> Bob L. WB0POQ

3580. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 20:43:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B252D56.DFC43B6C@eznec.com>
Source record: 52227

It appears all 260s aren't created equal. My 260-6 doesn't have a 20A scale, just 10A. This scale is accessed by plugging the leads into dedicated 10A holes. Inside, there's a wire shunt between the 10A connector holes, and no fuse. The only fuse in my instrument, and on the parts list in the manual, is the 1A 3AG fuse in the battery compartment. So your "260" is obviously different than mine. Hopefully someone with a model like yours can help.

Roy Lewallen, W7EL

Bob Liesenfeld wrote:
>
> Roy Lewallen wrote:
>
> > My 260-6 has one fuse. It's one amp, 250 volt, 3AG, quick acting.
> >
> > Roy Lewallen, W7EL
>
> Yup, that is the fuse for the low current ranges, volts, etc. There is a
> big Buss cartrige fuse inside the case that is only for the 20A current
> range. If it blows, everthing except the 20A range works. I don't know if
> the full 20A line current flows through this fuse or if there is some kind
> of shunt around it.
>
> Some of the later 260's had a ckt breaker type of protection in place of
> this fuse, but mine is an older unit (like it's owner). If you pop the case
> on yours you will likely see this puppy.

3581. Re: spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 21:36:16 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <kRaV6.4327$pb1.172126@www.newsranger.com>
Source record: 52228

In article <01c0f292$dc90d480$7a264f0c@oemcomputer>, Kurt Stocklmeir says...
>
>I would like to know what are the lowest frequencies and highest
>frequencies that can be created by a spark gap. I would like to understand
>what can be changed associated with a spark gap to change the frequencies.
>Like create extra low frequencies and less high frequencies or extra high
>frequencies and less low frequencies.
>
>Thank you for any answers.

Hi Kurt
You can make a "Frozen Wave Generator" with a spark gap which will have a spectrum centered at a frequency determined by lengths of transmission lines. This can be up to 100MHz. The width of the spectrum will be determined by how many cycles you create. A relaxation oscillator at several kHz is also built into it by the discharge/charge time of the cable capacity, the HV supply impedance and voltage, and the spark gap breakdown voltage.

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3582. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-11 22:21:34 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B25446E.A51D3207@dialpoint.net>
Source record: 52229

Over the years there have been several varaiations on the 260. Mine is
a 260-7 and it has the same 10 amp holes like yours. It does have 2
fuses in it and also a place for a spare 1 amp 3ag looking fuse. Didn't
really check the glass fuses so it might be anything rated at 1 amp.

Roy Lewallen wrote:
>
> It appears all 260s aren't created equal. My 260-6 doesn't have a 20A
> scale, just 10A. This scale is accessed by plugging the leads into
> dedicated 10A holes. Inside, there's a wire shunt between the 10A
> connector holes, and no fuse. The only fuse in my instrument, and on the
> parts list in the manual, is the 1A 3AG fuse in the battery compartment.
> So your "260" is obviously different than mine. Hopefully someone with a
> model like yours can help.
>
> Roy Lewallen, W7EL
>
>

3583. Re: spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 01:49:17 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <xyeV6.54249$ha1.7379677@news02.optonline.net>
Source record: 52230

Hi Kurt,

Frequency range - literally DC to light (they glow). Just about
anything in between is possible.

There are a couple of approaches to frequency generation:

1) use it as a broad band noise source and filter off what you don't
want. In this form the inductance and capacitance of the holder and
electrodes determine the upper frequency limit.

2) use it in a relaxation oscillator since it will ignite and
extinguish at different voltage levels. Very useful for very low
frequencies.

3) put a lot of current through one and it behaves as a negative
resistance. If you put a tuned circuit across a negative resistance
you get an oscillator. Tune the L/C circuit and you tune oscillator's
output frequency. Commonly used on LF and HF but it works well into
the microwave region.

I'm sure there are other ways to do it, but these are the ones I have
used in the past.

Enjoy!

Bob Camp
KB8TQ

"Kurt Stocklmeir" <kurtstocklmeir@worldnet.att.net> wrote in message
news:01c0f292$dc90d480$7a264f0c@oemcomputer...
> I would like to know what are the lowest frequencies and highest
> frequencies that can be created by a spark gap. I would like to
understand
> what can be changed associated with a spark gap to change the
frequencies.
> Like create extra low frequencies and less high frequencies or extra
high
> frequencies and less low frequencies.
>
> Thank you for any answers.

3584. Re: spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 01:57:45 UTC
From: Lynn Coffelt <coffeltl@home.com>
Message-ID: <tGeV6.152576$p33.3206685@news1.sttls1.wa.home.com>
Source record: 52231

No expertise claimed here, but first hand experimentation many years ago confirmed that the inductance and capacitance values associated with the gap determined somewhat of a center frequency. The bandwidth was awesome, however, and some RF was being generated in the proverbial "DC to daylight" range no matter where the tuned, tank circuit resonated. As others found, tuned feeders with resonant antennas did much to enhance efficiency and in some circuits WERE, in fact, used as the tuned circuit (in determining center frequency). Using more of "no expertise claimed", here, I would imagine that the frequency limits would be set by the builders ability to construct a tuned circuit with fairly high "Q", that was also tightly coupled to both the spark gap itself and the load or antenna. (heaven forgive us here) Handfull of kHz to couple hundred mHz?
Lynn W7LTQ since 1948

3585. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 02:39:17 UTC
From: Lynn Coffelt <coffeltl@home.com>
Message-ID: <phfV6.152842$p33.3212143@news1.sttls1.wa.home.com>
Source record: 52232

Well, I thought I had manuals for most of the older 260's on hand, but that must have been before one of the big clean-ups.
There are a large and a small fuse in some models, but I can't find a schematic of one with a 20A range, so might be talking thru my hat, here, but:

Many models have a small, one Amp fast blow fuse, and a larger, 2 amp "BBS" (whatever that means) in series. Both in series with the "Common" lead. (which is not used with the 10 Amp range).

The ten Amp range's only protection seems to be the .025 Ohm shunt across the 10 Amp leads.

W7LTQ, Lynn

3586. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 03:14:11 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B258903.DDB22493@visi.com>
Source record: 52233

>
> Many models have a small, one Amp fast blow fuse, and a larger, 2 amp "BBS"
> (whatever that means) in series. Both in series with the "Common" lead.
> (which is not used with the 10 Amp range).
>
> The ten Amp range's only protection seems to be the .025 Ohm shunt across
> the 10 Amp leads.
>
> W7LTQ, Lynn

Yup, thats the fuse. And I was mistaken in the amp range rating.
It is indeed 10A not 20. Now I just have to find a supplier of this
fuse that does not have $$$$ minimum order. Or maybe a 1/4" bolt might
do the trick........ :-0

Thanks to all for the responses.

72
Bob WB0POQ

3587. Re: homebrew antennatuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 04:00:26 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <9g443l$7fu$1@slb7.atl.mindspring.net>
Source record: 52234
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

Thread:

On the subject of cascading a harmonic supression filter with an antenna tuner.

The watchword is... "One can never have too many poles!" Heh, heh.

All is not as rosy as Roy indicates.

Most ham radio "tuners" are basically single frequency devices. They are simply not broadband devices.

Lossless filter networks suitable for harmonic supression are usually designed to work into a broadband fixed resistive load, say 50 Ohms over their whole frequency range.

This frequency range includes not only their passband but also their stopbands.

If the terminating impedance in the stopbands is not the specified resistance, say 50 Ohms, then their stopband attenuation response will not be as theoretically predicted.

And so...

Just because you adjust an ASTU "tuner" connected at the output of a harmonic supression filter for a VSWR 1:1 indication on a 50 Ohm VSWR indication device does not mean that the filter sees 50 Ohms looking into the tuner towards the antenna at all frequencies.

Most ham radio "tuner" settings for VSWR 1:1 result in a 50 Ohm match at only one frequency.

The impedance looking upwards towards the antenna through the tuner at all other frequencies, especially in other frequency bands, for that 1:1 setting will be all over the map!

Hence the harmonic supression from the harmonic supression filter will not be as good as theoretically predicted simply because the filter does not "see" the 50 Ohm termination in its' stopbands that it was designed for.

In practice, this makes accurate harmonic supression problematic at best.

Most modern transmitter designs overcome this by using harmonic supression filters that far exceed the actual harmonic supression requirements in their stopbands, in the "hope" that if they do not see their design termination impedance in their stopbands they may still effect enough harmonic supression to do the job. But this cannot be predicted since the narrow

band antenna tuner can only effect a 50 Ohm impedance at one frequency.

A situation of "overdesign the harmonic supression filter and hope".

Caveat emptor.

-Peter K1PO

"Richard Clark" <kb7qhc@home.com> wrote in message
news:3b1fdf74.1656518547@news.seanet.com...
> On Thu, 07 Jun 2001 11:45:32 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >No modern commercial rig, whether or not it includes a tuner, should
> >require additional harmonic suppression. If it does, it should be
> >repaired or replaced. Any other rig should have a proper filter designed
> >and installed. If ON4CLN or anyone else needs to match an antenna AND
> >reduce harmonics, he should build a filter to reduce the harmonics, and
> >use the tuner to do the matching.
> >
> >I hate to see people limit their choices for tuners because of a problem
> >that doesn't exist, or to try and make a tuner do a job (harmonic
> >suppression) that it's not able to do predictably.
> >
> >Roy Lewallen, W7EL
> >
>
> Hi All,
>
> What Roy says is important, but it falls short of describing what
> could be confusing indications. The SWR indicator is not frequency
> sensitive (except in the broad scope of HF where it does not operate
> very well for VHF or LF) and as a consequence may indicate the power
> in the reflected spurs!
>
> Your tuner will only match at one of these frequencies (probably the
> fundamental if you are lucky) and your meter will be left with the
> same problematic indication (it is positioned before the tuner where
> those spurs reside). In other words, you may have the ability to tune
> a match, but your ability to observe the match indication as either a
> SWR or a reflected power reduction will be negligible if spurs are
> large.
>
> Hence the issue of how high the spurs are, are what dominate this
> potential problem. As most equipment already meets FCC mandates for
> spurious emission, this is an unlikely occurrence. If you have
> altered, broken, or old equipment (very little filtering) the problem
> emerges in inverse proportion to filtering present. As Roy points
> out, the problem/solution is in the rig.
>
> 73's

> Richard Clark, KB7QHC

3588. Re: Kenwood MC-60 Disassembly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 05:27:05 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <JKhV6.151$OX5.35751@monger.newsread.com>
Source record: 52235
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"John Seney" <wd1v@mediaone.net> wrote in message
news:wd1v-4A36F6.06380909062001@enews.newsguy.com...
> In article <3B1EF44A.C4836E72@erols.com>, Mary Anne Olsen
> <wolsen@erols.com> wrote:
>
> > Is there something inherently wrong with the Kenwood mikes that you're
> > replacing them with Heil elements? Bill N3TVU
>
>
> You need to hear the differences. Heil mics are simply the best as
> they accentuate the frequencies of voice for SSB radios. If you
> own an Icom, you'll also probably need a small preamp.

This is one of those "it all depends" things.
With my voice characteristics it would be a waste of money. The stock mikes
work just fine for me.

The only way to tell is to try them side by side and see what kind of
difference you get, if any.

--
Roger Halstead (K8RI)
www.rogerhalstead.com
N833R S# CD-2 World's oldest Debonair?

>
> Check out http://www.heilsound.com/
>
> --
> John Seney
> http://www.qsl.net/wd1v
> Scope & Jitter Measurements FAQ
>
>
>

3589. Tower designs..anyone?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 05:54:11 UTC
From: Mr Malcolm C Hedley <kayakkhan@bigpond.com>
Message-ID: <I03V6.59459$hV3.94774@newsfeeds.bigpond.com>
Source record: 52216

Hi,
does anyone have any plans for towers? or links to sites?
all help appreciated.
cheers
Mal

3590. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 06:19:01 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B25B455.326735F5@clifto.com>
Source record: 52236

Bob Liesenfeld wrote:
> > The ten Amp range's only protection seems to be the .025 Ohm shunt across
> > the 10 Amp leads.
> >
> > W7LTQ, Lynn
>
> Yup, thats the fuse. And I was mistaken in the amp range rating.
> It is indeed 10A not 20. Now I just have to find a supplier of this
> fuse that does not have $$$$ minimum order. Or maybe a 1/4" bolt might
> do the trick........ :-0

Um, a shunt is not a fuse. It's a calibrated piece of wire across which
a voltage is measured which is proportional to the current through the
wire. Give it the wrong resistance, get incorrect readings on the 10A
scale.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3591. Re: Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 07:10:21 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010612031021.24056.00000656@ng-cd1.aol.com>
Source record: 52237

Peter J. Bertini wrote:>I see a new 28.322 MHz clock oscillator in my Mouser book for
>$2.36. Add a simple 2N2222 or such buffer, followed by a simple
>pi filter to limit harmonics will get you several mW or so without much
>effort. Look to the Solid State Design book by Hayward and DeMaw
>(ARRL) for some ideas on the lower power stages to follow the
>oscillator--or just use the module with a simple harmonic filter
>for real qrp.
>
>Regards
>
>Peter
>
>"CLVANCIL" <clvancil@aol.com.spxmnix> wrote in message
>news:20010609190715.29644.00001317@ng-mo1.aol.com...
>> Hi Everyone,
>>
>> I'm looking for a schematic for a 10 meter transmitter suitable for
>balloon
>> use. Any help would be welcome.

Thanks, I will pass this on to my HF friend.

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3592. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 07:11:03 UTC
From: Lynn Coffelt <coffeltl@home.com>
Message-ID: <bgjV6.155292$p33.3259260@news1.sttls1.wa.home.com>
Source record: 52238

.> > > The ten Amp range's only protection seems to be the .025 Ohm shunt
across
> > > the 10 Amp leads.
> > >
> > > W7LTQ, Lynn

> Um, a shunt is not a fuse. It's a calibrated piece of wire across which
> a voltage is measured which is proportional to the current through the
> wire. Give it the wrong resistance, get incorrect readings on the 10A
> scale.
>
+-
+-+
> | Cliff Sharp | "Speech isn't free when it comes postage-due."
|
> | WA9PDM | -- Jim Nitchals, founder, FREE
|
> +-+-+-+-+-+-+-+-+- http://www.spamfree.org/
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

Yup, and the shunt doesn't seem to be any protection at all. In fact if it
were to fail open, the meter and it's protection diodes would likely be
toast quite soon. Sorry 'bout that!
Lynn, W7LTQ _ _ ... ..._ _'s

3593. Re: Need small light weight 10 meter TX plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 07:13:02 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010612031302.24056.00000657@ng-cd1.aol.com>
Source record: 52239

WB8RCR wrote:

>Chris
>
>Even better than the 28.322 oscillator, the Epson programmable oscillators
>from DigiKey let you choose the frequency. I've tried these on 15 and they
>work quite well. They are a little pricier than the 28.322 oscillators
>($3.33 instead of $2.36) but you can pick the frequency. DigiKey is
>amazingly quick at shipping things, how long it takes to actually get to you
>depends on how much you want to pay. Here in Michigan, the lowest cost
>shipping generally takes 3 days from MN.
>
>If the 28.322 is OK for you, the New Jersey QRP club has a kit, the Fireball
>40, for $10 that includes the voltage regulator and parts for dividing down
>to get to 40 meters, along with output filtering for 40, and instructions
>for the other bands. You would need to come up with some T37-6 cores to
>make a 10 meter output filter. Having the PC card saves a certain amount of
>fooling around, and they even have foil for a 1 watt amp if you need a
>little more power. Plus, you get all the plans for the filtering which
>saves additional tinkering.
>
>didleydadidah
>
>"CLVANCIL" <clvancil@aol.com.spxmnix> wrote in message
>news:20010609190715.29644.00001317@ng-mo1.aol.com...
>> Hi Everyone,
>>
>> I'm looking for a schematic for a 10 meter transmitter suitable for
>balloon
>> use. Any help would be welcome.

This does sound smaller and simple to do. I will pass this suggestion along to
my HF friend...

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3594. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 11:11:58 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <2OmV6.239398$K5.25228441@news1.rdc1.nj.home.com>
Source record: 52240

Is it just urban legend or true -- this from high school ham radio club about 30 years ago -- a spark gap radiator using a pair of nails in a maxwell house coffee tin will knock out police radar -- sounds apocryphal to me, but ....

3595. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 12:12:15 UTC
From: Tomi Holger Engdahl <then@jolly.cs.hut.fi>
Message-ID: <lajn17dx5gg.fsf@jolly.cs.hut.fi>
Source record: 52241
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

Bill Janssen <billj@ieee.org> writes:

> Tomi Holger Engdahl wrote:
> >
> > "Peter J. Bertini" <commquart@home.com> writes:
> >
> > > The actual impedance of the phone line is several hundred ohms--
> > > if memory serves me the typical phone is designed for around
> > > 400 ohms
>
> The telephone was/is 400 Ohms for DC.

400 ohms or less.

> > 600 ohms is the traditional telephone world impedance to which the devices
> > are built to. But there are also other impedance standards, take a look at
> > http://www.epanorama.net/circuits/teleinterface.html#linedetails
> >
>
> 600 Ohms is common for interoffice trunks. 900 Ohms is common for
> subscriber lines

The actual subscriber line impedance specified in different countries
have varied somewhat. The other impednace references might have
been more wirely used eariler, but in Europe 600 ohms is now a
norm used for general telephone equipments and modems
(NET4 specifications). The equipments connected to public telephone
network in Finland and many other European countries
must meet NET4 (ETS 300 001) technical specs. All
power specs and return loss measurements are taken so
that the reference impedance is 600 ohm resistive.

Here is some more technical information on this topic at
http://www.epanorama.net/circuits/teleinterface.html#linedetails

Telephone line details in different countries

Normal telephone line is theoretically designed to be 600 ohm
resistive impedance. This 600 ohm is kept as international reference
for designing telephone line equipment
(typically the signal powers are measured to 600 ohm load). In
practice the telephone line does lot look like pure 600 ohm
resistance. The cable and equipments used by the
telephone companies have effect what the real impedance is.

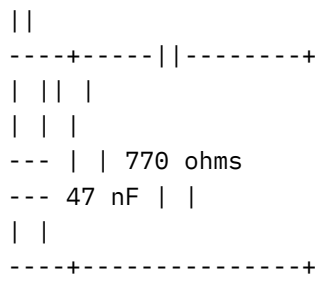
Telephone equipment which is designed to operate with 600 ohm loads will operate with those real-life lines, but it's performance is worse than in ideal situation. Typically the modems are designed for 600 ohm reference impedance because they can handle the sidetone, but for best performance the telephones are designed to the exact line impedance.

When best performance is needed the circuit should be exactly matched to the impedance of the real telephone lines. Matching the hybrid circuit to the real line impedance (instead of 600 ohm) will improve the feedback typically by 3-6dB. 20dB sidetone is easy to achieve, but 30dB is also not too difficult provided you can measure the line impedance and take steps to build a correct balancing network.

Different countries have different characteristics on the telephone line parameters. Here are some impedance models for typical lines in different countries:

USA

Normal telephone subscriber lines in USA (0.4-0,6mm subscriber PE insulated vaseline filled cable) are 770 ohm resistor (with 2uf series capacitor) and 47nF parallel capacity.

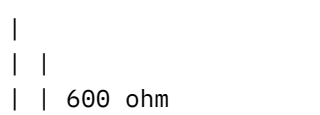


This diagram is referred to 800Hz, but impedance is rather complex, and varies from high value at low frequency and drops to ca. 150 ohm on 10kHz and 120-125 ohm above 100kHz.

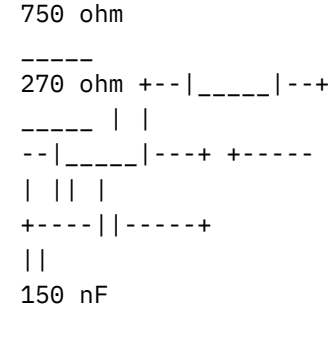
Some telephone lines can have higher impedance (typically 1100 ohms in lines with loading coils or telephone air cables).

Finland

The equipments connected to public telephone network in Finland must meet NET4 (ETS 300 001) technical specs. All power specs and return loss measurements are taken so that the reference impedance is 600 ohm resistive.

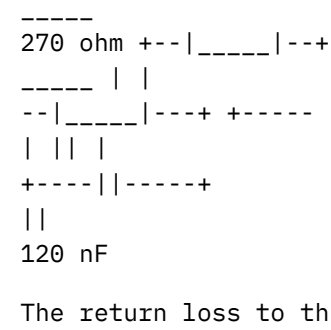


The return loss of the terminal equipment must be greater than 10 dB when compared to 600 ohm reference. This measurement applies to telephones, modems and other terminal
equipments. NET4 technical specs are European specs and they are used in many European countries (NET4 is actually a collection of different specs in use in different
countries). Telecommunications Administration Centre in Finland also mentions in it's regulation THK 20 I/1997 M that the telephone line equipment can be measured against
the 600 ohm resistance mentioned in NET4 or complex impedance of Z = 270 + (750 //150 nF). Here is a picture of that complex reference impedance:



Typical cable used in for subscriber lines has following characteristics: 0.5 mm diameter wire, loop resistance 182 ohm/km and pair capacitance 39 nf/km.

Because the telephones designed to meet the needed characteristics measured against 600 ohm reference impedance does not always work satisfactory when connected to
telephone switches. A better results can be obtained if the phone meets all other NET4 regulations, except the return loss is matched to TPL06 regulations. The reference model
used in TLP06 for telephone line:



The return loss to this reference model must be greater than 15 dB.

> > > The phone line is a two-wire balanced circuit--there is NO ground
> > > or signal. Both lines are signal.
> > >
> > > A thousand ohms DC should sieze and hold the line. Simply use
> > > the RadioShack telephone line transformer that they sell for a
> > > few dollars. It is designed for 600 to 600 interfacing. Once the
> > > transformer is across the line, it will hold and maintain your
> > > connection, even if the phone is hung up. You don't need a cap.
> >
>
> The thousand Ohm might work if you are near the Central Office. You
> need at least 20 milliamps of current to meet standards.
>
>
> Bill K7NOM
>
> > This is a good advice. A transformer is the best solution.
> > When selecting the transformer for the circuit described
> > above the transformer needs to be such type that it can
> > handle the line DC current without saturation. (usually
> > called "wet" telephone transformers). Not all small
> > tranformers can fullfull this criteria.
> >
> > > You can simply drive the 600-ohm winding on the recorder side
> > > with the 8-ohm speaker jack audio. The mismatch will not affect
> > > quality, only the amount of maximum audio level.
> >
> > Mismatch will affect the quality. Especially on long distance
> > phones where bad mismatch will cause echo to line. A better
> > match for the same application is to put a suitable resistor
> > between the speaker output (very low impedance) and the
> > transformer. In ideal system that resistance should be
> > 600 ohms. If you take in acount transformer losses etc.
> > a 470 ohm resistor would provide pretty good impedace
> > matching.
> >
> > > An ideal equalizer would have a 600-ohm output to better match
> > > the line transformer.
> >
> > If the equipments have 600 ohm output, then it is the best solution.
> > If interfacin to anything much lower impedance, a matching resitor
> > is a very good idea.
> >
> > --
> > Tomi Engdahl (http://www.iki.fi/then/)
> > Take a look at my electronics web links and documents at
> > http://www.epanorama.net/

--
Tomi Engdahl (http://www.iki.fi/then/)
Take a look at my electronics web links and documents at

http://www.epanorama.net/

3596. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 12:33:40 UTC
From: Corné Janssen <cjan@oce.nl>
Message-ID: <3B260C24.339CEA74@oce.nl>
Source record: 52242

Schatzie wrote:
>
> Is it just urban legend or true -- this from high school ham radio club
> about 30 years ago -- a spark gap radiator using a pair of nails in a
> maxwell house coffee tin will knock out police radar -- sounds apocryphal to
> me, but ....

It could be true. As far back as 1897 J.C Bose experimented with
microwaves upto 60GHz using sparc transmitters. Pictures of the
equipment he used can be found at:
http://www.infinityfoundation.com/ECITbose.htm

Cornï¿½

3597. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 17:09:00 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <6ddcitoef1r02qr60d4jh20t4a0nmnr39e@4ax.com>
Source record: 52243

On Tue, 12 Jun 2001 11:11:58 GMT, "Schatzie" <jdwalton@home.com>
wrote:

>Is it just urban legend or true -- this from high school ham radio club
>about 30 years ago -- a spark gap radiator using a pair of nails in a
>maxwell house coffee tin will knock out police radar -- sounds apocryphal to
>me, but ....

Depends on what frequency the radar was using. I don't know what the
dimensions for that particular can was, but I guess that with typical
coffee can sizes, the resonance would be somewhere in the 1 .. 3 GHz
area and as far as I know, the speed traps use much higher
frequencies, so I doubt about that story. Although, using a smaller
can might work.

Spark gaps have been used to generate microwaves for more than a
century, since Lodge and Bose and some others experimented with
oscillators, waveguides, horn antennas and cavity resonators at the
end of the 19th century. In Wireless World (September 1979) there was
an article "Victorian microwaves" about these experiments.

Paul OH3LWR

3598. Rare Racal equipment on eBay.... update

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 17:27:02 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B2650E6.9050605@armscroft.demon.co.uk>
Source record: 52244

Hi folks,

I have added a picture of the MA1720 Racal exciter today. Check it out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1245370631

Have a look at the very nice, and very rare, RA1792 HF receiver whilst you are there. View it at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1244606083

Good luck if you decide to bid.

Regards

Mark

Armscroft Communications - where the customer REALLY matters!
Visit us on the web at http://www.armscroft.com

3599. W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 17:49:22 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <CCsV6.35$aM6.6602@newsread2.prod.itd.earthlink.net>
Source record: 52245
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

W9INN (Bill) has authorized me to publish an informative page devoted to his
great-performing line of wire antennas. There is contact info, technical
data, and illustrations of his most popular antenna the MPD-5C 5-band
dipole.

The W9INN Antenna Page is located on the site listed below.

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3600. FS: Old Radio Books

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 18:17:50 UTC
From: oldbooks78@aol.com
Message-ID: <20010612141750.11902.00004080@ng-fc1.aol.com>
Source record: 52246

I currently have for sale the following old radio related books. Postage is for book rate within the US, at cost elsewhere. The books are:

Orr, William I. "Radio Handbook, 17th Edition" published by Editors and Engineers, Ltd. in 1967. Cloth. No Jacket. The 847 page hardbound book is in very good condition, clean with no page tears or pen marks other than a previous owners name stamp inside the front cover. Strong binding, nicely illustrated. Available for $8 plus $3 postage.

U.S. Naval Training Schools "Basic Radio Notes & Communication Circuits" published in Chicago: Original Wraps. No Jacket. The 147 page softbound book is in good+ condition, clean with no page tears or pen marks other than a previous owners name inside the front cover, and again on the page ends. The covers are a little chipped along the spine, but everything holding together nicely. Not dated, but looks to be c1950. Available for $8 plus $2 postage.

Hornung, J.L. "Radio Operating Questions and Answers, 10th Edition" published by McGraw-Hill, 1950. No Jacket. The 588 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Blue cloth covers show quite a bit of wear, but the cloth is not torn, and everything is tight and secure. Available for $6 plus $2.50 postage.

Siegel, Hy "All About CB Two-Way Radio" published by Radio Shack, 1976. Soft Cover. The 112 page softbound book is in very good condition, clean with no page tears or pen marks. Nicely illustrated. Available for $4 plus $2 postage.

If interested in any of the above, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

3601. Re: Auto radio info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 18:37:48 UTC
From: wb9whi@aol.com.ham
Message-ID: <20010612143748.09370.00003698@ng-cp1.aol.com>
Source record: 52047

If it's anything like my 95 neon, you remove the housing around the front, remove the radio with two or three screws holding it to the dash in front and pull. You'll find two cables an antenna cable and possibly a ground. The power/speaker cables are available at Radio Shack (tm) or at least they were a couple years ago. I'm working on an in-dash radio for the Neon that will receive amateur bands.
--wb9whi
"If you build it, they will cannibalize"

3602. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 19:35:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B266EE8.73E771CB@clifto.com>
Source record: 52048

Paul Keinanen wrote:
> Depends on what frequency the radar was using. I don't know what the
> dimensions for that particular can was, but I guess that with typical
> coffee can sizes, the resonance would be somewhere in the 1 .. 3 GHz
> area and as far as I know, the speed traps use much higher
> frequencies, so I doubt about that story. Although, using a smaller
> can might work.

AFAIK the lowest police radar frequency range is X band around 10.525 GHz.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3603. Re: 70's tv Audio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 19:51:07 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3B2672AB.EDB1F19E@primeline.net>
Source record: 52049

Doug Smith wrote:
>
> On Fri, 08 Jun 2001 09:51:38 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
> >Based on your message headers, it appears that you are in the UK, so
> >that would be System I with FM at a 6 MHz subcarrier and the UHF
> >channel width of 8 MHz.
>
> I might mention that at least in North America, broadcasters generally do
> not transmit the sound as a subcarrier; rather, a second, pretty much
> separate, transmitter is used. (isn't this also the case in Europe?)
>
> The resulting signal, on the other hand, is impossible to distinguish from
> the effect of using a subcarrier, and indeed when American (and presumably
> European?) radio amateurs transmit TV they frequently *do* use subcarriers.
>
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com

But the RF modualtors used on most video gear do actually use a
subscarrier,
usually a free-running 4.5 Mhz L/C oscillator.
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3604. Re: RC car schematics and info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 19:54:07 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3B26735F.39E84F11@primeline.net>
Source record: 52050

John B wrote:
>
> Thanx for the reply . I am still a little unclear on the rules for RC in
> the amateur band, but you answered one of my questions. The following FCC
> rules are the only information I have been able find so far:
>
> Sec. 97.215 Telecommand of model craft.
>
> An amateur station transmitting signals to control a model craft may
> be operated as follows:
> (a) The station identification procedure is not required for
> transmissions directed only to the model craft, provided that a label
> indicating the station call sign and the station licensee's name and
> address is affixed to the station transmitter.
> (b) The control signals are not considered codes or ciphers intended
> to obscure the meaning of the communication.
> (c) The transmitter power must not exceed 1 W.
>
> Are you saying that there are RC priveleges on 6m only? Where does one find
> this info? I am open to the idea of making new transmitter and reciever
> boards, but it would sure be nice to have some schematics and
> timing/waveform info to start out with. Even if I make new boards I have to
> be able to interface to what is already there (servos, drivers, etc.). I
> still have many qns such as: What type of modulation does RC use? How is
> data sent (is it digital, PWM etc) How is data encoded and decoded?
> John
>
> "Philip L. Carter" <pcarter@gcfn.org> wrote in message
> news:3B2286B6.F3CC5766@gcfn.org...
> > Unless it operates on 6 meters, you would not be authorized to modify
> > it. If it is a part 15 device you probably will not find too much
> > information on it.
> >
> > Phil

Look up the chips on http://www.freetradezone.com
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3605. Re: Simpson 260 fuse

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 20:15:47 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B267873.E3629038@dialpoint.net>
Source record: 52052

I work at a place where we deal with everything from 20 ma 24 volt current loops to 460 3 phase at a couple of hundred amps. Saw a demo video from the Fluke meter company. They use a special fuse in their meters. It is rated at a low current but it will break several thousand amps of current. The demo was you have your meter set for a ohm or current range instead of a voltage and get it across the 460 volt line. The common fuse can blow but create an arc just as an arc welder. The circuit is not broken. The leads melt under the tremendous current and if you are holding one in each hand as many do then you soon fry. The special fuses are built to interrupt the very high currents and not create the arc.

>
> Many models have a small, one Amp fast blow fuse, and a larger, 2 amp "BBS"
> (whatever that means) in series. Both in series with the "Common" lead.
> (which is not used with the 10 Amp range).
>
> The ten Amp range's only protection seems to be the .025 Ohm shunt across
> the 10 Amp leads.
>
> W7LTQ, Lynn

3606. WTB: 1 3/8" Chassis Punch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 20:49:16 UTC
From: rs2bk@aol.com
Message-ID: <20010612164916.26013.00000857@ng-cn1.aol.com>
Source record: 52051

Subject says it all.
Jim w9ud
Moline, IL

3607. spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 21:19:20 UTC
From: Kurt Stocklmeir <kurtstocklmeir@worldnet.att.net>
Message-ID: <01c0f381$48e87ae0$fd2a4f0c@oemcomputer>
Source record: 52053

Thank you for answers.

God will punish a country because of dishonest police, dishonest judges,
dishonest district attorneys and dishonest laws.

3608. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 22:28:40 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9id5sn.5v0.QSB@animas.frontier.net>
Source record: 52055

On Tue, 12 Jun 2001 20:09:00 +0300, Paul Keinanen scribbled:
>On Tue, 12 Jun 2001 11:11:58 GMT, "Schatzie" <jdwalton@home.com>
>wrote:
>
>>Is it just urban legend or true -- this from high school ham radio club
>>about 30 years ago -- a spark gap radiator using a pair of nails in a
>>maxwell house coffee tin will knock out police radar -- sounds apocryphal to
>>me, but ....
>
>Depends on what frequency the radar was using. I don't know what the
>dimensions for that particular can was, but I guess that with typical
>coffee can sizes, the resonance would be somewhere in the 1 .. 3 GHz
>area and as far as I know, the speed traps use much higher
>frequencies, so I doubt about that story. Although, using a smaller
>can might work.

Ya, but... I'm *sure* the spark xmitter is *rich* in harmonics!

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

3609. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 22:42:48 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <IVwV6.628$aM6.70021@newsread2.prod.itd.earthlink.net>
Source record: 52056
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Rick said:

>Dont you get it. Ive seen your page, I know its there
>and I really dont need you telling me constantly its there.

Hello Rick.....

Fortunately you are not the only person on the internet. Over 60,000 new users get online each day worldwide.

Your concerns are further addressed on the FAQ Page of my site....thanks for posting.

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3610. Re: Auto radio info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-12 23:58:40 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0106121558.2049f37f@posting.google.com>
Source record: 52057

w4pqwhs@aol.com (W4pqw HS) wrote in message
news:<20010531162033.26606.00002451@ng-fe1.aol.com>...
> can someone tell me how to remove a BC radio from the dash of a 1998 Plymouth
> Valiant mini van... I haven`t removed a car radio in 50 years ,I guess I`ve
> lost it (the touch that is) thanks Harold W4PQW

Thanks to thieves and vandals it's not usually obvious
how to get them out. This is by design.

On many cars you must use special tools to release hidden
latches, and then the radio slides out. That was the
case on my car's original radio (1986 VW Jetta with the
OEM VW/Heidelberg radio), and on the CD player I recently
installed in its place.

You might want to sneak a peek at the service manual
before you break things.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

3611. "soft" crystals?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 00:54:44 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B26B9D4.44D11C40@clifto.com>
Source record: 52058

What can be done besides replacement? PRO-2002 is a nice scanner when the crystal starts.

```
--
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

3612. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 01:40:06 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <i0hditkt1mojch82sv9a590su6tbfm65ht@4ax.com>
Source record: 52059
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Going to have to tweak my filters for other news groups. I see you
suck through.

Plus you post on several reflectors.

My friend you've over done it... Chill out.

Danny

On Tue, 12 Jun 2001 22:42:48 GMT, "Charles Johnston"
<charles@ab7sl.com> wrote:

> Rick said:
>
> >Dont you get it. Ive seen your page, I know its there
> >and I really dont need you telling me constantly its there.
>
> Hello Rick.....
>
> Fortunately you are not the only person on the internet. Over 60,000 new
>users get online each day worldwide.
>
> Your concerns are further addressed on the FAQ Page of my site....thanks
>for posting.

3613. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 03:36:26 UTC
From: Matt <matt_patt123@yahoo.com>
Message-ID: <9g6me60gdg@enews2.newsguy.com>
Source record: 52061
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

AMEN!

"Dan Richardson" <k6mhe@arrl.net> wrote in message
news:i0hditkt1mojch82sv9a590su6tbfm65ht@4ax.com...
> Going to have to tweak my filters for other news groups. I see you
> suck through.
>
> Plus you post on several reflectors.
>
> My friend you've over done it... Chill out.
>
> Danny
>
>
>
> On Tue, 12 Jun 2001 22:42:48 GMT, "Charles Johnston"
> <charles@ab7sl.com> wrote:
>
> > Rick said:
> >
> > >Dont you get it. Ive seen your page, I know its there
> > >and I really dont need you telling me constantly its there.
> >
> > Hello Rick.....
> >
> > Fortunately you are not the only person on the internet. Over 60,000
new
> >users get online each day worldwide.
> >
> > Your concerns are further addressed on the FAQ Page of my
site....thanks
> >for posting.
>

3614. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 04:00:47 UTC
From: Matt <matt_patt123@yahoo.com>
Message-ID: <9g6nrq0j1s@enews2.newsguy.com>
Source record: 52060
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

You know.. its one thing to spam a group when you are constantly updating a page with new content and you actually have something on there new and interesting to look at but your page hasn't changed. Its still the same..

I know what you'll say.. go read the FAQ... blah blah blah

Why would I want to goto your page, just to give you another hit, just to read you FAQ?? Who cares...even though you only SPAM the group about your page once a week, its still bugs and annoys people cause there isn't anything new and it gets old after a while! REALLY OLD!

"Charles Johnston" <charles@ab7sl.com> wrote in message
news:CCsV6.35$aM6.6602@newsread2.prod.itd.earthlink.net...
> W9INN (Bill) has authorized me to publish an informative page devoted to
> his
> great-performing line of wire antennas. There is contact info, technical
> data, and illustrations of his most popular antenna the MPD-5C 5-band
> dipole.
>
> The W9INN Antenna Page is located on the site listed below.
>
>
> --
>
> 73 / DX
>
> Charles Johnston
> charles@ab7sl.com
>
> AB7SL - Ham Radio Pages
> http://www.ab7sl.com
>
>
>
>
>

3615. need IFT Transformers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 05:27:34 UTC
From: Geoff Knee <geoff@gknee.freeserve.co.uk>
Message-ID: <9g61it$a8e$1@newsg1.svr.pol.co.uk>
Source record: 52054

Hello
I require IFT Transformers for Radio Receiver construction, Models needed
are IFT14/IFT18/465,Hoping for a reply
Many Thanks
Geoff

3616. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 06:03:36 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <76uditsedh1id3ako01hmsqv9ahbub1tnv@4ax.com>
Source record: 52062

On 12 Jun 2001 22:28:40 GMT, QSB@QRM-QRN.net (Allodoxaphobia) wrote:

>>Depends on what frequency the radar was using. I don't know what the
>>dimensions for that particular can was, but I guess that with typical
>>coffee can sizes, the resonance would be somewhere in the 1 .. 3 GHz
>>area and as far as I know, the speed traps use much higher
>>frequencies, so I doubt about that story. Although, using a smaller
>>can might work.

>Ya, but... I'm *sure* the spark xmitter is *rich* in harmonics!

At 108 km/h (30 m/s) the doppler in X-band is 1 kHz, thus, the
receiver bandwidth is only a few kHz, so any discrete harmonics from a
jamming transmitter would have to hit that passband.

When you put the spark gap in some form of cavity, it will have a
resonance at the fundamental and other resonance modes (not necessary
an integer multiple of the fundamental in an irregular shaped
resonator), so in order to generate a strong signal in, say, X-band
with a coffee can, some of these higher resonances would have to fall
into this band.

Even with a broadband white noise source covering, say, 1.. 25 GHz a
quite large total power is required, in order to get sufficient power
into the 10 kHz receiver bandwidth.

While the received power in a radar is inversely proportional of the
forth power of distance and the power from a jamming transmitter is
proportional to the inverse square of the distance, so jamming a
simple radar at large distances is quite easy.

However, speed traps are usually operated well below the maximum
distance in order to be able to identify individual vehicles, so there
is not much you can gain from a long distance jamming device.

Paul

3617. Down-verters 10M->20M

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 10:42:14 UTC
From: Gene Lake <lakeg@earthlink.net>
Message-ID: <asHV6.785$aV1.66078@newsread1.prod.itd.earthlink.net>
Source record: 52063

Would the list please list the pro's and con's of using a Ten Meter rig (ie HTX-10) as the tuneable IF for bands lower in freq., 15M, 20M, etc??
And are the two input freq. F1in, and F2in into a doubly balanced mixer completely supressed at the out put (ie 602 or 612,)??
Thanks Gene KD4HKB

3618. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 13:13:10 UTC
From: Dean L <dean@iowaone.net>
Message-ID: <rlpeit8q9pssrj8kc4nen6i4l45qgjnffi@4ax.com>
Source record: 52065

One word ..... WIFE

On Mon, 28 May 2001 11:13:43 +1000, "aswa" <ASWA2@bigpond.com> wrote:

>Hi all,
>i am trying to save some dollars and build my own rotator.(for a 10m 4el
>Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
>cheers
>Andre
>

3619. Re: spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 14:10:47 UTC
From: Ann Morgan <celtmouse@worldnet.att.net>
Message-ID: <HvKV6.77154$t12.6377540@bgtnsc05-news.ops.worldnet.att.net>
Source record: 52064

As Bob mentioned, sparks have some interesting characteristics, but to a first approximation, they are simply a switch which can be used to shock-excite a tuned circuit. Charge up a cap, and suddenly connect (through the spark) an inductor across the cap. You get E^2*C/2 energy per spark. The higher the Q of the tuned circuit, the narrower the bandwidth of the resulting oscillation, but it will always be a damped oscillation (unless you use the negative resistance feature of an arc: you might do a search for info on "Poulsen arc"). A spark forms rather quickly: the rate of change of current is quite high. So it can shock excite resonances up to rather high frequencies, as another thread has pointed out, though from what I know of sparks, I'd expect it would become rather inefficient up in the GHz range. In the tens of kHz range, where spark transmitters were used commercially for some time, transmitters with net efficiencies around 50%, up in the 100's of kW range, were built. There have been some nice historical articles in Electronics World+Wireless World magazine in the past ten or fifteen years about this subject.

Cheers,
Tom

"Kurt Stocklmeir" <kurtstocklmeir@worldnet.att.net> wrote in message news:01c0f292$dc90d480$7a264f0c@oemcomputer...
> I would like to know what are the lowest frequencies and highest
> frequencies that can be created by a spark gap. I would like to understand
> what can be changed associated with a spark gap to change the frequencies.
> Like create extra low frequencies and less high frequencies or extra high
> frequencies and less low frequencies.
>
> Thank you for any answers.

3620. Re: six meter schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 15:35:37 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9g8189omg1@woodrow.ucdavis.edu>
Source record: 52066

Richard,

Most of the small straight through units sold for CB in the metal box with
SO-239 connectors on each end work just fine at 6 meters. I see them
sold under a zillion different names like Vanco and such.

The basic unit I'm talking about is the rectangle unit with a simple
meter, fwd/rev slide switch and a sensitivity knob. The same unit also
worked as a field strength meter by screwing in a small whip antenna into
the jack at one end above the chassis connector.

Approx size was about 3" by 3" by 7" long ... all the controls and meter
on the top. Hard to beat the preformance of this well designed unit.

cheers
skipp

: rdalton1 <rdalton1@postoffice.swbell.net> wrote:
: I realize it would be simple enough to buy an swr meter,but if anyone has a
: schematic for a six meter swr meter I would appreciate it.73s richard

3621. Re: Spark gap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 16:06:18 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <_bMV6.6931$pb1.263961@www.newsranger.com>
Source record: 52067

In article <76uditsedh1id3ako01hmsqv9ahbub1tnv@4ax.com>, Paul Keinanen says...
>
>On 12 Jun 2001 22:28:40 GMT, QSB@QRM-QRN.net (Allodoxaphobia) wrote:
>
>
>>>Depends on what frequency the radar was using. I don't know what the
>>>dimensions for that particular can was, but I guess that with typical
>>>coffee can sizes, the resonance would be somewhere in the 1 .. 3 GHz
>>>area and as far as I know, the speed traps use much higher
>>>frequencies, so I doubt about that story. Although, using a smaller
>>>can might work.
>
>>Ya, but... I'm *sure* the spark xmitter is *rich* in harmonics!
>
>At 108 km/h (30 m/s) the doppler in X-band is 1 kHz, thus, the
>receiver bandwidth is only a few kHz, so any discrete harmonics from a
>jamming transmitter would have to hit that passband.
>
This 1kHz (doppler shift) is the frequency difference between the radar xmit and
rcv frequency. The predetection bw could be much wider; probably on the order
of a few GHz unless they put in a BPF. A spark gap pulsing at 1kHz could
produce a signal that the PLL in the radar would lock up to and think that this
1kHz was the doppler frequency. In that case you'd be better off pulsing at
500Hz or whatever corresponds to the speed limit. In any case this is all
hypothetical and I don't think they have email in jail!
I think the first radar speed traps were at 2.4GHz before there were microwave
ovens.

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3622. Re: NEED: PS Schematic Henry 2k-3 amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 17:35:53 UTC
From: BEAR <bearlabs@netzero.net>
Message-ID: <3B27A479.3C7160A1@netzero.net>
Source record: 52068
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.boatanchor,rec.radio.homebrew,rec.radio.equipment

Still don't have one...

BEAR wrote:

> Hi!
>
> I'm refurbishing an old Henry 2k-3 amp - I have the upper deck
> schematic,
> but no power supply schematic. I could trace it, and work on it as is -
> but there
> are a few parts that have been *replaced* that may or may not be
> appropriate
> in type or value.
>
> So, anyone who can supply:
>
> a) emailed - scanned copy
> b) emailed - PDF (best!!)
> c) snail mailed photocopy
> or
> d) URL to one on the 'net
>
> PLEASE EMAIL TO ME!!
> I may not catch your post - since the braindead admins on this system
> keep only
> 3 days maximum worth of posts up. :- (
>
> BTW- If you happen to have any flush mount panel meters (no cut-out
> needed, just for the
> two meter terminals) of *any value*, let me know too - the original ones
> are toasted here.
> I'll have to work out a replacement/retrofit if I can't find any flush
> mount types)
>
> Thanks,
>
> _-_- bear WB2GCR
>
> --
> _-_-bearlabs
>
> http://www.bearlabsUSA.com

--
_-_-bearlabs

http://www.bearlabsUSA.com

... please disregard the netzero sigfile... nothing is really
"free."

3623. Re: six meter schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 22:08:01 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0106131408.60d3f6de@posting.google.com>
Source record: 52069

Skipp <skipp@pilot.ucdavis.edu> wrote in message
news:<9g8189omg1@woodrow.ucdavis.edu>...
> Richard,
>
> Most of the small straight through units sold for CB in the metal box with
> SO-239 connectors on each end work just fine at 6 meters. I see them
> sold under a zillion different names like Vanco and such...

Resistive return-loss bridges work well for stuff like this.

A design I've used is in the VHF/UHF DX Book, edited by
G3SEK (a fab book: buy it!). I made a complete unit with
a Mini-Circuits VCO, with outputs for a frequency counter
and a volt meter. With leaded resistors that I graded to
1% with a DMM it worked fine beyond 2 meters. With SMD
resistors it would be good to microwave frequencies.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

3624. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-13 22:55:09 UTC
From: Glenn <glenn.hansen@usa.net>
Message-ID: <MPG.15918ef8f4126e25989734@news>
Source record: 52070
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

You know....its one thing to piss and moan about something that you have
no control over like the weather but to constantly piss and moan about
something YOU DON'T HAVE TO READ is pathetic.

Send me mail Matt if you can't figure out how to use Outlook Express.

Even YOU Matt can put Charles Johnston into your filter and ignore him.
Why you haven't yet is a mystery.

You and your CJ whiner crew spend more time pissing and moaning over
Johnson and waste more bandwidth complaining than Johnson ever used. Why
is that when one entry into your filter would resolve the issue?

Tell one thing Matt. Do you really read EVER post in EVER newsgroup you
subscribe to? Must take a lot of your time to read EVERY POST?

Also I have noticed real spam in the last few days on the NG but not once
do I see Matt complaining about these? If you read every message and are
so dead set on stopping spam why are you silent until Johnson posts?

Again, if Outlook Express is really kicking your butt as it seems, drop
me a line and I'll be more than happy to help you learn how to properly
use your newsreader.

Glenn

In article <9g6nrq0j1s@enews2.newsguy.com>, matt_patt123@yahoo.com
says...
> You know.. its one thing to spam a group when you are constantly updating a
> page with new content and you actually have something on there new and
> interesting to look at but your page hasn't changed. Its still the same..
>
> I know what you'll say.. go read the FAQ... blah blah blah
>
> Why would I want to goto your page, just to give you another hit, just to
> read you FAQ?? Who cares...even though you only SPAM the group about your
> page once a week, its still bugs and annoys people cause there isn't
> anything new and it gets old after a while! REALLY OLD!
>
>
>
> "Charles Johnston" <charles@ab7sl.com> wrote in message
> news:CCsV6.35$aM6.6602@newsread2.prod.itd.earthlink.net...
> > W9INN (Bill) has authorized me to publish an informative page devoted to
> > his
> > great-performing line of wire antennas. There is contact info, technical

> > data, and illustrations of his most popular antenna the MPD-5C 5-band
> > dipole.
> >
> > The W9INN Antenna Page is located on the site listed below.
> >
> >
> > --
> >
> > 73 / DX
> >
> > Charles Johnston
> > charles@ab7sl.com
> >
> > AB7SL - Ham Radio Pages
> > http://www.ab7sl.com
> >
> >
> >
> >
> >
>
>
>

3625. Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 01:02:54 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <23UV6.8359$mf6.1622445@typhoon1.ba-dsg.net>
Source record: 52071

Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit that offers direct-to-audio conversion, very high dynamic range, inherent high Q bandpass response, and quadriphase audio outputs...all with only a few parts! The circuit is just crying out for someone to build it up, evaluate it, and report on the results. Has anyone taken a look at this yet and tried it out? If so, I'd like to hear about your experience.

Joe
W3JDR

3626. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 03:10:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B282B11.B926F97B@eznec.com>
Source record: 52072

Anyone making, selling, or using a patented item is infringing. I see that the patent has been assigned to Motorola, Inc. Has Motorola given permission for anyone to make and use the circuit? If so, where has this permission been published?

Roy Lewallen, W7EL

W3JDR wrote:
>
> Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent
> #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit
> that offers direct-to-audio conversion, very high dynamic range, inherent
> high Q bandpass response, and quadriphase audio outputs...all with only a
> few parts! The circuit is just crying out for someone to build it up,
> evaluate it, and report on the results. Has anyone taken a look at this yet
> and tried it out? If so, I'd like to hear about your experience.
>
> Joe
> W3JDR

3627. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 06:00:07 UTC
From: "Larry D. Clark" <me@nowwhere.com>
Message-ID: <3B2852E7.E9701393@swbell.net>
Source record: 52073
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

let's not cloud the issue with facts and logic HIHI
well said indeed.

buddy

Glenn wrote:

> You know....its one thing to piss and moan about something that you have
> no control over like the weather but to constantly piss and moan about
> something YOU DON'T HAVE TO READ is pathetic.
>
> Send me mail Matt if you can't figure out how to use Outlook Express.
>
> Even YOU Matt can put Charles Johnston into your filter and ignore him.
> Why you haven't yet is a mystery.
>
> You and your CJ whiner crew spend more time pissing and moaning over
> Johnson and waste more bandwidth complaining than Johnson ever used. Why
> is that when one entry into your filter would resolve the issue?
>
> Tell one thing Matt. Do you really read EVER post in EVER newsgroup you
> subscribe to? Must take a lot of your time to read EVERY POST?
>
> Also I have noticed real spam in the last few days on the NG but not once
> do I see Matt complaining about these? If you read every message and are
> so dead set on stopping spam why are you silent until Johnson posts?
>
> Again, if Outlook Express is really kicking your butt as it seems, drop
> me a line and I'll be more than happy to help you learn how to properly
> use your newsreader.
>
> Glenn
>
> In article <9g6nrq0j1s@enews2.newsguy.com>, matt_patt123@yahoo.com
> says...
> > You know.. its one thing to spam a group when you are constantly updating a
> > page with new content and you actually have something on there new and
> > interesting to look at but your page hasn't changed. Its still the same..
> >
> > I know what you'll say.. go read the FAQ... blah blah blah
> >
> > Why would I want to goto your page, just to give you another hit, just to
> > read you FAQ?? Who cares...even though you only SPAM the group about your
> > page once a week, its still bugs and annoys people cause there isn't

> > anything new and it gets old after a while! REALLY OLD!
> >
> >
> >
> > "Charles Johnston" <charles@ab7sl.com> wrote in message
> > news:CCsV6.35$aM6.6602@newsread2.prod.itd.earthlink.net...
> > > W9INN (Bill) has authorized me to publish an informative page devoted to
> > > his
> > > great-performing line of wire antennas. There is contact info, technical
> > > data, and illustrations of his most popular antenna the MPD-5C 5-band
> > > dipole.
> > >
> > > The W9INN Antenna Page is located on the site listed below.
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> > > Charles Johnston
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> > > http://www.ab7sl.com
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3628. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 06:17:17 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <LVjd+RBtbFK7EAFI@ifwtech.com>
Source record: 52074

Roy Lewallen wrote:
>Anyone making, selling, or using a patented item is infringing. I see
>that the patent has been assigned to Motorola, Inc. Has Motorola given
>permission for anyone to make and use the circuit? If so, where has this
>permission been published?
>
>Roy Lewallen, W7EL
>
>W3JDR wrote:
>>
>> Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent
>> #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit
>> that offers direct-to-audio conversion, very high dynamic range, inherent
>> high Q bandpass response, and quadriphase audio outputs...all with only a
>> few parts! The circuit is just crying out for someone to build it up,
>> evaluate it, and report on the results. Has anyone taken a look at this yet
>> and tried it out? If so, I'd like to hear about your experience.
>>
>> Joe
>> W3JDR

Amateurs have been experimenting with the Tayloe mixer for well over a
year now (for example, there have been many reports in 'Technical
Topics', RadCom).

It gives very good results in a direct-conversion SSB receiver with a
polyphase analog phase-shift network, and I'm sure some people are
already using it with DSP.

Seems like that particular genie is already well out of the bottle...

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

3629. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 06:35:43 UTC
From: rice@ironbark.bendigo.latrobe.edu.au
Message-ID: <rice-ya02408000R1406011635430001@news.latrobe.edu.au>
Source record: 52075

In a recent article Joe W3JDR wrote:

> Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent
> #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit
> that offers direct-to-audio conversion, very high dynamic range, inherent
> high Q bandpass response, and quadriphase audio outputs...all with only a
> few parts! The circuit is just crying out for someone to build it up,
> evaluate it, and report on the results. Has anyone taken a look at this yet
> and tried it out? If so, I'd like to hear about your experience.

I could be accused of blowing my own trumpet on this one (the link below
;-), but here goes:

Have a look at http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html

It makes nice SSB at frequencies up to about 5MHz using cheap LS and CMOS parts.

This was originally published in February 1998 in "Amateur Radio", the
Journal of the Wireless Institute of Australia, the worlds oldest amateur
radio organisation (founded about 1910). (So if anyone tries to take me to
court for patent infringment, I can claim "prior art" ;-)

I am amazed that the US patent office would patent this. As far as I know,
commutating mixers were well known in Australia prior to 1979. I first saw
them described in course notes from the Footscray Institute of Technology
in 1979.

A serious literature search in a real library, not the web, will turn up
dozens of reputable papers on commutating mixers/modulators. I did this
years ago, thinking I had discovered something new & wonderful and was
going to collect many academic "brownie points"[1]. It turns out that I
hadn't & I didn't, but then I really enjoyed developing my own SSB exciter.

[1] Brownies - a youth organisation common in England, Australia and New
Zealand. If you have never heard of 'em, then the joke is lost on you. It's
no fun if you have to ask.

Now, I think I will get a US patent on the resistive voltage divider.
Should be easy.

73 & have fun.
de Phil VK3BHR
Remember to keep smiling.
It makes everyone wonder what mischief you have been up to.

3630. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 07:48:28 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <vfpgit0mp3as23qvn30iv3slsmld16ejmb@4ax.com>
Source record: 52076

On Wed, 13 Jun 2001 20:10:09 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Anyone making, selling, or using a patented item is infringing.

I do not know what the exact patent rules are in the US, but in other
parts of the world you can build one for evaluating purposes, but not
sell it. For this reason, patents are often written in a way that it
is hard to duplicate, but the patent should still be able to limit
the use of derived ideas as widely as possible.

Paul OH3LWR

3631. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 08:47:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B287A1E.D28EC993@eznec.com>
Source record: 52077

Not so in the U.S. See for example
http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm.

Roy Lewallen, W7EL

Paul Keinanen wrote:
>
> On Wed, 13 Jun 2001 20:10:09 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >Anyone making, selling, or using a patented item is infringing.
>
> I do not know what the exact patent rules are in the US, but in other
> parts of the world you can build one for evaluating purposes, but not
> sell it. For this reason, patents are often written in a way that it
> is hard to duplicate, but the patent should still be able to limit
> the use of derived ideas as widely as possible.
>
> Paul OH3LWR

3632. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 08:59:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B287CFC.C92DA8FD@eznec.com>
Source record: 52078

I have to once again state clearly that I'm not a patent attorney. But I'm certain that in the U.S., there is no protection until a patent has issued. That is, anyone has been free to publish or experiment with the circuit (unless it qualifies as a trade secret, which seems unlikely given the publicity it's apparently gotten) up until the time it's patented. But then it's no longer o.k. to make, use, or sell it in the U.S. without the patent holder's permission. The fact that people published, built, or even sold an item before a patent issues doesn't, as far as I know, cause any dilution of the patent holder's rights. A patent itself lets an invention "out of the bottle", since it's public and is required to provide detailed information about the patented item. Once a patent issues, anyone with the required skill has enough information to build it. But they're not allowed to. That's essentially the exchange between the government and the patent holder -- the patent holder has to provide complete and public information about the device in exchange for the excluse rights to it for a limited period.

Of course, a U.S. patent has no force that I know of in the U.K., and in any case I know patent laws are quite different in other parts of the world.

Roy Lewallen, W7EL

"Ian White, G3SEK" wrote:
>
> Roy Lewallen wrote:
> >Anyone making, selling, or using a patented item is infringing. I see
> >that the patent has been assigned to Motorola, Inc. Has Motorola given
> >permission for anyone to make and use the circuit? If so, where has this
> >permission been published?
> >
> >Roy Lewallen, W7EL
> >
> >W3JDR wrote:
> >>
> >> Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent
> >> #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit
> >> that offers direct-to-audio conversion, very high dynamic range, inherent
> >> high Q bandpass response, and quadriphase audio outputs...all with only a
> >> few parts! The circuit is just crying out for someone to build it up,
> >> evaluate it, and report on the results. Has anyone taken a look at this yet
> >> and tried it out? If so, I'd like to hear about your experience.
> >>
> >> Joe
> >> W3JDR

>
> Amateurs have been experimenting with the Tayloe mixer for well over a
> year now (for example, there have been many reports in 'Technical
> Topics', RadCom).
>
> It gives very good results in a direct-conversion SSB receiver with a
> polyphase analog phase-shift network, and I'm sure some people are
> already using it with DSP.
>
> Seems like that particular genie is already well out of the bottle...
>
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

3633. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 10:08:51 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B288D33.2BD66B0F@bloomer.net>
Source record: 52080

What are you using the spectrum analyzer to measure? They are not necessarily the best instrument to use to measure frequency. They are designed to show relative strength of signals within a frequency spectrum. If you are using it to check the level of the spurs and harmonics, it shouldn't matter if the oscillator frequency is pulled off slightly. If you are trying to measure frequency, use a freq. counter and make a probe out of coax by stripping off about 3-6 inches of braid at one end, leaving just the center conductor and its insulation exposed and put an appropriate connector on the other end to hook up to the freq. counter. Hold the exposed center conductor just near enough to the oscillator to get a reliable reading.

Scott
N0EDV

Dub-ya wrote:
>
> The problem:
>
> I need a probe that I can attach to a spectrum analyzer that won't
> load down the circuit (operating at 130 Mhz) under test and can be
> built for less than $20.
>
> I have a 100 Mhz probe for my scope, which has a 1M input. It loads
> the circuit down and changes the oscillating frequency substantially.
>
> With active probes costing over $2k.. What do ya do if you need to
> look at a circuit under test with a 50 ohm spectrum analyzer?

3634. Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 10:14:09 UTC
From: Dub-ya <dubwa@texas.moo>
Message-ID: <eu2hitoj136ppm4s0rhg29iaf2smtn1lg1@4ax.com>
Source record: 52079

The problem:

I need a probe that I can attach to a spectrum analyzer that won't load down the circuit (operating at 130 Mhz) under test and can be built for less than $20.

I have a 100 Mhz probe for my scope, which has a 1M input. It loads the circuit down and changes the oscillating frequency substantially.

With active probes costing over $2k.. What do ya do if you need to look at a circuit under test with a 50 ohm spectrum analyzer?

3635. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 11:56:11 UTC
From: Matt <matt_patt123@yahoo.com>
Message-ID: <9ga83402npq@enews1.newsguy.com>
Source record: 52081
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

no dude.. I just like to piss a moan about stuff.. if I put him on my
filter then I couldn't :-)

"Glenn" <glenn.hansen@usa.net> wrote in message
news:MPG.15918ef8f4126e25989734@news...
> You know....its one thing to piss and moan about something that you have
> no control over like the weather but to constantly piss and moan about
> something YOU DON'T HAVE TO READ is pathetic.
>
> Send me mail Matt if you can't figure out how to use Outlook Express.
>
> Even YOU Matt can put Charles Johnston into your filter and ignore him.
> Why you haven't yet is a mystery.
>
> You and your CJ whiner crew spend more time pissing and moaning over
> Johnson and waste more bandwidth complaining than Johnson ever used. Why
> is that when one entry into your filter would resolve the issue?
>
> Tell one thing Matt. Do you really read EVER post in EVER newsgroup you
> subscribe to? Must take a lot of your time to read EVERY POST?
>
> Also I have noticed real spam in the last few days on the NG but not once
> do I see Matt complaining about these? If you read every message and are
> so dead set on stopping spam why are you silent until Johnson posts?
>
> Again, if Outlook Express is really kicking your butt as it seems, drop
> me a line and I'll be more than happy to help you learn how to properly
> use your newsreader.
>
> Glenn
>
>
>
> In article <9g6nrq0j1s@enews2.newsguy.com>, matt_patt123@yahoo.com
> says...
> > You know.. its one thing to spam a group when you are constantly
updating a
> > page with new content and you actually have something on there new and
> > interesting to look at but your page hasn't changed. Its still the
same..
> >
> > I know what you'll say.. go read the FAQ... blah blah blah
> >

> > Why would I want to goto your page, just to give you another hit, just
to
> > read you FAQ?? Who cares...even though you only SPAM the group about
your
> > page once a week, its still bugs and annoys people cause there isn't
> > anything new and it gets old after a while! REALLY OLD!
> >
> >
> >
> > "Charles Johnston" <charles@ab7sl.com> wrote in message
> > news:CCsV6.35$aM6.6602@newsread2.prod.itd.earthlink.net...
> > > W9INN (Bill) has authorized me to publish an informative page
devoted to
> > > his
> > > great-performing line of wire antennas. There is contact info,
technical
> > > data, and illustrations of his most popular antenna the MPD-5C 5-band
> > > dipole.
> > >
> > > The W9INN Antenna Page is located on the site listed below.
> > >
> > >
> > > --
> > >
> > > 73 / DX
> > >
> > > Charles Johnston
> > > charles@ab7sl.com
> > >
> > > AB7SL - Ham Radio Pages
> > > http://www.ab7sl.com
> > >
> > >
> > >
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> >
> >

3636. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 14:28:14 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <qP3W6.4964$jF3.399610@e420r-sjo3.usenetserver.com>
Source record: 52083

"Roy Lewallen" wrote...
> I have to once again state clearly that I'm not a
> patent attorney. But I'm certain that in the U.S.,
> there is no protection until a patent has issued.

Patents are protected from the date of APPLICATION, not from the date of PUBLICATION. "Patent Pending" is not put on millions of items every year for nothing!

OTOH, copyright material is covered from the date of PUBLICATION.

> That is, anyone has been free to publish or experiment
> with the circuit

You can experiment all you want, but I wouldn't publish such material without advice of a real IP lawyer.

> ... up until the time it's patented. But then it's no longer o.k.
> to make, use, or sell it in the U.S. without the patent holder's
> permission.

The prohibition is on SELLING (or actually "exploiting") the IP. The law says nothing about hobbyists building things for themselves. Why do you think they are published for everyone to read?

If you look up any pattent (including mine) you will see that dozens to hundreds of subsequent patents refer to it. Do you think those subsequent patent holders didn't experiment with concepts in other patents?

> Of course, a U.S. patent has no force that I know
> of in the U.K.

Most IP of any value, particularly if owned by or assigned to multi-national corporations has protection in place (or pending) in most countries. And copyrighted IP is covered in most of the world by the Berne Convention.

RC

3637. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 15:03:07 UTC
From: Grant <nq5tNO@SPAMgte.net>
Message-ID: <3B28D22A.95DDCAD9@SPAMgte.net>
Source record: 52084

Roy Lewallen wrote:
>
> Not so in the U.S. See for example
> http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm.
>

If the "you can't even build it" rule actually applies to me building one (assuming I can come up with a working device from the material in the patent), and then using it (for no financial gain), then it is essentially an unenforceable and absurd law in any case.

3638. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 16:04:36 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <avnhitsu4317fg3jqlfhre88riqittsl90@4ax.com>
Source record: 52085

Roy Lewallen <w7el@eznec.com>
shared these priceless pearls of wisdom:

->Anyone making, selling, or using a patented item is infringing.

Roy, I respect your technical expertise and I really appreciate your willingness to share it with us on a regular basis. However, it is my own personal opinion that nobody in a "homebrew" newsgroup would give a hairy rat's hiney for your legal opinions on homebrewing.

Now, as the original poster asked...has anybody played with this thing (especially at VHF and above) and gotten decent results?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3639. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 16:08:10 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <a7ohitku4hjln1gm35el6vs3mmord5pibf@4ax.com>
Source record: 52086

Dub-ya <dubwa@texas.moo>
shared these priceless pearls of wisdom:

->I have a 100 Mhz probe for my scope, which has a 1M input. It loads
->the circuit down and changes the oscillating frequency substantially.

Yes, and you also have about 3 to 5 pf of input capacitance that is driving your oscillator nutzy. You say you want "high" input impedance. If it is purely resistive, how "high" does it have to be? Don't say you want a megohm, because that just isn't going to be possible. Can you stand 1K of loading? 500 ohms? What is your bottom limit and we can go from there?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3640. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 16:10:26 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b28df9e.135727457@news.triconet.org>
Source record: 52087

On 14 Jun 2001 05:14:09 -0500, Dub-ya <dubwa@texas.moo> wrote:

>The problem:
>
>I need a probe that I can attach to a spectrum analyzer that won't
>load down the circuit (operating at 130 Mhz) under test and can be
>built for less than $20.
>
>I have a 100 Mhz probe for my scope, which has a 1M input. It loads
>the circuit down and changes the oscillating frequency substantially.

Your scope probe probably has a 1M resistor in it alright, with a capacitor shunting it to trim the square wave response. So it's 1M at DC and something else at 130 MHz.
>
>With active probes costing over $2k.. What do ya do if you need to
>look at a circuit under test with a 50 ohm spectrum analyzer?

This depends on what you are trying to accomplish. If you are looking for relative amplitudes at various parts of the circuit, then you do need direct coupling and you might need an active probe. Since absolute power measurement isn't (shouldn't be) what you're after, a simple FET follower would probably do the trick.

If, on the other hand, you are simply wanting to see the harmonic level or noise performance, you might just use a non-contact probe, i.e. a piece of wire to pick up the radiated signal.

The bottom line is that we need more insight into what you are trying to measure.

Wes Stewart N7WS
>
>

3641. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 17:38:01 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <ZD6W6.8610$pb1.328284@www.newsranger.com>
Source record: 52088

I don't think anybody reading this newsgroup has such little intellectual
curiosity that
a patent disclosure would stop him/her from experimenting. If anything, patents

inspire experimentation. But thet assignee of the patent does have the
right to stop you from building the circuit if he invokes it.

I looked at the patent and noticed 2 things,

1. You still need the 90 degree phase shift at i.f. (audio) which is
always a major pain;
2. The 4 paths of the SP4T switch have to be matched in amplitude
and phase to obtain good carrier and undesired sideband rejection.
To achieve 40dB would require phase accuracy of +/-0.5deg. and
amplitude matching of +/-.08dB, a little tricky in a lot of ham shacks.

The convention these days is to digitize the input by sampling
at 4x the the carrier with a single a/d, do the polarity reversals
and decimate by 2 digitally into 2 paths which are then baseband I and Q.
These I and Q streams represent cosine and sine multiplied versions
of the signal you downconverted.

see http://www.graychip.com for some help if interested.

It would be a good idea to build the circuit but not sell it.

In article <3B282B11.B926F97B@eznec.com>, Roy Lewallen says...
>
>Anyone making, selling, or using a patented item is infringing. I see
>that the patent has been assigned to Motorola, Inc. Has Motorola given
>permission for anyone to make and use the circuit? If so, where has this
>permission been published?
>
>Roy Lewallen, W7EL
>
>W3JDR wrote:
>>
>> Dan Tayloe's (N7VE) commutating quadrature mixer has been issued US Patent
>> #6,230,000 (http://www.uspto.gov). This is an intriguing & simple circuit
>> that offers direct-to-audio conversion, very high dynamic range, inherent
>> high Q bandpass response, and quadriphase audio outputs...all with only a
>> few parts! The circuit is just crying out for someone to build it up,
>> evaluate it, and report on the results. Has anyone taken a look at this yet
>> and tried it out? If so, I'd like to hear about your experience.
>>
>> Joe

>> W3JDR

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3642. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:06:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B28FD08.3FADF40@eznec.com>
Source record: 52089

I agree that it would be hard or impossible to enforce. But it's the
law.

Roy Lewallen, W7EL

Grant wrote:
>
> Roy Lewallen wrote:
> >
> > Not so in the U.S. See for example
> > http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm.
> >
>
> If the "you can't even build it" rule actually applies to me building
> one (assuming I can come up with a working device from the material in
> the patent), and then using it (for no financial gain), then it is
> essentially an unenforceable and absurd law in any case.

3643. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:08:13 UTC
From: Dub-ya <dubwa@texas.moo>
Message-ID: <dkshitos63b0oauaftpo4n1ijkpto5m55f@4ax.com>
Source record: 52090

On Thu, 14 Jun 2001 16:10:26 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

>On 14 Jun 2001 05:14:09 -0500, Dub-ya <dubwa@texas.moo> wrote:
>
>>The problem:
>>
>>I need a probe that I can attach to a spectrum analyzer that won't
>>load down the circuit (operating at 130 Mhz) under test and can be
>>built for less than $20.
>>
>>I have a 100 Mhz probe for my scope, which has a 1M input. It loads
>>the circuit down and changes the oscillating frequency substantially.
>
>Your scope probe probably has a 1M resistor in it alright, with a capacitor
>shunting it to trim the square wave response. So it's 1M at DC and something
>else at 130 MHz.
>>
>>With active probes costing over $2k.. What do ya do if you need to
>>look at a circuit under test with a 50 ohm spectrum analyzer?
>
>This depends on what you are trying to accomplish. If you are looking for
>relative amplitudes at various parts of the circuit, then you do need direct
>coupling and you might need an active probe. Since absolute power measurement
>isn't (shouldn't be) what you're after, a simple FET follower would probably do
>the trick.
>
>If, on the other hand, you are simply wanting to see the harmonic level or noise
>performance, you might just use a non-contact probe, i.e. a piece of wire to
>pick up the radiated signal.
>
>The bottom line is that we need more insight into what you are trying to
>measure.

Wow, I got a lot more interest generated here than I thought..

The problem: I'm building a AM airband receiver circuit. I have
access to a 1.5 GHz spectrum analyzer. I have access to a 100 Mhz
Scope and regular passive probes. I don't really care about absolute
voltages, I just need to know what frequencies and relative strength
I'm dealing with and not load down my circuit.. Adding 5-10pF of
capacitance to a 100+ Mhz circuit makes a big difference.. No
frequency counter.. The 100 Mhz scope lists frequency and the
spectrum analyzer marker will ID frequencues, but I have no dedicated
frequency counter.

Now, I wish I had access to an active probe.. As I recall, the Agilent one was $2000+.. Not an option -- amazingly the place doesn't have one. The spectrum analyzer is used mostly to look at CATV systems. I'm thinking about building a FET to a CC.. The FET for the high input impedance and the CC as a buffer between the FET output and the 50 ohm input.. Any thoughts?

Additionally, the room the equipment is in is electrically noisy.. I tried putting a clip lead with BNC near the part of interest (non-contact) and I picked up a lot of unwanted signals/noise.

I am looking to observe the frequency response of the unfiltered input of a FET (attached to some wire as an antenna.), then observe the output of the FET, then a filter stage before entering the mixer. After the mixer stage, I'm at 455 kHz and things get a lot simpler.

The spectrum analyzer is 50 ohms, the FET is 10M... So if I attach the spectrum analyzer directly coupled to the FET or even a 2k output stage, it's going to see tiny amounts of signal.

How much loading can I tolerate? In the oscillator stage, not much as it will lower the Q and possibly prevent oscillation from occurring.. Other parts of the circuit will take tolerate more but it will change the frequency response some.. If I can load the circuit as little as possible, it's all around better..

I appreciate y'all giving it some thought...

3644. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:13:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B28FEDF.73D0CB1C@eznec.com>
Source record: 52091

I'm sure no one cares what I think is reasonable for people to do, so I haven't made any statements on that topic. I've only commented on what the law says, for those who care. But I think Jim Weir is right that most people on this group don't really care to know more about patent law. So I won't comment further except to say that there are some really incorrect statements in this posting. Anyone who is interested can get correct information from http://uspto.gov, or when it really matters, from a patent attorney.

Have fun!

Roy Lewallen, W7EL

Richard Crowley wrote:
>
> "Roy Lewallen" wrote...
> > I have to once again state clearly that I'm not a
> > patent attorney. But I'm certain that in the U.S.,
> > there is no protection until a patent has issued.
>
> Patents are protected from the date of APPLICATION, not from the date of
> PUBLICATION. "Patent Pending" is not put on millions of items every year for
> nothing!
>
> OTOH, copyright material is covered from the date of PUBLICATION.
>
> > That is, anyone has been free to publish or experiment
> > with the circuit
>
> You can experiment all you want, but I wouldn't publish such material
> without advice of a real IP lawyer.
>
> > ... up until the time it's patented. But then it's no longer o.k.
> > to make, use, or sell it in the U.S. without the patent holder's
> > permission.
>
> The prohibition is on SELLING (or actually "exploiting") the IP. The law
> says nothing about hobbyists building things for themselves. Why do you
> think they are published for everyone to read?
>
> If you look up any pattent (including mine) you will see that dozens to
> hundreds of subsequent patents refer to it. Do you think those subsequent
> patent holders didn't experiment with concepts in other patents?
>
> > Of course, a U.S. patent has no force that I know

> > of in the U.K.
>
> Most IP of any value, particularly if owned by or assigned to multi-national
> corporations has protection in place (or pending) in most countries. And
> copyrighted IP is covered in most of the world by the Berne Convention.
>
> RC

3645. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:22:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B2900DD.D492F26C@eznec.com>
Source record: 52092

My postings had nothing to do with my opinions on homebrewing, or for that matter my opinions on whether patent laws are reasonable. They consisted only of statements of what the law is, in the apparently mistaken assumption that someone would be interested.

I see that you're not interested in knowing what the law says, and you're probably right in your implication that nobody else on this newsgroup particularly cares either -- especially if it might inconvenience them in doing what they want to do.

So have fun, folks. Ignorance is bliss. I won't bother you further with the petty details.

Roy Lewallen, W7EL

Jim Weir wrote:
>
> Roy Lewallen <w7el@eznec.com>
> shared these priceless pearls of wisdom:
>
> ->Anyone making, selling, or using a patented item is infringing.
>
> Roy, I respect your technical expertise and I really appreciate your willingness
> to share it with us on a regular basis. However, it is my own personal opinion
> that nobody in a "homebrew" newsgroup would give a hairy rat's hiney for your
> legal opinions on homebrewing.
>
> Now, as the original poster asked...has anybody played with this thing
> (especially at VHF and above) and gotten decent results?
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

3646. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:32:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B29034F.7EE3D631@eznec.com>
Source record: 52093

The simplest solution is to connect a resistor to the center conductor of a piece of small coax and run the coax to the spectrum analyzer. Use a 1/4 watt or smaller resistor. Make the connection from the resistor to the coax as short as possible and use the other resistor lead for the probe tip. The hard part will be to make a good short connection from the coax shield to ground near the point being probed. A 5.1k resistor will give you about a 100:1 voltage attenuation (40 dB). This won't be very rugged, but it's cheap and you'll get good results.

Your scope probe has a capacitance of around 10 - 13 pF. (If it's a Tektronix probe it'll give the value right on the probe or compensation box.) at 130 MHz, 13 pF represents an impedance of less than 100 ohms. This is what's loading down your oscillator.

Roy Lewallen, W7EL

Dub-ya wrote:
>
> The problem:
>
> I need a probe that I can attach to a spectrum analyzer that won't
> load down the circuit (operating at 130 Mhz) under test and can be
> built for less than $20.
>
> I have a 100 Mhz probe for my scope, which has a 1M input. It loads
> the circuit down and changes the oscillating frequency substantially.
>
> With active probes costing over $2k.. What do ya do if you need to
> look at a circuit under test with a 50 ohm spectrum analyzer?

3647. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 18:33:09 UTC
From: "Al Lorona, Jr." <al_lorona@agilent.com>
Message-ID: <3B290365.DBBB9D28@agilent.com>
Source record: 52094

Dub-ya wrote:

> >>I need a probe that I can attach to a spectrum analyzer that won't
> >>load down the circuit (operating at 130 Mhz) under test and can be
> >>built for less than $20.
> >>
>
> I am looking to observe the frequency response of the unfiltered input
> of a FET (attached to some wire as an antenna.), then observe the
> output of the FET, then a filter stage before entering the mixer.
> After the mixer stage, I'm at 455 kHz and things get a lot simpler.
>
> The spectrum analyzer is 50 ohms, the FET is 10M... So if I attach the
> spectrum analyzer directly coupled to the FET or even a 2k output
> stage, it's going to see tiny amounts of signal.
>
> How much loading can I tolerate? In the oscillator stage, not much as
> it will lower the Q and possibly prevent oscillation from occurring..
> Other parts of the circuit will take tolerate more but it will change
> the frequency response some.. If I can load the circuit as little
> as possible, it's all around better..
>
> I appreciate y'all giving it some thought...

Hi, Dub-ya,

Any time you are working with high frequency oscillator stages, you're going to have the problem of loading by a scope probe or by the input of a 50 ohm instrument.

If your passive probe is loading down the circuit, even in 10x mode, and you can't get access to an active probe, you will have to measure your oscillator's frequency at the output of a buffer amplifier in your device under test, if there is one.

If there isn't, you'll have to measure the osc freq indirectly, by injecting a signal of a known frequency, then probing the 455 kHz IF with that scope probe and doing the math (The sum of RF + IF = LO). Be sure to use the marker count feature of the spectrum analyzer when you measure the frequency because depending on your needs the marker may not be accurate enough in normal mode.

Good luck.

R,

Al W6LX

3648. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 20:06:43 UTC
From: John Buck <KH7T@arrl.net>
Message-ID: <3B291953.2F063727@arrl.net>
Source record: 52095

As usual, I find Roy's comments informative and useful. Roy documented a good source for his opinion. This most certainly is a homebrew relevant topic. Contrary to the view expressed by another poster, I do care.

However, on this subject, I believe that Roy's interpretation is too severe.

From the reference Roy mentioned --
"The right conferred by the patent grant is, in the language of the statute and of the grant itself, ï¿½the right to exclude others from making, using, offering for sale, or sellingï¿½ the invention in the United States or ï¿½importingï¿½ the invention into the United States. What is granted is not the right to make, use, offer for sale, sell or import, but the right to exclude others from making, using, offering for sale, selling or importing the invention."

My personal interpretation of this is that the patent holder has the right to exclude me from making, using or selling his patented item. But I also believe that you or I are not scoff laws in building or experimenting with one. If he advises me that he does not want me to use the item in my experiments, then I should stop.

Aloha,
John KH7T

3649. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 22:15:01 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0106141415.24dc59df@posting.google.com>
Source record: 52096

Dub-ya wrote:

>I need a probe that I can attach to a spectrum analyzer that won't
>load down the circuit (operating at 130 Mhz) under test and can be
>built for less than $20.

If all you want are frequencies and relative amplitudes,
why not just attach an antenna to the spectrum analyzer
and place it in the vicinity of the circuit?

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

3650. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-14 23:48:09 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B294F88.2E28@pop.removethistomailme.net>
Source record: 52097

Phil Rice wrote:
>
> I am amazed that the US patent office would patent this.

I'm not. The US patent office, as best as anyone can tell, is manned by a gang of howling idiots. If there's a limit to what they will accept as a valid patent claim, nobody I know has been able to find it yet.

Remember, these are the rocket scientists who brought us the Amazon 1-click patent. :(Not to mention the gem at http://www.delphion.com/details?pn=US05443036__.

It's rapidly becoming impossible to do any software development work in the US without running afoul of one or more bogus patents that would never have been granted by an examiner with two brain cells to rub together. Let's just say that the days when Einstein walked the hallowed halls of the USPTO are clearly over.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3651. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 00:42:24 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B2959F0.A2412539@midwestmicro-tek.com>
Source record: 52098

I agree with Jim, I really respect your opinion on all things radio but I just got off the phone with my brother who is a corporate lawyer. Although not a patent lawyer he has worked with companies on patent issues and according to him the part in the patent law that reads "make or use" only applies if you have commercial "intent". However the law is fairly (read, how a lawyer or judge wants to interpret it) clear on "experimental" use. As long as my intent is for experimental purposes I can build it and use it. It's kind of like having and using a satellite descrambler. I can use one as long as it is for experimental use only. There is a kind of fuzzy area here though. If my experimental unit has a commercially available equivalent then I am required to buy the commercial version. But in this case where the unit in question is a circuit that is part of larger whole how do you determine the commercial equivalent? The answer is. . . . . you can't without a lot of lawyers and courts. So unless the company that has the patent is Disney and as long as your intent is experimental the question of weather or not the law is being broken is going to remain in that fuzzy area.

As I said my bother is not a patent lawyer and may not have the right angle on this so I would like to hear from someone, maybe even the US patent office about this.

Rick KC0GIX

Roy Lewallen wrote:

> My postings had nothing to do with my opinions on homebrewing, or for
> that matter my opinions on whether patent laws are reasonable. They
> consisted only of statements of what the law is, in the apparently
> mistaken assumption that someone would be interested.
>
> I see that you're not interested in knowing what the law says, and
> you're probably right in your implication that nobody else on this
> newsgroup particularly cares either -- especially if it might
> inconvenience them in doing what they want to do.
>
> So have fun, folks. Ignorance is bliss. I won't bother you further with
> the petty details.
>
> Roy Lewallen, W7EL
>
> Jim Weir wrote:
> >
> > Roy Lewallen <w7el@eznec.com>
> > shared these priceless pearls of wisdom:
> >
> > ->Anyone making, selling, or using a patented item is infringing.
> >

> > Roy, I respect your technical expertise and I really appreciate your willingness
> > to share it with us on a regular basis. However, it is my own personal opinion
> > that nobody in a "homebrew" newsgroup would give a hairy rat's hiney for your
> > legal opinions on homebrewing.
> >
> > Now, as the original poster asked...has anybody played with this thing
> > (especially at VHF and above) and gotten decent results?
> >
> > Jim
> > Jim Weir, VP Eng. RST Eng. WX6RST
> > A&P, CFI, and other good alphabet soup

3652. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 01:28:02 UTC
From: Dub-ya <dubwa@texas.moo>
Message-ID: <kcoiitsnphbb8eqqfohk3mqp4o574r3lb5@4ax.com>
Source record: 52099

On 14 Jun 2001 15:15:01 -0700, marsgal42@hotmail.com (Laura Halliday)
wrote:

>Dub-ya wrote:
>
>>I need a probe that I can attach to a spectrum analyzer that won't
>>load down the circuit (operating at 130 Mhz) under test and can be
>>built for less than $20.
>
>If all you want are frequencies and relative amplitudes,
>why not just attach an antenna to the spectrum analyzer
>and place it in the vicinity of the circuit?
>
>Laura Halliday VE7LDH "Que les nuages soient notre
>Grid: CN89mg pied a terre..."
>ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

Too much stray electrical noise in the room.

I'm thinking that I may just need to design in some buffer amps.
Designing in 6 cheap transistors and coupling that to the spectrum
analyzer is starting to sound a lot more viable.

3653. ** FLEA at MIT ** Sunday June 17th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 01:59:19 UTC
From: w1gsl@mit.edu
Message-ID: <3b296bf7$0$1926$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 52100
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday June 17th 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Discounts

A sellers discount season pass is available which
offers a 33% discount. See the advanced registration
form below for full seller info.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all

sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

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We will do all the paperwork to get the one day Cambridge licenses.
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To use your spaces the named vendor MUST be present.
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Admission is after the prepaid vendors

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** You may not sell. **
$15 per person at the gate.
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E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

3654. Re: W9INN Antenna Page available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 02:01:10 UTC
From: la8ak@online.no
Message-ID: <3b27e779.178325721@news.online.no>
Source record: 52101
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Tue, 12 Jun 2001 22:36:26 -0500, "Matt" <matt_patt123@yahoo.com>
wrote:

>AMEN!
>
>
QRM whatsoever!

3655. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 06:13:22 UTC
From: bpasaric@mac.com
Message-ID: <1ev17le.p2teyoqc8idgN%bpasaric@mac.com>
Source record: 52102

Roy Lewallen <w7el@eznec.com> wrote:

> The fact that people published, built, or even
> sold an item before a patent issues doesn't,
> as far as I know, bause any dilution of the
> patent holder's rights.

A question for Roy, W7EL: Does this mean that in the USA it does not matter who invented something, but who was the first to claim for the patent, even if he had stolen the idea? Bozidar, 9A2HL

3656. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 08:45:12 UTC
From: Dave <mvdhdjfb@email.com>
Message-ID: <9gci3r$8gqoa$1@ID-49477.news.dfncis.de>
Source record: 52103

Where is all this noise in the room coming from?
You can usually ignore that sort of crap on the analyser screen, and
concentrate on the wanted signal.

Dub-ya <dubwa@texas.moo> wrote in message
news:kcoiitsnphbb8eqqfohk3mqp4o574r3lb5@4ax.com...
> On 14 Jun 2001 15:15:01 -0700, marsgal42@hotmail.com (Laura Halliday)
> wrote:
>
> >Dub-ya wrote:
> >
> >>I need a probe that I can attach to a spectrum analyzer that won't
> >>load down the circuit (operating at 130 Mhz) under test and can be
> >>built for less than $20.
> >
> >If all you want are frequencies and relative amplitudes,
> >why not just attach an antenna to the spectrum analyzer
> >and place it in the vicinity of the circuit?
> >
> >Laura Halliday VE7LDH "Que les nuages soient notre
> >Grid: CN89mg pied a terre..."
> >ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte
>
> Too much stray electrical noise in the room.
>
> I'm thinking that I may just need to design in some buffer amps.
> Designing in 6 cheap transistors and coupling that to the spectrum
> analyzer is starting to sound a lot more viable.
>

3657. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 09:52:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B29DAE2.21ECEF2@eznec.com>
Source record: 52104

No, not at all.

In the U.S. only the inventor can apply for a patent. But he has to apply no later than a year after the first public disclosure (e.g., publication). If a patent application isn't filed within that year, then no one can patent the item. But a patent typically takes several years to be awarded after the application is filed. It was during the period between the first public disclosure and the time the patent issues that I was talking about.

In the U.S., patent applications aren't public. So no one except the applicant even knows the details of what has been applied for, and there's no protection until the patent actually issues. (And what actually gets patented is often not very similar to what's in the original application.) When the patent does issue, the fact that people discussed or built it during the time it was pending doesn't dilute the rights of the person to whom it's assigned.

Evidence that the patented item (that is, the thing described in the patent's claims) was publicly described more than a year before the patent application was made can be used to have a patent declared invalid.

This process and these rules are very different in many, maybe even most, other countries. I believe that in some countries, a patent can be obtained by the first person to apply, whether or not he's the inventor. But not in the U.S.

Roy Lewallen, W7EL

DISCLAIMER: I'm not an attorney, and this isn't legal advice. If you need legal advice regarding patents, see a patent attorney. I'd appreciate corrections from a knowledgeable person if anything I posted above isn't correct.

Bozidar Pasaric wrote:
>
> Roy Lewallen <w7el@eznec.com> wrote:
>
> > The fact that people published, built, or even
> > sold an item before a patent issues doesn't,
> > as far as I know, bause any dilution of the
> > patent holder's rights.
>
> A question for Roy, W7EL: Does this mean that in the USA
> it does not matter who invented something, but who was

> the first to claim for the patent, even if he had stolen
> the idea? Bozidar, 9A2HL

3658. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 10:34:10 UTC
From: Dub-ya <dubwa@texas.moo>
Message-ID: <99ojit0p7m6t4r5h7be0ev27a829cf4ibn@4ax.com>
Source record: 52106

Yes you usually can, and in most of the cases when I use a spectrum analyzer I'm looking at a CATV system, it doesn't matter what crap is out there because the cable signal is quite strong as compared to any noise courtesy of the sheilding provided by the cable.. And the amount of stuff that gets in is so small that I can easily write it off.

In the "lab room" where I'm working on this circuit.. Noise comes from a variety of sources, nearby building motors, other electrical equipment, computers, and if I could couple directly to the circuit, I could probably wipe most of it out.. Unfortunately, I can't easily couple to the circuit without loading the circuit down and supply the SA with a 50 ohm or so input it will like.. Which is where I'm interested in solutions. I've gotten some interesting ideas from the group and look forward to experiementing with them.

On Fri, 15 Jun 2001 09:45:12 +0100, "Dave" <mvdhdjfb@email.com> wrote:

>Where is all this noise in the room coming from?
>You can usually ignore that sort of crap on the analyser screen, and
>concentrate on the wanted signal.
>
>Dub-ya <dubwa@texas.moo> wrote in message
>news:kcoiitsnphbb8eqqfohk3mqp4o574r3lb5@4ax.com...
>> On 14 Jun 2001 15:15:01 -0700, marsgal42@hotmail.com (Laura Halliday)
>> wrote:
>>
>> >Dub-ya wrote:
>> >
>> >>I need a probe that I can attach to a spectrum analyzer that won't
>> >>load down the circuit (operating at 130 Mhz) under test and can be
>> >>built for less than $20.
>> >
>> >If all you want are frequencies and relative amplitudes,
>> >why not just attach an antenna to the spectrum analyzer
>> >and place it in the vicinity of the circuit?
>> >
>> >Laura Halliday VE7LDH "Que les nuages soient notre
>> >Grid: CN89mg pied a terre..."
>> >ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte
>>
>> Too much stray electrical noise in the room.
>>
>> I'm thinking that I may just need to design in some buffer amps.
>> Designing in 6 cheap transistors and coupling that to the spectrum

>> analyzer is starting to sound a lot more viable.
>>
>

3659. Amp for ATV?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 11:21:51 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010615072151.09590.00004141@ng-cs1.aol.com>
Source record: 52107

Hi Everyone,

I need to increase the output on a 2.4 GHz commercial video transmitter from 20 mW to somewhere near 500 mW. Which MMIC is best suited to this application?

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3660. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 11:28:19 UTC
From: bpasaric@mac.com
Message-ID: <1ev1lh0.1emwh3m1vjth68N%bpasaric@mac.com>
Source record: 52105

Roy Lewallen <w7el@eznec.com> wrote:

> No, not at all.
>
> In the U.S. only the inventor can apply for a patent. But he has to
> apply no later than a year after the first public disclosure (e.g.,
> publication).

Dear Roy,thanks for the info. The American system sounds quite fair. I understood that Phil Rice, VK3BHR, had something to do with the Tayloe Mixer. I built his "Fourth Method SSB Exciter" in 1998 after his article in 'Amateur Radio' of Feb. 1998, and it works fine, exactly as he described it. The VFO must be four times the transmitting frequency, and I use a DDS 0-60 MHz with a 100 Hz step, which is 25 Hz in the transmitter. In his article Phil describes how to use the mixer also for an RX, but I have not tried it, yet. Instead, there was an article with the same mixer in the Hungarian ham magazine 'Radiotechnika' 1998/5, which I tried to make, but was not satisfied because here in Europe we have very strong broadcasting stations (Free Europe etc.) which penetrate through simple receivers, so we have a background concert when listening to the amateur bands. Superheterodynes are still a must here.

Someone told me that electrical diagrams cannot be patented, only their concrete realization, a product, but I am not sure. Best wishes,
Bozidar, 9A2HL

3661. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 14:16:06 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9gd5ce$o62$1@slb0.atl.mindspring.net>
Source record: 52108

Roy Lewallen <w7el@eznec.com> wrote:

> No, not at all.
>
> In the U.S. only the inventor can apply for a patent. But he has to
> apply no later than a year after the first public disclosure (e.g.,
> publication).
>

Speaking of publishing, I noticed the schematic diagram for the tayloe mixer and a nice technical discussion about how it works in QEX Mar/Apr 2001 edition Page 61.

This letter did not mention any patent, or any suggestion to not use the information for non-commercial use. Considering that it was written by Dan Tayloe, N7VE, I took it to indicate that using it for personal experimentation by amateurs was allowed.

Jim Pennell
N6BIU

3662. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 14:28:10 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9gd632$d9b$1@slb7.atl.mindspring.net>
Source record: 52109

There is a probe that works nicely for most of my measurements. It is a 450 ohm resistor built into a 'scope probe' body so that is has less than 1 pF of parasitic capacitance.

The probe forms a voltage divider with the 50 ohm analyzer input which works out to 20 dB attenuation. That allows reasonably accurate power measurements while not disturbing the frequency resonance of the circuit. True, it is loading the circuit by 500 ohms, but for anything other than an oscillator tank it isn't too drastic.

This is a low enough impedance that it doesn't pick up much radiated signals from interfering sources.

The nice part is this probe works, more or less, up to microwaves. I have used it up to 1.9 GHz and it gives useful information even at those frequencies.

This probe is available from DigiKey and probably a lot of other places I would imagine.

Jim Pennell
N6BIU

3663. QQE06/40 on 6 meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 17:34:49 UTC
From: PA5KE <pa5ke@euronet.nl>
Message-ID: <9gdh1o$2jfm$1@beast.euro.net>
Source record: 52110

Dear OM,

I have a QQE06/40 valve that I would like to use on 6 meters running SSB.

Does anybody know where to find a schematic diagram that discribes a lineair amplifier using the QQE06/40 for 6 meters.

Your help is appreciated,

73, de PA5KE
Peter

3664. Re: Cheap and easy interface to a Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 20:00:20 UTC
From: Dave <auinaduyf@email.com>
Message-ID: <9gdpii$8ja18$1@ID-49477.news.dfncis.de>
Source record: 52111

Try a fet or dual gate fet amp, easy to build, and certainly repeatable success. A 3sk88 works well with 10nf in and out coupling. 100k g1 to gnd. About 3volts or so on g2 Use a pot if you wish, but also have 1-10nF to ground from g2, and an rfc in the drain. Also a 220 ohm in the source in parallel with a 1 nf. This is from memory, but worked well, had gain and a flat response. At least the loading with this will be constant, and you can reduce the input coupling with a small cap as ther is about 20 dB gain from memory.
I have the exact cct somewhere....?

3665. Re: QQE06/40 on 6 meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-15 21:11:45 UTC
From: magne@clustra.com
Message-ID: <m3u21he9da.fsf@clustra.com>
Source record: 52112

"PA5KE" <pa5ke@euronet.nl> writes:

> Dear OM,
>
> I have a QQE06/40 valve that I would like to use on 6 meters running SSB.
>
> Does anybody know where to find a schematic diagram that discribes a lineair
> amplifier using the QQE06/40 for 6 meters.
>
> Your help is appreciated,

Jan-Martin's (la8ak) list of technical articles mentions
an article by G4IDE in RadComm no. 7 1989 (p.36).
"Valve amplifier, updated QQE06/40" for 50MHz.

--Magne / la1bfa

3666. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 01:05:47 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <LhyW6.39512$tb6.10322481@typhoon.austin.rr.com>
Source record: 52113

Let me help clear some of this discussion up with som direct knowledge. I have been in communication with Dan Tayloe, N7VE, since November of 2000. I have been developing a Software Defined Radio using Visual Basic and the PC sound card. I first ran across Dan's design through a Google search. I dropped him an email and he has been as helpful and open as anyone can be. He even sent me the schematic last year and I sent him several articles from QEX that were relevant to commutating mixers and commutating digial filters but none were identical to his design. An article in QEX even went into great detail about why 6 dB is the minimum noise figure for mixers that physics predicts. He subsequently sent a letter to the editor relating to some of those articles and published his schematic. This you will find on page 61 of the Mar/April 2001 issue of QEX.

With regard to patent issues, Dan has given me permission to use his design and to describe his circuit when I present my SDR design paper at the Central States VHF Conference on June 30. After I recently learned of his patent I dropped him an email to ask what his intentions were. He said that there is no problem with experimental use but he said and I quote, "Just don't try to make a few million dollars off of it. :)" I am sure that if any of you are serious about experimenting, Dan will be happy to communicate with you. Some of my friends are interested in using if for weak signal work so we will be looking at VHF and above. I will drop Dan an email and tell him to start reading this thread.

I built the circuit earlier this year first on a breadboard and then in protoboard form. It really does work well. I do not have the test equipment to verify the noise figure but for 1V in I get roughly 1V out of the detector. I can also put 4V in without distortion when I use a 5V part. I plan to layout a PCB soon so that I can get reliable performance. I expect to be able to go to 30 MHz on receive with 74AC series parts in the clock circuit. ECL should allow higher frequencies.

Let me clear up another misconception, this is NOT a mixer although it has some of the characteristics. It is really a quadrature commutating digital filter. Therefore it does not generate the sum frequency that a mixer does. This is why it does not have the high loss/noise figure (6 dB+) that a mixer does. I have done a lot of reasearch and I have not found anything exactly like it. It is NOT a commutating mixer. Those have been around forever and they generate both sum and difference frequencies. This is a very high Q quadrature bandpass filter operating at the carrier frequency, which is in DSP terms equal to Fs/4 (sampling rate divided by 4). In DSP when you do downconversion at Fs/4 you do not have any loss in the mixer either because you simply change the sign every other sample like this 0,1,0,-1,0,1...

In the real design implementation there are NO resistors (ignoring the 2.5 ohms of the paralleled multiplexor switches) until you get past the first ultra low noise op amp. That means you have no resistor induced noise before the gain stage. This is an improvement over what you see in the patent.

Phil Rice, VK3BHR, refers to a design of his in an earlier post. He states on his web page at:
http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html...

"This switching modulator should be capable of acting as a demodulator. This would require reversing of the direction of signal flow through the circuit. The problems expected in doing this are firstly that attenuation through the sequence network would prevent the reception of microvolt signals. Secondly, to obtain 40 dB of opposite sideband suppression, the signal level through the analogue switch would have to be held below 0.05 volt peak to peak. This would result in a poor dynamic range."

The problems Phil mentions are not an issue in Dan's invention. Also with DSP you can easily correct for phase and amplitude imbalance in software.

If you are interested in experimenting with the Tayloe Detector (NOT mixer) I will be happy to put you in touch with Dan and to share my expriences with you. I would also love to communicate with anyone interested in PC based Software Defined Radios.

I hope that this helps to clear the air on some of the questions in this thread. If you have questions please feel free to email me at gyoungblood@seedstage.com. I don't normally read news groups but a fellow ham referred me to this discussion because of the Tayloe discussion.

Happy experimenting and 73,
Gerald Youngblood
AC5OG

"Jim Pennell" <me-nobody@killspam.com> wrote in message
news:9gd5ce$o62$1@slb0.atl.mindspring.net...
> Roy Lewallen <w7el@eznec.com> wrote:
>
> > No, not at all.
> >
> > In the U.S. only the inventor can apply for a patent. But he has to
> > apply no later than a year after the first public disclosure (e.g.,
> > publication).
> >
>
> Speaking of publishing, I noticed the schematic diagram for the tayloe
> mixer and a nice technical discussion about how it works in QEX Mar/Apr
2001
> edition Page 61.
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> This letter did not mention any patent, or any suggestion to not use
the

> information for non-commercial use. Considering that it was written by
> Dan Tayloe, N7VE, I took it to indicate that using it for personal
> experimentation by amateurs was allowed.
>
>
>
> Jim Pennell
> N6BIU
>
>
>
>
>

3667. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 03:31:11 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B2AD2FF.7007E2D5@clifto.com>
Source record: 52114

Bozidar Pasaric wrote:
> Dear Roy,thanks for the info. The American system sounds quite fair.

It would be if it was implemented and run correctly.

Now please excuse me. I have to finish my application. I'm patenting pants.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3668. Re: Telephone Line Audio Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 03:41:56 UTC
From: Woody <woody.white@att.net>
Message-ID: <3B2AD632.173F1233@att.net>
Source record: 52115
Cross-posted to: alt.video.equipment.broadcast,rec.radio.amateur.homebrew,sci.electronics.design,sci.engr.television.broadcast

Lots of good advice.

FWIW, Another possible point. Memory is weak, but I seem to remember
incorporating a 1200 Hz notch filter in the phone patch I build years
ago. ...Believe 1200 was a disconnect tone and the notch filter
helped prevent inadvertant disconnects.

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

3669. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 06:24:30 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B2AFB9D.23DFA542@home.com>
Source record: 52116

Ok. I have now read all the threads. Quite colorful. :^)

Good defense in this note, Gerald! I don't think enough people understand the detector well enough to understand why it is not an ordinary commutating mixer, and how it is different from all the other commutating mixers that have ever been done.
It sounds a lot like a regular mixer. I simply gave up debating the point with one fellow who just didn't get it (and likewise thought **I** just didn't get it).

I saw Phil Rice's article for the first time about a year ago. It is not the same, but it is similar. However, as you have pointed out, his circuit was not useful for either weak signal nor high dynamic range receiver work, where as mine has been optimized for both.

Now on the subject of permission:

I do not own this patent. I surrendered my rights to Motorola, and I am not empowered to speak for the company. As such what I say carries no more weight than what Roy says.

However, I will offer my humble opinion. It seems like it all comes down to "What is in it for me?". Motorola is in the business to make money. Motorola will lose no money by anyone experimenting with this detector.

On the contrary, if experimenters use this circuit, find it useful, and publish positive results, that will greatly increase the probability that some commercial interest will want to use this detector in a high volume consumer application. Such an application could in turn generate Motorola royalty revenues, thereby profiting Motorola.

People experiment, Motorola wins.

I therefore see no business reason why Motorola would discourage the experimentation and promotion of this detector, since it seems to be in the company's best interest, and there is no profit to be gained from discouraging such experimentation.

I have no idea what Motorola's interest threshold is here, but selling a few hobby kits is likely way below that threshold. However, if serious commercial revenues were to be made on the application of this invention, it would eventually get their attention.

- Dan Tayloe, N7VE

Gerald Youngblood wrote:
>

> Let me help clear some of this discussion up with som direct knowledge. I
> have been in communication with Dan Tayloe, N7VE, since November of 2000. I
> have been developing a Software Defined Radio using Visual Basic and the PC
> sound card. I first ran across Dan's design through a Google search. I
> dropped him an email and he has been as helpful and open as anyone can be.
> He even sent me the schematic last year and I sent him several articles from
> QEX that were relevant to commutating mixers and commutating digial filters
> but none were identical to his design. An article in QEX even went into
> great detail about why 6 dB is the minimum noise figure for mixers that
> physics predicts. He subsequently sent a letter to the editor relating to
> some of those articles and published his schematic. This you will find on
> page 61 of the Mar/April 2001 issue of QEX.
>
> With regard to patent issues, Dan has given me permission to use his design
> and to describe his circuit when I present my SDR design paper at the
> Central States VHF Conference on June 30. After I recently learned of his
> patent I dropped him an email to ask what his intentions were. He said
> that there is no problem with experimental use but he said and I quote,
> "Just don't try to make a few million dollars off of it. :)" I am sure that
> if any of you are serious about experimenting, Dan will be happy to
> communicate with you. Some of my friends are interested in using if for
> weak signal work so we will be looking at VHF and above. I will drop Dan an
> email and tell him to start reading this thread.
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> the detector. I can also put 4V in without distortion when I use a 5V part.
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> quadrature bandpass filter operating at the carrier frequency, which is in
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> before the gain stage. This is an improvement over what you see in the
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> "This switching modulator should be capable of acting as a demodulator. This
> would require reversing of the direction of signal flow through the circuit.
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> sequence network would prevent the reception of microvolt signals. Secondly,
> to obtain 40 dB of opposite sideband suppression, the signal level through
> the analogue switch would have to be held below 0.05 volt peak to peak. This
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>
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> I will be happy to put you in touch with Dan and to share my expriences with
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> Happy experimenting and 73,
> Gerald Youngblood
> AC5OG
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> "Jim Pennell" <me-nobody@killspam.com> wrote in message
> news:9gd5ce$o62$1@slb0.atl.mindspring.net...
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> > experimentation by amateurs was allowed.

> >
> >
> >
> > Jim Pennell
> > N6BIU
> >
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> >
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> >

3670. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 13:50:53 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <1vJW6.9746$aV1.966781@newsread1.prod.itd.earthlink.net>
Source record: 52117

Hey Dean,

You still walking around? any new dents in your head? <grin>

Bill

Dean L <dean@iowaone.net> wrote in message
news:rlpeit8q9pssrj8kc4nen6i4l45qgjnffi@4ax.com...
>
> One word .... WIFE
>
>
> On Mon, 28 May 2001 11:13:43 +1000, "aswa" <ASWA2@bigpond.com> wrote:
>
> >Hi all,
> >i am trying to save some dollars and build my own rotator.(for a 10m 4el
> >Yagi) but cant find any info. Anyone tried it before? any ideas welcome.
> >cheers
> >Andre
> >
>

3671. Re: Bending Brake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 14:31:26 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B2B6DBE.C67FD6D3@bloomer.net>
Source record: 52120

You might try Harbor Freight. The sell re-manufactured tools, etc.

http://harborfreight.com/

Scott
N0EDV

Michael Wachur wrote:
>
> I am looking for a small bending brake to use in homebrew projects. Most of
> the material will be 0.040" and 0.063" with an occasional piece of 0.100",
> all aluminum. Checked Northern Hydraulics and some others. Would like to
> hear thoughts on these small brakes. Any thoughts on new or used, sources?
>
> Thanks,
> Michael
> K3OR
> Clarksville, Maryland
> .

3672. Bending Brake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 14:32:56 UTC
From: Michael Wachur <KA1YY@EROLS.COM>
Message-ID: <9gfqmuipd1@bob.news.rcn.net>
Source record: 52118

I am looking for a small bending brake to use in homebrew projects. Most of the material will be 0.040" and 0.063" with an occasional piece of 0.100", all aluminum. Checked Northern Hydraulics and some others. Would like to hear thoughts on these small brakes. Any thoughts on new or used, sources?

Thanks,
Michael
K3OR
Clarksville, Maryland
.

3673. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 15:22:38 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <59umitgpd8i0vkbpv2ck9dshlraev3bln6@4ax.com>
Source record: 52119

Roy Lewallen <w7el@eznec.com>
shared these priceless pearls of wisdom:

->I see that you're not interested in knowing what the law says, and
->you're probably right in your implication that nobody else on this
->newsgroup particularly cares either

No, Roy, that's not what I said. RTFM (and variants thereof). I said I respected your opinion on things electronic. Until you can put JD after your name and have a few fortnights of experience in patent law, I said I didn't care for your legal opinion. I said nothing about not caring about the law, just didn't care for an opinion from an unqualified source.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3674. Re: Bending Brake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 15:40:11 UTC
From: gflentke@facstaff.wisc.edu
Message-ID: <9gfukr$2o0s0_002@facstaff.wisc.edu>
Source record: 52121

In article <9gfqmuipd1@bob.news.rcn.net>, "Michael Wachur" <KA1YY@EROLS.COM> wrote:
>I am looking for a small bending brake to use in homebrew projects. Most of
>the material will be 0.040" and 0.063" with an occasional piece of 0.100",
>all aluminum. Checked Northern Hydraulics and some others. Would like to
>hear thoughts on these small brakes. Any thoughts on new or used, sources?

Try MicroMart for small ones.

3675. Tube receiver book

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 17:51:51 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B2B9CB7.B92EF22C@midwestmicro-tek.com>
Source record: 52123

I got my novice about two years ago and the first thing I did was to build a McCoy designed transmitter. Next I built an HB receiver. The receiver worked ok but I decided after viewing a number of designs and reading a lot in the 1967 R. A. Handbook that I could design and build my own tube based super regenerative receiver using only parts from my junk box (even though I only got my ticket 2 years ago, I have 25 years worth of collected tubes, transformers, caps, resisters, switches, etc). Well after a lot of trial and error and building some test gear I managed to pick up some signal on the 40 meter band. I am presently designing in mods for BC, 160, 80, 20, and 10 meters. I learned a *lot* by doing this on my own.

Now my question, even though I learned a lot I know there is a lot more to learn. . . . So, is there a good, definitive, step by step book on how to build, test and trouble shoot tube based receivers?

TNX

Rick KC0GIX

3676. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 18:15:32 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B2BA244.4F156E35@clifto.com>
Source record: 52122

Dan Tayloe wrote:
> I saw Phil Rice's article for the first time about a year ago. It is
> not the same, but it is similar. However, as you have pointed out, his
> circuit was not useful for either weak signal nor high dynamic range
> receiver work, where as mine has been optimized for both.

The question I've most wanted to ask you since I first saw this nifty
circuit: what got you started in this direction? What were you looking
for or experimenting with that eventually led you to do this design?

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

3677. FA: Eimac 8938 (3cx1500/c7) 1.5kw out on 432mhz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 18:53:41 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B2BAB35.5B2357F0@alltel.net>
Source record: 52124

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247319838

--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3678. Re: QQE06/40 on 6 meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 19:46:57 UTC
From: Rolando Milin <9a3mr@qsl.net>
Message-ID: <01c0f755$e02250c0$85601dc3@siemali>
Source record: 52125

Magne M&#65533;hre <magne@clustra.com> wrote in article
<m3u21he9da.fsf@clustra.com>...
> "PA5KE" <pa5ke@euronet.nl> writes:
>
> > Dear OM,
> >
> > I have a QQE06/40 valve that I would like to use on 6 meters running
SSB.
> >
> > Does anybody know where to find a schematic diagram that discribes a
lineair
> > amplifier using the QQE06/40 for 6 meters.
> >
My friend 9A6C built an 6m amp with QQE 06/40 described in PV in article
"More muscles on 6m"but I don't remember date nor author.
I could send to you copy of article, please remind me next week on
e-mail.
73 de Roland 9A3MR

3679. FREE - Downlaodable IOTA List - Updated

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 20:30:07 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <jlPW6.11285$Kq4.1041898@newsread2.prod.itd.earthlink.net>
Source record: 52126
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

New entries added 16 - Jun - 01 on the downloadable IOTA list - 15k zip file
- located on the web site listed below

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3680. Re: Amp for ATV?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-16 21:36:36 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <0bknit04fgnfbps5k4ogmk1m030jfe25pv@4ax.com>
Source record: 52127

There is a web page that covers adding a MiniCircuits MMIC to a
2.4 gig Wavecom unit. It's one of the ERA series. Don't have the
link handy; a search should turn something up.

Also look for ATV mailing lists.

73,
Jim
N2VNO

On 15 Jun 2001 11:21:51 GMT, clvancil@aol.com.spxmnix (CLVANCIL)
wrote:

>Hi Everyone,
>
>I need to increase the output on a 2.4 GHz commercial video transmitter from 20
>mW to somewhere near 500 mW. Which MMIC is best suited to this application?
>
>73,
>Chris Vancil (KD7LRV)
>"Limine fato impedito, perage fenestram"
>"When fate closes a door go in through a window."
>http://members.aol.com/CLVANCIL/MarsBalloon.html

3681. Want Simpson 260 Series #5 VOM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 02:01:33 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B2C0F7D.47642C9C@alltel.net>
Source record: 52128

I am looking for a near new condition Simpson 260 VOM Series #5 ONLY.
Must really look almost new and case and manual a real plus. No faded
red color in scales or defects etc on case. Must work 100%. I am really
just looking for one that looks almost new. If you have such please
e-mail me with price etc.
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3682. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 03:50:15 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B2C28F6.8579A7CE@home.com>
Source record: 52129

"Clifton T. Sharp Jr." wrote:
>
> Dan Tayloe wrote:
> > I saw Phil Rice's article for the first time about a year ago. It is
> > not the same, but it is similar. However, as you have pointed out, his
> > circuit was not useful for either weak signal nor high dynamic range
> > receiver work, where as mine has been optimized for both.
>
> The question I've most wanted to ask you since I first saw this nifty
> circuit: what got you started in this direction? What were you looking
> for or experimenting with that eventually led you to do this design?

Actually what got me started in this direction was the availability of the TI 74CBT3253 high speed analog mux and a 3000 mile (Phoenix to New York) cross country drive. I had lots of time to do nothing but think and ponder. The 74CBT3253 is a zero delay analog mux (as opposed to a high delay digital gate) used to connect microprocessor address and data lines to different banks of memory. It was never intended for analog use, but it works quite well for that task.

I knew about audio switched capacitor filters using an input resistor and four capacitors which were switched at a 4x rate. The input side to the mux ends up exhibiting sharp bandpass behavior, based upon the R/C time constant of the single R and multiple Cs used.

The idea of an active RF bandpass filter on a receiver front end is what got me started. Since we now had a *really* fast dual 4:1 mux part, perhaps I could do some active RF bandpass filtering using the switched capacitor filter in front of a receiver mixer rather than a simple fixed tune bandpass L/C.

The really neat thing about this is that if I combined the VFO and IF BFO signals together at a 4x rate, this narrow active RF bandpass filter would track the receiver tuning. This should enhance receiver performance on congested bands such as 20m (contests) or on 40m with big adjacent SWBC signals.

I pondered this and the fact that if I was using a really narrow rf active filter, the signal I really wanted was at an offset of 600 to 800 Hz, and if I tried to do 4x at that offset frequency, I would likely be injecting a really strong signal on top of what I wanted to listen to. I pondered this aspect quite a bit.

In order to produce the necessary 4x clocking for the rf switched capacitor filter, it would be necessary to combine the BFO and VFO together and then produce a composite 4x signal (maybe using a PLL or a

bunch of exactly synchronized DDSs... a bit complex but manageable) to drive the filter.

In order to simply test the idea, I decided upon a scheme to use a direct conversion receiver as the test bed. Then it would be simple since the 4x signal used for the RF switched capacitor filter could be divided by four and used for the direct conversion mixer VFO.

Much simpler! A direct conversion receiver would not be optimum, but it would allow me to test the idea before trying the more complex 4x clocking trick on a superhet receiver.

It was then that I started thinking (I was still driving) about what the signals looked like on the switched capacitor filter at zero beat to an incoming RF signal, which would be four equidistant points on a sinewave, stationary. Then I thought about what they looked like when not exactly on frequency: each of the four outputs would drift slowly tracing a sinewave at the difference frequency, each formed of RF samples taken 1/4 cycle apart, each output then being 90 degrees apart from each other.

I suddenly realized that the switched capacitor topology could be used as a detector (no separate direct conversion mixer required), that it naturally produced all four phases of output, had bandpass characteristics, and that the input RF signal was being "integrated" on to each of the four capacitors through the input filter R, so that only difference frequency appeared and not the sum. Lastly, I realized that the new detector seemed to capture the peak RF voltage, and thus have a low detection loss (under 0.9 db conversion loss).

Since I have read about the R2 phasing receiver, I began to work on receiver designs based upon that approach (two branch I and Q audio combined using 90 degree phasing shifting to given single sided reception). I have been working on incrementally making improvements to the basic design for several years now. I am on my 4th generation design, and there are still ideas to try out and improvements to made. I am trying out new modifications this weekend.

I never returned to pursue the RF active front end receiver filtering aspect. There is only so much time in the world to experiment! It might not work the first time, but problems are simply engineering opportunities.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

3683. Re: Bending Brake

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 04:46:03 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9ghcmb$t2g$0@208.206.142.91>
Source record: 52130

I doubt you'llfind a small inexpensive one that will handle the .100
stuff.
That needs a larger radius bend. Probably a different sort of machine.
If it is important that it handle the thicker metal you might want to
make sure what you find will do it.

Dick

Michael Wachur wrote:
>
> I am looking for a small bending brake to use in homebrew projects. Most of
> the material will be 0.040" and 0.063" with an occasional piece of 0.100",
> all aluminum. Checked Northern Hydraulics and some others. Would like to
> hear thoughts on these small brakes. Any thoughts on new or used, sources?
>
> Thanks,
> Michael
> K3OR
> Clarksville, Maryland
> .

3684. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 05:58:39 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <9ghgqo$i66$1@newsserver.eftel.com>
Source record: 52131

A good way to learn to program microcontrollers is to start with PC assembly language. X86 assemblers are to be found on the net and there are good books such as "Peter Norton's Assembly Language Book for the IBM PC". What you learn about PC assembly language and BIOS/DOS programming is not wasted. Microprocessors are mostly variations on the same theme. Any old PC will do to learn on (including XT, which is what I learned on), so cost is insignificant. At any rate, if you're reading this then you more than likely have a PC. Still, an old boat anchor PC is a good for the purpose because there is some risk of corrupting disk drives when you start playing with the BIOS in assembly language.

Murray - VK6HL

3685. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 07:41:21 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B2C5F91.306D@pop.removethistomailme.net>
Source record: 52132

Murray Lang wrote:
>
> A good way to learn to program microcontrollers is to start with PC
> assembly language. X86 assemblers are to be found on the net and there are
> good books such as "Peter Norton's Assembly Language Book for the IBM PC".
> What you learn about PC assembly language and BIOS/DOS programming is not
> wasted. Microprocessors are mostly variations on the same theme. Any old PC
> will do to learn on (including XT, which is what I learned on), so cost is
> insignificant. At any rate, if you're reading this then you more than likely
> have a PC. Still, an old boat anchor PC is a good for the purpose because
> there is some risk of corrupting disk drives when you start playing with the
> BIOS in assembly language.
>
> Murray - VK6HL

I'm not sure I'd go along with that.

Especially if you learn real-mode assembly on an old XT, a great deal of the time spent in learning x86 assembly language will actually be spent learning about platform-specific weirdnesses like MASM/TASM/GAS syntax, segment:offset addressing, and register quirks (which registers can be used as addresses, which registers are used as implicit input/output values for various instructions, etc.) Absolutely none of this knowledge will transfer to any other processor besides the x86 family, and even then, the rules change drastically when you compare 16-bit real mode, 16-bit protected mode, and 32-bit flat model coding.

Yes, you'll nail down the concepts just fine this way, but I'd suggest learning x86 assembly only if you really have nothing better to do with a large chunk of your life. At this late juncture, it would be best to avoid learning/using assembly at all. It's not a very scalable skill.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3686. Re: Home Brew Rotator????

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 08:41:57 UTC
From: la8ak@online.no
Message-ID: <3b2c6a3b.473987879@news.online.no>
Source record: 52133

wish to use a sattellite rotator, believe the motor gives 4 impulses back for a degree, quite much more than for AR-22, so it seems to be some accurracy!
Wonder if somebody already has built a modern indication box for this system?

Once made an indicator for AR22 using CMOS logics and 7-segment LED displays, but this seems to need too much modification

suggestion?

73
-jm
LA8AK

3687. RADCOMM ARTICLE 07/1989

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 12:17:14 UTC
From: PA5KE <pa5ke@euronet.nl>
Message-ID: <9gi768$2lsv$1@beast.euro.net>
Source record: 52134

LA1BFA was so kind to inform me about an article in Radcom that discribes
the use of a QQE 06/40 in a 50 MHz lineair amplifier.
If do not know if a electronical version of Radcomm does exist but if so I
would be very thankfull for a copy of the following article:

RadComm no. 7 1989 (p.36). "Valve amplifier, updated QQE06/40" for 50MHz

Thank you for reading and hope you can help!

73 de PA5KE
Peter

3688. Re: Learning microcontrollers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 12:54:05 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9gi9mu01ci0@enews1.newsguy.com>
Source record: 52135

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:3B2C5F91.306D@pop.removethistomailme.net...
> I'm not sure I'd go along with that.

Boy, I'm with you John.

Not only does the Intel X86 have a lot of "weirdness", but it's quite a complex instruction set machine. Not only does this make it hard (relatively) to learn, but all of the microcontrollers are RISC machines. The exact antithesis of the X86.

On top of that, the X86 (and all PCs) are von Neumann machines. Most of the microcontrollers are Harvard Architecture machines. Again, quite a different animal.

Now there is no doubt, that the discipline in learning and using assembler on an X86 can be transported to microcontrollers, and SOME of the algorithms you use can also be transported (but surprisingly few). But it's a bit like learning rocket science to understand how to use a garden hose. Why take the hard path?

The PIC series of microcontrollers, probably the most popular for amateur use, have only 35 instructions. Compare learning that to the 400+ instructions for an X86 machine!

You can get the chips cheap, you can generally download very competent development environments for free, you can build a programmer for next to nothing, and there are hundreds of examples on the net to learn from. The hard part is making the decision to dive in!

There's a bunch of useful links at

http://www.qsl.net/w8kea/001207/MM001215.html

didleydadidah

3689. FA: Heathkit Assembly Manual for the Model O-10 Laboratory Oscilloscope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 18:24:52 UTC
From: GH <nbc_red@mailcity.com>
Message-ID: <3B2CE8CF.79B75F2B@mailcity.com>
Source record: 52136
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247185607

3690. FA: More rare RACAL equipment!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 22:09:35 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B2D2A9F.7090104@armscroft.demon.co.uk>
Source record: 52137

Hi folks,

I have placed the following rare RACAL equipment on eBay today.

RA1772 HF receiver -

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247502855

RA1792 HF receiver -

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247599469

Speaker -

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247622581

Check 'em out!

All scarce and in good condition.

73

Mark

3691. Help with my INA117 diff amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 22:42:30 UTC
From: Schatzie <jdwalton@home.com>
Message-ID: <qnaX6.271693$K5.28768859@news1.rdc1.nj.home.com>
Source record: 52138

Burr Brown INA117, I am running it from nice clean +/-15V rails, as a volt per volt difference amp. It swings like a comparator, however, up to the positive rail.

3692. 500 Plus Semiconductors for-sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-17 23:56:21 UTC
From: BF <boyd@humboldt1.com>
Message-ID: <9BFAF7AFACA7F879.461598B1D66C93B3.844E691CC060C7FC@lp.airnews.net>
Source record: 52139
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

For Sale 500 plus NOS Semiconductors.
Sylvania / ECG, ELM, RCA, Motorola & Miller RF Chokes

200 plus ECG boxed
100 plus ELM boxed
50 plus RCA carded
50 plus Motorola packaged

JPG on request. will not inventory...

$325.00 for all, shipped Lower 48

Reply to boyd@humboldt1.com

Boyd W6DSB

3693. WTB: UTC S-35 8 henry 400ma filter choke; Triad R-24A 800 vct xfmr

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 00:58:01 UTC
From: George Kavanagh <gk05@mediaone.net>
Message-ID: <3B2D529F.55659490@mediaone.net>
Source record: 52140
Cross-posted to: alt.radio.amateur,rec.radio.amateur.homebrew

Wanted to buy:

S-35 8 henry 400ma filter choke; Triad R-24A 800 vct xfmr

or equivalent.

Used or NOS.

Please respond to gk05@mediaone.net

Tnx!!

73

3694. TRW LT 2001 Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 04:24:10 UTC
From: B Hernlem <alihernlem@hotmail.com>
Message-ID: <3B2CD9CA.2EEF8BB5@hotmail.com>
Source record: 52142

Can anyone help me find a datasheet or just the data for this transistor?

Thanks.

Brad

3695. ELF TCVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 04:47:53 UTC
From: "._. _._ _ _" <rredbeak@ihug.com.au>
Message-ID: <9gk19n$jr6$1@bugstomper.ihug.com.au>
Source record: 52143

Looking for a ELF TCVR,around 300Hz etc.
Any known Kits or homebrews for sale please.

Even a ELF RX would be great to start off with.Cheers Rod

3696. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 04:57:07 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B2D8A23.1C1D811C@erols.com>
Source record: 52141

Gerald, I for one, and perhaps others, would be interested in the circuit details of your improvements to the Tayloe mixer. The more I read about this mixer, the I am convinced that it is the way to go for future receivers.

Ralph Lane

Gerald Youngblood wrote:

> Let me help clear some of this discussion up with som direct knowledge. I
> have been in communication with Dan Tayloe, N7VE, since November of 2000. I
> have been developing a Software Defined Radio using Visual Basic and the PC
> sound card. I first ran across Dan's design through a Google search. I
> dropped him an email and he has been as helpful and open as anyone can be.
> He even sent me the schematic last year and I sent him several articles from
> QEX that were relevant to commutating mixers and commutating digial filters
> but none were identical to his design. An article in QEX even went into
> great detail about why 6 dB is the minimum noise figure for mixers that
> physics predicts. He subsequently sent a letter to the editor relating to
> some of those articles and published his schematic. This you will find on
> page 61 of the Mar/April 2001 issue of QEX.
>
> With regard to patent issues, Dan has given me permission to use his design
> and to describe his circuit when I present my SDR design paper at the
> Central States VHF Conference on June 30. After I recently learned of his
> patent I dropped him an email to ask what his intentions were. He said
> that there is no problem with experimental use but he said and I quote,
> "Just don't try to make a few million dollars off of it. :)" I am sure that
> if any of you are serious about experimenting, Dan will be happy to
> communicate with you. Some of my friends are interested in using if for
> weak signal work so we will be looking at VHF and above. I will drop Dan an
> email and tell him to start reading this thread.
>
> I built the circuit earlier this year first on a breadboard and then in
> protoboard form. It really does work well. I do not have the test
> equipment to verify the noise figure but for 1V in I get roughly 1V out of
> the detector. I can also put 4V in without distortion when I use a 5V part.
> I plan to layout a PCB soon so that I can get reliable performance. I
> expect to be able to go to 30 MHz on receive with 74AC series parts in the
> clock circuit. ECL should allow higher frequencies.
>
> Let me clear up another misconception, this is NOT a mixer although it has
> some of the characteristics. It is really a quadrature commutating digital
> filter. Therefore it does not generate the sum frequency that a mixer does.
> This is why it does not have the high loss/noise figure (6 dB+) that a mixer
> does. I have done a lot of reasearch and I have not found anything exactly

> like it. It is NOT a commutating mixer. Those have been around forever and
> they generate both sum and difference frequencies. This is a very high Q
> quadrature bandpass filter operating at the carrier frequency, which is in
> DSP terms equal to Fs/4 (sampling rate divided by 4). In DSP when you do
> downconversion at Fs/4 you do not have any loss in the mixer either because
> you simply change the sign every other sample like this 0,1,0,-1,0,1...
>
> In the real design implementation there are NO resistors (ignoring the 2.5
> ohms of the paralleled multiplexor switches) until you get past the first
> ultra low noise op amp. That means you have no resistor induced noise
> before the gain stage. This is an improvement over what you see in the
> patent.
>
> Phil Rice, VK3BHR, refers to a design of his in an earlier post. He states
> on his web page at:
> http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html...
>
> "This switching modulator should be capable of acting as a demodulator. This
> would require reversing of the direction of signal flow through the circuit.
> The problems expected in doing this are firstly that attenuation through the
> sequence network would prevent the reception of microvolt signals. Secondly,
> to obtain 40 dB of opposite sideband suppression, the signal level through
> the analogue switch would have to be held below 0.05 volt peak to peak. This
> would result in a poor dynamic range."
>
> The problems Phil mentions are not an issue in Dan's invention. Also with
> DSP you can easily correct for phase and amplitude imbalance in software.
>
> If you are interested in experimenting with the Tayloe Detector (NOT mixer)
> I will be happy to put you in touch with Dan and to share my expriences with
> you. I would also love to communicate with anyone interested in PC based
> Software Defined Radios.
>
> I hope that this helps to clear the air on some of the questions in this
> thread. If you have questions please feel free to email me at
> gyoungblood@seedstage.com. I don't normally read news groups but a fellow
> ham referred me to this discussion because of the Tayloe discussion.
>
> Happy experimenting and 73,
> Gerald Youngblood
> AC5OG
>
> "Jim Pennell" <me-nobody@killspam.com> wrote in message
> news:9gd5ce$o62$1@slb0.atl.mindspring.net...
> > Roy Lewallen <w7el@eznec.com> wrote:
> >
> > > No, not at all.
> > >
> > > In the U.S. only the inventor can apply for a patent. But he has to
> > > apply no later than a year after the first public disclosure (e.g.,

> > > publication).
> > >
> >
> > Speaking of publishing, I noticed the schematic diagram for the tayloe
> > mixer and a nice technical discussion about how it works in QEX Mar/Apr
> 2001
> > edition Page 61.
> >
> > This letter did not mention any patent, or any suggestion to not use
> the
> > information for non-commercial use. Considering that it was written by
> > Dan Tayloe, N7VE, I took it to indicate that using it for personal
> > experimentation by amateurs was allowed.
> >
> >
> >
> > Jim Pennell
> > N6BIU
> >
> >
> >
> >
> >

3697. 17mtr DSB - schematics and pictures

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 09:56:27 UTC
From: n2cqr@clix.pt
Message-ID: <3b2dcfa8.4900573@news.clix.pt>
Source record: 52144

I put the schematics and some pictures of my 17 meter DSB rig on my
Web Site: They're not pretty, but I hope they are legible.

I'd appreciate it if you guys could look at this rig and let me know
if you see anything that I could do to improve performance. Not that
I'm unhappy -- I have VKs calling ME. But if you can see anything that
might improve things, let me know.

The final and the driver get a bit hot after a long transmission.
They were designed for CW operation, and are now obviously dealing
with an entirely different duty cycle. I've bolstered the heat sinks,
but wonder if there is anything else I could do.

Feedback is appreciated:

Just click on the 17 meter DSB link at:

http://planeta.clix.pt/n2cqr

73 from the Azores
Bill Meara CU2 JL N2CQR
http://planeta.clix.pt/n2cqr

3698. Re: TRW LT 2001 Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 14:51:39 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <%zoX6.13008$pb1.473686@www.newsranger.com>
Source record: 52145

In article <3B2CD9CA.2EEF8BB5@hotmail.com>, B Hernlem says...
>
>Can anyone help me find a datasheet or just the data for this
>transistor?
>
>Thanks.
>
>Brad
>
Hi, Brad,
I think the LT2001 was TRW's version of RCA's overlay process 2N5109.
A pair can be used in a doubling oscillator to generate up to 100mW at 2.5GHz.
The specs should be similar to the 2N5109, i.e., high Ft over a wide range of
Ic.
The die is bonded to the steel header of the can so you can heat sink it better
but this is also the collector.

I seem to remember the LT series devices originally being made by a small
company that TRW probably bought out.

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

3699. impedance of a coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 16:00:13 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9gl83ditg1@news.mbn.or.jp>
Source record: 52146

I am trying to make the Clive Smith (G4FZH) RF modulated noise bridge as described on page 71 of "Test Equipment For The Radio Amateur" published by the RSBG in the UK.

White noise from a zener diode (which can be optionally modulated by a TLC555) is amplified through an AC-coupled 3-stage common emitter chain and the output is passed to a homebrew coil. The input side of the coil has 2 connections and the output coil is center-tapped and forms the basis of the noise bridge. (The antenna with a shunt capacitor is balanced against a variable capacitor/variable resistance and noise minimized by a receiver connected across the bridge).

The advice for making the homebrew toroid transformer is to use:

A. FT50-6 dust iron core, 4 windings, each 14t, or alternatively....
B. 596100001 ferrite core, 4 windings, 6t each

Within the text it says "use 4 lengths of 26swg enamelled copper wire about 120mm long, twist them together and then thread them through the toroid to give five or six turns evenly spaced to cover the circumference. Divide the turns into two pairs, each pair consisting of two windings connected in series, the end of one winding connecting to the start of the other."

I have 3 questions.

1. From the above description, I get the image of the input coil (which is not center-tapped) now going around the toroid circumference 2 times (the 2 wires were twisted together and wound around once - then the end of one wire was connected to the beginning of the other in "series" so electrically the input coil now goes around the toroid twice). Is this image right?

2. Why are we twisting the wires together? Wouldn't it make more sense to space them evenly side-by-side as you wind them?

3. I'm not sure whether I can get hold of the toroids suggested. If I have to cobble something together with another toroid, is there any way that I can measure my creation to make sure it has the right performance characteristics for the job. (This is the first time I've made an RF noise bridge.) Does this coil need resistance/impedance within a certain range? Do I have to worry about flux saturation like a power transformer? If I can learn how to measure this correctly then I am quite prepared to keep experimenting with homebrew coils until I hit on something usable.

Thanks in advance for your advice.

Best rgds, ram

3700. FS: medium-voltage power xfmrs.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 16:57:29 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B2E32F9.475F92F5@valley.net>
Source record: 51997

FS (several pieces available): MV power transformers.

These well-built transformers feature dual isolated primaries for 110/220V, 50 to 400 Hz operation and three isolated secondaries.

Why a 50 to 400 Hz frequency rating? I'm guessing that these transformers were intended for a test instrument, but these transformers run fine at 60 Hz.

An electrostatic shield (grounded via a white lead) isolates the primaries and secondaries.

Secondary 1 is NOT center-tapped and presents a resistance of 197 ohms, an open-circuit voltage of 160VAC, and 148 VAC into a 2.7K resistive load (approx. 54 mA). The color-coded leads are red and red/white and measure approximately six inches, as do the transformer's other leads.

Secondary 2 IS center-tapped and presents a resistance of 0.7 ohms center-tapped, an open-circuit voltage of 18VAC, and 16.4 VAC into a 9-ohm resistive load (approx. 1.8A). The color-coded leads are yellow (2) and yellow/red for the center-tap.

Secondary 3 IS center-tapped and presents a resistance of 11 ohms center-tapped, an open-circuit voltage of 39VAC, and 34VAC into a 91-ohm resistive load (approx. 0.37A). The color-coded leads are green (2) and green/yellow for the center-tap.

The core measures 1 by 3 by 2.5 inches and is comparable with a rating of approximately 80VA. Using the 10-percent secondary-drop currents, I arrived at a conservative 50VA guesstimate power rating.

Overall dimensions are 3 inches high by 3 inches deep by 2.5 inches wide. Mounting centers are 2 inches by 1.75 inches. The leads exit halfway up the transformer's end bells, making this tranny ideal for breadboard or above-the-chassis mounting. Thus, there's no need to chew a large hole through that steel chassis you've been saving for years-- and dreading the prospect of mutilating via hand drill, file and elbow grease.

Further cosmetics: the transformers are finished in glossy black paint, with the winding diagram neatly (and incorrectly) stenciled on one end bell. Whoever designed the stencil got the secondary color codes slightly wrong, so please print a copy of this e-mail for reference. There's no vendor name-- only a cryptic "MD-3555-C" part number emblazoned below the wiring diagram.

Okay... now for suggested applications: use the 160V secondary to drive a full-wave bridge rectifier (I'll include four 1N4007 1KV 1A silicon diodes gratis with your order) to produce approximately 180VDC at 45 mA DC. If you don't already have one, get a copy of DuncanAmps' PSU Designer freeware to design this-- and other-- power supplies.

Energize one or two 35L6-GT heaters (35V at 150mA) with winding 3 and feed the plate(s) from the DC supply. Use one 35L6 as a crystal oscillator or VFO and the second 35L6 as a PA. No 35L6s in your junk box? Try 35B5s, 35C5s, 35A5s, 35GL6s, etc.

In receiver apps, you can use one 35L6 as an audio amplifier heated by winding 1, and use winding 2 to light off four series-connected 5U8s to do receiver-related things, or try 17EW8s, 17X10s, or 18FW6s. Use your imagination-- and some of those oddball heater-voltage TV tubes you bought for a song at the last hamfest!

Other possibilities include powering a gas-panel display, a batch of analog op amps, and a clutch of logic for a frequency display.

I'm asking $7.00 each plus postage for three pounds per transformer to your QTH. Need more info or a postage quote? Don't hesitate to drop me an e-mail.

73--
Brad AA1IP

Brad Thompson
P.O. Box 307, 202 Whitaker Rd.
Meriden, NH 03770-0307
Voice: (603) 469-3351

3701. cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 21:52:49 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <62usit89b1op542pd6k5le0cpunsl9m226@4ax.com>
Source record: 51998
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Hi, we have several hundred people who sail and windsurf in the bay of Vancouver, and a number of small sailing clubs, and a small rescue team. What we are thinking about is getting some small, waterproof, inexpensive radio transmitters, or to build our own transmitters, and using some directional technology to locate the distress. The transmitters would have to be waterproof, so I guess we would have to make some sort of waterproof container to hold them in.

First of all, do any such inexpensive radio transmitters exist? (I was hoping in the US $20-30 dollar or less range) Possible? The transmitter would probably just send out some kind of pulsed tone or beacon, we wouldn't need voice transmission or reception. Maybe one type of transmission for non-critical emergency and a different mode for very serious time-critical emergency. The transmitter should probably work when the rubber ducky is right at sea level, and have about a 3 to 5 km range, line of sight. What kind of wattage would be required to do this? Use 9v batteries perhaps?

We would probably monitor our own frequencies (not sure what kind of frequencies we would be using), but in our case, they would be mostly used in potentially life & death situations so if it was an issue of legally using the frequencies we probably wouldn't care. :) The frequency probably doesn't need to be monitored by the costguard & such but it might be a possibility to use frequencies that they may monitor -- although we may not want to bother them with less serious emergencies such as a boat that is simply overturned and needs assistance in getting upright.

If anyone has ideas about:

1) sources of already existing inexpensive radio transmitters that would fill our needs
2) schematic/designs for inexpensive & small radio transmitters with some type of beacon transmission
3) ideas of what frequencies we should be using for this
4) where to get, or ideas on how to make cheap small waterproof cases

That would be helpful!

Ian

3702. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-18 23:24:10 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <u4wX6.50843$tb6.14012272@typhoon.austin.rr.com>
Source record: 52000

Ralph,
I agree with you that this is the way to vastly improve the performance of receivers of the future. The improvements over the patent are really Dan's. The main thing that is different from the patent is that no resistors are required on the op amp inputs and the op amps are used in true differential mode. The RC integration is provided by the 50 ohms of the antenna and the sampling capacitor which is selected for the bandwidth of the filter (usually .33 to .47 uF). Since the R is duty cycled at 25% the impedance seen by the input of the op amp is actually 200 ohms. So the first stage audio gain is Rf/200. The bandpass filter bandwidth is BW=1/Pi*200*C. I am using a Linear Technology LT1115 Ultra Low Noise Op Amp in my circuit that at 200 ohms input yields only a couple of dB noise factor.

You should feel free to contact Dan directly. I am sure he will be glad to tell you more about the design.

"Ralph Lane" <crlane@erols.com> wrote in message
news:3B2D8A23.1C1D811C@erols.com...
> Gerald, I for one, and perhaps others, would be interested in the circuit
> details of your improvements to the Tayloe mixer. The more I read about
this
> mixer, the I am convinced that it is the way to go for future receivers.
>
> Ralph Lane
>
> Gerald Youngblood wrote:
>
> > Let me help clear some of this discussion up with som direct knowledge.
I
> > have been in communication with Dan Tayloe, N7VE, since November of
2000. I
> > have been developing a Software Defined Radio using Visual Basic and the
PC
> > sound card. I first ran across Dan's design through a Google search. I
> > dropped him an email and he has been as helpful and open as anyone can
be.
> > He even sent me the schematic last year and I sent him several articles
from
> > QEX that were relevant to commutating mixers and commutating digial
filters
> > but none were identical to his design. An article in QEX even went into
> > great detail about why 6 dB is the minimum noise figure for mixers that
> > physics predicts. He subsequently sent a letter to the editor relating
to
> > some of those articles and published his schematic. This you will find

on
> > page 61 of the Mar/April 2001 issue of QEX.
> >
> > With regard to patent issues, Dan has given me permission to use his
design
> > and to describe his circuit when I present my SDR design paper at the
> > Central States VHF Conference on June 30. After I recently learned of
his
> > patent I dropped him an email to ask what his intentions were. He said
> > that there is no problem with experimental use but he said and I quote,
> > "Just don't try to make a few million dollars off of it. :)" I am sure
that
> > if any of you are serious about experimenting, Dan will be happy to
> > communicate with you. Some of my friends are interested in using if for
> > weak signal work so we will be looking at VHF and above. I will drop
Dan an
> > email and tell him to start reading this thread.
> >
> > I built the circuit earlier this year first on a breadboard and then in
> > protoboard form. It really does work well. I do not have the test
> > equipment to verify the noise figure but for 1V in I get roughly 1V out
of
> > the detector. I can also put 4V in without distortion when I use a 5V
part.
> > I plan to layout a PCB soon so that I can get reliable performance. I
> > expect to be able to go to 30 MHz on receive with 74AC series parts in
the
> > clock circuit. ECL should allow higher frequencies.
> >
> > Let me clear up another misconception, this is NOT a mixer although it
has
> > some of the characteristics. It is really a quadrature commutating
digital
> > filter. Therefore it does not generate the sum frequency that a mixer
does.
> > This is why it does not have the high loss/noise figure (6 dB+) that a
mixer
> > does. I have done a lot of reasearch and I have not found anything
exactly
> > like it. It is NOT a commutating mixer. Those have been around forever
and
> > they generate both sum and difference frequencies. This is a very high
Q
> > quadrature bandpass filter operating at the carrier frequency, which is
in
> > DSP terms equal to Fs/4 (sampling rate divided by 4). In DSP when you
do
> > downconversion at Fs/4 you do not have any loss in the mixer either
because
> > you simply change the sign every other sample like this 0,1,0,-1,0,1...

> >
> > In the real design implementation there are NO resistors (ignoring the
2.5
> > ohms of the paralleled multiplexor switches) until you get past the
first
> > ultra low noise op amp. That means you have no resistor induced noise
> > before the gain stage. This is an improvement over what you see in the
> > patent.
> >
> > Phil Rice, VK3BHR, refers to a design of his in an earlier post. He
states
> > on his web page at:
> > http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html...
> >
> > "This switching modulator should be capable of acting as a demodulator.
This
> > would require reversing of the direction of signal flow through the
circuit.
> > The problems expected in doing this are firstly that attenuation through
the
> > sequence network would prevent the reception of microvolt signals.
Secondly,
> > to obtain 40 dB of opposite sideband suppression, the signal level
through
> > the analogue switch would have to be held below 0.05 volt peak to peak.
This
> > would result in a poor dynamic range."
> >
> > The problems Phil mentions are not an issue in Dan's invention. Also
with
> > DSP you can easily correct for phase and amplitude imbalance in
software.
> >
> > If you are interested in experimenting with the Tayloe Detector (NOT
mixer)
> > I will be happy to put you in touch with Dan and to share my expriences
with
> > you. I would also love to communicate with anyone interested in PC
based
> > Software Defined Radios.
> >
> > I hope that this helps to clear the air on some of the questions in this
> > thread. If you have questions please feel free to email me at
> > gyoungblood@seedstage.com. I don't normally read news groups but a
fellow
> > ham referred me to this discussion because of the Tayloe discussion.
> >
> > Happy experimenting and 73,
> > Gerald Youngblood
> > AC5OG

> >
> > "Jim Pennell" <me-nobody@killspam.com> wrote in message
> > news:9gd5ce$o62$1@slb0.atl.mindspring.net...
> > > Roy Lewallen <w7el@eznec.com> wrote:
> > >
> > > > No, not at all.
> > > >
> > > > In the U.S. only the inventor can apply for a patent. But he has to
> > > > apply no later than a year after the first public disclosure (e.g.,
> > > > publication).
> > > >
> > >
> > > Speaking of publishing, I noticed the schematic diagram for the
tayloe
> > > mixer and a nice technical discussion about how it works in QEX
Mar/Apr
> > 2001
> > > edition Page 61.
> > >
> > > This letter did not mention any patent, or any suggestion to not
use
> > the
> > > information for non-commercial use. Considering that it was written
by
> > > Dan Tayloe, N7VE, I took it to indicate that using it for personal
> > > experimentation by amateurs was allowed.
> > >
> > >
> > >
> > > Jim Pennell
> > > N6BIU
> > >
> > >
> > >
> > >
> > >
>

3703. FS: microwave PC board laminate

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 00:44:57 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B2EA089.FD7047E9@valley.net>
Source record: 52001

Hello--

I'm offering a batch of microwave-grade printed-circuit
board laminate. Previous batches have sold quickly, so
e-mail me to reseve your choices to avoid disappointment.

73,
Brad AA1IP

****

Taconic Plastics, Ltd. p/n TLE-95-0100-C1/C1

PTFE/glass dielectric of 0.01 inches thickness and dielectric
constant of 2.95 nominal. Laminated with 1-ounce copper on both sides.

Supplied in 9-3/8 by 18-inch panels separated by sheets of anticorrosion

paper (some edge discoloration is present). Note that this thin and
flexible laminate will require extra care in processing.

Price: $10.00 per piece; or $20.00 for three pieces, plus $4.80 for
insured priority-mail shipment (U.S. only). Please add $2.00 postage
for each increment of three additional pieces (e.g., postage for six
is $6.80; nine is $8.80, etc.). Canadian purchasers, please inquire for
postage.

Also available in boxes of 50 sheets-- please inquire for price and
postage.

****
I accept payment via personal or cashier's check or money order drawn
in U.S. dollars and made payable to "Brad Thompson", or via certain
credit cards.

Warranty policy:

If you purchase these boards and find them unsatisfactory upon your
visual
inspection, notify me within seven days and return in as-received
condition
for a full refund of your original purchase price (you pay return
postage).

This material is subject to prior sale and is supplied as-is, as
new-old-stock
(NOS) merchandise, with all responsibility for safe and successful
application

residing solely with the purchaser.

**********Available from:**********

Brad Thompson, AA1IP
P.O. Box 307, 202 Whitaker Rd.
Meriden, NH 03770-0307
Voice:(603) 469-3351
Fax: (603) 469-3917
E-mail: brad.thompson@valley.net

3704. Re: impedance of a coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 01:08:29 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <hCxX6.84434$tR.8888893@news02.optonline.net>
Source record: 52002

Hi Ram,

I don't have a copy of the article you refer to, but the gizmo you are working with sounds like a balun. Based on that here are some answers:

> 1. From the above description, I get the image of the input coil (which is
> not center-tapped) now going around the toroid circumference 2 times (the 2
> wires were twisted together and wound around once - then the end of one wire
> was connected to the beginning of the other in "series" so electrically the
> input coil now goes around the toroid twice). Is this image right?

Yes, you have either 28 turns or 12 turns on this winding.

> 2. Why are we twisting the wires together? Wouldn't it make more sense to
> space them evenly side-by-side as you wind them?

The idea is to improve the coupling between the windings. More or less you are trying to turn them into a transmision line.

>
> 3. I'm not sure whether I can get hold of the toroids suggested.

This presents a problem. I would suggest trying the normal parts sources and see if they will sell you a couple of cores. Over here we have several outfits that will sell you a small kit of cores or a few cores at a time. I would try very hard to get the cores that they used in the article. The two cores you mentioned are pretty common. I would be surprised if you could find anything else that would work any more easily.

Assuming you can't do that here's what you do - you need a core that is good in terms of loss for the frequency range you will be working over. Core saturation and that sort of thing should not be a major problem unless there's a lot of DC running through one of the windings. The core has to be big enough to put enough wire on to give you a single layer inductor with the same inductance as the original design. Going to a bit smaller wire may help if you have a core that's *almost* big enough but don't go to far. Very small wire (number 40 or so) will probably mess up the frequency response. I have used video display rfi choke cores for this kind of thing in the past, but you may need some test gear to tell if you have it right.

The simple thing to do would be to put as many windings on what ever you have as you can and then try it out. If it's ok at the low frequency end but falls off at the high end pull off some turns. If it runs out of steam at the low end then you probably need a larger core.

Hope this helps.

Bob
KB8TQ

3705. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 01:16:43 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <%JxX6.84439$tR.8898110@news02.optonline.net>
Source record: 52004

Ian,

I realize this isn't something you want to hear, but it does need to be said. Radio transmitters are licensed /approved items. Even for the best of purposes they are government regulated and the red tape involved in making them is pretty major. You may want to get in touch with FCC or DOT (depending on the end of the bay) and see what they have to say. I agree that a life is a pretty important thing, but you could have everything confiscated before it ever got to that point. After you finished paying off all the fines it could cost a whole lot more than $20 a radio.

Bob Camp
KB8TQ

3706. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 01:20:19 UTC
From: Josh Sponenberg <Sponge14@ptd.net>
Message-ID: <3B2EA68D.32B26FA2@ptd.net>
Source record: 52003
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
>
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
> directional technology to locate the distress. The transmitters would have
> to be waterproof, so I guess we would have to make some sort of waterproof
> container to hold them in.
>
> First of all, do any such inexpensive radio transmitters exist? (I was
> hoping in the US $20-30 dollar or less range) Possible? The transmitter
> would probably just send out some kind of pulsed tone or beacon, we wouldn't
> need voice transmission or reception. Maybe one type of transmission for
> non-critical emergency and a different mode for very serious time-critical
> emergency. The transmitter should probably work when the rubber ducky is
> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
>
> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may not
> want to bother them with less serious emergencies such as a boat that is
> simply overturned and needs assistance in getting upright.
>

thats not a serious situation?! jeez if my boat were upside down i'd
tthink it were...

> If anyone has ideas about:
>
> 1) sources of already existing inexpensive radio transmitters that would
> fill our needs
> 2) schematic/designs for inexpensive & small radio transmitters with
> some type of beacon transmission
> 3) ideas of what frequencies we should be using for this
> 4) where to get, or ideas on how to make cheap small waterproof cases
>
> That would be helpful!
>
> Ian

3707. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 01:26:55 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <sjatitos57v6ndigt7ko82mtkkf61fgath@4ax.com>
Source record: 52005
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Josh Sponenberg <Sponge14@ptd.net> wrote:

>> although we may not
>> want to bother them with less serious emergencies such as a boat that is
>> simply overturned and needs assistance in getting upright.
>
>thats not a serious situation?! jeez if my boat were upside down i'd
>think it were...

On a bigger boat, sure.. but on a 10 to 20 foot boat, it happens all the
time :)

Ian

3708. FS: 180 ft ROHN 55 w Hardware

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 01:56:09 UTC
From: Bruce Sidari <bsidari@rochester.rr.com>
Message-ID: <ZiyX6.218491$f85.33819630@typhoon.nyroc.rr.com>
Source record: 52006

The following is ON THE GROUND and ready for pickup in Western NY. (west of Rochester)

The tower is used but in very good shape. It has been down and stacked for about a year.

A few sections that were "on the ground" do have discoloration and SLIGHT rust, nothing serious.

You could put this tower up tomorrow and enjoy many years of great service.

Current price on the following is approx $10K.

SALE PRICE $2600.00

Qty Description P/N

1 Base Plate BPC55G
1 Top Plate APL55G
18 Rohn 10' Sections 55G
14 Torque bars TB55
15 GB55
13 KC192
29 Turnbuckles
2 Guy Plates
2 Torque Arm Stabilizer Assembly TA55
1 Set of Anti-Climbing sheets 455ACL-3
3 5' Pipe (2") mounts w K156 brackets DM55G2
and mounts at each end.

1 5' Side mount consisting of
3 each of
D13-1 qty =3
D13-3 qty =3
D13-3 qty =1
5' Pipe (2") qty =1

Call me with any questions @ 716 820 6460 ask for Bruce.

3709. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 02:16:12 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <hfdtit0e7j5plah2a29434aj5hechh8c4i@4ax.com>
Source record: 52007

>I realize this isn't something you want to hear, but it does need to
>be said. Radio transmitters are licensed /approved items. Even for the
>best of purposes they are government regulated and the red tape
>involved in making them is pretty major. You may want to get in touch
>with FCC or DOT (depending on the end of the bay) and see what they
>have to say. I agree that a life is a pretty important thing, but you
>could have everything confiscated before it ever got to that point.
>After you finished paying off all the fines it could cost a whole lot
>more than $20 a radio.

Yes, it would be worth a call.. I suspect if the transmissions were for saving lives and happened perhaps a few times a year, I have my doubts about them really being strict about serious fines and perhaps might turn a bind eye to it (FCC may be a little more uptight than the Canadian equivalent) I also believe there are frequencies we could use legally for this purpose. (Cheaply may be a different problem) They are definately worth talking to though. I guess the transmitters themselves being approved would be a different problem.

Ian

3710. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 02:19:28 UTC
From: Mike Yetsko <joe@user.com>
Message-ID: <titdniqem86l18@corp.supernews.com>
Source record: 52008
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Josh Sponenberg <Sponge14@ptd.net> wrote in message
news:3B2EA68D.32B26FA2@ptd.net...
>
> -- although we may not
> > want to bother them with less serious emergencies
> > such as a boat that is simply overturned and needs
> > assistance in getting upright.
>
> thats not a serious situation?! jeez if my boat were
> upside down i'd tthink it were...

You've not been sailing much on small boats, huh?

Mike

3711. 2m amp kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 02:45:02 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <9gme80ka1@bob.news.rcn.net>
Source record: 52009

Besides Ramsey Electronics, does anyone else make a 2 meter amp kit?
Looking for something larger than 50 watts, or should I just buy commercial?
Thanks!!

3712. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 03:52:17 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <q2ititg4v7ffm3okjnc2d2cdmnjanmob08@4ax.com>
Source record: 52010
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

As a side note, I'd like to remind people that a whistle costs about 5 dollars, and a cheap water-submerisble transmitter I think could be built for 20. The transmitter would work a helluva lot better in higher winds, when accidents & problems are most likely to occour.

It seems rather ridiculous to me that some people think that $250 + dollars is an acceptable cost for what would be a technological replacement for a whistle, especially in cases where the alternative would likely be to carry only a whistle and nothing else (either due to size restrictions, or cost).

It also irritates me that government bodies may promote the loss of life by forcing all kinds of rigid requirements that drive up the costs of existing transmitters so that they are out of reach for most recreationalists, and also make it illegal to build & use less expensive transmitters, effectively prohibiting existing technology of the day from saving lives. In the end we are supposed to end up just using a whistle that really doesn't do the job and lives end up lost? Its a definate conclusion that we may end up at, but a rather ugly one.

Personaly, I wouldn't care if a small handful of people for a few minutes had to drive a few feet closer before their garage door would open. :)

Ian

3713. Re: 2m amp kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 04:44:34 UTC
From: Jim & Karen <jimllp@cet.com>
Message-ID: <3B2ED8B2.667DF50B@cet.com>
Source record: 52011

Check CCI COMMUNICATION CONCEPTS at WWW.COMMUNICATION-CONCEPTS.COM.
I haven't tried one of their kits but they have been around for a
while. They have a 75 watt model for $120.00
Good luck

3714. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 04:46:23 UTC
From: ECJ <ecj@mari.net>
Message-ID: <pOAX6.1483$dS.595002410@den-news1.rmi.net>
Source record: 52012
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian,
If you can use FRS radios in Canada I would go that way.
Put one in a heavy duty Zip Lock bag, with an extra Battery and a whistle &
a few glow sticks, for less than $40, probably less in larger quantities.
Those in your club that venture out more than a couple KM should spend a
little more and get Marine Band HTs.
Eric

"Ian Upright" <ian-news@upright.net> wrote in message
news:62usit89b1op542pd6k5le0cpunsl9m226@4ax.com...
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
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> First of all, do any such inexpensive radio transmitters exist? (I was
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> non-critical emergency and a different mode for very serious time-critical
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> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
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> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency
probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may
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> want to bother them with less serious emergencies such as a boat that is
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> If anyone has ideas about:
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> some type of beacon transmission
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> 4) where to get, or ideas on how to make cheap small waterproof cases
>
> That would be helpful!
>
> Ian
>

3715. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 04:47:38 UTC
From: hrbcrb@aol.com.goaway
Message-ID: <20010619004738.21517.00003926@ng-co1.aol.com>
Source record: 52013

Hello Ian

I would look at FRS radios, some of the basic ones on the market without all the bells and whistles are in your price range. They are not waterproof, so you would have to put them in another enclosure. As i recall they come in two power levels, 200mw and 500mw, and should satisfy your range requirement. A simple direction finder could use the same radio with a dipole or yagi antenna, an attenuator between the antenna and radio helps zero in on the distress signal better. You would have to agree on one of the channels to be used for emergency only. A home brew tone oscillator could be added and would easily identify the party intended to send a distress signal. Most units operate on 3 or 4 AA or AAA batteries. I would consider mounting it on the mast structure in a waterproof enclosure, use a speaker microphone - this way you could use it for normal two communication and switch it to that SPECIAL emergency channel if needed.

Just an old man thinking out loud.

Regards, Hugh

Retired, now life moves at my pace!
Retired, now life moves at my pace.
please note spam filter

3716. Re: 2m amp kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 04:56:13 UTC
From: ECJ <ecj@mari.net>
Message-ID: <kXAX6.1484$VT.595113092@den-news1.rmi.net>
Source record: 52014

not quite 50 Watts, but close, Ten-Tec makes a 30 watt kit, model 1222 (i think).

"Frizz" <kg4ivt@hotmail.spamsucks.leaveme.alone.com> wrote in message news:9gme80ka1@bob.news.rcn.net...
> Besides Ramsey Electronics, does anyone else make a 2 meter amp kit?
> Looking for something larger than 50 watts, or should I just buy commercial?
> Thanks!!
>
>

3717. Re: need IFT Transformers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 04:57:22 UTC
From: Geoff Knee <geoff@gknee.freeserve.co.uk>
Message-ID: <9glq28sh1@newsg3.svr.pol.co.uk>
Source record: 51999

"Geoff Knee" <geoff@gknee.freeserve.co.uk> wrote in message news:...
> Hello
> I require IFT Transformers for Radio Receiver construction, Models needed
> are IFT14/IFT18/465,Hoping for a reply
> Many Thanks
> Geoff
>
>

3718. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 05:04:39 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B2EDD67.10D2960D@clifto.com>
Source record: 52015
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> It seems rather ridiculous to me that some people think that $250 + dollars
> is an acceptable cost for what would be a technological replacement for a
> whistle, especially in cases where the alternative would likely be to carry
> only a whistle and nothing else (either due to size restrictions, or cost).

Ever drop a "waterproof" item and watch it sink the next time it's in
water?

Ever drop a radio and spend hours repairing the fractured circuit board?

Now...

Ever been sunk ten miles off the coast in 50 degree water, and found
yourself wishing you'd spent the lousy $300 on a real emergency unit
that was made to float and work after it was dropped?

> It also irritates me that government bodies may promote the loss of life by
> forcing all kinds of rigid requirements that drive up the costs of existing
> transmitters so that they are out of reach for most recreationalists, and
> also make it illegal to build & use less expensive transmitters, effectively
> prohibiting existing technology of the day from saving lives.

Yeah, requirements like making it work after an impact are dumb. Any
sap floating around the hulk should be able to lift the boat to avoid
damaging the transmitter underneath, and hold it above his head while
he treads water so it will stay dry. You carry extra batteries in your
life jackets, right?

> In the end we
> are supposed to end up just using a whistle that really doesn't do the job
> and lives end up lost? Its a definate conclusion that we may end up at, but
> a rather ugly one.

A good emergency unit costs $300 or so. A boat costs...?

"Yeah, I got my $38,000 boat and my $1,200 GPS and my $1,200 sounder and
my $1,200 marine-band radio and my ten $150 life preservers. Why the hell
can't I get a transmitter that'll work under the absolute worst of
conditions, still float and work when the boat gets smashed, for under $20?
It has to have centimeter-accuracy GPS built in and a range of 300 miles,
with VOR/DME for the rescue planes and it has to receive DirecTV. Oh, the
battery has to last eight years in salt-water storage and still transmit
for three months when activated."

> Personaly, I wouldn't care if a small handful of people for a few minutes
> had to drive a few feet closer before their garage door would open. :)

So you don't care how it inconveniences others, as long as you get what
you want?

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3719. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 05:07:56 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <1pmtito6o026uv04tcq7nvu23m617geqpm@4ax.com>
Source record: 52016

hrbcrb@aol.com.goaway (KF6HHS) wrote:

>I would look at FRS radios, some of the basic ones on the market without all
>the bells and whistles are in your price range. They are not waterproof, so
>you would have to put them in another enclosure. As i recall they come in two
>power levels, 200mw and 500mw, and should satisfy your range requirement. A
>simple direction finder could use the same radio with a dipole or yagi antenna,
>an attenuator between the antenna and radio helps zero in on the distress
>signal better. You would have to agree on one of the channels to be used for
>emergency only. A home brew tone oscillator could be added and would easily
>identify the party intended to send a distress signal.

Yes, we would have to modify & add circuitry to it in such a way that it
could create a beacon. A beacon would enable the user to transmit
continiously, which might be difficult if the person was injured and unable
to talk or found it difficult to hold down the PTT button. Putting it in a
watertight bag may be an option, but the transmission would have to be
enabled without taking it out of the bag, as it would need to be operated by
a single person who is floating in the water, possibly injured. The end
result might be a bit bigger than what a single person would want to carry
on their lifejacket. I think if we custom made some type of transmitter,
would could get it very small. I suppose it might be possible to
dissasemble these units and use their primary circuitry & add some more
circuitry, to make them of reasonable size and provide the functionality we
need (with hopefully enough wattage).

>Most units operate on 3
>or 4 AA or AAA batteries. I would consider mounting it on the mast structure
>in a waterproof enclosure, use a speaker microphone - this way you could use it
>for normal two communication and switch it to that SPECIAL emergency channel if
>needed.

Mounting it to the mast structure doesn't help much. The most life
threatening situation is where the sailor falls off their boat, and the boat
decides to go for a ride on its own. This has actually happened, and the
sailor was somewhat hypothermic and very exhausted after the several hours
of swimming to shore, he was fortunate to have a good wetsuit, others might
not be so fortunate. Windsurfing would be a similar situation, with the
high winds potentially carrying away the board from the sailor.

Ian

3720. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 05:16:13 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <4qntitsrrlct9qf31ru5lpdg47qjgkqm69@4ax.com>
Source record: 52017
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Yeah, requirements like making it work after an impact are dumb. Any
>sap floating around the hulk should be able to lift the boat to avoid
>damaging the transmitter underneath, and hold it above his head while
>he treads water so it will stay dry.

Not hard to make something water-submersible, and that would sustain a
reasonable impact, quite inexpensively.

>You carry extra batteries in your life jackets, right?

Why would you need them? A single 9v battery could provide hours of
transmission, which would be plenty. (For most of our purposes, 30 minutes
would likely be sufficient)

>A good emergency unit costs $300 or so. A boat costs...?
>
>"Yeah, I got my $38,000 boat and my $1,200 GPS and my $1,200 sounder and
>my $1,200 marine-band radio and my ten $150 life preservers. Why the hell
>can't I get a transmitter that'll work under the absolute worst of
>conditions, still float and work when the boat gets smashed, for under $20?
>It has to have centimeter-accuracy GPS built in and a range of 300 miles,
>with VOR/DME for the rescue planes and it has to receive DirecTV. Oh, the
>battery has to last eight years in salt-water storage and still transmit
>for three months when activated."

Get real, some of the users of this would be in 200 dollar Kayaks. The
emergency unit is 100 dollars more than the vessel they are in.

>So you don't care how it inconveniences others, as long as you get what
>you want?

Right, a few garage doors are less important than a human life.

Ian

3721. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 05:37:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B2EE4FF.EDC5C1D3@eznec.com>
Source record: 52018
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> . . .
> It also irritates me that government bodies may promote the loss of life by
> forcing all kinds of rigid requirements that drive up the costs of existing
> transmitters so that they are out of reach for most recreationalists, and
> also make it illegal to build & use less expensive transmitters, effectively
> prohibiting existing technology of the day from saving lives. In the end we
> are supposed to end up just using a whistle that really doesn't do the job
> and lives end up lost? Its a definate conclusion that we may end up at, but
> a rather ugly one.
> . . .

It's not clear to me how "government bodies" are "forcing all kinds of rigid requirements that drive up the costs" of radios. In the U.S., the only government "body" that imposes requirements on radios is the FCC. They do require that the radios don't put out spurious signals that interfere with other people's radios, aircraft navigation, cell phones, emergency communication, GPS, and the other thousands of uses of the radio spectrum. Anybody who uses any kind of radio for anything should be really, really glad that these requirements are in place. In any event, the FCC requirements probably have only a minor effect on the price of a radio, since the cost of manufacturing a radio that meets the spec is just about the same as making one that doesn't. It does take additional design work and testing, but in a volume product, that cost is spread out thin enough to not be noticeable.

If a radio costs a lot, the reason is that there's not a big enough market to make it in large volume. FRS radios are probably about the largest volume radios of their type being made, and they've settled down to the around-$40 price. Considering the competition and volume in this market, it's safe to say you just can't make a volume radio with this capability for very much less. It might be possible to make a waterproof radio for not too awfully much more, but only if they could sell a couple of million of them. Which they can't. And if you want one that's truly reliable, the manufacturer'll have to use extended temperature range and high reliability components, gold plated contacts instead of tin, and other cost-increasing measures, in addition to paying for extensive testing and quality control. That, my friend, ain't cheap, and it's not because of "government bodies". If you really think it's possible to manufacture a waterproof radio in small quantities, or in large quantities -- say nothing about reliability -- and have it compete with non-waterproof radios, for $20 or $30, then by all means you should do it. You'd have Motorla, Cobra, Radio Shack, and the others out of business in a short time. And you'll make enough money to afford a radio

that has the quality you want.

Roy Lewallen, W7EL

3722. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 06:01:33 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <c8qtit0kjdc8sd26q2oc41qdsr1gmvtqbh@4ax.com>
Source record: 52019
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Roy Lewallen <w7el@eznec.com> wrote:

>If a radio costs a lot, the reason is that there's not a big enough
>market to make it in large volume. FRS radios are probably about the
>largest volume radios of their type being made, and they've settled down
>to the around-$40 price. Considering the competition and volume in this
>market, it's safe to say you just can't make a volume radio with this
>capability for very much less.

One of these FRS radios has significantly more components than what would be required to transmit a simple beacon signal on a single channel. It would be easy to make one for less than $40, I think, and one would have to be made or assembled after some fashion, to make it more durable, water submersible, and have beacon transmit capability. Still, all doable for less than 40 dollars, but possibly illegal to produce because its not FCC/IC tested. Quality & reliability are separate issues I agree, but if you are having to take out the circuitry and put it in some other type of enclosure it is already introducing quality uncertainty -- and that has to be done in any case, because no suitable product exists anywhere, or if it does, not within a reasonable price range ($300 and up).

Ian

3723. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 06:12:29 UTC
From: KD7KKW <jeepxj1992@usewest.net>
Message-ID: <GWBX6.672$Qp2.641489@news.uswest.net>
Source record: 52020
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

What about an Avanche Tranciever?
They are built to withstand 200psi of snow in -30 degree weather in alot
bigger tumble than a boat will go thru!
We bury them in the snow for training and have yet to freeze one.
Sure they will cost you 150-300 bucks but like we say here in the snow
belt..."If you spend $8000.00 on a snowmobile, why the heck not spend the
extra money for some protection!"
put it in a double zip-lock baggie and voila......waterproof and floats...
I use mine year-round and go thru very few batteries...

Just A Thought...

Scott Loock
Ogden, Utah

"Ian Upright" <ian-news@upright.net> wrote in message
news:62usit89b1op542pd6k5le0cpunsl9m226@4ax.com...
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
> directional technology to locate the distress. The transmitters would
have
> to be waterproof, so I guess we would have to make some sort of waterproof
> container to hold them in.
>
> First of all, do any such inexpensive radio transmitters exist? (I was
> hoping in the US $20-30 dollar or less range) Possible? The transmitter
> would probably just send out some kind of pulsed tone or beacon, we
wouldn't
> need voice transmission or reception. Maybe one type of transmission for
> non-critical emergency and a different mode for very serious time-critical
> emergency. The transmitter should probably work when the rubber ducky is
> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
>
> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency
probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may
not

> want to bother them with less serious emergencies such as a boat that is
> simply overturned and needs assistance in getting upright.
>
> If anyone has ideas about:
>
> 1) sources of already existing inexpensive radio transmitters that would
> fill our needs
> 2) schematic/designs for inexpensive & small radio transmitters with
> some type of beacon transmission
> 3) ideas of what frequencies we should be using for this
> 4) where to get, or ideas on how to make cheap small waterproof cases
>
> That would be helpful!
>
> Ian
>

3724. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 06:19:57 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B2EEF0D.51E26D5D@clifto.com>
Source record: 52021
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
> >Yeah, requirements like making it work after an impact are dumb. Any
> >sap floating around the hulk should be able to lift the boat to avoid
> >damaging the transmitter underneath, and hold it above his head while
> >he treads water so it will stay dry.
>
> Not hard to make something water-submersible, and that would sustain a
> reasonable impact, quite inexpensively.

The manufacturers are waiting eagerly for your design expertise. In the real world, you pick three from { waterproof, rugged, cheap, functional }.

If you make the case sturdy enough to protect the circuit board, the case cracks easily when you drop it. If you don't, the circuit board cracks easily when you drop the unit. OR... you use special expensive molds in expensive special molding machines and mold a special plastic, final cost $15 for the case alone (before markup).

Many (most?) semiconductor devices have only a 5G shock specification. 5G isn't much for a capsule in a kayak in rocky rapids. So you need special shock-mounting materials and design.

And waterproof doesn't always mean air-tight. If you don't have air-tight, everything -- EVERYTHING, down to the tiniest capacitor -- has to be able to withstand salt air. (Sell a freshwater rescue device, someone will use it in salt water and sue you when it breaks.) And if you do have air-tight, the battery compartment and battery have to be special.

And the battery has to work even after you've thrown it in the closet two seasons and brought it out for a third, because you're going to forget to check or replace it.

> >You carry extra batteries in your life jackets, right?
>
> Why would you need them? A single 9v battery could provide hours of
> transmission, which would be plenty. (For most of our purposes, 30 minutes
> would likely be sufficient)

When's the last time you checked the batteries in your emergency devices, like UPSes, power-out lights, etc.? That's how often you'll check the gizmo in your gear bag before you get to the water and toss the gizmo into the kayak. And before you say it was less than a year, make sure you can guarantee all the buyers of this gizmo say the same, or the lawyers won't let you guarantee the gizmo will work the way you want.

You'd be aghast at the short life of a 9V battery in a 5-mile transmitting application.

> >A good emergency unit costs $300 or so. A boat costs...?
>
> Get real, some of the users of this would be in 200 dollar Kayaks. The
> emergency unit is 100 dollars more than the vessel they are in.

So are the clothes they're wearing. Wonder how many of their $20 "waterproof" watches last an afternoon. Wonder how many kayakers spent $100 or much more on just their watches.

$500 for body piercing, $800 for tattoos, $20 for a lifesaving device.

I also wonder how many of these "kayak only" gizmos will end up in pleasure boats. So will the lawyers of the manufacturers.

> >So you don't care how it inconveniences others, as long as you get what
> >you want?
>
> Right, a few garage doors are less important than a human life.

A human life is valuable enough that you don't risk its continuation on a cheap rescue device. You also make sure the gizmo isn't interfering with your two-way radio, for when the rescuers get close. Anything that will shorten the range of two garage-door openers will wipe out any but the most expensive two-ways. And considering you won't spend bucks on something to save your life, I'd bet the two-way you use for idle chat isn't the best on the market.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3725. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 06:44:15 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <knstitknnov8aluk5jf486l9f6054hj6bq@4ax.com>
Source record: 52022
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>If you make the case sturdy enough to protect the circuit board, the case
>cracks easily when you drop it. If you don't, the circuit board cracks
>easily when you drop the unit.

Or you could just have a sturdy metal case, with a ciruit board inbetween some foam, and then put a bit of foam around that, and it will withstand reasonable force and dropping, we're not looking for super industrial strength units here, just something usable for average use. If all else fails you can still blow your whistle.

>And waterproof doesn't always mean air-tight. If you don't have air-tight,
>everything -- EVERYTHING, down to the tiniest capacitor -- has to be able
>to withstand salt air. (Sell a freshwater rescue device, someone will use
>it in salt water and sue you when it breaks.) And if you do have air-tight,
>the battery compartment and battery have to be special.

It would have to be pretty much airtight.

>And the battery has to work even after you've thrown it in the closet two
>seasons and brought it out for a third, because you're going to forget to
>check or replace it.

The units would likely be tested and inspected on a monthly basis, if not more.

>When's the last time you checked the batteries in your emergency devices,
>like UPSes, power-out lights, etc.? That's how often you'll check the
>gizmo in your gear bag before you get to the water and toss the gizmo
>into the kayak. And before you say it was less than a year, make sure
>you can guarantee all the buyers of this gizmo say the same, or the
>lawyers won't let you guarantee the gizmo will work the way you want.

We're not selling these devices, we're making them for our own use, and the users have the option of not taking them if they so choose. They could just take a whistle if they wanted, or they could take the extra device for free, on the chance that it might offer additional safety.

>A human life is valuable enough that you don't risk its continuation on
>a cheap rescue device.

Again, the price is so expensive that these small clubs couldn't afford purchasing many of these rescue devices, in which case we would continue using only whistles (which is all we are legally required to provide).

>You also make sure the gizmo isn't interfering
>with your two-way radio, for when the rescuers get close.

I doubt a 500mw - 1 W device would interfere with a two-way radio when you got close, and if it did, what would it matter? As soon as you got to the person you'd shut off their transmitter. Sometimes, the people in the rescue boats don't even have two way radios.

Ian

3726. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 06:50:39 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <gittits05nefu4dnp9rep7cvm9b0a2oa7p@4ax.com>
Source record: 52023
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"KD7KKW" <jeepxj1992@usewest.net> wrote:

>What about an Avanche Tranciever?
>They are built to withstand 200psi of snow in -30 degree weather in alot
>bigger tumble than a boat will go thru!
>We bury them in the snow for training and have yet to freeze one.
>Sure they will cost you 150-300 bucks but like we say here in the snow
>belt..."If you spend $8000.00 on a snowmobile, why the heck not spend the
>extra money for some protection!"
>put it in a double zip-lock baggie and voila......waterproof and floats...
>I use mine year-round and go thru very few batteries...

They could work, but 250 units multiplied by 300 bux is 75 grand.
Definately out of the price range for a handful of non-profit small boat
sailing clubs that don't have much money. Our users are often careless
students with little money. :-) 20 to 30 bucks each is still expensive for
us, but possibly doable and may be worth the investment.

Ian

3727. Re: 2m amp kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 10:11:29 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B2F2551.7223DE2@bloomer.net>
Source record: 52024

Communications Concepts had a couple 2M kits. Not sure if they're still
in business...I don't get any ham magazines anymore...

Scott
N0EDV

Frizz wrote:
>
> Besides Ramsey Electronics, does anyone else make a 2 meter amp kit?
> Looking for something larger than 50 watts, or should I just buy commercial?
> Thanks!!

3728. Re: 2m amp kit?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 13:41:46 UTC
From: Bill Turner W7TI <w7ti@jps.net>
Message-ID: <0eluitoqshskqumbj8481pq2jp5d7prv99@4ax.com>
Source record: 52025

On Mon, 18 Jun 2001 21:44:34 -0700, Jim & Karen <jimllp@cet.com>
wrote:

>Check CCI COMMUNICATION CONCEPTS at WWW.COMMUNICATION-CONCEPTS.COM.
>I haven't tried one of their kits but they have been around for a
>while. They have a 75 watt model for $120.00
>Good luck

_____
A direct quote from their online catalog for model AR347:

"Its applications include military communications, jammers, low
channel TV, etc."

It's not every day you see such truth in advertising!! :-)

73, Bill W7TI

3729. Re: impedance of a coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 19:22:48 UTC
From: ritter@io.com
Message-ID: <3b2fa5aa.280248@news.io.com>
Source record: 52026

On Tue, 19 Jun 2001 01:00:13 +0900, in <9gl83ditg1@news.mbn.or.jp>,
in rec.radio.amateur.homebrew "ram" <rmilne@aa.mbn.or.jp> wrote:

>I am trying to make the Clive Smith (G4FZH) RF modulated noise bridge as
>described on page 71 of "Test Equipment For The Radio Amateur" published by
>the RSBG in the UK.
>
>White noise from a zener diode (which can be optionally modulated by a
>TLC555) is amplified through an AC-coupled 3-stage common emitter chain and
>the output is passed to a homebrew coil. The input side of the coil has 2
>connections and the output coil is center-tapped and forms the basis of the
>noise bridge. (The antenna with a shunt capacitor is balanced against a
>variable capacitor/variable resistance and noise minimized by a receiver
>connected across the bridge).
>
>The advice for making the homebrew toroid transformer is to use:
>
>A. FT50-6 dust iron core, 4 windings, each 14t, or alternatively....
>B. 596100001 ferrite core, 4 windings, 6t each

You may be interested in:

Grebenkemper, John (KI6WX). 1989. Improving and Using R-X Noise
Bridges. QST. August. 27-32, 52.

"The main cause of frequency variation of the bridge null is the
design of the transformer (T1 in Fig 1). The designs that I've seen
use a trifilar winding on a ferrite or powdered-iron toroid core.
This design introduces phase shift across the transfer secondaries at
the higher frequencies . . . .

"Both of these problems can be cured by using a ferrite binocular core
wound as shown in Fig 4. This binocular transformer directly replaces
the toroidal transformer in the bridge."

Fig 4 shows an Amidon BLN 43-2402 with 3 sets of windings, each 3
turns of #30 enameled. (The 2402 is about 1/4in high, and just over
1/4in wide, with dual "binocular" holes.) The primary leads come out
one end; both secondary windings come out the other. The two
secondaries form a center-tap by connecting one lead from one
secondary from one hole to the lead from the other secondary from the
other hole.

Terry KF5MH

3730. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 20:18:48 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <x4xe4nDoO7L7Ew45@ntlworld.com>
Source record: 52028

In message <3B291953.2F063727@arrl.net>, John Buck <KH7T@arrl.net>
writes
>My personal interpretation of this is that the patent holder has the
>right to exclude me from making, using or selling his patented item.

Not quite.

You are allowed to use whatever is in patent to carry out research on
the area that is covered. You cannot sell what you do/manufacture but
you could apply for a patent on any improvements you make. Anyone
wanting to use your patent to produce the item would invariably have to
also take out a license from the original patent. If they do not grant
one then no product can be sold.

You are not barred from manufacturing anything in a patent in order to
test that the item patented actually does behave as claimed in the
patent. This is very important in patent law! A patent has to contain
all the 'instructions' for one to duplicate the item(s) being patented.
If it is not possible to do this from the instructions or said patented
product does not work as claimed then it usually leads to a patent
challenge and has been known to lead to the throwing out of the patent
completely - via the usual court systems.

My knowledge is primarily biotechnology but the same general
observations apply to all patent law. I will be seeing a patent attorney
in the next week or two and will conform this with them.

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

3731. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 20:21:31 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <fJZF0hELR7L7EwfT@ntlworld.com>
Source record: 52029

In message <3B29DAE2.21ECEF2@eznec.com>, Roy Lewallen <w7el@eznec.com>
writes
>In the U.S., patent applications aren't public.

Now changed. Full patent app. is now published 12 months after date of
filing, I think from last October (?) bringing the US law into line with
EU.

Duncan
--
Support bacteria. They are the only culture some people have.

Duncan Clark

3732. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 20:28:30 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <phcvits616n79e6jmsgijm7m7nf6lgrb80@4ax.com>
Source record: 52027

"Bob Camp" <bob@cq.nu> wrote:

>I realize this isn't something you want to hear, but it does need to
>be said. Radio transmitters are licensed /approved items. Even for the
>best of purposes they are government regulated and the red tape
>involved in making them is pretty major. You may want to get in touch
>with FCC or DOT (depending on the end of the bay) and see what they
>have to say. I agree that a life is a pretty important thing, but you
>could have everything confiscated before it ever got to that point.
>After you finished paying off all the fines it could cost a whole lot
>more than $20 a radio.

Actually I'm not sure about the FCC, but I was quite surprised after talking with Industry Canada's director of spectrum policy and planning. He said that under no circumstances would anyone get fined or prosecuted for transmitting any kind of distress signal, radio frequency or otherwise, in a life threatening situation.

To my surprise, he suggested trying to see if it was possible to design an inexpensive transmitter in some of the less used older marine bands, and wondered if garage door frequencies or remote controlled device frequencies could be out of band enough that they may not interfere with other devices, and agreed that the FRS or CB frequencies may be too polluted with traffic to be useful for an emergency broadcast beacon. To my surprise he also encouraged creative experimentation and design of this kind of device with less emphasis as to the importance of what frequencies or wattage we may be using for this purpose.

Ian

3733. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 20:42:47 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <ll6bEZAHl7L7EwZt@ntlworld.com>
Source record: 52030

In message <3B2AFB9D.23DFA542@home.com>, Dan Tayloe <dtayloe@home.com>
writes
>On the contrary, if experimenters use this circuit, find it useful, and
>publish positive results, that will greatly increase the probability
>that some commercial interest will want to use this detector in a high
>volume consumer application.

There has been an excellent series of articles published in the UK in
the RSGB's Radcom magazine in it's Technical Topics section, March,
April, May and June 2001. G3OGW has built a 4 path polyphase D-C
receiver using your mixer, based around an FST3253 fast bus switch. The
results look very impressive and so simple! Even before I saw this
thread (rather late I admit) I was considering trying G3OGW's
experimental design just to see how it sounded in practice.

Duncan
G4ELJ

Ps I'm not sure if this info. is available on the RSGB web site or not.
--
Support bacteria. They are the only culture some people have.

Duncan Clark

3734. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 21:09:40 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b2fbf94@news.svn.net>
Source record: 52031
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

If you can build something yourself - or get a local junior college electronics class to build as a project - a straightforward beacon should be simple. Use an off-the-shelf can oscillator, a dual 555 timer to generate a pulsed audio tone, and a single stage frequency multiplier / PA to drive a resonant coil antenna in the 350MHz region (garage door band). Power with a lithium cell or two (5-10 year shelf life). Coat the whole thing with any impervious resin and foam stuff it in an inexpensive case (35mm film can?). For turning it on and off, a magnet and reed switch or similar would be water and weather proof and take no power until used. A LED visible through the cap or even a piezoelectric bender in parallel with the modulation signal would be an indicator of transmitting.

Whole cost should be under US$20, quantity one. Range may not be many miles but can be easily measured. Give it a shot and let us know how it goes!

Jim Horn, WB9SYN/6
Clarke's Law: If a young scientist says something is possible, it almost certainly is. If an aging scientist (over 30) says something is impossible, he's almost certainly wrong.

3735. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 21:52:53 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <f5ivit0sjhl5ibt3e8dttu1btddai4nlcs@4ax.com>
Source record: 52032
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Finally somone helpful with good ideas. Thanks for your thoughts! Lithium batteries are a much better idea, and I agree, you might as well make these things one-offs, no need to bother making the battery replaceable.. Just toss it in the garbage if its ever been used, and test it every so often to ensure its still working. Sealing it all in some type of resin is another good idea, and put in some small case like a film-case, sure! More great ideas. Magnet or reed switch, another great idea.. No movable parts, easier to seal, reasonably indestructible.

With a resonant coil antenna, I wonder how well it would work, or for how long at a higher wattage. Any ideas of what kind of wattage we might need to put out with that kind of antenna, to get a reasonable range out of it? I was thinking it would be better to use some type of longer wire antenna, but a coil antenna sealed in the same unit would be cool if it could have enough range. I guess it may take some experimentation.

I know Hams and other people that have the means to help design the circuitry for this, so it would be a matter of perhaps gathering a team of volunteers together to help build the devices.

The primary thing I still am unsure about is what chips could we use for this? I'm not terribly familiar with all the available spectrums and chips that are available for this kind of purpose. Can garage door chips be tuned out of band enough where they are in a spot where there isn't much activity going on? What about other chips like the ones for remote controlled devices? What about chips that are used in ELT's or similar devices that are on frequencies used for a similar purpose.. Are they available anywhere and are they inexpensive?

Any suggestions or ideas on these lines of frequencies and/or chips would be REALLY helpful.

Ian

>If you can build something yourself - or get a local junior college
>electronics class to build as a project - a straightforward beacon should
>be simple. Use an off-the-shelf can oscillator, a dual 555 timer to
>generate a pulsed audio tone, and a single stage frequency multiplier / PA
>to drive a resonant coil antenna in the 350MHz region (garage door band).
>Power with a lithium cell or two (5-10 year shelf life). Coat the whole
>thing with any impervious resin and foam stuff it in an inexpensive case
>(35mm film can?). For turning it on and off, a magnet and reed switch or
>similar would be water and weather proof and take no power until used. A
>LED visible through the cap or even a piezoelectric bender in parallel
>with the modulation signal would be an indicator of transmitting.

>
>Whole cost should be under US$20, quantity one. Range may not be many
>miles but can be easily measured. Give it a shot and let us know how it
>goes!

3736. --> NEED: SCHEMATIC for HENRY 2k-3 PS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 22:02:18 UTC
From: BEAR <bearlabs@netzero.net>
Message-ID: <3B2FCBEA.8BC8691B@netzero.net>
Source record: 52034

Hi!

I'm refurbishing an old Henry 2k-3 amp - I have the upper deck schematic,
but no power supply schematic. I could trace it, and work on it as is - but there
are a few parts that have been *replaced* that may or may not be appropriate
in type or value.

So, anyone who can supply:

a) emailed - scanned copy
b) emailed - PDF (best!!)
c) snail mailed photocopy
or
d) URL to one on the 'net

PLEASE EMAIL TO ME!!
I may not catch your post - since the braindead admins on this system keep only
3 days maximum worth of posts up. :- (

BTW- If you happen to have any flush mount panel meters (no cut-out needed, just for the
two meter terminals) of *any value*, let me know too - the original ones

are toasted here.
I'll have to work out a replacement/retrofit if I can't find any flush mount types)

Thanks,

_-_- bear WB2GCR

--
_-_-bearlabs

http://www.bearlabsUSA.com

... please disregard the netzero sigfile... nothing is really "free."

3737. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 22:04:11 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b2fcc5b@news.svn.net>
Source record: 52033
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

More on the do-it-yourself beacon option. The SAW (Surface Acoustic Wave) resonators used in most keyless entry systems for cars are available from DigiKey and resonate directly at the needed frequencies (my Ford uses ~315MHz). One transistor to oscillate, one to amplify; one dual 555 to beep audio modulation (or go wild - use a PIC for a buck to send a unique user ID in audio Morse code). Use a CR2477 lithium cell to power (3V, 3 watt hours). No regulator. Put the cell at the bottom of a symmetrical housing and a flexible whip at the other end - it will float with the whip out of the water. 600mW of output should last 2 or 3 hours and have a range of miles over water. A 35mm plastic film can would hold it fine and, glued shut, protect it from falls, etc. The holder for it would have a built-in magnet to keep the reed switch open - deploy it and it turns on.

The circuitry would fit on a single sided board which could be home made. Again, the cost would be under US$20 all told.

Piece of cake.

Jim Horn, WB9SYN/6 Sure beats the 6AQ5A 40M novice transmitter days (7.167MHz crystal bound - WN9DWM)

3738. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 22:32:27 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <%pQX6.98540$v5.7358988@news1.rdc1.ct.home.com>
Source record: 52035
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian,

How are you going to receive these signals, and even more importantly, how are you going to home in on one of these emergency beacons?

A lot of the value is lost when some obscure frequency that is not recognized as an International Emergency Beacon frequency for such devices, is not used. You lose the benefit of trained and equipped government and volunteer rescue groups for one.

Pete

3739. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-19 22:39:25 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B2FD49D.143A30F2@coqui.net>
Source record: 52036
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
>
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
> directional technology to locate the distress. The transmitters would have
> to be waterproof, so I guess we would have to make some sort of waterproof
> container to hold them in.
>
> First of all, do any such inexpensive radio transmitters exist? (I was
> hoping in the US $20-30 dollar or less range) Possible? The transmitter
> would probably just send out some kind of pulsed tone or beacon, we wouldn't
> need voice transmission or reception. Maybe one type of transmission for
> non-critical emergency and a different mode for very serious time-critical
> emergency. The transmitter should probably work when the rubber ducky is
> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
>
> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may not
> want to bother them with less serious emergencies such as a boat that is
> simply overturned and needs assistance in getting upright.
>
> If anyone has ideas about:
>
> 1) sources of already existing inexpensive radio transmitters that would
> fill our needs
> 2) schematic/designs for inexpensive & small radio transmitters with
> some type of beacon transmission
> 3) ideas of what frequencies we should be using for this
> 4) where to get, or ideas on how to make cheap small waterproof cases
>
> That would be helpful!
>
> Ian

Have you considered FRS? Those little gadgets get close to a mile on
land.

--

Bill Meacham
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

3740. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 00:20:55 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <2oqvitkrsf286td4ue20a72mpunti3abj7@4ax.com>
Source record: 52037
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Peter J. Bertini" <commquart@home.com> wrote:

>How are you going to receive these signals,

With a radio receiver, or perhaps several radio reciver stations, positioned at various land points around the bay.

>and even more importantly, how are you going to home in on one of these
>emergency beacons?

With a directional antenna and a meter. This isn't exactly rocket science, lots of ways to do this and lots of equipment around that will do this sort of thing.

>A lot of the value is lost when some obscure frequency that
>is not recognized as an International Emergency Beacon
>frequency for such devices, is not used. You lose the benefit
>of trained and equipped government and volunteer rescue groups
>for one.

Since there is no suitable chip/frequency transmitter that is small enough, or cost effective enough, that is currently being used for this purpose, *nobody* is monitoring any type of similar emergency broadcast. At the very least, we would do our own monitoring. If it became more popular or commercialized, I suspect other government or volunteer organizations may follow. Also, for those who monitor other types of distress, such as a boat in distress, since there are many false alarms, its often hours or days before anybody does anything about it. In the case of a hypothermic swimmer near land, and not a distressed larger vessel in the middle of the ocean, this would be too little, too late.

Ian

3741. Re: --> NEED: SCHEMATIC for HENRY 2k-3 PS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 01:09:16 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b2ff768$1_2@newsa.ev1.net>
Source record: 52038

You should be able to find it on www.bama.edu

BEAR <bearlabs@netzero.net> wrote in message
news:3B2FCBEA.8BC8691B@netzero.net...
> Hi!
>
> I'm refurbishing an old Henry 2k-3 amp - I have the upper deck
> schematic,
> but no power supply schematic. I could trace it, and work on it as is -
> but there
> are a few parts that have been *replaced* that may or may not be
> appropriate
> in type or value.
>
> So, anyone who can supply:
>
> a) emailed - scanned copy
> b) emailed - PDF (best!!)
> c) snail mailed photocopy
> or
> d) URL to one on the 'net
>
>
> PLEASE EMAIL TO ME!!
> I may not catch your post - since the braindead admins on this system
> keep only
> 3 days maximum worth of posts up. :- (
>
>
> BTW- If you happen to have any flush mount panel meters (no cut-out
> needed, just for the
> two meter terminals) of *any value*, let me know too - the original ones
>
> are toasted here.
> I'll have to work out a replacement/retrofit if I can't find any flush
> mount types)
>
> Thanks,
>
> _-_- bear WB2GCR
>
>
>
> --

> _-_-bearlabs
>
> http://www.bearlabsUSA.com
>
> ... please disregard the netzero sigfile... nothing is
> really "free."
>
>

3742. Re: --> NEED: SCHEMATIC for HENRY 2k-3 PS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 02:04:08 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b30037f_2@newsa.ev1.net>
Source record: 52039

Wrong URL in the earlier post, this is the right one; www.bama.sbc.com

Matt Erickson <kk5dr@hotmail.com> wrote in message
news:3b2ff768$1_2@newsa.ev1.net...
> You should be able to find it on www.bama.edu
>
> BEAR <bearlabs@netzero.net> wrote in message
> news:3B2FCBEA.8BC8691B@netzero.net...
> > Hi!
> >
> > I'm refurbishing an old Henry 2k-3 amp - I have the upper deck
> > schematic,
> > but no power supply schematic. I could trace it, and work on it as is -
> > but there
> > are a few parts that have been *replaced* that may or may not be
> > appropriate
> > in type or value.
> >
> > So, anyone who can supply:
> >
> > a) emailed - scanned copy
> > b) emailed - PDF (best!!)
> > c) snail mailed photocopy
> > or
> > d) URL to one on the 'net
> >
> >
> > PLEASE EMAIL TO ME!!
> > I may not catch your post - since the braindead admins on this system
> > keep only
> > 3 days maximum worth of posts up. :- (
> >
> >
> > BTW- If you happen to have any flush mount panel meters (no cut-out
> > needed, just for the
> > two meter terminals) of *any value*, let me know too - the original ones
> >
> > are toasted here.
> > I'll have to work out a replacement/retrofit if I can't find any flush
> > mount types)
> >
> > Thanks,
> >
> > _-_- bear WB2GCR

> >
> >
> >
> > --
> > _-_-bearlabs
> >
> > http://www.bearlabsUSA.com
> >
> > ... please disregard the netzero sigfile... nothing is
> > really "free."
> >
> >
>
>

3743. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 02:04:44 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <huTX6.58262$Ne5.2721697@e420r-sjo3.usenetserver.com>
Source record: 52040

"Ian Upright" wrote ...
> Actually I'm not sure about the FCC, but I was quite surprised after talking
> with Industry Canada's director of spectrum policy and planning. He said
> that under no circumstances would anyone get fined or prosecuted for
> transmitting any kind of distress signal, radio frequency or otherwise, in a
> life threatening situation.
>
> To my surprise, he suggested trying to see if it was possible to design an
> inexpensive transmitter in some of the less used older marine bands, and
> wondered if garage door frequencies or remote controlled device frequencies
> could be out of band enough that they may not interfere with other devices,
> and agreed that the FRS or CB frequencies may be too polluted with traffic
> to be useful for an emergency broadcast beacon. To my surprise he also
> encouraged creative experimentation and design of this kind of device with
> less emphasis as to the importance of what frequencies or wattage we may be
> using for this purpose.

Pretty incredible! A federal govenment official being candid, and exhibiting common sense and flexibility. Something like that could never happen in the US (no matter who is in power!)

Remember, however, that you would want to pick a frequency/band for which there would be expected to be receivers close at hand (and preferably ones capable of directional discrimination!).

RC

3744. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 02:07:33 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <WwTX6.58301$Ne5.2724257@e420r-sjo3.usenetserver.com>
Source record: 52041

Any chemical engineers out there? What types of metal plates does it take to generate power from sea water? That would eliminate the problem of keeping fresh batteries. It would also automatically start when hititng the water! "solid state", no goofy mercury switches, etc!

RC

3745. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 02:11:42 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <yDTX6.21610$Kq4.1993781@newsread2.prod.itd.earthlink.net>
Source record: 52042
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

I've looked at about half of this thread and concluded this is just a trol.

Ian upright? Dudley doright? April first is long past.

Ian Upright <ian-news@upright.net> wrote in message
news:62usit89b1op542pd6k5le0cpunsl9m226@4ax.com...
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
> directional technology to locate the distress. The transmitters would
have
> to be waterproof, so I guess we would have to make some sort of waterproof
> container to hold them in.
>
> First of all, do any such inexpensive radio transmitters exist? (I was
> hoping in the US $20-30 dollar or less range) Possible? The transmitter
> would probably just send out some kind of pulsed tone or beacon, we
wouldn't
> need voice transmission or reception. Maybe one type of transmission for
> non-critical emergency and a different mode for very serious time-critical
> emergency. The transmitter should probably work when the rubber ducky is
> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
>
> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency
probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may
not
> want to bother them with less serious emergencies such as a boat that is
> simply overturned and needs assistance in getting upright.
>
> If anyone has ideas about:
>
> 1) sources of already existing inexpensive radio transmitters that would
> fill our needs
> 2) schematic/designs for inexpensive & small radio transmitters with
> some type of beacon transmission
> 3) ideas of what frequencies we should be using for this
> 4) where to get, or ideas on how to make cheap small waterproof cases

>
> That would be helpful!
>
> Ian
>
>

3746. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 03:03:33 UTC
From: Idontwantspam@net
Message-ID: <3b300e8c.11878413@news.bellatlantic.net>
Source record: 52043
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

On Tue, 19 Jun 2001 06:50:39 GMT, Ian Upright <ian-news@upright.net>
wrote:

>"KD7KKW" <jeepxj1992@usewest.net> wrote:
>
>>What about an Avanche Tranciever?
>They could work, but 250 units multiplied by 300 bux is 75 grand.

Avalanche transceivers have a deliberately limited transmission range,
to make them easier to locate in an area less than 200 yards across.
They also have the receiver circuitry, which pushes up the price.
Since they are safety equipment, and the market is limited, the price
is far higher than a consumer unit of similar complexity.

For your beacons, you may want to reconsider. To build something
utterly reliable, it will be far more than $20 per unit, and your
insurance company may not like the idea of "homemade" safety
equipment. From the perspective of liability, your proposed device may
not be recommended.

No safety gear may be less liability than malfunctioning safety gear,
and you would have no reliability data to back you up. Much of the
cost of some products is not in the manufacture, but in the testing
and documentation that shows that the product is capable and reliable.
This cost is spread among all the consumers of that product, whether
there are millions of them or dozens.

FCC regs may be an issue if you deliberately build a device that
transmits on a frequency you are not authorized for. Yes, in an
emergency you can transmit any way you can. However, the implication
is that you would try frequencies you are authorized for first. You
would have no defense for a large fine for any accidental
transmissions that were not emergencies.

There is an issue of having a standard device that other rescuers can
receive and track. Standard marine or FRS radios will do everything
you want, be legal, standard and so on, except for price. In quantity
and as a nonprofit, you can probably make a deal with a manufacturer
to get a discontinued model or something for not too much more than
your budget.

Happy trails,
Gary

"In three words I can sum up everything I've learned about life: it goes on."

-Robert Frost-

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

3747. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 03:07:11 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9gp443$fe8$1@slb4.atl.mindspring.net>
Source record: 52044
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Bill Cromwell wrote:
>
>I've looked at about half of this thread and
>concluded this is just a troll.
>

Personally, I agree it seems to be someone "baiting" the newsgroup. A simple (and legal) solution to this sort of problem, assuming it is a real message in the first place, is quite obvious.

Forget radio waves. Place a chemical smoke bomb, with bright orange smoke. All of the events mentioned in the original messsage would be daytime only. A smoke bomb is VERY specific to location, can be made to last an hour or so, and can be made very cheaply.

Not to mention the additional feature of not requiring batteries and / or a lot of landside technical equipment for Radio D/F locators.

Also, all of the activities listed would almost certainly be within sight of another group of people. It would be easy to set someone up as a spotter if there is some organized activity going on.

==========

They can be made in bulk, sold cheaply, and be low maintenance. For any radio beacon system to give the same probability of working, you'd need a massive tracking and battery replacement schedule.

After all, the beacon would be needed maybe once every 5 or 10 years when the boater did something stupid so that means the battery would be sitting there for 5 years or so before being used. That's a bad time to learn the battery is shot.

Besides, if someone DID build an illegal radio beacon on some unused frequency, odd's are some legal user would start using the frequency and blow all of the D/F systems to dust. Which would render the entire beacon system totally useless from that day until the end of time....

There are reasons for having certain frequencies set aside legally for emergency beacons.

==========

So, all in all, the original poster has a very simple, cheap, and legal solution here and if there really is a group that needs something like this, by all means build the smoke bomb type emergency locator.

Jim Pennell

3748. Re: impedance of a coil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 03:35:20 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B3019F8.FF19B57A@valley.net>
Source record: 52046

Hello--
If anyone needs Fair-Rite 2843-002402 balun cores (which sound suspiciously like the Amidon part number below), I have 'em at 20 pieces for $1.00 plus postage. E-mail me for details and more RF-related components (including multifilar wire).

73--
Brad AA1IP

Terry Ritter wrote:

> On Tue, 19 Jun 2001 01:00:13 +0900, in <9gl83ditg1@news.mbn.or.jp>,
> in rec.radio.amateur.homebrew "ram" <rmilne@aa.mbn.or.jp> wrote:
>
> >I am trying to make the Clive Smith (G4FZH) RF modulated noise bridge as
> >described on page 71 of "Test Equipment For The Radio Amateur" published by
> >the RSBG in the UK.
> >
> >White noise from a zener diode (which can be optionally modulated by a
> >TLC555) is amplified through an AC-coupled 3-stage common emitter chain and
> >the output is passed to a homebrew coil. The input side of the coil has 2
> >connections and the output coil is center-tapped and forms the basis of the
> >noise bridge. (The antenna with a shunt capacitor is balanced against a
> >variable capacitor/variable resistance and noise minimized by a receiver
> >connected across the bridge).
> >
> >The advice for making the homebrew toroid transformer is to use:
> >
> >A. FT50-6 dust iron core, 4 windings, each 14t, or alternatively....
> >B. 596100001 ferrite core, 4 windings, 6t each
>
> You may be interested in:
>
> Grebenkemper, John (KI6WX). 1989. Improving and Using R-X Noise
> Bridges. QST. August. 27-32, 52.
>
> "The main cause of frequency variation of the bridge null is the
> design of the transformer (T1 in Fig 1). The designs that I've seen
> use a trifilar winding on a ferrite or powdered-iron toroid core.
> This design introduces phase shift across the transfer secondaries at
> the higher frequencies . . . .
>
> "Both of these problems can be cured by using a ferrite binocular core
> wound as shown in Fig 4. This binocular transformer directly replaces
> the toroidal transformer in the bridge."

>
> Fig 4 shows an Amidon BLN 43-2402 with 3 sets of windings, each 3
> turns of #30 enameled. (The 2402 is about 1/4in high, and just over
> 1/4in wide, with dual "binocular" holes.) The primary leads come out
> one end; both secondary windings come out the other. The two
> secondaries form a center-tap by connecting one lead from one
> secondary from one hole to the lead from the other secondary from the
> other hole.
>
> Terry KF5MH

3749. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 03:36:28 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tj06i09tjuo584@corp.supernews.com>
Source record: 52045
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Breitling make a watch for aviators with an emergency tx in it..
anyone ahve any details?
hank wd5jfr

"Ian Upright" <ian-news@upright.net> wrote in message
news:62usit89b1op542pd6k5le0cpunsl9m226@4ax.com...
> Hi, we have several hundred people who sail and windsurf in the bay of
> Vancouver, and a number of small sailing clubs, and a small rescue team.
> What we are thinking about is getting some small, waterproof, inexpensive
> radio transmitters, or to build our own transmitters, and using some
> directional technology to locate the distress. The transmitters would
have
> to be waterproof, so I guess we would have to make some sort of waterproof
> container to hold them in.
>
> First of all, do any such inexpensive radio transmitters exist? (I was
> hoping in the US $20-30 dollar or less range) Possible? The transmitter
> would probably just send out some kind of pulsed tone or beacon, we
wouldn't
> need voice transmission or reception. Maybe one type of transmission for
> non-critical emergency and a different mode for very serious time-critical
> emergency. The transmitter should probably work when the rubber ducky is
> right at sea level, and have about a 3 to 5 km range, line of sight. What
> kind of wattage would be required to do this? Use 9v batteries perhaps?
>
> We would probably monitor our own frequencies (not sure what kind of
> frequencies we would be using), but in our case, they would be mostly used
> in potentially life & death situations so if it was an issue of legally
> using the frequencies we probably wouldn't care. :) The frequency
probably
> doesn't need to be monitored by the costguard & such but it might be a
> possibility to use frequencies that they may monitor -- although we may
not
> want to bother them with less serious emergencies such as a boat that is
> simply overturned and needs assistance in getting upright.
>
> If anyone has ideas about:
>
> 1) sources of already existing inexpensive radio transmitters that would
> fill our needs
> 2) schematic/designs for inexpensive & small radio transmitters with
> some type of beacon transmission
> 3) ideas of what frequencies we should be using for this

> 4) where to get, or ideas on how to make cheap small waterproof cases
>
> That would be helpful!
>
> Ian
>

3750. Re: QQE06/40 on 6 meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 04:43:07 UTC
From: klocworx@NOSPAMv-wave.com
Message-ID: <vRVX6.5219$rA2.1098929@news-rep.ab.videon.ca>
Source record: 51947

Rolando,
would you mind sending me a copy as well??
Thanks and 73 de
Arthur ve6boe
(klocworx AT v-wave DOT com)

"Rolando Milin" <9a3mr@qsl.net> wrote in
<01c0f755$e02250c0$85601dc3@siemali>:

<snip here>

>My friend 9A6C built an 6m amp with QQE 06/40 described in PV in article
>"More muscles on 6m"but I don't remember date nor author.
>I could send to you copy of article, please remind me next week on
>e-mail.
>73 de Roland 9A3MR
>

3751. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 05:26:54 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B30341E.4B17989@clifto.com>
Source record: 51948
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
> >If you make the case sturdy enough to protect the circuit board, the case
> >cracks easily when you drop it. If you don't, the circuit board cracks
> >easily when you drop the unit.
>
> Or you could just have a sturdy metal case, with a ciruit board inbetween
> some foam, and then put a bit of foam around that, and it will withstand
> reasonable force and dropping, we're not looking for super industrial
> strength units here, just something usable for average use. If all else
> fails you can still blow your whistle.

Most metals are unsuitable to wet/humid environments. A thin enough case
will deform enough to harm the circuitry; a thick one costs, and will
still deform under the kind of stresses accidents bring. Foam rots, and
actually makes a pretty rotten shockproofing for something that needs to
be durable.

> >And waterproof doesn't always mean air-tight. If you don't have air-tight,
> >everything -- EVERYTHING, down to the tiniest capacitor -- has to be able
> >to withstand salt air. (Sell a freshwater rescue device, someone will use
> >it in salt water and sue you when it breaks.) And if you do have air-tight,
> >the battery compartment and battery have to be special.
>
> It would have to be pretty much airtight.

Then you're going to have to change the battery weekly. Some batteries
will last a month in an airtight case; some won't.

Is your antenna inside this airtight metal container, where nothing will
be able to hear it, or outside where it will break off at the first impact?

> >And the battery has to work even after you've thrown it in the closet two
> >seasons and brought it out for a third, because you're going to forget to
> >check or replace it.
>
> The units would likely be tested and inspected on a monthly basis, if not
> more.

And you won't spill the hot coffee in your lap as you drive away, either.
That's fine for something YOU make solely for your own use. For something
you want to buy, the seller has to consider the hot coffee.

> >When's the last time you checked the batteries in your emergency devices,
> >like UPSes, power-out lights, etc.? That's how often you'll check the

> >gizmo in your gear bag before you get to the water and toss the gizmo
> >into the kayak. And before you say it was less than a year, make sure
> >you can guarantee all the buyers of this gizmo say the same, or the
> >lawyers won't let you guarantee the gizmo will work the way you want.
>
> We're not selling these devices, we're making them for our own use, and the
> users have the option of not taking them if they so choose. They could just
> take a whistle if they wanted, or they could take the extra device for free,
> on the chance that it might offer additional safety.

I strongly suggest you talk to your attorney before doing this. Even if
your people won't sue you, their insurance companies might. No, your
disclaimer of liability won't protect you. IANAL but I'm old enough to
have seen all too many decisions against "the good guys".

Most companies wouldn't even consider releasing such a product without
doing $20/unit in testing costs alone, if only in preparation for the
inevitable liability suits.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

3752. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 05:30:41 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B303501.5CFD4B05@clifto.com>
Source record: 51949

Richard Crowley wrote:
> Any chemical engineers out there? What types of metal plates does it take
> to generate power from sea water? That would eliminate the problem of
> keeping fresh batteries. It would also automatically start when hititng the
> water! "solid state", no goofy mercury switches, etc!

I suspect 500 mW (250 for the transmit power, 250 for inefficiency and
other considerations) of seawater power would require undesirably large,
heavy and/or expensive materials. Some lifeboat transmitters work off
seawater power, but they're expensive, and you wouldn't want one in your
kayak.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

3753. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 05:46:17 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <oad0jt85scgg6kilfg50fc6jvmd5ii3g02@4ax.com>
Source record: 51950
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Jim Pennell" <me-nobody@killspam.com> wrote:

>Bill Cromwell wrote:
>>
>>I've looked at about half of this thread and
>>concluded this is just a troll.

Some of the stupidity and pig-headedness of people on this newsgroup astound me, especially coming from Hams, who have a duty to encourage saftey, especially with the use of radio communications. You should be ashamed of yourself.

> Personally, I agree it seems to be someone "baiting" the newsgroup. A
>simple (and legal) solution to this sort of problem, assuming it is a real
>message in the first place, is quite obvious.
>
> Forget radio waves. Place a chemical smoke bomb, with bright orange
>smoke. All of the events mentioned in the original messsage would be
>daytime only. A smoke bomb is VERY specific to location, can be made to
>last an hour or so, and can be made very cheaply.

Uhh, no, this is not a troll, and I don't know where you get your sources of information.. But many of those smoke bombs, especially when they get wet, seem to work fairly poorly or not at all, and don't always reliably ignite. (we've tried them) Flares that shoot up in the sky have even worse performance. In strong winds smoke flares aren't very noticable from any reasonable distance, don't last very long, and somebody has to happen to be watching in that direction to see them during the minutes that they are burning, which especially at off-peak hours, is very possible that nobody is. We've concluded that they wouldn't add a hugely significant benefit in dealing with this problem.

> Not to mention the additional feature of not requiring batteries and / or
>a lot of landside technical equipment for Radio D/F locators.
>
> Also, all of the activities listed would almost certainly be within sight
>of another group of people. It would be easy to set someone up as a
>spotter if there is some organized activity going on.

Around here there are people out on the water 15 hours a day, and at times such as early in the morning or during a weekday, there are often very few people actually looking over the water. There have been a number of serious incidents where people have come close to loosing their life, so obviously your idea of "hope someone sees you" isn't overly intelligent. Appointing a spotter to look out with binoculars all day long isn't very realistic

either, and believe it or not, even that on a windy day with a reasonable amount of waves, you'd be surprised how hard it is to spot a lone swimmer 2 or 3 km away. Actually, we've done some experiments and its pretty much in the "next to impossible" category. In fact some of these incidents that have occoured have been in the middle of a day, on a saturday, when the bay is filled with literally hundreds of sailors, and yet even still the whistles were not heard and the swimmer not spotted, and came near to loosing his life. You'd really be amazed how easily a person can go unnoticed when they don't have a big sail attatched to them. So before you start commenting on how easy it is to casually spot a lone swimmer a few kilometers away, why not do some tests yourself to see how easy it is.

Ian

3754. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 05:51:55 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <tae0jtce9op70ehi2j1me3jaoii5nrsj48@4ax.com>
Source record: 51951
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>I strongly suggest you talk to your attorney before doing this. Even if
>your people won't sue you, their insurance companies might. No, your
>disclaimer of liability won't protect you. IANAL but I'm old enough to
>have seen all too many decisions against "the good guys".
>
>Most companies wouldn't even consider releasing such a product without
>doing $20/unit in testing costs alone, if only in preparation for the
>inevitable liability suits.

This liability stuff is bullshit. Just incorporate a non-profit
organization to produce the bloody things. Nobody is going to prove gross
neglegence to anybody who is making a safety device that works more reliably
than a smoke flare (which are currently selling on the market and aren't
reliable). Why aren't they getting the pants sued off of them? Who says we
need to buy insurance? Testing, sure, but we can do our own testing.
Caring SOME device is better than carrying NO device, no matter how bad the
quality is, and as I said its definately not hard to get the reliability
better than that of a smoke flare. Ridiculous.

Ian

3755. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 05:57:01 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <uqe0jtc0fbo13fqgonac5rb1javtie8aej@4ax.com>
Source record: 51952

"Richard Crowley" <rcrowley7@xprt.net> wrote:

>Remember, however, that you would want to pick a frequency/band for which
>there would be expected to be receivers close at hand (and preferably ones
>capable of directional discrimination!).

We might very likely be making the recivers and directional finding
equipment ourselves as well, so picking a frequency/band for which we would
have recivers would be a given. :)

Ian

3756. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 06:13:38 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <kdf0jtknecnutq6h9mpi3527jk33fpn66g@4ax.com>
Source record: 51953
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright <ian-news@upright.net> wrote:

>> Forget radio waves. Place a chemical smoke bomb, with bright orange
>>smoke. All of the events mentioned in the original messsage would be
>>daytime only. A smoke bomb is VERY specific to location, can be made to
>>last an hour or so, and can be made very cheaply.

One more thing, these smoke flares are fairly fragile. They are meant to be used in a fairly large solid protective case, in such things as a sailing vessel. When worn unprotected by a number of active people on a daily basis, its VERY possible they could be damaged and rendered useless, yet we wouldn't know it. Adding protection to them would make them so large as to be unwearable on a lifejacket. These people are tossing their lifejackets around, continually submerging the flares in the water, and often hitting parts of the boat, falling off the boat, or otherwise exuding force on the flares, on a fairly regular basis.

They would need to be replaced very freqently (every few weeks)? VERY costly. We feel the risk of damage would be much less so with radio transmitters sealed in resin. Also the smoke flares are fairly large, and would be difficult and perhaps too big to attatch to a lifejacket. They really aren't intended for this kind of use, and don't work well for this kind of situation. Also I'm not sure how risky it is to let off a smoke flare a few inches from your face but I'm not sure its all that great of an idea.

Ian

3757. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 06:58:48 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <rrh0jt87hslc2fv43uimjf97aqovddrv3n@4ax.com>
Source record: 51954
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Idontwantspam@net (Gary S.) wrote:

>Avalanche transceivers have a deliberately limited transmission range,
>to make them easier to locate in an area less than 200 yards across.
>They also have the receiver circuitry, which pushes up the price.
>Since they are safety equipment, and the market is limited, the price
>is far higher than a consumer unit of similar complexity.

In total agreement here.

>For your beacons, you may want to reconsider. To build something
>utterly reliable, it will be far more than $20 per unit, and your
>insurance company may not like the idea of "homemade" safety
>equipment. From the perspective of liability, your proposed device may
>not be recommended.
>
>No safety gear may be less liability than malfunctioning safety gear,
>and you would have no reliability data to back you up. Much of the
>cost of some products is not in the manufacture, but in the testing
>and documentation that shows that the product is capable and reliable.
>This cost is spread among all the consumers of that product, whether
>there are millions of them or dozens.

Again, we're not terribly concerned with issues of liability, and we don't have any insurance to deal with, so what would we care. The non-profit incorporation gets sued, it goes bankrupt, we start a new one. So be it. All we need to prove is that it is more reliable than no device at all, and that is sufficient. People aren't going to pay vast amounts of money for reliability testing, especially when they don't care, as they would rather have an inexpensive device that has a chance of functioning, than have none.

>FCC regs may be an issue if you deliberately build a device that
>transmits on a frequency you are not authorized for. Yes, in an
>emergency you can transmit any way you can. However, the implication
>is that you would try frequencies you are authorized for first. You
>would have no defense for a large fine for any accidental
>transmissions that were not emergencies.

FCC, perhaps, Industry Canada, may be a different story from the sounds of it. I'm getting the impression from them that if a reasonable device can be built, and if the devices can be proven to cause little interference with other devices such as car alarms and keyless entry systems (that especially being the case, since there are few keyless entry systems on the water), that it seems there is a reasonable chance of them totally approving these frequencies to be used for this purpose.

>There is an issue of having a standard device that other rescuers can
>receive and track. Standard marine or FRS radios will do everything
>you want, be legal, standard and so on, except for price.

Standard marine or FRS radios will NOT do everything these people need, and will have less reliability and applicability to the need. (if you read some other messages in the thread perhaps you would become convinced of that). In addition, there is an issue of being priced so high as not to be affordable.

>In quantity
>and as a nonprofit, you can probably make a deal with a manufacturer
>to get a discontinued model or something for not too much more than
>your budget.

and even if we did we'd end up with a bunch of fragile toys.

Ian

3758. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 07:09:52 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <p0j0jtc2gbbv7gqdq4jekjtakul4jd74f5@4ax.com>
Source record: 51955
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Ian Upright wrote:
>> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
>> >If you make the case sturdy enough to protect the circuit board, the case
>> >cracks easily when you drop it. If you don't, the circuit board cracks
>> >easily when you drop the unit.
>>
>> Or you could just have a sturdy metal case, with a ciruit board inbetween
>> some foam, and then put a bit of foam around that, and it will withstand
>> reasonable force and dropping, we're not looking for super industrial
>> strength units here, just something usable for average use. If all else
>> fails you can still blow your whistle.
>
>Most metals are unsuitable to wet/humid environments. A thin enough case
>will deform enough to harm the circuitry; a thick one costs, and will
>still deform under the kind of stresses accidents bring. Foam rots, and
>actually makes a pretty rotten shockproofing for something that needs to
>be durable.

Agreed.. A metal case isn't the brightest of ideas. However, something
sealed in resin would be quite durable.

>> >And waterproof doesn't always mean air-tight. If you don't have air-tight,
>> >everything -- EVERYTHING, down to the tiniest capacitor -- has to be able
>> >to withstand salt air. (Sell a freshwater rescue device, someone will use
>> >it in salt water and sue you when it breaks.) And if you do have air-tight,
>> >the battery compartment and battery have to be special.
>>
>> It would have to be pretty much airtight.
>
>Then you're going to have to change the battery weekly. Some batteries
>will last a month in an airtight case; some won't.

I think you are totally wrong on that. Anyone else care to comment? As far
as I know a number of different types of batteries are available that will
function for years in a completely air-tight environment, even sealed in a
block of resin.

Ian

3759. Re: TRW LT 2001 Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 09:42:52 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <fmr0jt841nv8u6bglqf2sttomtuklgqbv2@4ax.com>
Source record: 51956

I found a data sheet in a 1979 databook I had here. NPN silicon
stud mount. fT 3 GHz. 1dB compression about 22 dBm. Gain at 500 MHz
with Vcc 14V Ic 90 mA is about 14 dB.

Do you need more?

-Rex, KK6MK

On Mon, 18 Jun 2001 04:24:10 GMT, B Hernlem <alihernlem@hotmail.com>
wrote:

>Can anyone help me find a datasheet or just the data for this
>transistor?
>
>Thanks.
>
>Brad

3760. Re: Amp for ATV?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 10:17:18 UTC
From: clvancil@aol.com.spxmnix
Message-ID: <20010620061718.09146.00000169@ng-mn1.aol.com>
Source record: 51957

Jim Cronin wrote:

>There is a web page that covers adding a MiniCircuits MMIC to a
>2.4 gig Wavecom unit. It's one of the ERA series. Don't have the
>link handy; a search should turn something up.
>
>Also look for ATV mailing lists.
>

Thanks, that MiniCircuits site is good (http://www.minicircuits.com/)

I think I will use three or four MSA-0986 (cascadable silicon bipolar mmic amps).

73,
Chris Vancil (KD7LRV)
"Limine fato impedito, perage fenestram"
"When fate closes a door go in through a window."
http://members.aol.com/CLVANCIL/MarsBalloon.html

3761. B & K Precision 3010 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 17:17:37 UTC
From: mikemls@hotmail.com
Message-ID: <1b44f5d5.0106200917.62bd06f@posting.google.com>
Source record: 51958
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.equipment,sci.electronics.repair

Does anyone have a B & K Precision 3010 schematic in a jpg or pdf format either on a web page or can sent by email? I have one that needs repair and need to find out values of two semiconductors.

Thanks!
Mike

3762. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 17:42:42 UTC
From: glass2@glass2.lexington.ibm.com
Message-ID: <9gqnai$ld2$1@ausnews.austin.ibm.com>
Source record: 51959
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

In <p0j0jtc2gbbv7gqdq4jekjtakul4jd74f5@4ax.com>, Ian Upright <ian-news@upright.net>
writes:
>"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
>
>>Ian Upright wrote:
>>> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
>>> >If you make the case sturdy enough to protect the circuit board, the case
>>> >cracks easily when you drop it. If you don't, the circuit board cracks
>>> >easily when you drop the unit.
>>>
>>> Or you could just have a sturdy metal case, with a ciruit board inbetween
>>> some foam, and then put a bit of foam around that, and it will withstand
>>> reasonable force and dropping, we're not looking for super industrial
>>> strength units here, just something usable for average use. If all else
>>> fails you can still blow your whistle.
>>
>>Most metals are unsuitable to wet/humid environments. A thin enough case
>>will deform enough to harm the circuitry; a thick one costs, and will
>>still deform under the kind of stresses accidents bring. Foam rots, and
>>actually makes a pretty rotten shockproofing for something that needs to
>>be durable.
>
>Agreed.. A metal case isn't the brightest of ideas. However, something
>sealed in resin would be quite durable.
>
>>> >And waterproof doesn't always mean air-tight. If you don't have air-tight,
>>> >everything -- EVERYTHING, down to the tiniest capacitor -- has to be able
>>> >to withstand salt air. (Sell a freshwater rescue device, someone will use
>>> >it in salt water and sue you when it breaks.) And if you do have air-tight,
>>> >the battery compartment and battery have to be special.
>>>
>>> It would have to be pretty much airtight.
>>
>>Then you're going to have to change the battery weekly. Some batteries
>>will last a month in an airtight case; some won't.
>
>I think you are totally wrong on that. Anyone else care to comment? As far
>as I know a number of different types of batteries are available that will
>function for years in a completely air-tight environment, even sealed in a
>block of resin.
>
>Ian
>

I've been following the discussion for a while, and I think I'd like to wade in with some comments. But, first, I should probably provide some disclaimers. All of the opinions expressed here are my own and in no way represent those of my company. Also, I'm not a lawyer, so any opinions expressed on legal issues are not to be considered legal opinions (And, of course, given that the discussion is occurring in multiple countries, the different legal systems need to be taken into account.).

On the subject of a sealed unit, sea water is one of the worst materials available for the deterioration of metals and electronic components. The salinity will cause most metals to corrode very quickly. Plus, the thermal shocks may cause the salty water to be sucked into even the tiniest crack in the housing. Couple this with the fact that the device needs to be buoyant so that it will float, which will either require an air space, or a fairly large quantity of low density material, and this may accentuate the thermal problems.

Plus, the mechanical vibrations and shocks that the device will have to withstand may tend to cause the housing to crack. And, finally, once these effects have been accounted for, there's the issue of ultraviolet light which may degrade some plastics. In other words, packaging the device is going to be a real trick. Of course, I'm not saying that it can't be done; just that it'll be difficult.

The circuit electronics will probably be the least of the design problems. One poster has already mentioned the SAW devices such as are used in remote control car access buttons. Lithium batteries are available with long shelf lives, and, by prominently date coding the device, replacement time can be specified. Of course, when designing the power source, consideration should be given to the worst case operating environment (e.g., end of shelf-life under worst storage conditions, , worst efficiency of the electronic components, maximum range, worst temperature, etc.).

Choosing a frequency may be a bit trickier, though. Several posters have already mentioned some of the concerns. You obviously want a frequency which will be relatively clear of interference for now and the future around your operating area. A safety device which is being jammed by legitimate signals won't be of much use.

Also, you want a frequency where the device won't interfere with too many other legitimate users. Interfering with one person opening their garage door is probably unimportant. Causing 25,000 garage doors to start opening and closing automatically throughout the day and night might be a bit more cause for concern. Interfering with a tower to airplane communication which results in an airplane crash might be the worst case scenario. (Ok, I'm obviously stretching it here, but I'm trying to make a point.). What I'm trying to say is that there should be frequencies which could be used for the purpose, at least, on a secondary basis, which would not inconvenience large numbers of legitimate users or interfere with

other public safety functions.

One of the choices for frequency usage may be dictated by the watery environment the device is in. If the frequency is too high (microwave bands), then water vapour may start to absorb part of the transmitted signal, lessening the range. If the device is not completely buoyant, then the sea water will attenuate the signal extremely rapidly for just about any reasonable radio frequency. However, too low of a frequency will require an excessive sized antenna for efficient radiation, and, plus, may also cause difficulties in attempting to radio-locate the source of the signal (Think of the receiving equipment and how it will be doing the radio location.).

As for the legal concerns, there are both civil and criminal issues to be concerned with. It appears that you've thought about the civil issues and are content with those. However, remember that in a civil case, the usual tactic is for the injured party to sue everyone even remotely associated with the situation. Thus, not only would the company who made the devices be sued, but the rescue team who was using the devices would probably also be sued, along with the individual team members. Thus, the damages may not be restricted to the shell company, but may be awarded from any and everyone associated.

It also appears that you've contacted the appropriate governmental agencies and have a handle on the possible criminal aspects of the radio laws. However, also consider issues such as negligent homicide and issues such as this. It's hard to believe that such a charge could arise out of the proposed use of the device, but strange things happen in the legal system.

One thing you may want to do is to search for a lawyer who would be willing to advise you on all of the legal aspects. The legal system can be quite complex at times. Given that the project is a non-profit, humanitarian based project, it may be possible to find a lawyer who would be willing to consult with you on a reduced cost or no cost basis.

In addition to the legal concerns, there may also be moral concerns. I've heard the opinion expressed that any safety device is better than no safety device, and I think everyone will, for the most part, agree with that. However, one of the moral concerns would be, if in having the safety device, that it encouraged someone to take excessive risks, due to believing that the safety device will protect them. Thus, someone may actually put their life in additional peril because of the safety device. I think we've all heard of cases where a child ties a blanket around their shoulders and jumps off of a roof, believing that the magic cape they're wearing will allow them to fly. While most reasonable adults wouldn't believe in such a magic device, there are those to whom the RF safety device will appear to be such a magic device, and may take

inordinate risks due to their erroneous belief that it will protect them in all circumstances. Unfortunately, there are a lot of idiots in this world, and at least some of them will be using the proposed device.

A weaker, but possibly more prevalent, form of the moral argument is if the new safety device causes someone to omit a previous safety device from their inventory of safety related equipment. For example, if having the RF safety device causes them to leave out a whistle, a flag, a balloon, or anything else that they might normally carry, then they may be placing themselves at increased risk.

Part of the moral and legal concerns stem from the reliability of the device. Actually, there are two scenarios which need to be considered; that of false negatives, and that of false positives.

A false negative is when a person has legitimately activated the device and it fails to function. This may be due to dead batteries, limited range, corroded circuits, lack of suitable listening equipment, masking of the signal by another signal (interference), or a whole variety of other reasons. In any case, the outcome is pretty much the same; the person's life is in danger. Thus, all of the possible failure modes must be considered.

A false positive is when the device has been triggered when the person's life is not in danger. While this at first sounds much less serious than a false negative, the consequences may be much worse. Consider, for example, that there are 1000 devices in use (I'm just pulling numbers out of the air for the purpose of this illustration, but I think it will make my point.) (Of course, 1000 people need to be present and actively using the device. Some of people may have purchased extra devices, and some of the people with the devices will have them stored somewhere. But, they'll still be present and operational.). Now, consider that, during a typical day, five percent of the devices false positive. That results in 50 false signals per day. Thus, the rescue crews have to make 50 unnecessary runs per day. How many (limited) resources are going to be expended responding to these false positives? How many of these false positives are going to be moving around, necessitating the rescue crew chasing a boat all over the harbour before it can be caught and the offending device deactivated? How long will the rescue crew be able to stay operational given such a drain on their resources?

Also, consider the case where a false positive may be interfering with a legitimate signal. Radio direction finding one clear signal is not too difficult. Radio direction finding one signal out of a dozen on the same frequency is almost impossible without some extremely complex and expensive equipment.

Thus, in addition to designing the device so that it functions when required (e.g., no false negatives), they must be designed so that they will not function when not desired (e.g., no false positives). This is going to be a very difficult design exercise. While it's impossible to prevent deliberate false positives (e.g., Some fool deliberately triggers the device just because he's bored.), accidental false positives must be severely limited (e.g., Someone tosses their lifejacket into the boat, and the shock from hitting the bottom of the boat dislodges the device and triggers it.

Some of the design issues you may want to consider would be things like having each device transmit an ID code to uniquely identify it. The problem with this is that it's going to require a custom programmed part of some type, and this is going to increase the device cost.

You may also want to consider making the devices a one-time-only type of device to discourage tampering and other sources of false positives. An added advantage is that this may require replacement of the device after a use, which could decrease the false negative situation, too (e.g., After the device has been used once, and the batteries partially depleted, the device will have to be replaced, rather than being restored to operational status with partially depleted batteries.). The disadvantage is that users are going to be reluctant to shell out the cost of a new device.

I know I've not addressed many specifics of the design, but I'm not sure that it's appropriate to address the specifics at this time yet. Before the specifics can be designed, the issues of how the device will be used need to be considered, and I think we're only beginning to address those now.

In any case, the project sounds like a worthy idea, but it's going to take a lot of work. I wish you the best of luck with it.

Dave
WA4QAL

P.S. Standard Disclaimer: I work for them, but I don't speak for them. Any ideas, comments, thoughts, or opinions expressed in this post are entirely mine, and do not have any relationship to my employer.

P.P.S. I've seen Vancouver harbour, and the coastal area there is beautiful, although there's quite a bit of shipping traffic in the harbour itself. However, the sound that's south of the city (Oh, what's the name of it? I'v forgotten it.). is even more picturesque.

3763. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 19:16:45 UTC
From: ae517@FreeNet.Carleton.CA
Message-ID: <9gqsqtroc1@freenet9.carleton.ca>
Source record: 51960

(glass2@glass2.lexington.ibm.com) writes:

> to take a lot of work. I wish you the best of luck with it.
>
> Dave
> WA4QAL
>
> P.S. Standard Disclaimer: I work for them, but I don't speak for
> them. Any ideas, comments, thoughts, or opinions expressed in this

Well thought out reply Dave.

The only thing I could add is that perhaps a commercial solution
may be in the works. I know some companies are working on new
man overboard devices, and there's a committee at RTCM called SC-117
maritime survivor locator devices.

There may be more info at the RTCM website at: www.rtcm.org

73 de va3rr/aa8lu
--
73 de va3rr/aa8lu
http://www.qsl.net/va3rr
Check out the new Ship Station Regs at:
http://www.tc.gc.ca/Actsregs/csa-lmmc/csa63.html

3764. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 19:39:24 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <ser1jtgh81gal4gi8islbfv4qm63d667ma@4ax.com>
Source record: 51961
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

glass2@glass2.lexington.ibm.com wrote:

>On the subject of a sealed unit, sea water is one of the worst
>materials available for the deterioration of metals and electronic
>components. The salinity will cause most metals to corrode very
>quickly. Plus, the thermal shocks may cause the salty water to be
>sucked into even the tiniest crack in the housing. Couple this with
>the fact that the device needs to be buoyant so that it will float,
>which will either require an air space, or a fairly large quantity
>of low density material, and this may accentuate the thermal
>problems.
>
>Plus, the mechanical vibrations and shocks that the device will have
>to withstand may tend to cause the housing to crack. And, finally,
>once these effects have been accounted for, there's the issue of
>ultraviolet light which may degrade some plastics. In other words,
>packaging the device is going to be a real trick. Of course, I'm
>not saying that it can't be done; just that it'll be difficult.

Let me give you an example. There are these devices that are attatched for monitoring cow feeding. They hang around a cows neck. Whenever they put their head in the feeder, there is a small radio transmission nearby that provides enough power output for the device to transmit back an identity of the cow. These devices are extremely easy and cheap to make, and are put through all kinds of abuse, being exposed to bumping, smashing into the grain feeders, continually exposed to rain and weather, worn on various cows for years. Actually I know a company locally that used to produce them, and their cost was around 10 or 15 dollars Canadian, and to my knowledge, none of them ever stopped working or broke, once proven to be working after they were hardened and sealed up. They are just plastic cases with all the electronic components sealed in a resin/epoxy like substance. Highly durable, in my opinion. Something like this could be used. Sure, maybe one in ten thousand would break every once and a while, but if we start comparing it to the durability of virtually any other electronic equipment, or even other devices such as smoke flares, there really is no comparison.

>The circuit electronics will probably be the least of the design
>problems. One poster has already mentioned the SAW devices such as
>are used in remote control car access buttons. Lithium batteries
>are available with long shelf lives, and, by prominently date coding
>the device, replacement time can be specified. Of course, when
>designing the power source, consideration should be given to the
>worst case operating environment (e.g., end of shelf-life under
>worst storage conditions, , worst efficiency of the electronic

>components, maximum range, worst temperature, etc.).

Sure, put a 2 or 3 year year shelf live on the things, that would be doable, but I think 5 to 8 years would be more realistic as to their true longevity.

>Choosing a frequency may be a bit trickier, though. Several posters
>have already mentioned some of the concerns. You obviously want a
>frequency which will be relatively clear of interference for now and
>the future around your operating area. A safety device which is
>being jammed by legitimate signals won't be of much use.

Well since you can pick frequencies where users are only supposed to be transmitting 10mW or 100mW on them, and often with poor antennas, I think that isn't going to cause much of an interference. Also, since you have directional antennas, any false alarms wouldn't show up on the water. There would have to be once heck of a high wattage transmission with a good antenna on land before it would interfere. (DF find them and go beat them up!) No, the more likely scenario is that the transmission of the resuce device is interfering with the other devices.

>Also, you want a frequency where the device won't interfere with too
>many other legitimate users. Interfering with one person opening
>their garage door is probably unimportant. Causing 25,000 garage
>doors to start opening and closing automatically throughout the day
>and night might be a bit more cause for concern. Interfering with a
>tower to airplane communication which results in an airplane crash
>might be the worst case scenario. (Ok, I'm obviously stretching it
>here, but I'm trying to make a point.). What I'm trying to say is
>that there should be frequencies which could be used for the
>purpose, at least, on a secondary basis, which would not
>inconvenience large numbers of legitimate users or interfere with
>other public safety functions.

The difficulty is, that the quantities of these kinds of devices that may get produced, may be in the order of a few thousand, or maybe ten thousand. I don't know how much it costs to produce those SAW chips at a specific frequency, but my guess is, to produce one at a specific unique frequency that nobody else is using except for a handful of small boaters, it is going to be pretty darn costly, for even a one time run of say, ten thousand. Thus, sharing the frequency may be a more realistic option. If anyone has any knowledge around these sorts of costs, I'm all ears to know about that too.

>One of the choices for frequency usage may be dictated by the watery
>environment the device is in. If the frequency is too high
>(microwave bands), then water vapour may start to absorb part of the
>transmitted signal, lessening the range. If the device is not
>completely buoyant, then the sea water will attenuate the signal
>extremely rapidly for just about any reasonable radio frequency.
>However, too low of a frequency will require an excessive sized
>antenna for efficient radiation, and, plus, may also cause
>difficulties in attempting to radio-locate the source of the signal

>(Think of the receiving equipment and how it will be doing the radio
>location.).

Yeah, thats why I think somewhere around 100-600 Mhz would be a pretty ideal choice, a smaller antenna, and yet not overly susceptible to interference from water or weather. Someone more experienced with this stuff might be able to give me an idea of exactly what kind of freqency would be ideal for this purpose.. (400 MHz??) I would love for more thought on that.

>As for the legal concerns, there are both civil and criminal issues
>to be concerned with. It appears that you've thought about the
>civil issues and are content with those. However, remember that in
>a civil case, the usual tactic is for the injured party to sue
>everyone even remotely associated with the situation. Thus, not
>only would the company who made the devices be sued, but the
>rescue team who was using the devices would probably also be sued,
>along with the individual team members. Thus, the damages may not
>be restricted to the shell company, but may be awarded from any and
>everyone associated.

Possible. Maybe only in america. :-) I doubt something like that would happen in Cananda. The resuce team already puts themselves at a liability risk by just trying to rescue the individuals with no devices at all.

>In addition to the legal concerns, there may also be moral concerns.

When I see some of my good friends come back with hypothermia, the implication of this device being immoral is pretty disgusting.

>I've heard the opinion expressed that any safety device is better
>than no safety device, and I think everyone will, for the most part,
>agree with that. However, one of the moral concerns would be, if in
>having the safety device, that it encouraged someone to take
>excessive risks, due to believing that the safety device will
>protect them. Thus, someone may actually put their life in
>additional peril because of the safety device. I think we've all
>heard of cases where a child ties a blanket around their shoulders
>and jumps off of a roof, believing that the magic cape they're
>wearing will allow them to fly. While most reasonable adults
>wouldn't believe in such a magic device, there are those to whom the
>RF safety device will appear to be such a magic device, and may take
>inordinate risks due to their erroneous belief that it will protect
>them in all circumstances. Unfortunately, there are a lot of idiots
>in this world, and at least some of them will be using the proposed
>device.

So attatch a whistle to the device when it is sold. If they remove it on their own account, that is their problem, and we would never be held liable for that. Put a disclaimer on it, that these devices aren't 100% foolproof. However, how is it any different than someone taking out a smoke flare and deciding that now they are all protected and safe, when those things are so ineffective I certainly wouldn't trust my life to it.

>A weaker, but possibly more prevalent, form of the moral argument is
>if the new safety device causes someone to omit a previous safety
>device from their inventory of safety related equipment. For
>example, if having the RF safety device causes them to leave out a
>whistle, a flag, a balloon, or anything else that they might
>normally carry, then they may be placing themselves at increased
>risk.

True. Many of these people, believe it or not, don't even carry *any*
safety devices (except lifejackets) because they feel they don't offer that
much beneift. (and they are right to some degree, and definately stupid to
some degree) There is some logic to it though, because if you are close
enough that someone could hear you with a whistle, it might be true that
someone can see you waving your arms about too. A more likely dangerous
scenario is where nobody can see OR hear you (windstorm, heavy rain, nobody
wants to look or go outside). I would guess that 99.9% of all these sailors
& such don't carry any safety device at all that would attract attention for
a longer range, and I think primarily for the reason that no effective
device exists.

>Part of the moral and legal concerns stem from the reliability of
>the device. Actually, there are two scenarios which need to be
>considered; that of false negatives, and that of false positives.
>
>A false negative is when a person has legitimately activated the
>device and it fails to function. This may be due to dead batteries,
>limited range, corroded circuits, lack of suitable listening
>equipment, masking of the signal by another signal (interference),
>or a whole variety of other reasons. In any case, the outcome is
>pretty much the same; the person's life is in danger. Thus, all of
>the possible failure modes must be considered.
>
>A false positive is when the device has been triggered when the
>person's life is not in danger. While this at first sounds much
>less serious than a false negative, the consequences may be much
>worse. Consider, for example, that there are 1000 devices in use
>(I'm just pulling numbers out of the air for the purpose of this
>illustration, but I think it will make my point.) (Of course, 1000
>people need to be present and actively using the device. Some of
>people may have purchased extra devices, and some of the people with
>the devices will have them stored somewhere. But, they'll still be
>present and operational.). Now, consider that, during a typical
>day, five percent of the devices false positive. That results in 50
>false signals per day. Thus, the rescue crews have to make 50
>unnecessary runs per day. How many (limited) resources are going to
>be expended responding to these false positives? How many of these
>false positives are going to be moving around, necessitating the
>rescue crew chasing a boat all over the harbour before it can be
>caught and the offending device deactivated? How long will the
>rescue crew be able to stay operational given such a drain on their
>resources?

That is a whole lot of false positives, and seems like an unreasonably high estimation to me. If it is somewhat difficult or takes a very deliberate action to activate the device, I think we would see relatively few false positives. Nobody is going to want to destroy their one-time use safety device and have to go buy a new one, so I think the number of false positives will be very low.

>Also, consider the case where a false positive may be interfering
>with a legitimate signal. Radio direction finding one clear signal
>is not too difficult. Radio direction finding one signal out of a
>dozen on the same frequency is almost impossible without some
>extremely complex and expensive equipment.

If you have two signals, then everybody is still aware that there is an emergency going on. Suddenly you attract and get everybody around to start looking out on the water for people, and perhaps several boats heading out to start searching for these numerous individuals. Once one is found, the interfering signal is shut off, and the second person then can be easily found by DF means. Sometimes just broadcasting a signal of "hey, there is someone who is distressed somewhere on the water out here" may be sufficient enough that this alone could provide significant benefit in saving lives, because you can always increase the size of your search team in case of an emergency. Also, the chances of a real emergency and a false positive, going of at the *exact* same time (within minutes) are, I think, extremly small.

>Thus, in addition to designing the device so that it functions when
>required (e.g., no false negatives), they must be designed so that
>they will not function when not desired (e.g., no false positives).
>This is going to be a very difficult design exercise. While it's
>impossible to prevent deliberate false positives (e.g., Some fool
>deliberately triggers the device just because he's bored.),
>accidental false positives must be severely limited (e.g., Someone
>tosses their lifejacket into the boat, and the shock from hitting
>the bottom of the boat dislodges the device and triggers it.

Yes, the activation mechanisim would have to withstand continual forces upon it, and yet not activate, still, I don't think its that difficult of an engineering problem.

>Some of the design issues you may want to consider would be things
>like having each device transmit an ID code to uniquely identify it.
>The problem with this is that it's going to require a custom
>programmed part of some type, and this is going to increase the
>device cost.

Well we probably will be including a $1 PIC chip in it anyways, but I'm not sure that an individual ID would be all that necessary.

>You may also want to consider making the devices a one-time-only
>type of device to discourage tampering and other sources of false
>positives. An added advantage is that this may require replacement
>of the device after a use, which could decrease the false negative

>situation, too (e.g., After the device has been used once, and the
>batteries partially depleted, the device will have to be replaced,
>rather than being restored to operational status with partially
>depleted batteries.). The disadvantage is that users are going to
>be reluctant to shell out the cost of a new device.

Yes, they will definately be a one-time use device. Perhaps a two-colour LED could be used, in combination with the PIC circuitry. One colour would display that the device is still functioning and hasn't been used, another colour would display that the device has been used, but is still functioning. You should dispose of it, if it exhibits the wrong colour.

Ian

3765. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 19:49:05 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <siv1jto16qbm2te5e42oo1gj10sot3f3nj@4ax.com>
Source record: 51962

ae517@FreeNet.Carleton.CA (Russ Renaud) wrote:

>The only thing I could add is that perhaps a commercial solution
>may be in the works. I know some companies are working on new
>man overboard devices, and there's a committee at RTCM called SC-117
>maritime survivor locator devices.

Really? Thats cool, I'll have to do some more reaserch on that. I wonder what frequencies they are using, what chips they are using, and how big the end product is.

Ian

3766. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 20:12:36 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b3103b4@news.svn.net>
Source record: 51963
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Hello, Ian -

If you'd like, I can send you a schematic of the lithium powered SAW stabilized beacon I mentioned. Do you have any capability of making them up there? Would you like to discuss such a design? Let me know.

Best to you and your friends!

Jim Horn WB9SYN/6 Let's solve a problem, not just BS it to death folks.

3767. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 20:15:54 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <o312jts2d8em82d73r8sanggcfg4q25dfi@4ax.com>
Source record: 51964
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

James Horn <jimhorn@svn.net> wrote:

>If you'd like, I can send you a schematic of the lithium powered SAW
>stabilized beacon I mentioned. Do you have any capability of making them
>up there? Would you like to discuss such a design? Let me know.

Sure, know how to interpret schematics, layout and build PCB's. My biggest problem is I'm not convinced as to what chips/frequencies we should be using, but if you have a schematic for a design already I'm sure it would be helpful! I think eventually we may design something a little more sophisticated with a PIC chip perhaps.

Thanks!

Ian

3768. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 20:20:29 UTC
From: Dave <daveman@usa.net>
Message-ID: <9gr0kq$anbqh$1@ID-49477.news.dfncis.de>
Source record: 51965

Ian Upright <ian-news@upright.net> wrote in message
news:uqe0jtc0fbo13fqgonac5rb1javtie8aej@4ax.com...
From what I have read.... you want the world for a nothing price......if
only!

3769. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 21:39:36 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <r262jt48dcv0dnojipkob69mufq7mvo0i9@4ax.com>
Source record: 51966

"Dave" <daveman@usa.net> wrote:

>Ian Upright <ian-news@upright.net> wrote in message
>news:uqe0jtc0fbo13fqgonac5rb1javtie8aej@4ax.com...
>From what I have read.... you want the world for a nothing price......if
>only!

Not only do I want it, but I can provide it. So there! :)

Ian

3770. Re: B & K Precision 3010 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 22:22:10 UTC
From: mikemls@hotmail.com
Message-ID: <1b44f5d5.0106201422.4046b1cb@posting.google.com>
Source record: 51967
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment,sci.electronics.equipment,sci.electronics.repair

mikemls@hotmail.com (Mike) wrote in message
news:<1b44f5d5.0106200917.62bd06f@posting.google.com>...
> Does anyone have a B & K Precision 3010 schematic in a jpg or pdf
> format either on a web page or can sent by email? I have one that
> needs repair and need to find out values of two semiconductors.
>
> Thanks!
> Mike

I'd like to thank David for emailing me and helping me out! Thanks David!!!

Mike

3771. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 22:56:35 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B312A23.6B7D920D@clifto.com>
Source record: 51968
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> glass2@glass2.lexington.ibm.com wrote:
> >In addition to the legal concerns, there may also be moral concerns.
>
> When I see some of my good friends come back with hypothermia, the
> implication of this device being immoral is pretty disgusting.

There you go again. "ATTENTION ALL STATIONS: Ian and his buddies want to go kayaking. All stations are to cease all transmissions on all frequencies immediately and remain off-air until further notice. It is the moral duty of the world to protect Ian and his friends, and not to inconvenience them while they play."

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3772. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 23:08:08 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <s7b2jtkn6ccc0j00vhb199i9gf3tslrefj@4ax.com>
Source record: 51969
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Ian Upright wrote:
>> glass2@glass2.lexington.ibm.com wrote:
>> >In addition to the legal concerns, there may also be moral concerns.
>>
>> When I see some of my good friends come back with hypothermia, the
>> implication of this device being immoral is pretty disgusting.
>
>There you go again. "ATTENTION ALL STATIONS: Ian and his buddies want to
>go kayaking. All stations are to cease all transmissions on all frequencies
>immediately and remain off-air until further notice. It is the moral duty
>of the world to protect Ian and his friends, and not to inconvenience them
>while they play."

For someone who is supposedly Sharp, you seem to be pretty darn dull.

Ian

3773. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-20 23:19:17 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <rrb2jto3vvn8i457npoqn15iru1l3670lo@4ax.com>
Source record: 51970
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

I found what seems to be the only commercially available suitable device.

It, and combined with the waterproof case, sure isn't cheap, and IMO, it's still oversized.

http://www.divernet.com/blandfrd/pblhome.htm

Ian

3774. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 00:10:33 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ZXaY6.100793$v5.7552717@news1.rdc1.ct.home.com>
Source record: 51971
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

The main point:

Compatible with existing search & rescue (SAR) services

"Ian Upright" <ian-news@upright.net> wrote in message
news:rrb2jto3vvn8i457npoqn15iru1l3670lo@4ax.com...
> I found what seems to be the only commercially available suitable device.
>
> It, and combined with the waterproof case, sure isn't cheap, and IMO, it's
> still oversized.
>
> http://www.divernet.com/blandfrd/pblhome.htm
>
> Ian
>

3775. FAQ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 02:22:08 UTC
From: PartsGuy <bmurrey@amexol.net>
Message-ID: <bUcY6.460$34.427251@news1.iquest.net>
Source record: 51972

I just turned this group on, is there a FAQ someplace?

I'm a parts scrounger, and from time to time I find a deal on a part. Is it
OK if I offer the ocassional find here for sale in this newsgroup?

73

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

3776. Re: FAQ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 04:04:22 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B3174C5.4629@pop.removethistomailme.net>
Source record: 51973

PartsGuy wrote:
>
> I just turned this group on, is there a FAQ someplace?
>

Closest thing to an FAQ seems to be at
http://groups.google.com/groups?hl=en&safe=off&th=ad881aef57c63230,18&start=0&ic=1.
Unfortunately I don't think there's an r.r.a.h-specific FAQ anywhere.

> I'm a parts scrounger, and from time to time I find a deal on a part. Is it
> OK if I offer the ocassional find here for sale in this newsgroup?
>
> 73

Technically that sort of thing is supposed to go in rec.radio.swap or
misc.industry.electronics.marketplace, but that being said, it hasn't
been a problem here in the past when done on an occasional, informal
basis. I'm fine with it, but others will disagree.... it's up to your
own sense of propriety and flame tolerance. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3777. Re: PSK31 QUESTION

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 04:10:10 UTC
From: Cirip <cirip@yahoo.com>
Message-ID: <DseY6.6284$F42.119739@newscontent-01.sprint.ca>
Source record: 51974

Try 14.070MHz +/- few KHz

WD9ATU <wd9atu@qsl.net> wrote in message
news:9gqaor$2d0b$1@nix2.kconline.com...
> We are planning on running PSK31 at our Field Day site. We are not use to
> using it, and it will be kind of a playing around and testing phase for
us.
> I know there is a lot of band that digital can be used, but is there any
> special frequency that you can find someone on the bands?
>
>

3778. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 05:53:38 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <a8gY6.72529$u34.3233493@e420r-sjo2.usenetserver.com>
Source record: 51975
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Ian Upright" wrote ...
> Let me give you an example. There are these devices that are attatched
for
> monitoring cow feeding. They hang around a cows neck. Whenever they put
> their head in the feeder, there is a small radio transmission nearby that
> provides enough power output for the device to transmit back an identity
of
> the cow. These devices are extremely easy and cheap to make, and are put
> through all kinds of abuse, being exposed to bumping, smashing into the
> grain feeders, continually exposed to rain and weather, worn on various
cows
> for years. Actually I know a company locally that used to produce them,
and
> their cost was around 10 or 15 dollars Canadian, and to my knowledge, none
> of them ever stopped working or broke, once proven to be working after
they
> were hardened and sealed up. They are just plastic cases with all the
> electronic components sealed in a resin/epoxy like substance. Highly
> durable, in my opinion. Something like this could be used.

Nice try, but no cigar. You inadvertently revealed yourself why this
wouldn't work!

As you pointed out, these are PASSIVE devices (similar to the anti-theft
devices used by retail stores, and the "chips" they put into domestic pets).
They only work when there is a relatively powerfully transmitter/receiver in
close proximity. They most defiinitely do not work at the distances you
would need. If you are close enough for a passive device to work, you are
close enough to throw them a life preserver!

RC

3779. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 06:04:10 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B318E5A.3CB2F030@clifto.com>
Source record: 51976
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> For someone who is supposedly Sharp, you seem to be pretty darn dull.

I usually get the point. Don't put us on edge with cutting remarks.
Don't be flat, be sharp, be natural.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3780. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 06:28:18 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <bv43jt0sfkv7qan6gg21127legd255nimv@4ax.com>
Source record: 51977
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Richard Crowley" <rcrowley7@xprt.net> wrote:

>Nice try, but no cigar. You inadvertently revealed yourself why this
>wouldn't work!
>
>As you pointed out, these are PASSIVE devices (similar to the anti-theft
>devices used by retail stores, and the "chips" they put into domestic pets).
>They only work when there is a relatively powerfully transmitter/receiver in
>close proximity. They most defiinitely do not work at the distances you
>would need. If you are close enough for a passive device to work, you are
>close enough to throw them a life preserver!

Uhhhh.. Are all Hams generally this bright? Perhaps they don't require as
much technical knowledge as they used to in the good old days. :-)

I was describing the durability and longevity of electronic components
sealed in resin. What did you think I was describing?

Ian

3781. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 06:48:12 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <j063jtsn8vah8kbeuk79aml9032gfbgnvn@4ax.com>
Source record: 51978
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Ian Upright wrote:
>> For someone who is supposedly Sharp, you seem to be pretty darn dull.
>
>I usually get the point. Don't put us on edge with cutting remarks.
>Don't be flat, be sharp, be natural.

Ok Sharp boy, lets see if you can tell me exactly how long of an antenna I
should make for a 418 MHz transmitter, for practical use in this sort of
application.

Ian

3782. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 07:02:42 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <6p63jt4k5ul3l6ta356pu5ckhcapvapjf0@4ax.com>
Source record: 51979
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

James Horn <jimhorn@svn.net> wrote:

>If you'd like, I can send you a schematic of the lithium powered SAW
>stabilized beacon I mentioned. Do you have any capability of making them
>up there? Would you like to discuss such a design? Let me know.

James, I found this great little SAW device, very small, its called the
TLP434 -- what do you think of it? I think I'm gonna order one and play.
They're only about US $3 in quantity! Crazy cheap. I'm going to ask them
how much it would cost to cook me up a little batch at 243 MHz, instead of
418 or the other frequencies they have. Somehow I'm doubting it will be
real cheap. :-)

http://www.laipac.com/msg5.htm

Ian

3783. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 07:11:20 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <fh73jt8l6tji8o2kne438m051k1lqkpb5j@4ax.com>
Source record: 51981
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

http://www.laipac.com/msg4.htm

Wow, would you look at those little doodads. You could throw those in the same box that is much smaller than a cigarette pack, and it could transmit your entire GPS location to boot! Crazy. I bet they are cheap in quantity too.

Ian

3784. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 07:20:32 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B31A2C3.5F95@pop.removethistomailme.net>
Source record: 51982
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
>
> >As you pointed out, these are PASSIVE devices (similar to the anti-theft
> >devices used by retail stores, and the "chips" they put into domestic pets).
> >They only work when there is a relatively powerfully transmitter/receiver in
> >close proximity. They most defiinitely do not work at the distances you
> >would need. If you are close enough for a passive device to work, you are
> >close enough to throw them a life preserver!
>
> Uhhhh.. Are all Hams generally this bright?

You know, Richard, you've got a point there. This whole exchange must
be very trying for you. If I were you, I'd give up on us altogether,
and try one of the groups in the sci.electronics hierarchy instead.
It's clear you're in need of the kind of professional assistance that
simply can't be found here.

> Perhaps they don't require as
> much technical knowledge as they used to in the good old days.

Yep, I'll bet that's it in a nutshell. It's fortunate that you've
realized this at such an early juncture -- who knows how much more of
your time you might have wasted dealing with unqualified people?

Best of luck in your quest, and be sure to let us know how things turn
out once your problem is solved. On behalf of the group, I apologize
for our lack of insight into the true nature of your problem.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3785. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 07:23:10 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B31A361.2B22@pop.removethistomailme.net>
Source record: 51983
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

John Miles wrote:

> You know, Richard, you've got a point there.

Sorry, I meant to address this to Ian. It's late, and like the rest of this group, it looks like I'm doomed to fall short of the mark in just about every aspect of communications work!

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

3786. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 07:39:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B31A498.3BF16117@clifto.com>
Source record: 51984
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
> Ok Sharp boy, lets see if you can tell me exactly how long of an antenna I
> should make for a 418 MHz transmitter, for practical use in this sort of
> application.

Depends where you're putting the antenna. If you use a 1/4 wave and make
sure it's at least a few wavelengths away from other objects and has a
good ground plane (nearly impossible), the book formulas apply.

You probably don't want a 1/4 wave antenna.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

3787. Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 08:10:19 UTC
From: bpasaric@mac.com
Message-ID: <1evch2r.1fxab551fc06aiN%bpasaric@mac.com>
Source record: 51980

How does the Tayloe Mixer work?

For the whole of my life (I am 69 now) I had to read and understand analogue electric diagrams which I can do very quickly - almost at a glance. Then, digital technology has come and is pushing out the analogous one. Now, I cannot read those new diagrams as easily as before. My brain is helplessly analogous. When reading those digital boxes I usually begin thinking of a lamp switch, which is either OFF or ON, but when the things become more complicated I lose the thread.

Now I am trying to understand how the Tayloe mixer works. Dan's description of his stream of thoughts when driving over the continent has helped me a lot, and Gerald Youngblood's additional explanation was also useful. Because I am a visual type, I have made the following picture in my mind:

We all know those situations when we watch a film or TV and when a carriage passes by, but the wheels turn very slowly forwards or even backwards. Obviously, what we see is the difference frequency between the shooting speed of the camera (25 pictures per second) and the frequency of the spokes in the wheel. First, the process is digital, because the picture is either on, or off; and so are the spokes. Second, there is no sum of frequencies, only the difference, so it is not a picture of a mixer. Third, we can see this difference frequency directly, without any additional device, like in the Tayloe Mixer. If the spoke frequency is higher than the camera frequency, the wheel turns slowly forwards (USB); and if the spoke frequency is lower than the camera frequency it turns slowly backwards (LSB). Anyhow, we see the result directly, pretty in the same way as in Tayloe Mixer when we get the SSB directly from his detector (or digital filter).

Now, will someone with a deeper insight into Tayloe Mixer tell me if my comparison and explanation are correct? Thanks.
Bozidar, 9A2HL

3788. Wented schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 09:12:30 UTC
From: sp5hgq <sp5hgq@poczta.onet.pl>
Message-ID: <3b31bb68@news.vogel.pl>
Source record: 51985

Hi!
Wented scanner schematic (service manual's) or homebrew aplications .

Thanks Mariusz G. SP5HGQ

3789. Yaesu FT-757GX Receiver Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 10:26:38 UTC
From: jphelan501@aol.com
Message-ID: <20010621062638.09285.00000317@ng-mm1.aol.com>
Source record: 51986

Hello to all.

This is not really a homebrew item, but here goes...

I have a Yaesu FT-757GX on my bench that I am fixing for a friend of mine. I got the transmit section working (original complaint), and now the receive pre-amp seems to be oscillating.The preamp works on 80 meters. On other bands- howls, S9+ noise level, and motorboating.

Any ideas, modifications, or web sites dealing with this problem would be greatly appreciated.

Thanks & 73
John N3DRA

3790. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 12:10:26 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9gso8v0qkl@enews1.newsguy.com>
Source record: 51987

Dan had a pretty good posting on QRP-L just last week (6/16) where he talks about the thought process that brought him to the mixer. That might help. Also, there were several threads on QRP-L in the fall of '98 around the mixer between Dan, Paul Harden and Dave Fifield. Great stuff reading the discussion between these folks.

The QRP-L archives are at http://qrp.lehigh.edu/lists/qrp-l/

didleydadidah

"Bozidar Pasaric" <bpasaric@mac.com> wrote in message news:1evch2r.1fxab551fc06aiN%bpasaric@mac.com...
> How does the Tayloe Mixer work?
>

3791. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 16:43:32 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <8u84jt0o67pklckolkfjj557q54tdnj5og@4ax.com>
Source record: 51988
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Depends where you're putting the antenna. If you use a 1/4 wave and make
>sure it's at least a few wavelengths away from other objects and has a
>good ground plane (nearly impossible), the book formulas apply.
>
>You probably don't want a 1/4 wave antenna.

Thats what I figured. A 1/2 wave at 418 MHz is 13.4", which is about right,
I think. A 1/4 wave at 243 MHz (EPIRB frequency) is 11.5", but I'm not sure
that a 1/4 antenna would be that sufficient for this application, or maybe
some extra coiling could be done to make it work better.. ??

Perhaps 418+ MHz is much more suited to this type of application. :-)

Ian

3792. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 16:58:04 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b32279c@news.svn.net>
Source record: 51989
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian & friends -

I don't have a schematic for the proposed beacon yet - I'll work it up this weekend and order the parts to verify the design. But it's not rocket science - any Amateur Extra has already verified their knowledge of how to do it. Or most electrical engineers. Unless they've forgotten.

So, anyone else want to join in the fun of creating a solution instead of bellyaching about why you cant?

More news soon. Best to all!

Jim Horn WB9SYN/6 (Anyone want to race to a proven prototype?)

3793. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 17:19:41 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B322CAD.471478B5@midwestmicro-tek.com>
Source record: 51991
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

You forgot to add "and don't let the door hit you on the ass on the way out". I thought about the solution that James Horn gave in his post. I had a SAW resonator at 315 laying around from a previous project at work so after a quick visit to the panasonic web sight, a look in the junk box, and a visit to the local Radio Shack, I built this device (I won't be needing the schematics James, but thanks) . After some tweaking I got a mile of dirty signal out of it. I'm sure with a little more tweaking and a more suitable transistor on the PA (I do strictly HF tube based stuff so I didn't have much for a solid state PA transistor for that high of frequency) I could get a couple of miles out of it. I didn't want to have such a piece of out of band dirty crap on the air for too long so I have not done any serious testing with it but it should work, all for about $20 to $25. There is also a very obvious way to to water/air proof it and and some shook resistance for pennies per unit. I really have my misgivings about the rugged part of it though. Or about getting it to last very long. A lithium battery can pack a lot of energy but if you leave it in an air tight container for hours on end in the sun I bet the inside temp will get pretty hot. I haven't done any real chemistry since college but I bet cycling from hot to cold is going to shorten the shelf life the battery long before its time.

I'd like to help Mr. Upright out but I have this thing about helping people out who get rude when told by the people he has asked to help him that he can't have the sun *and* the moon. So no schematics or constructions notes for Mr. Upright. I don't agree that he is a troll. But his manner on the NG is certainly troll like.

Rick KC0GIX

John Miles wrote:

> Ian Upright wrote:
> >
> > >As you pointed out, these are PASSIVE devices (similar to the anti-theft
> > >devices used by retail stores, and the "chips" they put into domestic pets).
> > >They only work when there is a relatively powerfully transmitter/receiver in
> > >close proximity. They most defiinitely do not work at the distances you
> > >would need. If you are close enough for a passive device to work, you are
> > >close enough to throw them a life preserver!
> >
> > Uhhhh.. Are all Hams generally this bright?
>
> You know, Richard, you've got a point there. This whole exchange must
> be very trying for you. If I were you, I'd give up on us altogether,
> and try one of the groups in the sci.electronics hierarchy instead.
> It's clear you're in need of the kind of professional assistance that
> simply can't be found here.

>
> > Perhaps they don't require as
> > much technical knowledge as they used to in the good old days.
>
> Yep, I'll bet that's it in a nutshell. It's fortunate that you've
> realized this at such an early juncture -- who knows how much more of
> your time you might have wasted dealing with unqualified people?
>
> Best of luck in your quest, and be sure to let us know how things turn
> out once your problem is solved. On behalf of the group, I apologize
> for our lack of insight into the true nature of your problem.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

3794. Systron Donner 1702 RF generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 17:36:41 UTC
From: J-R Roy <jean-roger.roy@wanadoo.fr>
Message-ID: <9gtbba$mo4$1@wanadoo.fr>
Source record: 51990

Does anyone know where to find the diagram of this generator ? My sample needs a serious checking ! I have found an italian web site where to get the servicing manual, but rather expensive (100 $ / 120 Euro).

Jean-Roger - F6EGK

3795. help on dummy load

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 18:24:48 UTC
From: Tazanator <NOones@home.com>
Message-ID: <QZqY6.107612$DG1.17804570@news1.rdc1.mi.home.com>
Source record: 51992

okay I have the one gal can and I know it gets a female connector on top.
From the connector is it a random wire into the oil or what?

KB9YMX

--

3796. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 18:59:40 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <5sg4jt42q795pk72dsrfd0s3tivpglodg6@4ax.com>
Source record: 51993
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

James Horn <jimhorn@svn.net> wrote:

>Ian & friends -
>
>I don't have a schematic for the proposed beacon yet - I'll work it up
>this weekend and order the parts to verify the design. But it's not
>rocket science - any Amateur Extra has already verified their knowledge of
>how to do it. Or most electrical engineers. Unless they've forgotten.
>
>So, anyone else want to join in the fun of creating a solution instead of
>bellyaching about why you cant?
>
>More news soon. Best to all!

Hey James.. Check this out. Holtek will cook up some of these SAW chips at 243 MHz, for a US $2000 up front fee. Crazy! I figured it would be much more than that. So building these devices using an EPIRB frequency is a definate possiblity. Now comes to the debate.. 121.5 is a little more popular for EPIRBs, and 243 is a military EPRIB, but also an acceptable frequency since some EPIRBS I know transmit on both. I think 243 would be better suited to this, since the antenna length is shorter. Ideas? I'd wager I'd have to send in my finished product to Industry Canada, but they seemed to be pretty happy about the idea of these devices existing that anyone could afford. I'm going to see what frequency they reccomend.

So I'm pretty happy, I think I've found the transmitter chip/manufacturer I was looking for, so the majority of the unsolved problems are done. :)

I think I'd want to do some experiments with their 315 Mhz variety first, and then if that went really well, we could consider producing larger quantities of these guys at 243.

So, for reference, the transmitter is at: http://www.laipac.com/msg5.htm
Now, we would need to come up with a schematic, and put in some kind of broadband amplifier to boost the power above 8 mW. :) Should be a peice of cake. Now I'm gonna have to start looking into PIC chips we could use.

Ian

3797. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 19:00:29 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B32444D.229E74B4@clifto.com>
Source record: 51994

Bozidar Pasaric wrote:
> How does the Tayloe Mixer work?

Read <http://www.amrad.org/pipermail/tacos/1998/000464.html>, which is an explanation by Dan himself, then re-read it, then ask questions. :)

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3798. Re: help on dummy load

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 19:08:39 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9gtgnn$8l1$2@woodrow.ucdavis.edu>
Source record: 51995

In the gal can of mineral oil, you do the "or what" part, which is most often at least one or more resistors that equal approx 50 ohms. The center pin of your top mounted SO-239 connector is soldered to one side of the resistor(s), the can / case (ground) is connected to the other side of the resistor(s).

Above the lower HF range you might want to concern yourself with the type of path/conductors you make your resistor connections with. For best operation over a wider frequency range, one would hope to similate a path that acts like a good quality 50 ohm piece of hard line / coax right up to and including the resistor.

Heathkit did it with a rather unique sheet metal assembly that the large non inductive resistor fit into.

You must also concern yourself with the type of resistor along with it's power rating. One would hope to use non inductive types. Many home brew loads are made up with carbon and metal film resistors. Wire wound is bad news.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu have a look at my amateur radio pages...

: Tazanator <NOones@home.com> wrote:
: okay I have the one gal can and I know it gets a female connector on top.
: From the connector is it a random wire into the oil or what?

: KB9YMX

: --

3799. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 19:37:04 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <uui4jto6ulbefqb5grujes9lae45tcsuoo@4ax.com>
Source record: 51996
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Rick Haub <rhaub@midwestmicro-tek.com> wrote:

>I'd like to help Mr. Upright out but I have this thing about helping people out who
>get rude when told by the people he has asked to help him that he can't have the
>sun *and* the moon. So no schematics or constructions notes for Mr. Upright. I
>don't agree that he is a troll. But his manner on the NG is certainly troll like.

Well I never imagined in coming to this group asking for help, that I would initially be treated which such incredible rudeness, or even being insulted and called a troll, for an entirely worthwhile and good project that would end up saving lives. So I'm not entirely surprised at myself for being a bit rude back to some of these individuals in this newsgroup, sorry, but I had much higher expectations than to come here and mainly just get harassed. Alas, its likely not Hams in general, just a select few that happen to hang out in this newsgroup. Also, for every 500 fantastic readers and knowledgable, helpful people, you get one who is rude and pollutes the newsgroup with stupidity.

In fact, I've never even came close to demanding the sun and the moon. All I wanted was a bit information if people knew it and wanted to give it, and creative input, if they wanted to give it. I didn't demand that anybody do anything, and I certainly wasn't asking for the sun and the moon. Mostly all I ended up getting is harassed and told that the project is a lost cause, when even government agencies think its a great idea and are offering to help me out as much as they can. Ridiculous.

So have a nice day and I obviously have little use for this newsgroup.

Ian

3800. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 19:48:37 UTC
From: ritter@io.com
Message-ID: <3b324ef6.15034180@news.io.com>
Source record: 51897

On Thu, 21 Jun 2001 09:10:19 +0100, in
<1evch2r.1fxab551fc06aiN%bpasaric@mac.com>, in
rec.radio.amateur.homebrew bpasaric@mac.com (Bozidar Pasaric) wrote:

>[...]
>We all know those situations when we watch a film or TV and when a
>carriage passes by, but the wheels turn very slowly forwards or even
>backwards. Obviously, what we see is the difference frequency between
>the shooting speed of the camera (25 pictures per second) and the
>frequency of the spokes in the wheel. First, the process is digital,
>because the picture is either on, or off; and so are the spokes. Second,
>there is no sum of frequencies, only the difference, so it is not a
>picture of a mixer.

Well, that is an interesting analogy. It basically seems to be a
Nyquist sampling problem, with the sampling rate being too slow to
resolve the motion of the spokes. But if we can't see the spokes at
their full rotational rate, we surely can't expect to see the sum of
sampling plus that rate. So, in my view, the experiment does not
testify that no sum frequency occurs.

Switching mixers are old (tube) technology, and bus-switch mixers work
pretty much the same way: They switch a linear signal on and off.
Balanced mixers hide the mixer frequency by switching two linear
signals which have opposite phase (or by switching a transformer
output back and forth in phase). This is much easier now that we have
small, low-cost, high-speed and matched components in an IC.

Of course, in reality, most digital logic is composed of "linear"
(analog) devices used over restricted voltage regions. As one might
expect, a large signal into the FET which is a bus switch does affect
the conduction of that switch to some extent, which is distortion.

In my view, any switching mixer *must* create both sum and difference
frequencies. (Indeed, a switching mixer *also* will create sum and
difference frequencies, with reducing amplitudes, at square wave
mixing multiples of 3x, 5x, 7x and so on.) But removing the major sum
frequency when converting to baseband has never been a problem: We
just use a simple R-C filter, or even amplify just audio. We can and
sometimes do listen to AM signals with a zero-beat BFO. Nobody is
concerned about the double IF frequency produced by the product
detector.

The real problem has always been that this is not a "single signal"
system, in that signals slightly above the mixing frequency convert to
audio (baseband) just like signals slightly below the mixing

frequency. So it works for AM or DSB, but not so well for SSB or CW.

Now, if we have a pair of mixers in quadrature, with appropriate fixed-phase quadrature signal delays, it is possible to reject one mixing sideband, to some extent (up to 30dB or, with another stage, perhaps 50dB). This is also well-known old technology (and we really want 100+dB). Unfortunately, the necessary fixed-phase delay at audio has always been both a problem and a limiting factor in performance. But I don't see that as having been fixed, or, indeed, affected at all.

>Third, we can see this difference frequency
>directly, without any additional device, like in the Tayloe Mixer. If
>the spoke frequency is higher than the camera frequency, the wheel turns
>slowly forwards (USB); and if the spoke frequency is lower than the
>camera frequency it turns slowly backwards (LSB). Anyhow, we see the
>result directly,
> pretty in the same way as in Tayloe Mixer when we
>get the SSB directly from his detector (or digital filter).

That sounds like the real problem, displayed: We can "see" spokes equally well both at slightly above, and also slightly below, the mixing frequency. In fact, if the shot lasts long enough, we can go through a couple of these, as the wheels speed up. I think I have actually seen cowboy movies where the stagecoach uses larger and smaller wheels, where one can see the spokes of different wheels rotate in opposite directions simultaneously.

>Now, will someone with a deeper insight into Tayloe Mixer tell me if
>my comparison and explanation are correct? Thanks.
>Bozidar, 9A2HL

Perhaps we can encourage a deeper discussion.

Terry KF5MH

3801. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 19:58:21 UTC
From: Johan Vannebo <vannebo@online.no>
Message-ID: <fmsY6.4245$sC3.73352@news1.oke.nextra.no>
Source record: 51898
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

For your information - it's even worse in the rec.radio.amateur.misc group!

"Ian Upright" <ian-news@upright.net> wrote in message
news:uui4jto6ulbefqb5grujes9lae45tcsuoo@4ax.com...
> Rick Haub <rhaub@midwestmicro-tek.com> wrote:
>
> >I'd like to help Mr. Upright out but I have this thing about helping
people out who
> >get rude when told by the people he has asked to help him that he can't
have the
> >sun *and* the moon. So no schematics or constructions notes for Mr.
Upright. I
> >don't agree that he is a troll. But his manner on the NG is certainly
troll like.
>
> Well I never imagined in coming to this group asking for help, that I
would
> initially be treated which such incredible rudeness, or even being
insulted
> and called a troll, for an entirely worthwhile and good project that would
> end up saving lives. So I'm not entirely surprised at myself for being a
> bit rude back to some of these individuals in this newsgroup, sorry, but I
> had much higher expectations than to come here and mainly just get
harassed.
> Alas, its likely not Hams in general, just a select few that happen to
hang
> out in this newsgroup. Also, for every 500 fantastic readers and
> knowledgable, helpful people, you get one who is rude and pollutes the
> newsgroup with stupidity.
>
> In fact, I've never even came close to demanding the sun and the moon.
All
> I wanted was a bit information if people knew it and wanted to give it,
and
> creative input, if they wanted to give it. I didn't demand that anybody
do
> anything, and I certainly wasn't asking for the sun and the moon. Mostly
> all I ended up getting is harassed and told that the project is a lost
> cause, when even government agencies think its a great idea and are
offering
> to help me out as much as they can. Ridiculous.
>
> So have a nice day and I obviously have little use for this newsgroup.

>
> Ian
>

3802. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 20:03:01 UTC
From: la8ak@online.no
Message-ID: <3b312368.200269668@news.online.no>
Source record: 51899

On Wed, 20 Jun 2001 21:39:36 GMT, Ian Upright <ian-news@upright.net>
wrote:

>"Dave" <daveman@usa.net> wrote:
>
>>Ian Upright <ian-news@upright.net> wrote in message
>>news:uqe0jtc0fbo13fqgonac5rb1javtie8aej@4ax.com...
>>From what I have read.... you want the world for a nothing price......if
>>only!
>
>Not only do I want it, but I can provide it. So there! :)
>
>Ian
>
and still not solved every problem?

-jm

3803. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 20:08:19 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <c3l4jtsk681d16q1g241s3lljj1hbmjjkg@4ax.com>
Source record: 51900

la8ak@online.no (J M Noeding) wrote:

>On Wed, 20 Jun 2001 21:39:36 GMT, Ian Upright <ian-news@upright.net>
>wrote:
>
>>"Dave" <daveman@usa.net> wrote:
>>
>>>Ian Upright <ian-news@upright.net> wrote in message
>>>news:uqe0jtc0fbo13fqgonac5rb1javtie8aej@4ax.com...
>>>From what I have read.... you want the world for a nothing price......if
>>>only!
>>
>>Not only do I want it, but I can provide it. So there! :)
>>
>>Ian
>>
>and still not solved every problem?

Nothing that can't easily be solved.

Ian

3804. IC-22S help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 20:57:32 UTC
From: Ted Hay <tedh@xcelco.on.ca>
Message-ID: <tj4o4lmm2k9qd1@corp.supernews.com>
Source record: 51901

Hello, I have two old IC-22S's with mods. One works, the other one doesn't. They have had 42 position switches installed and toggles switches added to the front and a small circuit board installed inside. The two rigs have different circuit boards and wiring inside. Looking at old ads in ham magazines the mod could have been a Valley Instrument Products VIP-42 kit. So does anyone have info on mods that somewhat fits the decription I have given? Would a copy in some form be available. I'd really like to get the none working rig going.

73 Ted VE3ONJ

3805. Re: QQE06/40 on 6 meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-21 21:39:00 UTC
From: Rolando Milin <9a3mr@qsl.net>
Message-ID: <01c0fb53$74d13960$d7641dc3@siemali>
Source record: 51902

Arthur <klocworx@NOSPAMv-wave.com> wrote in article
<vRVX6.5219$rA2.1098929@news-rep.ab.videon.ca>...
> Rolando,
> would you mind sending me a copy as well??
> Thanks and 73 de
> Arthur ve6boe
> (klocworx AT v-wave DOT com)
>
I'll send copy in monday, pse e-mail me ur address.
73 de Roland

3806. Re: help on dummy load

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 00:18:31 UTC
From: Tazanator <NOones@home.com>
Message-ID: <r9wY6.108480$DG1.18035448@news1.rdc1.mi.home.com>
Source record: 51903

so the 50 ohm resister is inside the oil?

"Skipp" <skipp@pilot.ucdavis.edu> wrote in message
news:9gtgnn$8l1$2@woodrow.ucdavis.edu...
> In the gal can of mineral oil, you do the "or what" part, which is most
> often at least one or more resistors that equal approx 50 ohms. The center
> pin of your top mounted SO-239 connector is soldered to one side of the
> resistor(s), the can / case (ground) is connected to the other side of the
> resistor(s).
>
> Above the lower HF range you might want to concern yourself with the type
> of path/conductors you make your resistor connections with. For best
> operation over a wider frequency range, one would hope to similate a path
> that acts like a good quality 50 ohm piece of hard line / coax right up to
> and including the resistor.
>
> Heathkit did it with a rather unique sheet metal assembly that the large
> non inductive resistor fit into.
>
> You must also concern yourself with the type of resistor along with it's
> power rating. One would hope to use non inductive types. Many home brew
> loads are made up with carbon and metal film resistors. Wire wound is bad
> news.
>
> cheers
> skipp@pilot.ucdavis.edu
> http://sonic.ucdavis.edu have a look at my amateur radio pages...
>
> : Tazanator <NOones@home.com> wrote:
> : okay I have the one gal can and I know it gets a female connector on
top.
> : From the connector is it a random wire into the oil or what?
>
> : KB9YMX
>
> : --
>
>
>

3807. Nova

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 00:22:30 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <adwY6.1166$F5.404978@news1.rdc1.tn.home.com>
Source record: 51904

Anyone with a current address or phone number for Robert Stanton who wrote
the circuit analysis program called "Nova"?

Mni Tnx

W4ZCB

3808. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 01:48:42 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <_txY6.69270$tb6.17804072@typhoon.austin.rr.com>
Source record: 51906

Bozidar,
Your analogy sounds like a very good description to me but Dan would be better at confirming it. Another way of thinking of it is that when the carrier is at zero beat the in-phase side of the detector will integrate 0 deg and 180 degree segments of a cosine wave which adds to zero through the differential inputs of the op amp. When you offset the carrier either way it will no longer add to zero but will be a wave which corresponds to the difference frequency. If you think about the sum frequency which is the same as 2X the carrier frequency you will have two complete cycles of which also add to zero. In other words with perfect components even harmonics add to zero in the output of the detector.

For those who do think digital, this looks a lot like a comb filter where it responds to odd harmonics of the carrier frequency. By the way you only need a roofing filter with this detector to get rid of the harmonics. My measured output from the detector looks like this with no input filter:

7.1591 MHz 0 dB
7.16385 MHz -3 dB
7.16743 MHz -6 dB
7.21065 MHz -20 dB
7.61212 MHz -50 dB

If I did my math correctly that is a 9.5 KHz bandpass and a Q of 753. I can reduce the bandpass simply by changing the sampling capacitor value.

73 to all,
Gerald, AC5OG

"Bozidar Pasaric" <bpasaric@mac.com> wrote in message
news:1evch2r.1fxab551fc06aiN%bpasaric@mac.com...
> How does the Tayloe Mixer work?
>
> For the whole of my life (I am 69 now) I had to read and understand
> analogue electric diagrams which I can do very quickly - almost at a
> glance. Then, digital technology has come and is pushing out the
> analogous one. Now, I cannot read those new diagrams as easily as
> before. My brain is helplessly analogous. When reading those digital
> boxes I usually begin thinking of a lamp switch, which is either OFF
> or ON, but when the things become more complicated I lose the thread.
>
> Now I am trying to understand how the Tayloe mixer works. Dan's
> description of his stream of thoughts when driving over the continent
> has helped me a lot, and Gerald Youngblood's additional explanation
> was also useful. Because I am a visual type, I have made the following
> picture in my mind:

>
> We all know those situations when we watch a film or TV and when a
> carriage passes by, but the wheels turn very slowly forwards or even
> backwards. Obviously, what we see is the difference frequency between
> the shooting speed of the camera (25 pictures per second) and the
> frequency of the spokes in the wheel. First, the process is digital,
> because the picture is either on, or off; and so are the spokes. Second,
> there is no sum of frequencies, only the difference, so it is not a
> picture of a mixer. Third, we can see this difference frequency
> directly, without any additional device, like in the Tayloe Mixer. If
> the spoke frequency is higher than the camera frequency, the wheel turns
> slowly forwards (USB); and if the spoke frequency is lower than the
> camera frequency it turns slowly backwards (LSB). Anyhow, we see the
> result directly, pretty in the same way as in Tayloe Mixer when we
> get the SSB directly from his detector (or digital filter).
>
> Now, will someone with a deeper insight into Tayloe Mixer tell me if
> my comparison and explanation are correct? Thanks.
> Bozidar, 9A2HL

3809. WANTED

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 01:58:19 UTC
From: Edward A Slimak <sparksw4eas@mindspring.com>
Message-ID: <3B32A63B.3840@mindspring.com>
Source record: 51905

Looking for a ART-13 Modulation transformer. PR 811's to a single 813.
Sparks W4EAS

3810. PN2222A Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 02:22:14 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <a_xY6.500$34.448637@news1.iquest.net>
Source record: 51907
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Got these at an estate sale....

PN2222A Transistors, everyone favorite little amp. Plastic TO92 case.

10 for $1.50
50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

I will ship for free to any US address...actually I have put my
charming XYL in charge of counting these and bagging them. She really loves
me.

I have about 1000, I think I got a pretty decent deal on them but you
tell me.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

3811. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 13:11:26 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B3343FD.12B2BCC7@home.com>
Source record: 51908

Actually I think the wagon wheel analogy is the same effect. You can tell from the apparent direction of the wheel whether the it was faster (moving forward) or slower (moving backwards) than the motionless state, which is exactly in sync.

The same effect is used to determine if a signal is LSB (slower than zero beat) or USB (faster than zero beat). Looking at just the 0 degree ("I" for "In Phase") and 90 degree ("Q" for "Quadrature") components, "I" leads "Q" by 90 degrees on one side of the carrier, and "Q" leads "I" on the other side.

Thinking about the wagon wheel analogy to USB/LSB, I think I leading Q is USB (wheel moving forward, frequency higher than zero beat), and Q leading I is LSB (wheel moving backward, frequency lower than zero beat).

What the phase shifting network does is delay one side by an extra 90 degrees more than the other side. Suppose we shift "Q" by an extra 90 degrees compared to I.

On USB, I leads Q by 90 degrees, now adding phase shift, I leads Q by 180 degrees.

On LSB, where Q leads I by 90 degrees, add the phase shift and now I and Q are both in phase.

If you sum the two sides together after phase shifting, LSB signals will add from I and Q, but USB signals will cancel (180 degree signals are negatives of each other).

Alternatively, if you use an op-amp to differentially sum the two together, the 180 degree apart USB signals will now add together, and the same phase LSB signals will now cancel.

Take your pick. USB or LSB depending on how they are put together.

On the other hand, if you used a Tayloe detector, just running the detector clocking backwards will also switch the sidebands, which may be simpler.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Bozidar Pasaric wrote:
>
> How does the Tayloe Mixer work?
>
> For the whole of my life (I am 69 now) I had to read and understand
> analogue electric diagrams which I can do very quickly - almost at a

> glance. Then, digital technology has come and is pushing out the
> analogous one. Now, I cannot read those new diagrams as easily as
> before. My brain is helplessly analogous. When reading those digital
> boxes I usually begin thinking of a lamp switch, which is either OFF
> or ON, but when the things become more complicated I lose the thread.
>
> Now I am trying to understand how the Tayloe mixer works. Dan's
> description of his stream of thoughts when driving over the continent
> has helped me a lot, and Gerald Youngblood's additional explanation
> was also useful. Because I am a visual type, I have made the following
> picture in my mind:
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> We all know those situations when we watch a film or TV and when a
> carriage passes by, but the wheels turn very slowly forwards or even
> backwards. Obviously, what we see is the difference frequency between
> the shooting speed of the camera (25 pictures per second) and the
> frequency of the spokes in the wheel. First, the process is digital,
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> there is no sum of frequencies, only the difference, so it is not a
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> directly, without any additional device, like in the Tayloe Mixer. If
> the spoke frequency is higher than the camera frequency, the wheel turns
> slowly forwards (USB); and if the spoke frequency is lower than the
> camera frequency it turns slowly backwards (LSB). Anyhow, we see the
> result directly, pretty in the same way as in Tayloe Mixer when we
> get the SSB directly from his detector (or digital filter).
>
> Now, will someone with a deeper insight into Tayloe Mixer tell me if
> my comparison and explanation are correct? Thanks.
> Bozidar, 9A2HL

3812. C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 15:14:01 UTC
From: GaryH <garyhendricks@hotmail.com>
Message-ID: <obJY6.22823$9r1.1940559@e3500-atl1.usenetserver.com>
Source record: 51909

I have built a 40 amp DC supply to run my transceiver. I need
a crowbar circuit for OVP. Does anyone sell a completed or
kit crowbar circuit? I don't have time to scrounge parts for one.

Thanks

--
Web Publishing and PC Specialist
www.tentec.com

Remember 1950
www.its1950again.com

3813. ICOM IC-T22E

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 18:52:21 UTC
From: Chris <chris@kreso.com>
Message-ID: <9h049tvjo1@sunce.iskon.hr>
Source record: 51910

Anybody have schematics of ICOM IC-T22E handie?
Or some links where to download/buy it?

Thanks.

3814. Re: PN2222A Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 19:54:52 UTC
From: WS <w9bbb@megsinet.net>
Message-ID: <3b33a39e$0$18887$1dc6e903@news.corecomm.net>
Source record: 51911
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

You can get these anywhere for .05 cents each.WS
Scrounger <bmurrey@amexol.net> wrote in message
news:a_xY6.500$34.448637@news1.iquest.net...
> Got these at an estate sale....
>
> PN2222A Transistors, everyone favorite little amp. Plastic TO92 case.
>
> 10 for $1.50
> 50 for $4.50
> 100 for $8.25
> 200 for $15.50
> 500 for $37.00
>
> I will ship for free to any US address...actually I have put my
> charming XYL in charge of counting these and bagging them. She really
loves
> me.
>
> I have about 1000, I think I got a pretty decent deal on them but you
> tell me.
>
>
> --
> ==========
> KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
> 39.558 N 86.095 W Johnson Co., Indiana
> GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
> Member of the American Radio Relay League - SOC #400
> FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
> ==========
>
>

3815. AMP PARTS FS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 20:31:46 UTC
From: "Dennis A. Homerick" <w8nw@richnet.net>
Message-ID: <3b33a8d0$0$88179$6d5eecc5@news.eurekanet.com>
Source record: 51912

Thanks for reading this message. I am clearing my Ham Shack of dormant projects.

1) BIG PLATE TRANSFORMER, looks like tape wound Hipersil core. 230ac pri &
4400vac sec. This transformer sags quite a bit? Secondary would with #18 ga. wire? weights approx. 80 or 90 lbs make offer

2) LARGE Filter Capacitor array. 15 caps 1500mf @ 450vdc, 100mf @ 6750vdc
mounted on a fiberglass board with eq. resistors and bypass caps. $100.00

3) 4-10000A.....two were sold a good by k3lr $250.00. two were hamfest
$25 ea.

4) TWO Eimac chimneys & sockets for 4-1000A or 3-1000A Still checking for
my check stubs on cost, but make reasonable offer?

5) HEAVY DUTY FILAMENT Transformer 7.5VAC center tapped. NIB, must be 20KV
isolation between windings. $100.00

6) Small rotary inductor for input network. (pair of 4-1000A) porcelain and
very high quality, 24UH. $25

7) LOOKS LIKE 6 meter conversion, SB-2000AS commercial AMP. Uses pair of 3-500 tubes. Tubes not included. Have original print. Case good & power supply OK. $250.00 plus shipping

8) TWO Dentron DRT-2000 PLATE TRANSFORMERS with filter caps. $150.00

Send reply or call (419) 589-6196

Thanks

Dennis, w8nw

3816. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 21:26:31 UTC
From: rcnixon@mindspring.com
Message-ID: <3b33b79d.350700@news.mindspring.com>
Source record: 51913

I'm intersted in this also, as I sold such a PS to a good friend and
we want to build a crowbar for it. If what I read in the 1998
handbook, it simply shorts out the supplu so the fuse blows. Yah?

Russ

"GaryH" <garyhendricks@hotmail.com> wrote:

>I have built a 40 amp DC supply to run my transceiver. I need
>a crowbar circuit for OVP. Does anyone sell a completed or
>kit crowbar circuit? I don't have time to scrounge parts for one.
>
>Thanks
>
>--
>Web Publishing and PC Specialist
>www.tentec.com
>
>Remember 1950
>www.its1950again.com
>
>
>
>

3817. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 21:33:20 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B33B9A0.1DB37208@clifto.com>
Source record: 51917

Dan Tayloe wrote:
> On the other hand, if you used a Tayloe detector, just running the
> detector clocking backwards will also switch the sidebands, which may be
> simpler.

It just has to feel really great to say "Tayloe detector", knowing the
name is really deserved. I know it's way different from how it feels when
I say "Sharp television". :)

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3818. PMB4820 infineon power amplifier, HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 21:35:09 UTC
From: yuma <nospammattley100@hotmail.com>
Message-ID: <9h206r$q2g$1@nreadB.inwind.it>
Source record: 51924

I can't find information or datasheet about this chip, and there are only very short data on the infineon's web site! thanks

3819. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 22:05:09 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B33C115.46BDEB5D@dialpoint.net>
Source record: 51916

And by the time the big filter capacitors in a 30 or 50 amp supply
discharge you fry the rig on the end of the power supply.

>
> However, I'm against crowbar circuits in the first place. IMO, a
> better solution is using a zener to detect over voltage and then
> disconnect the ac input. Much nicer and no big bangs. :-)
>
> 73, Bill W7TI

3820. FA: Eimac 8938 (3cx1500/c7) LAST DAY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 22:08:33 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B33C1E1.8A522329@alltel.net>
Source record: 51914

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247319838
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3821. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-22 22:44:38 UTC
From: Bill Turner W7TI <w7ti@jps.net>
Message-ID: <abi7jtsasmrt8ll36g3d6ip25aelrnjetm@4ax.com>
Source record: 51915

On Fri, 22 Jun 2001 11:14:01 -0400, "GaryH"
<garyhendricks@hotmail.com> wrote:

>I have built a 40 amp DC supply to run my transceiver. I need
>a crowbar circuit for OVP. Does anyone sell a completed or
>kit crowbar circuit? I don't have time to scrounge parts for one.

If you're only concern is over voltage, get a large zener rated
for whatever voltage you want and put it across the output. If
you want to be a bit more elegant, use a small zener rated right
at the output voltage and use it to trigger an SCR connected
across the output.

However, I'm against crowbar circuits in the first place. IMO, a
better solution is using a zener to detect over voltage and then
disconnect the ac input. Much nicer and no big bangs. :-)

73, Bill W7TI

3822. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 01:07:33 UTC
From: denton sprague <denton@oregontrail.net>
Message-ID: <9h25n1$9vi$1@news.apaynet.com>
Source record: 51928

I built one with a scr (about 75 amps or so) and a 15 volt zener diode....the diode goes in between the trigger of the scr and the output of the power supply. the clamping ends go across the filter capacitor. I used to have the clamp across the output of the power supply but when it would fire, it would sooner or later pull out one or more of the pass transistors. To keep the crowbar from getting too sensitive, I also installed a small capacity (4000 mfd's or so) across the output of the power supply...otherwise minor glitches would cause the crowbar to fire.

GaryH <garyhendricks@hotmail.com> wrote in message news:obJY6.22823$9r1.1940559@e3500-atl1.usenetserver.com...
> I have built a 40 amp DC supply to run my transceiver. I need
> a crowbar circuit for OVP. Does anyone sell a completed or
> kit crowbar circuit? I don't have time to scrounge parts for one.
>
> Thanks
>
> --
> Web Publishing and PC Specialist
> www.tentec.com
>
> Remember 1950
> www.its1950again.com
>
>
>
>

3823. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 03:20:55 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <CTTY6.1609$Mq.199795@e420r-sjo3.usenetserver.com>
Source record: 51919
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Ian Upright" ...
> Uhhhh.. Are all Hams generally this bright? Perhaps
> they don't require as much technical knowledge as
> they used to in the good old days. :-)
>
> I was describing the durability and longevity of
> electronic components sealed in resin. What did
> you think I was describing?

Ummm. If you completely pot the circuit (like your examples), you have a nice ocean-proof package, but you have concurrently eliminated any means of battery replacement, conventional switching, and external antenna attachment. That's why the cow-transponders work so nicely, they don't require any external attachments because they're passive!

Your lack of understanding this fundamental problem would make me question your ability to judge the brightness of others. Try not to piss off the people you are seeking help from!

Sounds like a great project that I'd like to be involved with, but not with someone with your attitude. Hope you get what you want from the more patient members of this newsgroup. You've squashed my interest. Bye.

RC

3824. Wanted:mfj1050 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 03:22:17 UTC
From: "P.T." <snowshoe@dimensional.com>
Message-ID: <3B340B69.A1D015BB@dimensional.com>
Source record: 51918

I am thinking of building a rf antenna noise phase canceling device
along the idea of the mfj1050.
If you have the schematic and a scanner please email it to me.
Thanks,
Paul w0od
snowshoe@dimensional.com

3825. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 09:28:01 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <weZY6.14079$vR1.40872@nntpserver.swip.net>
Source record: 51920

http://www.wireless.org.uk/circuits2.htm#trip

No kit however...

3826. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 09:46:22 UTC
From: c_moss_hamspam@bigfoot_hamspam.com
Message-ID: <fqo8jt81r365oijsujav9pv4ugh272f11f@4ax.com>
Source record: 51921

>>I have built a 40 amp DC supply to run my transceiver. I need
>>a crowbar circuit for OVP. Does anyone sell a completed or
>>kit crowbar circuit? I don't have time to scrounge parts for one.
>
>____
>
>If you're only concern is over voltage, get a large zener rated
>for whatever voltage you want and put it across the output. If
>you want to be a bit more elegant, use a small zener rated right
>at the output voltage and use it to trigger an SCR connected
>across the output.

That's the most common, reliable & simplest way of doing it, you'll find that method used on a lot of bought psu's, it's simple, quick and reliable. So what if you do blow the psu if it ever gets triggered ? ... the main concern is usually with the equipment on the output of the psu, not the psu itself.

Instead of using an SCR to short the output, you could always use a relay/output switch of some kind in series with the output to open in over voltage state but mechanical relays take time to open although only normally milliseconds it could be enough to blow whatevers connected to the output, it depends.

If you want the circuit diagram for the basic SCR crowbar i'll send it.

>However, I'm against crowbar circuits in the first place. IMO, a
>better solution is using a zener to detect over voltage and then
>disconnect the ac input. Much nicer and no big bangs. :-)

As someone else has stated, the smoothing caps can hold quite a charge thus continue to provide power for a short while (depends on there load).

Also disconnecting the ac input does stop over voltage on the output at the onset of a psu fault.

Clive

3827. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 09:55:15 UTC
From: c_moss_hamspam@bigfoot_hamspam.com
Message-ID: <nmp8jtosigjas3qhc229j7f0mrnga6pnr9@4ax.com>
Source record: 51922

>http://www.wireless.org.uk/circuits2.htm#trip
>
>No kit however...

Using series devices is not as reliable as shunt devices, what if the series transistor goes short in the process ?

You could always cascade - 2 or more separate circuits series i guess but shunt would be better. Semiconductors tend to go short (from experience) rather than open circuit but nothing can be 100% guaranteed :(

Clive

3828. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 09:55:58 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <wb1Z6.7945$Cc3.1323052@news2-win.server.ntlworld.com>
Source record: 51929

> I have current limit designed into this power supply. I will fold back
> if 45 amps current is drawn. The crowbar should put supply into
> overcurrent limit and not blow it up. Thanks for all the replies
> but it looks like I am going to have to find the parts since I don't have
> anything in the junkbox that will work. Those minimum orders to get
> parts make these projects a lot more difficult than in the past.

==========

Gary , I am sure you would find a suitable SCR and a zener diode for the crowbar at any local Ham flea market.

GL

Frank gm0csz.kn6wh@ukrs.org

3829. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 11:32:10 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B347E3A.BEE2E60E@dialpoint.net>
Source record: 51925

When the supply goes to overvoltage it is usually because the pass
transistors have shorted and when that hapens teh current foldback will
not work.

GaryH wrote:
>
> I have current limit designed into this power supply. I will fold back
> if 45 amps current is drawn. The crowbar should put supply into
> overcurrent limit and not blow it up. Thanks for all the replies
> but it looks like I am going to have to find the parts since I don't have
> anything in the junkbox that will work. Those minimum orders to get
> parts make these projects a lot more difficult than in the past.
>
>

3830. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 11:34:27 UTC
From: GaryH <garyhendricks@hotmail.com>
Message-ID: <o3%Y6.25388$9r1.2078177@e3500-atl1.usenetserver.com>
Source record: 51923

I have current limit designed into this power supply. I will fold back
if 45 amps current is drawn. The crowbar should put supply into
overcurrent limit and not blow it up. Thanks for all the replies
but it looks like I am going to have to find the parts since I don't have
anything in the junkbox that will work. Those minimum orders to get
parts make these projects a lot more difficult than in the past.

"GaryH" <garyhendricks@hotmail.com> wrote in message
news:obJY6.22823$9r1.1940559@e3500-atl1.usenetserver.com...
> I have built a 40 amp DC supply to run my transceiver. I need
> a crowbar circuit for OVP. Does anyone sell a completed or
> kit crowbar circuit? I don't have time to scrounge parts for one.
>
> Thanks
>
> --
> Web Publishing and PC Specialist
> www.tentec.com
>
> Remember 1950
> www.its1950again.com
>
>
>
>

3831. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 13:04:36 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <Et0Z6.105687$v5.8027348@news1.rdc1.ct.home.com>
Source record: 51926

The "big filter caps" shouldn't be discharged if everything is
designed and incorporated correctly--indeed, the caps should
remain charged. Most decent supplies are current limited, and
if the crowbar trips, the supply should go into a fold-back condition.
If all else fails, a supply line fuse should be between the crowbar
and supply side as further protection.

Relying on a relay (or SS triac switch) to trip the AC side will allow the
full energy
of the filter caps time to discharge into the load--your rig on
overvoltage... By the time the dust settles the semis will be
toast. There should be no bangs, arcs or snaps if everything
is done properly.

Pete

"Ralph Mowery" <rmowery@dialpoint.net> wrote in message
news:3B33C115.46BDEB5D@dialpoint.net...
> And by the time the big filter capacitors in a 30 or 50 amp supply
> discharge you fry the rig on the end of the power supply.
>
> >
> > However, I'm against crowbar circuits in the first place. IMO, a
> > better solution is using a zener to detect over voltage and then
> > disconnect the ac input. Much nicer and no big bangs. :-)
> >
> > 73, Bill W7TI

3832. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 13:09:42 UTC
From: Bill Turner W7TI <w7ti@jps.net>
Message-ID: <f759jtggejso01st7n8per6q8ccu7u70hq@4ax.com>
Source record: 51927

On Sat, 23 Jun 2001 11:28:01 +0200, "CA" <sm6pxj@hotmail.com>
wrote:

>http://www.wireless.org.uk/circuits2.htm#trip
>
>No kit however...

This is an over-current protector. The original post was looking
for over-voltage protection.

W7TI

3833. Tuning a BUD Variable Low-Pass Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 14:02:14 UTC
From: n5kzw@arrl.net
Message-ID: <3b349f19.146245139@news.infohwy.com>
Source record: 51930
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

My father-in-law (W9OIB) wants to install his old BUD variable low-pass filter (model LF-601-A) at his station. When I put it in, the SWR was so bad that his TS-450S could not tune it up.

The unit has 5 adjustable capacitors (A, B, C, D, E from Input to Output). They are labeled as follows:

A - Variable impedance
B - 2-3-4
C - 4-5-6
D - Variable Impedance
E - Variable Impedance

For test equipment, I have an Autek SWR analyzer, a sweep generator, and a dual-channel oscilloscope.

Does anyone have a manual for this filter or a tune up procedure. I would gladly pay postage and copying costs for a manual.

Thanks
Ed Bailen - N5KZW

3834. RF Pulse Generator Use and Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 14:38:56 UTC
From: n5kzw@arrl.net
Message-ID: <3b34a179.146853217@news.infohwy.com>
Source record: 51931
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

In the junk yard the other day, I came across a Kay 5070-B Rada-Pulser Sr. RF pulse generator. It was only $3 and I figured the switched attenuator was worth that much at least.

When I got it home, it only took about 15 minutes of tweaking to get it working right. I searched on the web and found a manual for $23, but given that I only paid $3 for the unit, I'll pass at that price.

Does anyone out there have a manual they might be willing to copy? I'll gladly pay copying costs and postage (up to $6).

Second question: what neat things can one do with an RF pulse generator? (Aside for checking for impedance discontinuities in a length of cable?)

Thanks,
Ed Bailen - N5KZW

3835. Homebrew 2m repeater

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 14:59:33 UTC
From: ccom2@socket.net
Message-ID: <3b34ae39.2882878@news.socket.net>
Source record: 51932

Looking for the article :
A Homebrew 2m Repeater by Thomas Crago, Feb 1996 QEX
does anyone know where I can locate this on the web? Saw it before.
Mike
AB0IV

3836. Need advice on 2m fox hunting antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 15:09:58 UTC
From: Craig <craig@felglow.com.au>
Message-ID: <8n2Z6.26$fR5.11118@nsw.nnrp.telstra.net>
Source record: 51933

New to fox hunting, 2m
I have a centre car roof rotating mount
I have tried 3 element beam worked well, but pulled up by the police saying
to big and vertical elements dangerous!
Would appreciate any thoughts

Cheers
vk2hbm craig@felglow.com.au

3837. Jennings Vacuum Capacitor Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 15:21:04 UTC
From: n5kzw@arrl.net
Message-ID: <3b34b2dd.151305476@news.infohwy.com>
Source record: 51934

A neighbor gave my father-in-law two Jennings VCC-100 vacuum capacitors. One of them is etched 225-4 on the copper plate, and the other is etched 225-30.

I can't find them listed on the Jennings web site and Jennings has not responded to my request for info. Can anyone give me any information on these units?

Thanks,
Ed Bailen - N5KZW

3838. Mod transformer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 17:24:01 UTC
From: bluchunks@aol.com
Message-ID: <20010623132401.12009.00001352@ng-mq1.aol.com>
Source record: 51935

modulating a pair of 813's with 811's. Is it possible to do this safely
(transformers sake) if there is 2000vdc on the 813's and 1200Vdc on the 811's?
Other ramifications???
Thanks

3839. Re: Tuning a BUD Variable Low-Pass Filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 17:24:38 UTC
From: w4pqwhs@aol.com
Message-ID: <20010623132438.10945.00000607@ng-fh1.aol.com>
Source record: 51936

Ed, something wrong if you can`t get a 10 meter signal through a LP filter...they are designed to" cut off " at about 40 mhz. anything beloe 40 mhz should go through.. with the scope ,sweep gen and a 50 ohm load you should be able to trim the filter to reject any signal above 40 mhz...try putting sweep gen to filter input, set gen to sweep from ,say 35 to 45 mhz.connect scope and 50 ohm load to filter output..set gen and scope to read about 1 volt pp..you should then be able to tune filter to pass all below 40 mhz and attenuate all above 40 mhz..anyway this is a starting place .with a bit of practice you should do OK.. if you can open the filter take alook see about lightning damage etc..look for open and shorts.. good luck Harold W4PQW

3840. FT1000 & AC hum in headphones

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 17:33:03 UTC
From: ic8pof@biogate.com
Message-ID: <3b34cfe9.2021843@news.inwind.it>
Source record: 51937

Hi All,
I would like to reduce the moderate AC hum I do hear in the headphones
especially when I tune the bands searching for weak CW sisgnals.
Do you have any suggestion on how to block or reduce the hum without
buying an expensive DSP digital filter ?
Tnx for any possible help.
Fil IC8POF
ic8pof?@arrl?.org

take away the ?s for a direct answer

3841. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 18:01:07 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <DP4Z6.106478$v5.8075469@news1.rdc1.ct.home.com>
Source record: 51938

Many of the Astron supplies would crowbar on noise--a real problem
when you are using their 50RSM models in repeater service.
Astron used a small value cap right across the gate and ground--
usually increasing the gate capacitor to .47 uf or so stopped
the false triggers.

Pete

"denton sprague" <denton@oregontrail.net> wrote in message
news:9h25n1$9vi$1@news.apaynet.com...
> I built one with a scr (about 75 amps or so) and a 15 volt zener
> diode....the diode goes in between the trigger of the scr and the output
of
> the power supply. the clamping ends go across the filter capacitor. I used
> to have the clamp across the output of the power supply but when it would
> fire, it would sooner or later pull out one or more of the pass
transistors.
> To keep the crowbar from getting too sensitive, I also installed a small
> capacity (4000 mfd's or so) across the output of the power
> supply...otherwise minor glitches would cause the crowbar to fire.
>
> GaryH <garyhendricks@hotmail.com> wrote in message
> news:obJY6.22823$9r1.1940559@e3500-atl1.usenetserver.com...
> > I have built a 40 amp DC supply to run my transceiver. I need
> > a crowbar circuit for OVP. Does anyone sell a completed or
> > kit crowbar circuit? I don't have time to scrounge parts for one.
> >
> > Thanks
> >
> > --
> > Web Publishing and PC Specialist
> > www.tentec.com
> >
> > Remember 1950
> > www.its1950again.com
> >
> >
> >
> >
>
>

3842. WTB: Low Band Final Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 18:53:39 UTC
From: MICHAEL NEIDICH <neidich@worldnet.att.net>
Message-ID: <TA5Z6.6404$3d3.512286@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51940

Class C, high power, what have you.
Mike
Santa Clara CA

3843. Re: More rare RACAL equipment!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 18:54:32 UTC
From: Peter du Plessis <maxilec@netactive.co.za>
Message-ID: <9h2o8m$2uej$1@nnrp01.ops.uunet.co.za>
Source record: 51939

Hi Mark

Well I'll be....

The RA1772 RX was one of the last model numbers I had expected to see in the news
groups...

I repair these (as well as the TA1860 TX) on a daily basis. I work for a company that maintains our defence force's HF equipment.

Anyway..
It was a pleasant surprise to see your posting.

Regards

Peter
ZS6PJD

3844. FS: "Secrets of RF Circuit Design, 3rd ed."

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 19:30:10 UTC
From: "James P. Rybak" <jrybak@mesastate.edu>
Message-ID: <9h2qo2tuq1@news.mesastate.edu>
Source record: 51941

For Sale: "Secrets of RF Circuit Design, 3rd ed." by Joseph Carr. Like new condition. I have two copies of this fine book so I'll sell one for $25 plus $2.00 shipping. Amazon is selling it for $40.

Jim Rybak W0KSD

3845. Re: ICOM IC-T22E

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 19:56:29 UTC
From: Peter du Plessis <maxilec@netactive.co.za>
Message-ID: <9h2rst$2un2$1@nnrp01.ops.uunet.co.za>
Source record: 51942

Hi Chris

Have you tried http://www.mods.dk ???

Regards

Peter
ZS6PJD

3846. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 21:40:42 UTC
From: wieland@copland.udel.edu
Message-ID: <9h32cqskh1@copland.udel.edu>
Source record: 51943

[snip]
>
>However, I'm against crowbar circuits in the first place. IMO, a
>better solution is using a zener to detect over voltage and then
>disconnect the ac input. Much nicer and no big bangs. :-)
>
>73, Bill W7TI

You're missing a key concept; the crowbar removes the overvoltage from the device connected to the power supply (by shorting the output). Snapping off the AC feed, no matter how quickly you get it done, may not save your connected device from being "done in" by the energy stored in the filter capacitor.

The slickist system I've encountered put a regular 3AG fuse, rated for 2X the supplies legitimate output, between the filter cap and the regulator. In the event of a regulator short-out and a crowbar trip, the middle of the fuse does disappear with a pop, but that's really pretty tame, because the output power disappears without the necessity of emptying the filter cap. With larger supplies, it gets hard to find SCRs big enough that the filter cap can't destroy them.

3847. FA: Exceptionally rare RACAL speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 22:50:25 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B351D31.1000204@armscroft.demon.co.uk>
Source record: 51944

Last day for this one folks..... Check it out at

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247622581

Someone is going to very happy to have this one hanging on their shack wall.
Make sure it's you!

GL!

Mark

3848. FA: RA1772 and RA1792 - last few hours

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 23:07:13 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B352121.2030901@armscroft.demon.co.uk>
Source record: 51945

Last few hours for these excellent (and rare) HF receivers.

Racal RA1792. Check it out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247599469

Racal RA1772. View it at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1247502855

Make sure you don't miss out! Good luck if you decide to bid.

73 de Mark

3849. Re: More rare RACAL equipment!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 23:16:17 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B352341.8090004@armscroft.demon.co.uk>
Source record: 51946

Peter du Plessis wrote:

> Hi Mark
>
> Well I'll be....
>
> The RA1772 RX was one of the last model numbers I had expected to see in the
> news
> groups...
>
> I repair these (as well as the TA1860 TX) on a daily basis. I work for a
> company that maintains our defence force's HF equipment.
>
> Anyway..
> It was a pleasant surprise to see your posting.
>
> Regards
>
> Peter
> ZS6PJD

Hi Peter,

No chance of an "in" on those TA1860 RX's is there? :)) More to the point....
how do I get my hands on a few of the matching amplifiers? Now that WOULD make
an really interesting ham station. Quality RX and loud with it!! I have just
acquired another 1772 and if I don't sell it at the local hamfest later today it
will appear on eBay tomorrow night. How do you rate them being a professional?

73 for now

Mark

3850. Re: More rare RACAL equipment!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 23:19:24 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B3523FC.1030107@armscroft.demon.co.uk>
Source record: 51847

Mark wrote:

> Peter du Plessis wrote:
>
>> Hi Mark
>>
>> Well I'll be....
>>
>> The RA1772 RX was one of the last model numbers I had expected to see
>> in the
>> news
>> groups...
>>
>> I repair these (as well as the TA1860 TX) on a daily basis. I work for a
>> company that maintains our defence force's HF equipment.
>>
>> Anyway..
>> It was a pleasant surprise to see your posting.
>>
>> Regards
>>
>> Peter
>> ZS6PJD
>
>
> Hi Peter,
>
> No chance of an "in" on those TA1860 RX's is there? :))

Sorry.. I meant TA1860 TX's of course. Apologies... it's getting late here!

73

Mark

3851. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-23 23:59:26 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <y3aZ6.77683$lq1.19844225@typhoon.austin.rr.com>
Source record: 51848

John,
To get good second harmonic suppression you have to have good clock symmetry. I did not in the test that I did earlier. I plan to correct that in my future layout.

With poor symmetry I got:

14.318 MHz -26 dB (This should be down >40 dB with a good clock)
21.4782 MHz -13 dB
28.6369 MHz -31 dB
50.111 MHz -25 dB

What you need with the Tayloe Detector is a simple low pass filter rather than a band pass filter. The detector itself is a narrow band pass filter you do have to get rid of the harmonics.

73,
Gerald, AC5OG

-----Original Message-----
From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
Sent: Friday, June 22, 2001 10:33 AM
To: gyoungblood@austin.rr.com
Subject: Re. Tayloe Mixer

Hello Gerald

Thanks for the excellent post. I like the description of it being a comb filter - slowly it is starting to make sense to me. The implications of it being sensitive to odd harmonics are that front-end filters will be necessary, possibly a little wider than octave filters if they have steep roll-offs. I was begining to think that the Tayloe Mixer with no front end filtering might be a little too good to be true.

Would it be possible for you to do some measurements around the second and third harmonics of the fundamental frequency, ie around 14.3 and 21.45 MHz, and then post them? This would be helpful to me and no doubt others to understand this mixer.

Thanks and 73

John KC0GGH

On 2001/06/21 you posted:
<<Bozidar,
Your analogy sounds like a very good description to me but Dan would be better at confirming it. Another way of thinking of it is that when the carrier is at zero beat the in-phase side of the detector will integrate 0

deg and 180 degree segments of a cosine wave which adds to zero through the differential inputs of the op amp. When you offset the carrier either way it will no longer add to zero but will be a wave which corresponds to the difference frequency. If you think about the sum frequency which is the same as 2X the carrier frequency you will have two complete cycles of which also add to zero. In other words with perfect components even harmonics add to zero in the output of the detector.

For those who do think digital, this looks a lot like a comb filter where it responds to odd harmonics of the carrier frequency. By the way you only need a roofing filter with this detector to get rid of the harmonics. My measured output from the detector looks like this with no input filter:

7.1591 MHz 0 dB
7.16385 MHz -3 dB
7.16743 MHz -6 dB
7.21065 MHz -20 dB
7.61212 MHz -50 dB

If I did my math correctly that is a 9.5 KHz bandpass and a Q of 753. I can reduce the bandpass simply by changing the sampling capacitor value.

73 to all,
Gerald, AC5OG >>

3852. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 03:41:23 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B356163.471D6795@erols.com>
Source record: 51849

Gerald, I am confused. I was under the impression that the Tayloe detector output was dc to audio output with the bandwidth set by the .47 microfarad caps. The harmonics of the local osc. should be of little concern. Am I missing something?

Ralph

Gerald Youngblood wrote:

> John,
> To get good second harmonic suppression you have to have good clock
> symmetry. I did not in the test that I did earlier. I plan to correct that
> in my future layout.
>
> With poor symmetry I got:
>
> 14.318 MHz -26 dB (This should be down >40 dB with a good clock)
> 21.4782 MHz -13 dB
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> What you need with the Tayloe Detector is a simple low pass filter rather
> than a band pass filter. The detector itself is a narrow band pass filter
> you do have to get rid of the harmonics.
>
> 73,
> Gerald, AC5OG
>
> -----Original Message-----
> From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> Sent: Friday, June 22, 2001 10:33 AM
> To: gyoungblood@austin.rr.com
> Subject: Re. Tayloe Mixer
>
> Hello Gerald
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> Thanks for the excellent post. I like the description of it being a comb
> filter - slowly it is starting to make sense to me. The implications of it
> being sensitive to odd harmonics are that front-end filters will be
> necessary, possibly a little wider than octave filters if they have steep
> roll-offs. I was begining to think that the Tayloe Mixer with no front end
> filtering might be a little too good to be true.
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> Would it be possible for you to do some measurements around the second and
> third harmonics of the fundamental frequency, ie around 14.3 and 21.45 MHz,

> and then post them? This would be helpful to me and no doubt others to
> understand this mixer.
>
> Thanks and 73
>
> John KC0GGH
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> On 2001/06/21 you posted:
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> Your analogy sounds like a very good description to me but Dan would be
> better at confirming it. Another way of thinking of it is that when the
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> differential inputs of the op amp. When you offset the carrier either way
> it will no longer add to zero but will be a wave which corresponds to the
> difference frequency. If you think about the sum frequency which is the
> same as 2X the carrier frequency you will have two complete cycles of which
> also add to zero. In other words with perfect components even harmonics add
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> For those who do think digital, this looks a lot like a comb filter where it
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> need a roofing filter with this detector to get rid of the harmonics. My
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>
> If I did my math correctly that is a 9.5 KHz bandpass and a Q of 753. I can
> reduce the bandpass simply by changing the sampling capacitor value.
>
> 73 to all,
> Gerald, AC5OG >>

3853. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 03:44:02 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B356201.66EE83BB@home.com>
Source record: 51850

Yes, odd order harmonics will pass. You can demonstrate this for yourself simply by sketching a few pictures.

At the fundamental, draw one full cycle of a sinewave and break it up into four pieces.
You will be able to see the third and four areas (180 degrees and 270 degrees) are simply the inverse of the first two (0 degrees and 90 degrees).

Remember, 0 will be differentially summed with 180 to get a single 0 degree ("I") signal, whereas 90 will be differentially summed with 270 degrees to get a single 90 degree ("Q") signal.

Remember also that these RF quarter section pulses are being **averaged** onto a detector cap via the system impedance, each of those four areas ends up with the average (integral) of the RF pulse over that quarter section area.

Now draw two cycles of sinewaves and break them equally into four pieces. You will notice that 0 and 180 now look the same and 90 and 270 degrees also look the same. When the averages of these four areas are differentially summed together (0&180, 90&270), they will cancel. This will happen will all even harmonics. The degree of cancellation depends on the balance of the circuit. At one time I measured this at 40 db down. I do not remember what circuit configuration that was.

Now draw three cycles of sinewaves and break them into four pieces. Each of the four pieces will have 3/4 of a sinewave in it. If the 0 degree piece averages to be a bit on the positive side, the 180 piece will average a bit on the negative side and thus there will be some net detection. The same happens on the 90 and 270 degree sections. There will be some net detection. I think I measured something like 12 db down at the third harmonic.

On higher order odd harmonics, each 1/4 section will see a longer and longer sinewave pattern, most of which averages to zero, but there will always be a leftover portion that will be non zero, and will differentially add with its companion detection output. You could actually do the math (take the integral of the sinewave sequence and calculate the average over that 1/4 section) and determine how far down each harmonic should be from the peak.

If you do the integration for the straight fundamental case, you should be able to derive the 0.9x detection, which is also 0.9 db of loss (integrate over +/- 1/8 cycle either side of the sinewave peak).

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Ralph Lane wrote:
>
> Gerald, I am confused. I was under the impression that the Tayloe detector
> output was dc to audio output with the bandwidth set by the .47 microfarad caps.
> The harmonics of the local osc. should be of little concern. Am I missing
> something?
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> Ralph
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> Gerald Youngblood wrote:
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> > John,
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> > symmetry. I did not in the test that I did earlier. I plan to correct that
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> > 73,
> > Gerald, AC5OG
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> > -----Original Message-----
> > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > Sent: Friday, June 22, 2001 10:33 AM
> > To: gyoungblood@austin.rr.com
> > Subject: Re. Tayloe Mixer
> >
> > Hello Gerald
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> > Thanks for the excellent post. I like the description of it being a comb
> > filter - slowly it is starting to make sense to me. The implications of it
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> > roll-offs. I was begining to think that the Tayloe Mixer with no front end
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> >
> > Thanks and 73

> >
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> > reduce the bandpass simply by changing the sampling capacitor value.
> >
> > 73 to all,
> > Gerald, AC5OG >>

3854. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 04:48:32 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <4trajtc0k2908re2i7hjj64fqbt91scaco@4ax.com>
Source record: 51851
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Richard Crowley" <rcrowley7@xprt.net> wrote:

>Ummm. If you completely pot the circuit (like your examples), you have a
>nice ocean-proof package, but you have concurrently eliminated any means of
>battery replacement,

no need for battery replacement, one time use device, with at least a 3 year shelf life using lithium batteries, and probably a lot more

>conventional switching,

don't need to bother with that either, just use a magnetic switch of some type, no moving parts

>and external antenna attachment.

no need for that either, just a wire that comes out of the device, that can be bunched up, covered up, and extended out when needed.

>Your lack of understanding this fundamental problem would make me question
>your ability to judge the brightness of others.

Fully and completely aware of the problem, but don't think its a problem at all. :)

>Try not to piss off the people you are seeking help from!

Sorry, I do apologize for being a rather harsh for my comments directed towards you, when they should have been directed to a message I read just prior to that, and I guess my boiling point had runneth over. I became TERRIBLY offended by that message, some of the others, as well as other moderately offensive messages I had recieved personally by email prior to that, I was pretty pissed off at the whole group in general (and almost rather I hadn't even bothered to post here in the first place), I don't need to be offended when I'm here just looking for technical tips and creative ideas, so thus, I have little use for a group of people that have offended me -- I can easily find the help I need elsewhere from people who are less hostile and offensive, more open minded, with a more creative and positive attitude. In fact, you'd be surprised how helpful, professional, and open minded the folks have been in the sci.electroncis newsgroups.

>> >In addition to the legal concerns, there may also be moral concerns.
>>
>> When I see some of my good friends come back with hypothermia, the
>> implication of this device being immoral is pretty disgusting.
>
>There you go again. "ATTENTION ALL STATIONS: Ian and his buddies want to

>go kayaking. All stations are to cease all transmissions on all frequencies
>immediately and remain off-air until further notice. It is the moral duty
>of the world to protect Ian and his friends, and not to inconvenience them
>while they play."

So when someone comes by and has so little disregard for human life, ANY life, be it me, my friends, people I don't even know who may be using a device similar to this, and they come off insulting and offending me for it, well, you can understand how I would be a little irate to say the least. When I came to ask for help, I sure didn't ask for this bullshit. This guy has got to be one of the biggest discraceful peices of human flesh I think I've ever come accross.

73, Ian

3855. Source Motorola MC145151

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 08:15:19 UTC
From: Brian Reay <brian.reay@bigfoot.com>
Message-ID: <PihZ6.55018$D91.179254@news2-hme0>
Source record: 51852

Hi,

I'm try to locate a source for a MC145151- a Motorola synthersiser part (prog divider, phase comp etc.). The part is no longer make and searches of the Web haven't turned up a stockist.

Any one know of a stockist that isn't on the Web. Prefer in UK, as postage from US tends to swap the cost!!!!

73
Brian
G8OSN

3856. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 12:43:23 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <LflZ6.12725$h27.514265@typhoon1.gnilink.net>
Source record: 51853

Ralph,
I think the reference to 3rd harmonic responses means that the circuit will theoretically detect signals at odd harmonics of the LO sampling frequency. In practice, there are also responses to signals at all harmonics of the sampling frequency. The magnitude of these responses is a function of the order of the harmonic, and heavily favors the odd harmonics. This just points out the need for an RF input filter, but this filter can be somewhat 'sloppy' compared to image-reject filters required for heterodyne receivers.

What's really cool about Dan's circuit is that everything for a phasing type DC receiver, up to the audio phase shift network, can be integrated on one chip. Historically, the audio phase shift circuit has been the most troublesome part of a phasing receiver, but modern DSP technology makes it possible to implement that part with extremely high precision and very low component complexity. With DSP, software can be implemented to automatically compensate for phase and amplitude imbalances in the hardware.

I think Dan's technique, combined with DSP I/Q audio processing, will make it possible to build very inexpensive & high-performance multi-band radios. I'd like to hear about some experimentation along these lines.

Joe
W3JDR

"Ralph Lane" <crlane@erols.com> wrote in message
news:3B356163.471D6795@erols.com...
> Gerald, I am confused. I was under the impression that the Tayloe detector
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> > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > Sent: Friday, June 22, 2001 10:33 AM
> > To: gyoungblood@austin.rr.com
> > Subject: Re. Tayloe Mixer
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> > Hello Gerald
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> > Thanks for the excellent post. I like the description of it being a
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3857. Re: More rare RACAL equipment!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 13:43:31 UTC
From: Peter du Plessis <maxilec@netactive.co.za>
Message-ID: <9h4qdd$179$1@nnrp01.ops.uunet.co.za>
Source record: 51854

Hi again Mark

I take it you are refering to the MM420 125 Watt amps...

The very first question to come to mind is how we would get them from me to you ???

Any ideas on that ???

Peter

3858. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 16:05:23 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <7doZ6.109125$v5.8284285@news1.rdc1.ct.home.com>
Source record: 51857
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian

For UHF, the antenna would be short, rather non-critical in
length, so you might consider potting the radiating element
into the package as well. There are so many external influences
at play on your antenna that potting it will make very little difference.

"Ian Upright" <ian-news@upright.net> wrote in message
news:4trajtc0k2908re2i7hjj64fqbt91scaco@4ax.com...
> "Richard Crowley" <rcrowley7@xprt.net> wrote:
>
> >Ummm. If you completely pot the circuit (like your examples), you have a
> >nice ocean-proof package, but you have concurrently eliminated any means
of
> >battery replacement,
>
> no need for battery replacement, one time use device, with at least a 3
year
> shelf life using lithium batteries, and probably a lot more
>
> >conventional switching,
>
> don't need to bother with that either, just use a magnetic switch of some
> type, no moving parts
>
> >and external antenna attachment.
>
> no need for that either, just a wire that comes out of the device, that
can
> be bunched up, covered up, and extended out when needed.
>
> >Your lack of understanding this fundamental problem would make me
question
> >your ability to judge the brightness of others.
>
> Fully and completely aware of the problem, but don't think its a problem
at
> all. :)
>
> >Try not to piss off the people you are seeking help from!
>
> Sorry, I do apologize for being a rather harsh for my comments directed
> towards you, when they should have been directed to a message I read just
> prior to that, and I guess my boiling point had runneth over. I became

> TERRIBLY offended by that message, some of the others, as well as other
> moderately offensive messages I had recieved personally by email prior to
> that, I was pretty pissed off at the whole group in general (and almost
> rather I hadn't even bothered to post here in the first place), I don't
need
> to be offended when I'm here just looking for technical tips and creative
> ideas, so thus, I have little use for a group of people that have offended
> me -- I can easily find the help I need elsewhere from people who are less
> hostile and offensive, more open minded, with a more creative and positive
> attitude. In fact, you'd be surprised how helpful, professional, and open
> minded the folks have been in the sci.electroncis newsgroups.
>
> >> >In addition to the legal concerns, there may also be moral concerns.
> >>
> >> When I see some of my good friends come back with hypothermia, the
> >> implication of this device being immoral is pretty disgusting.
> >
> >There you go again. "ATTENTION ALL STATIONS: Ian and his buddies want to
> >go kayaking. All stations are to cease all transmissions on all
frequencies
> >immediately and remain off-air until further notice. It is the moral duty
> >of the world to protect Ian and his friends, and not to inconvenience
them
> >while they play."
>
> So when someone comes by and has so little disregard for human life, ANY
> life, be it me, my friends, people I don't even know who may be using a
> device similar to this, and they come off insulting and offending me for
it,
> well, you can understand how I would be a little irate to say the least.
> When I came to ask for help, I sure didn't ask for this bullshit. This
guy
> has got to be one of the biggest discraceful peices of human flesh I think
> I've ever come accross.
>
> 73, Ian
>

3859. Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 16:11:37 UTC
From: daughert@chipsnet.com
Message-ID: <24ba7cdb.0106240811.1266a22e@posting.google.com>
Source record: 51856

Hello,

Does anyone know how to convert a microwave oven into a microwave transmitter? I heard it could be done can anyone help

Thanks
Todd N9OGL

3860. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 16:24:29 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <1voZ6.20097$2w.3688239@news02.optonline.net>
Source record: 51858

Hi Gary,

One thing to consider - The crowbar should only be needed when something breaks. Generally the regulator IC's are not what goes. Most of the time the thing that goes in a power supply is a pass transistor. Once they go (shorted usually) your current limit goes at the same time. Since you have no control over the pass transistor you can't do current limit ....

To truly give you safety the crowbar has to be big enough to blow a fuse somewhere in the circuit. At low voltages fuses can be a voltage drop that you may want to avoid, but their isn't a lot of choice. Fuses have a rating in terms of the maximum number of amps they will dump into a load during short circuit. Often it's an amazing number of thousands of amps. The SCR or what ever needs to be rated for the same amazing large number of amps on a single hit / short duration basis. This is a different rating than the devices continuous current rating and fortunately much larger. Multiple thousand amp SCR's can get a bit large :)

Circuit wise it's a pretty easy circuit. The anode of the SCR goes to B+ and the cathode to ground. The gate goes to ground through a 100 ohm or so resistor. A 15 volt zeiner in series with a 100 ohm resistor goes from the gate to B+. The cathode end of the zeiner goes towards B+. The crowbar should trigger around 16 to 17 volts. That's high enough to avoid false trips, low enough to protect the radio. If you have trouble with false hits put a 0.01 microfarad ceramic cap from gate to ground. If you fuse your supply with a normal 50 amp fuse then you probably will need an SCR rated at a couple of hundred amps on a continuous basis. You will probably get away without a heatsink on the SCR.

Hope this helps.

Bob Camp
KB8TQ

"GaryH" <garyhendricks@hotmail.com> wrote in message
news:o3%Y6.25388$9r1.2078177@e3500-atl1.usenetserver.com...
> I have current limit designed into this power supply. I will fold
back
> if 45 amps current is drawn. The crowbar should put supply into
> overcurrent limit and not blow it up. Thanks for all the replies
> but it looks like I am going to have to find the parts since I don't
have
> anything in the junkbox that will work. Those minimum orders to get

> parts make these projects a lot more difficult than in the past.
>
>
> "GaryH" <garyhendricks@hotmail.com> wrote in message
> news:obJY6.22823$9r1.1940559@e3500-atl1.usenetserver.com...
> > I have built a 40 amp DC supply to run my transceiver. I need
> > a crowbar circuit for OVP. Does anyone sell a completed or
> > kit crowbar circuit? I don't have time to scrounge parts for one.
> >
> > Thanks
> >
> > --
> > Web Publishing and PC Specialist
> > www.tentec.com
> >
> > Remember 1950
> > www.its1950again.com
> >
> >
> >
> >
>
>
>

3861. Re: Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 16:44:22 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <GNoZ6.109135$v5.8294035@news1.rdc1.ct.home.com>
Source record: 51859

The first issue (pretty sure) of the original Communications Quarterly Magazine
ran such an article. If you can find someone with back issues,
you might start there.

Pete

"Todd Daugherty" <daughert@chipsnet.com> wrote in message
news:24ba7cdb.0106240811.1266a22e@posting.google.com...
> Hello,
>
>
> Does anyone know how to convert a microwave oven into a microwave
> transmitter? I heard it could be done can anyone help
>
> Thanks
> Todd N9OGL

3862. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 16:50:49 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B361A69.B4A641C2@erols.com>
Source record: 51855

Thanks Joe for clearing up my confusion. An input filter could reduce any harmonic radiation from the mixer as well. I would think that the I/Q and DSP portions of the new cellphone chips could be used to complete the design of the receiver you suggested.

Ralph

W3JDR wrote:

> Ralph,
> I think the reference to 3rd harmonic responses means that the circuit will
> theoretically detect signals at odd harmonics of the LO sampling frequency.
> In practice, there are also responses to signals at all harmonics of the
> sampling frequency. The magnitude of these responses is a function of the
> order of the harmonic, and heavily favors the odd harmonics. This just
> points out the need for an RF input filter, but this filter can be somewhat
> 'sloppy' compared to image-reject filters required for heterodyne receivers.
>
> What's really cool about Dan's circuit is that everything for a phasing type
> DC receiver, up to the audio phase shift network, can be integrated on one
> chip. Historically, the audio phase shift circuit has been the most
> troublesome part of a phasing receiver, but modern DSP technology makes it
> possible to implement that part with extremely high precision and very low
> component complexity. With DSP, software can be implemented to automatically
> compensate for phase and amplitude imbalances in the hardware.
>
> I think Dan's technique, combined with DSP I/Q audio processing, will make
> it possible to build very inexpensive & high-performance multi-band radios.
> I'd like to hear about some experimentation along these lines.
>
> Joe
> W3JDR
>
> "Ralph Lane" <crlane@erols.com> wrote in message
> news:3B356163.471D6795@erols.com...
> > Gerald, I am confused. I was under the impression that the Tayloe detector
> > output was dc to audio output with the bandwidth set by the .47 microfarad
> caps.
> > The harmonics of the local osc. should be of little concern. Am I missing
> > something?
> >
> > Ralph
> >
> > Gerald Youngblood wrote:
> >

> > > John,
> > > To get good second harmonic suppression you have to have good clock
> > > symmetry. I did not in the test that I did earlier. I plan to correct
> that
> > > in my future layout.
> > >
> > > With poor symmetry I got:
> > >
> > > 14.318 MHz -26 dB (This should be down >40 dB with a good clock)
> > > 21.4782 MHz -13 dB
> > > 28.6369 MHz -31 dB
> > > 50.111 MHz -25 dB
> > >
> > > What you need with the Tayloe Detector is a simple low pass filter
> rather
> > > than a band pass filter. The detector itself is a narrow band pass
> filter
> > > you do have to get rid of the harmonics.
> > >
> > > 73,
> > > Gerald, AC5OG
> > >
> > > -----Original Message-----
> > > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > > Sent: Friday, June 22, 2001 10:33 AM
> > > To: gyoungblood@austin.rr.com
> > > Subject: Re. Tayloe Mixer
> > >
> > > Hello Gerald
> > >
> > > Thanks for the excellent post. I like the description of it being a
> comb
> > > filter - slowly it is starting to make sense to me. The implications of
> it
> > > being sensitive to odd harmonics are that front-end filters will be
> > > necessary, possibly a little wider than octave filters if they have
> steep
> > > roll-offs. I was begining to think that the Tayloe Mixer with no front
> end
> > > filtering might be a little too good to be true.
> > >
> > > Would it be possible for you to do some measurements around the second
> and
> > > third harmonics of the fundamental frequency, ie around 14.3 and 21.45
> MHz,
> > > and then post them? This would be helpful to me and no doubt others to
> > > understand this mixer.
> > >
> > > Thanks and 73
> > >

> > > John KC0GGH
> > >
> > > On 2001/06/21 you posted:
> > > <<Bozidar,
> > > Your analogy sounds like a very good description to me but Dan would be
> > > better at confirming it. Another way of thinking of it is that when the
> > > carrier is at zero beat the in-phase side of the detector will integrate
> 0
> > > deg and 180 degree segments of a cosine wave which adds to zero through
> the
> > > differential inputs of the op amp. When you offset the carrier either
> way
> > > it will no longer add to zero but will be a wave which corresponds to
> the
> > > difference frequency. If you think about the sum frequency which is the
> > > same as 2X the carrier frequency you will have two complete cycles of
> which
> > > also add to zero. In other words with perfect components even harmonics
> add
> > > to zero in the output of the detector.
> > >
> > > For those who do think digital, this looks a lot like a comb filter
> where it
> > > responds to odd harmonics of the carrier frequency. By the way you only
> > > need a roofing filter with this detector to get rid of the harmonics.
> My
> > > measured output from the detector looks like this with no input filter:
> > >
> > > 7.1591 MHz 0 dB
> > > 7.16385 MHz -3 dB
> > > 7.16743 MHz -6 dB
> > > 7.21065 MHz -20 dB
> > > 7.61212 MHz -50 dB
> > >
> > > If I did my math correctly that is a 9.5 KHz bandpass and a Q of 753. I
> can
> > > reduce the bandpass simply by changing the sampling capacitor value.
> > >
> > > 73 to all,
> > > Gerald, AC5OG >>
> >

3863. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 18:35:45 UTC
From: c_moss_hamspam@bigfoot_hamspam.com
Message-ID: <pgccjt802g6hfjh87ro957n7k7rllql2ef@4ax.com>
Source record: 51861

Hi Bob.

>Circuit wise it's a pretty easy circuit. The anode of the SCR goes to
>B+ and the cathode to ground. The gate goes to ground through a 100
>ohm or so resistor. A 15 volt zeiner in series with a 100 ohm resistor
>goes from the gate to B+. The cathode end of the zeiner goes towards
>B+. The crowbar should trigger around 16 to 17 volts. That's high
>enough to avoid false trips, low enough to protect the radio. If you
>have trouble with false hits put a 0.01 microfarad ceramic cap from
>gate to ground. If you fuse your supply with a normal 50 amp fuse
>then you probably will need an SCR rated at a couple of hundred amps
>on a continuous basis. You will probably get away without a heatsink
>on the SCR.

I find it also helps to add a resistor from the 100R resistor (not gate side) to ground (say 10K) just to keep the gate from floating around which can be another source of false trips (apart from spikes).

Clive

3864. Re: Source Motorola MC145151

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 18:36:23 UTC
From: crabtreejr@aol.com
Message-ID: <20010624143623.08641.00000728@ng-bd1.aol.com>
Source record: 51860

Hello Brian

Try Dial Electronics at
http://www.dialelec.com
They list 5 different varieties. They are in the UK too.

73 John KC0GGH

"Brian Reay" brian.reay@bigfoot.com on 6/24/01 wrote:
>I'm try to locate a source for a MC145151- a Motorola synthersiser part
>(prog divider, phase comp etc.). The part is no longer make and
> searches of the Web haven't turned up a stockist.
>
>Any one know of a stockist that isn't on the Web. Prefer in UK, as
> postage from US tends to swap the cost!!!!
>
>73 Brian G8OSN

>
>
>

3865. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 19:13:18 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <rhecjt4es5q1mj6df0kd773cqngo4e68sp@4ax.com>
Source record: 51862
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

"Peter J. Bertini" <commquart@home.com> wrote:

>For UHF, the antenna would be short, rather non-critical in
>length, so you might consider potting the radiating element
>into the package as well. There are so many external influences
>at play on your antenna that potting it will make very little difference.

It would certainly be interesting to try, but other experts have given me the opinion that having a longer wire antenna could make a pretty significant difference as to how much further distance could be achieved. Other opinions on this??

Thus, I was envisioning an epoxy sealed device with a little cover over it, which would also have a water-resistant seal. The cover would just hide the anntenna and keep it from getting wet or damaged. The lid, in fact, could have a magnet epoxied on the inside of it, and when the lid is extended around and inverted to fit on the bottom of the device, it would become activated. Both the lid and the container would have holes in them so a string or rope could be attached, so the lid & cover are kept together, and the device could be worn around your neck or tied to your lifejacket somehow. Little small plastic containers with a water-resistant seal exactly like this are readily available without any modifications.

Ian

3866. Re: Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 20:11:11 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9h5him$9sc$1@slb6.atl.mindspring.net>
Source record: 51863

I thought I saw an article on this very subject in a current magazine on the news-stand. I will go and see if I find it again, but it does stand in my memory as a June 2001 magazine.

I've done some work on measuring them as sources of interference on a 2.4 GHz spread spectrum radio my company was building and they are indeed rather unstable in terms of frequency so I think I will go and find that article just to see if they have some way to make them stable enough to be useful.

Jim Pennell
N6BIU

3867. Re: Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-24 22:16:39 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <bFtZ6.28065$2w.4245623@news02.optonline.net>
Source record: 51864

Hi,

The basic problem is that the gizmo in the microwave oven is a multiple cavity magnetron. Each cavity runs more or less at it's own frequency. The cavities are not super high Q and they each wander around a bit. This makes for a fairly broad spectrum out of the tube. You can do a very nasty sounding CW transmitter with them or some pretty rough FM / AM (you get both at once ....). All this assumes that occupying an entire band for one QSO is not a problem.

To clean them up you use a phase locked loop. You can modulate the supply voltage or the magnetic field. Since they generally use permanent magnets you are stuck with modulating the supply voltage. If you can modulate the supply out to a couple of MHz and run a quiet enough source into the other side of your phase detector you can quiet them down some. You will probably have to swing the supply at least +/- 10% to get the job done.

If you are doing all this on a radar tube that was designed for a fairly low noise output the chances of success are pretty good. With an oven tube quiet was never ever part of the design. The matching between the cavities may not be close enough for you to quiet things down. I would not count on getting it to work with the first tube I tried. Plan on five or ten tubes and you'll be in the right ballpark.

After the noise is taken off the source you can do AM, FM or CW. Depending upon which one you go for you may need to do a little fiddling with the phase locked loop and/or your reference source.

Once you have the source quieted down then you have a power source without a connector on it. Most modern microwave oven tubes just sit in a simple sheet metal box. Not much worry about polarization when you're cooking chicken :) Generally the approach is to get out the milling machine and design a transition to what ever you are going to use to move the power. If it's waveguide you go one way if it's coax and connectors you go another way.

Unless you really need the KW level of power it's a pretty complicated and expensive way to go. It's a *lot* cheaper to get on with other stuff and a lot less hassle to get it all running right. There was some stuff at the last Hamfest I went to that would do it for 1/4 the cost, assuming that you would be happy with 200 watts and didn't need 750 or more.

Enjoy!

Bob Camp
KB8TQ

3868. WTB Tektronix & Hewlett Packard Product Catalogs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 01:12:33 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <5ewZ6.6187$C81.608684@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51865

Wanted: Tektronix & Hewlett, (will consider others Fluke, Keithley ect.),
Packard Product Catalogs. Please state year, price and condition.

Thanks,
Fred

fallen-idc@worldnet.att.net

3869. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 02:47:27 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <3DxZ6.85507$lq1.21352935@typhoon.austin.rr.com>
Source record: 51867

Joe,
The design you describe below with the Tayloe Detector directly driving a PC sound card for DSP is exactly what I am building. I am using Visual Basic, DirectX8 and the Intel Signal Processing Library. I have it working now using FFT fast convolution filtering. I don't have the I & Q balancing yet but I know generally how to do it. You can't beat this design for simplicity, low cost, and performance from what I have seen so far.
73,
Gerald

"W3JDR" <j.r@usa.com> wrote in message
news:LflZ6.12725$h27.514265@typhoon1.gnilink.net...
> Ralph,
> I think the reference to 3rd harmonic responses means that the circuit
will
> theoretically detect signals at odd harmonics of the LO sampling
frequency.
> In practice, there are also responses to signals at all harmonics of the
> sampling frequency. The magnitude of these responses is a function of the
> order of the harmonic, and heavily favors the odd harmonics. This just
> points out the need for an RF input filter, but this filter can be
somewhat
> 'sloppy' compared to image-reject filters required for heterodyne
receivers.
>
> What's really cool about Dan's circuit is that everything for a phasing
type
> DC receiver, up to the audio phase shift network, can be integrated on one
> chip. Historically, the audio phase shift circuit has been the most
> troublesome part of a phasing receiver, but modern DSP technology makes it
> possible to implement that part with extremely high precision and very low
> component complexity. With DSP, software can be implemented to
automatically
> compensate for phase and amplitude imbalances in the hardware.
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> I think Dan's technique, combined with DSP I/Q audio processing, will make
> it possible to build very inexpensive & high-performance multi-band
radios.
> I'd like to hear about some experimentation along these lines.
>
> Joe
> W3JDR
>
>

> "Ralph Lane" <crlane@erols.com> wrote in message
> news:3B356163.471D6795@erols.com...
> > Gerald, I am confused. I was under the impression that the Tayloe
detector
> > output was dc to audio output with the bandwidth set by the .47
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> > > John,
> > > To get good second harmonic suppression you have to have good clock
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> > > With poor symmetry I got:
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> > > 14.318 MHz -26 dB (This should be down >40 dB with a good clock)
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> > > you do have to get rid of the harmonics.
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> > > 73,
> > > Gerald, AC5OG
> > >
> > > -----Original Message-----
> > > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > > Sent: Friday, June 22, 2001 10:33 AM
> > > To: gyoungblood@austin.rr.com
> > > Subject: Re. Tayloe Mixer
> > >
> > > Hello Gerald
> > >
> > > Thanks for the excellent post. I like the description of it being a
> comb
> > > filter - slowly it is starting to make sense to me. The implications
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> > > understand this mixer.
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> > > John KC0GGH
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> > > On 2001/06/21 you posted:
> > > <<Bozidar,
> > > Your analogy sounds like a very good description to me but Dan would
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> > > better at confirming it. Another way of thinking of it is that when
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> > > deg and 180 degree segments of a cosine wave which adds to zero
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> > > differential inputs of the op amp. When you offset the carrier either
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> > > difference frequency. If you think about the sum frequency which is
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> > > If I did my math correctly that is a 9.5 KHz bandpass and a Q of 753.
I
> can
> > > reduce the bandpass simply by changing the sampling capacitor value.
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> > > 73 to all,
> > > Gerald, AC5OG >>
> >
>
>

3870. Re: C rowbar Circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 02:50:10 UTC
From: Woody <woody.white@att.net>
Message-ID: <3B36A7B0.E09688DD@att.net>
Source record: 51866

There is a simple crowbar circuit in the homebrew -> power supply area
of my homepage (below). Also, Lambda (power supply mfgr) had crowbar
"modules" for various voltages (have one for 5.x volts). Don't know
about current product line.
73,
Woody

GaryH wrote:
>
> I have built a 40 amp DC supply to run my transceiver. I need
> a crowbar circuit for OVP. Does anyone sell a completed or
> kit crowbar circuit? I don't have time to scrounge parts for one.
>
> Thanks
>
> --
> Web Publishing and PC Specialist
> www.tentec.com
>
> Remember 1950
> www.its1950again.com

--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

Puritanism: The haunting fear that someone, somewhere may be happy.

3871. FS: 1948 "Radio Fundamentals" by Albert, $10

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 03:46:04 UTC
From: oldbooks78@aol.com
Message-ID: <20010624234604.19643.00000005@ng-fv1.aol.com>
Source record: 51868

I currently have for sale a nice copy of "Radio Fundamentals" by Arthur Lemuel Albert, published in 1948 by McGraw-Hill, first edition. The 595 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Dark green cloth covers with gold lettering on the spine. The book covers the basic acoustical and electrical principles of radio. A nice old text. Available for $10 plus $2.50 postage (book rate within the US). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

3872. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 04:39:54 UTC
From: Jimbo the Clown <james@xicom.com.au>
Message-ID: <3b36c057@news.adfa.edu.au>
Source record: 51869

To make best use of existing facilities, why not target the VHF marine allocation? No one could whinge about the use of these frequencies for marine distress purposes, and every second boat has a transceiver.

Here in Aus, you could use channel 67 (the secondary distress channel, thus away from the bulk of calling traffic) at 156.375MHz.
From tried-and-true foxhunting experience...

Build a single transistor oscillator, using a 12MHz crystal. Force the crystal off frequency by 28KHz with some (adjustable) shunt/series capacitance. Capacitively couple the output to a tank circuit and antenna resonant at 156.375MHz (using the oscillators' 13th harmonic).

Aye, the power and efficiency is fairly lame, but we'd hunt these (144MHz) oscillators over several kilometers of bushland using a handheld transciever and a 2-el quad or 3-el yagi. A crystal-stability transmitter with one transistor!
If you were enthusiastic, a gain stage or some formal multiplication (with a step recovery diode or a varactor) would no doubt improve the circuit out of sight. Modulate the crystal pulling capacitance (with a varactor) or the supply rail with a pulsed square wave (ie 2 x 555 timers or a single 556 device), and now you've got a...

crystal controlled transmitter,
with a current consumption of <5mA,
cost of ~A$10 (excl. battery),
volume of less than a matchbox,
a distinctive tone
and able to be picked up on any VHF marine set!

Now you can make some directional antennas, get an exact crystal cut etc etc etc...

Cheers,
James VK2XQF

3873. HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 05:37:19 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B36CE0F.CA34F3E9@alltel.net>
Source record: 51870

I have an amp here with a special fuse in the positive HV lead. The HV
is +3600 vdc.
The fuse is a special 1 3/4" long fuse that has been taken apart and
filled with powdered silica.
My question is can I replace this with the shorter 1 1/4" CERAMIC fuses
that are available here in USA. These 1 3/4" long fuses are made in
Russia and hard to get plus the have to fill them with silica thing.
I want to keep the fuse inline. I have magnetic breakers on the xfr
primary BUT I have had some tube flashovers and the HV fuse blew but
zero damage to the HV diodes or anything else. In fact I have had more
than 1 flashover with some new tubes till the vacuum is reformed and the
internal gold particles or whatever has done it thing. The fuse really
works well to protect everything. The one in there now other than being
longer and filled with silica is normal fuse size in dia..
I know folks say to never put a fuse in the HV line but I really think
I would have blown the diode string if not for the fuse.
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3874. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 05:50:11 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <HoAZ6.91159$Uo3.2160556@news6.giganews.com>
Source record: 51871

A high voltage fuse has some special requirements, notably it must break without sustaining an arc. If an arc forms, the fuse might as well not be there. That's why it's longer and is filled with insulating material that has a higher breakdown than air.

I would replace it with the right part. An alternative would be a series string of fuses that add up to the sustaining voltage.

Contact Bussman or Littelfuse, for example, for suggestions.

73, Bob K6DDX

3875. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 06:30:04 UTC
From: Ham <no_sp@m.xxx>
Message-ID: <3B36DA6C.C33468D3@m.xxx>
Source record: 51872

I've missed some posts about this after being out of town.

Perhaps somebody has already suggested this but in Silicon Valley they're selling FRS transceivers for as little as $15 each without the PL capability. For the price that's a pretty cheap radio and it's hardly worth trying to build something. How about adapting them? Over water they should provide something near their claimed 2 mile range if the antenna is at all above water. I have a pair that I paid $20 each for about a year ago and the battery life is very good. Even my wife dropping one hasn't put it out of commission.

???

Jimbo the Clown wrote:

> To make best use of existing facilities, why not target the VHF marine
> allocation? No one could whinge about the use of these frequencies for
> marine distress purposes, and every second boat has a transceiver.
>
> Here in Aus, you could use channel 67 (the secondary distress channel, thus
> away from the bulk of calling traffic) at 156.375MHz.
> From tried-and-true foxhunting experience...
>
> Build a single transistor oscillator, using a 12MHz crystal. Force the
> crystal off frequency by 28KHz with some (adjustable) shunt/series
> capacitance. Capacitively couple the output to a tank circuit and antenna
> resonant at 156.375MHz (using the oscillators' 13th harmonic).
>
> Aye, the power and efficiency is fairly lame, but we'd hunt these (144MHz)
> oscillators over several kilometers of bushland using a handheld transciever
> and a 2-el quad or 3-el yagi. A crystal-stability transmitter with one
> transistor!
> If you were enthusiastic, a gain stage or some formal multiplication (with a
> step recovery diode or a varactor) would no doubt improve the circuit out of
> sight. Modulate the crystal pulling capacitance (with a varactor) or the
> supply rail with a pulsed square wave (ie 2 x 555 timers or a single 556
> device), and now you've got a...
>
> crystal controlled transmitter,
> with a current consumption of <5mA,
> cost of ~A$10 (excl. battery),
> volume of less than a matchbox,
> a distinctive tone
> and able to be picked up on any VHF marine set!
>
> Now you can make some directional antennas, get an exact crystal cut etc etc

> etc...
>
> Cheers,
> James VK2XQF

3876. Re: WTB Tektronix & Hewlett Packard Product Catalogs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 08:45:15 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B36FA6D.576C@pop.removethistomailme.net>
Source record: 51873

```
Fred Allen wrote:
>
> Wanted: Tektronix & Hewlett, (will consider others Fluke, Keithley ect.),
> Packard Product Catalogs. Please state year, price and condition.
>
> Thanks,
> Fred
>
> fallen-idc@worldnet.att.net

Lots of these on ebay, usually.

-- jm

-----------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-----------------------------------------------------
```

3877. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 10:29:31 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B37128B.ECA8566D@dialpoint.net>
Source record: 51875

The other Bob gave good advice. Fuses have three ratings that ate
important. The normal current rating you see, the voltage rating and
the maximum current rating. Most fuses in America you see are 32 volt
fuses, 250 and 600 volt fuses. This is the maximum voltage and you can
use the higher voltage fuse on lower voltages without a problem. As Bob
said you can get an arc just as as arc welder and the fuse acts as if it
has not blown. The maximum current interrupting rating works the same
way. This is usually in the many thousands of amps. I am not sure what
is in the fuse but it is there to prevent the arc from forming when the
fuse blows at the very high voltage. You should see the fuse where I
work that is in the control voltage side of a circuit. It is only rated
for 1/2 amp but the voltage is 5000 volts. The thing is over an inch in
diameter and about 10 inches long.

Bob Dodson wrote:
>
> I have an amp here with a special fuse in the positive HV lead. The HV
> is +3600 vdc.
> The fuse is a special 1 3/4" long fuse that has been taken apart and
> filled with powdered silica.
> My question is can I replace this with the shorter 1 1/4" CERAMIC fuses
> that are available here in USA. These 1 3/4" long fuses are made in
> Russia and hard to get plus the have to fill them with silica thing.
> I want to keep the fuse inline. I have magnetic breakers on the xfr
>

3878. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 11:09:52 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <4_EZ6.25056$1T5.1285624@typhoon2.gnilink.net>
Source record: 51874

Gerald,
Sounds like you're doing exactly what I've been hoping someone would do. I'm surprised that no one has used a PC sound card before to do the I-Q processing.
I travel a lot, and I've often thought it would be nice to have an extremely small, low power, multi-band radio I can just stuff into a corner of my bag. Since my laptop goes wherever I go, it would be a natural to use it as the DSP processor, audio amp, and front panel for a full-featured rig.

Please keep me and the group informed....this is ground-breaking stuff.

Joe
W3JDR

"Gerald Youngblood" <gyoungblood@austin.rr.com> wrote in message news:3DxZ6.85507$lq1.21352935@typhoon.austin.rr.com...
> Joe,
> The design you describe below with the Tayloe Detector directly driving a PC
> sound card for DSP is exactly what I am building. I am using Visual Basic,
> DirectX8 and the Intel Signal Processing Library. I have it working now
> using FFT fast convolution filtering. I don't have the I & Q balancing yet
> but I know generally how to do it. You can't beat this design for
> simplicity, low cost, and performance from what I have seen so far.
> 73,
> Gerald
>
> "W3JDR" <j.r@usa.com> wrote in message
> news:LflZ6.12725$h27.514265@typhoon1.gnilink.net...
> > Ralph,
> > I think the reference to 3rd harmonic responses means that the circuit will
> > theoretically detect signals at odd harmonics of the LO sampling frequency.
> > In practice, there are also responses to signals at all harmonics of the
> > sampling frequency. The magnitude of these responses is a function of the
> > order of the harmonic, and heavily favors the odd harmonics. This just
> > points out the need for an RF input filter, but this filter can be somewhat
> > 'sloppy' compared to image-reject filters required for heterodyne receivers.
> >

> > What's really cool about Dan's circuit is that everything for a phasing
> type
> > DC receiver, up to the audio phase shift network, can be integrated on
one
> > chip. Historically, the audio phase shift circuit has been the most
> > troublesome part of a phasing receiver, but modern DSP technology makes
it
> > possible to implement that part with extremely high precision and very
low
> > component complexity. With DSP, software can be implemented to
> automatically
> > compensate for phase and amplitude imbalances in the hardware.
> >
> > I think Dan's technique, combined with DSP I/Q audio processing, will
make
> > it possible to build very inexpensive & high-performance multi-band
> radios.
> > I'd like to hear about some experimentation along these lines.
> >
> > Joe
> > W3JDR
> >
> >
> > "Ralph Lane" <crlane@erols.com> wrote in message
> > news:3B356163.471D6795@erols.com...
> > > Gerald, I am confused. I was under the impression that the Tayloe
> detector
> > > output was dc to audio output with the bandwidth set by the .47
> microfarad
> > caps.
> > > The harmonics of the local osc. should be of little concern. Am I
> missing
> > > something?
> > >
> > > Ralph
> > >
> > > Gerald Youngblood wrote:
> > >
> > > > John,
> > > > To get good second harmonic suppression you have to have good clock
> > > > symmetry. I did not in the test that I did earlier. I plan to
> correct
> > that
> > > > in my future layout.
> > > >
> > > > With poor symmetry I got:
> > > >
> > > > 14.318 MHz -26 dB (This should be down >40 dB with a good clock)
> > > > 21.4782 MHz -13 dB
> > > > 28.6369 MHz -31 dB

> > > > 50.111 MHz -25 dB
> > > >
> > > > What you need with the Tayloe Detector is a simple low pass filter
> > rather
> > > > than a band pass filter. The detector itself is a narrow band pass
> > filter
> > > > you do have to get rid of the harmonics.
> > > >
> > > > 73,
> > > > Gerald, AC5OG
> > > >
> > > > -----Original Message-----
> > > > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > > > Sent: Friday, June 22, 2001 10:33 AM
> > > > To: gyoungblood@austin.rr.com
> > > > Subject: Re. Tayloe Mixer
> > > >
> > > > Hello Gerald
> > > >
> > > > Thanks for the excellent post. I like the description of it being a
> > comb
> > > > filter - slowly it is starting to make sense to me. The
implications
> of
> > it
> > > > being sensitive to odd harmonics are that front-end filters will be
> > > > necessary, possibly a little wider than octave filters if they have
> > steep
> > > > roll-offs. I was begining to think that the Tayloe Mixer with no
> front
> > end
> > > > filtering might be a little too good to be true.
> > > >
> > > > Would it be possible for you to do some measurements around the
second
> > and
> > > > third harmonics of the fundamental frequency, ie around 14.3 and
21.45
> > MHz,
> > > > and then post them? This would be helpful to me and no doubt others
> to
> > > > understand this mixer.
> > > >
> > > > Thanks and 73
> > > >
> > > > John KC0GGH
> > > >
> > > > On 2001/06/21 you posted:
> > > > <<Bozidar,
> > > > Your analogy sounds like a very good description to me but Dan would

> be
> > > > better at confirming it. Another way of thinking of it is that when
> the
> > > > > carrier is at zero beat the in-phase side of the detector will
> integrate
> > 0
> > > > > deg and 180 degree segments of a cosine wave which adds to zero
> through
> > the
> > > > > differential inputs of the op amp. When you offset the carrier
either
> > way
> > > > > it will no longer add to zero but will be a wave which corresponds
to
> > the
> > > > > difference frequency. If you think about the sum frequency which is
> the
> > > > > same as 2X the carrier frequency you will have two complete cycles
of
> > which
> > > > > also add to zero. In other words with perfect components even
> harmonics
> > add
> > > > > to zero in the output of the detector.
> > > > >
> > > > > For those who do think digital, this looks a lot like a comb filter
> > where it
> > > > > responds to odd harmonics of the carrier frequency. By the way you
> only
> > > > > need a roofing filter with this detector to get rid of the
harmonics.
> > My
> > > > > measured output from the detector looks like this with no input
> filter:
> > > > >
> > > > > 7.1591 MHz 0 dB
> > > > > 7.16385 MHz -3 dB
> > > > > 7.16743 MHz -6 dB
> > > > > 7.21065 MHz -20 dB
> > > > > 7.61212 MHz -50 dB
> > > > >
> > > > > If I did my math correctly that is a 9.5 KHz bandpass and a Q of
753.
> I
> > can
> > > > > reduce the bandpass simply by changing the sampling capacitor value.
> > > > >
> > > > > 73 to all,
> > > > > Gerald, AC5OG >>
> > >

> >
> >
>
>

3879. G3sek Screen Regulator Board Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 13:21:21 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <8GGZ6.2013$e5.10811@newsfeeds.bigpond.com>
Source record: 51876

Anybody modified this board for higher screen currents? I want to mod this board to handle 2 Russian Tetrodes. Any suggestion on what has to be upgraded? Its current range seems to be limited despite what the advertising says about handling 2 tubes.

Will

3880. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 13:29:05 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B373C9D.FA231439@home.com>
Source record: 51877

Many years ago I used to help a friend build a bunch of home brew amplifiers and we always used the normal 125v fuses in line with the HV.

Effective? Yes. Safe? That was another matter. When we would get a short in our 3000v line, the metal in the fuse would blow as expected, but it simply turned into a conductive plasma gas. The current kept flowing. The plasma in turn would then get super heated, expand, and blow the fuse body into glass dust with a sound like cherry bomb. That stopped the current.

It works, but that was back in the days when I really could not afford any better.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Bob Dodson wrote:
>
> I have an amp here with a special fuse in the positive HV lead. The HV
> is +3600 vdc.
> The fuse is a special 1 3/4" long fuse that has been taken apart and
> filled with powdered silica.
> My question is can I replace this with the shorter 1 1/4" CERAMIC fuses
> that are available here in USA. These 1 3/4" long fuses are made in
> Russia and hard to get plus the have to fill them with silica thing.
> I want to keep the fuse inline. I have magnetic breakers on the xfr
> primary BUT I have had some tube flashovers and the HV fuse blew but
> zero damage to the HV diodes or anything else. In fact I have had more
> than 1 flashover with some new tubes till the vacuum is reformed and the
> internal gold particles or whatever has done it thing. The fuse really
> works well to protect everything. The one in there now other than being
> longer and filled with silica is normal fuse size in dia..
> I know folks say to never put a fuse in the HV line but I really think
> I would have blown the diode string if not for the fuse.
> --
> 73
> Bob Dodson WB5APD My Web Page
> Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
> E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
> ==
> I MONITOR 144.200
> 144mhz [2m] Station 432mhz [70cm] Station
> 8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
> MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
> [EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
> ==

3881. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 13:54:34 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b374277.6485709@news.cantech.net.au>
Source record: 51878

On Mon, 25 Jun 2001 01:37:19 -0400, Bob Dodson <wb5apd@alltel.net>
wrote:

> I have an amp here with a special fuse in the positive HV lead. The HV
>is +3600 vdc.
>The fuse is a special 1 3/4" long fuse that has been taken apart and
>filled with powdered silica.

Sounds distinctly like an HRC fuse.

3882. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 16:10:08 UTC
From: msix@plato.nmia.com
Message-ID: <AnJZ6.45894$Mq.1876519@e420r-sjo3.usenetserver.com>
Source record: 51879

Try a small resistor from each cathode to ground.
I normally use 1 ohm at .5 watt.
They seem to snap around 1 amp.
Saves the PS and shows which tube ranaway.
Can put it in place of HV fuse if you want.

Or - Put a normal fuse at each cathode...

73 - John W7ZFB
1400 Catron SE Albq, NM 87123
****
* Homebrewer since 1947 CW BoatAnchors Norcal #930 *
* BA CW freqs - 3547, 7050, 7147, 10120, 14050, 21050, 28050 *
****

3883. Re: PN2222A Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 16:22:38 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9jepad.9id.QSB@animas.frontier.net>
Source record: 51880
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Hell, you can get them for FREE! They are all over obsolete and
obsolescent printed circuit boards that are tossed out every day.
Old 1200/2400/3600 bps modes, old mainframe and min-computer
circuit boards, old consumer electronics..... etc., usw.

Usually the folks with the ability, moxie, and inclination to
solder them *into* a circuit, will bother to apply the same skills
to removing them *from* a circuit.

Jonesy

On Fri, 22 Jun 2001 14:54:52 -0500, WS scribbled:
>You can get these anywhere for .05 cents each.WS

>Scrounger <bmurrey@amexol.net> wrote in message
>news:a_xY6.500$34.448637@news1.iquest.net...
>> Got these at an estate sale....
>>
>> PN2222A Transistors, everyone favorite little amp. Plastic TO92 case.
>>
>> 10 for $1.50
>> 50 for $4.50
>> 100 for $8.25
>> 200 for $15.50
>> 500 for $37.00

<<--trim-->>
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

3884. Re: PN2222A Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 16:38:01 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <oOJZ6.615$34.520218@news1.iquest.net>
Source record: 51881
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Hey, go for it!

It's a free country. Personally to me, it's cheaper to pay a few cents for brand new ones than to spend my time unsoldering a bunch of boards, and running the risk that I have destroyed the semi upon removal. You do bring up a good point though. I have been known to snag the ocassional TV set from the trash if for nothing else, the enamaled wire and all the little knobs.

73 de KB9BVN

"Allodoxaphobia" <QSB@QRM-QRN.net> wrote in message
news:slrn9jepad.9id.QSB@animas.frontier.net...
> Hell, you can get them for FREE! They are all over obsolete and
> obsolescent printed circuit boards that are tossed out every day.
> Old 1200/2400/3600 bps modes, old mainframe and min-computer
> circuit boards, old consumer electronics..... etc., usw.
>
> Usually the folks with the ability, moxie, and inclination to
> solder them *into* a circuit, will bother to apply the same skills
> to removing them *from* a circuit.
>
> Jonesy
>
> On Fri, 22 Jun 2001 14:54:52 -0500, WS scribbled:
> >You can get these anywhere for .05 cents each.WS
>
> >Scrounger <bmurrey@amexol.net> wrote in message
> >news:a_xY6.500$34.448637@news1.iquest.net...
> >> Got these at an estate sale....
> >>
> >> PN2222A Transistors, everyone favorite little amp. Plastic TO92 case.
> >>
> >> 10 for $1.50
> >> 50 for $4.50
> >> 100 for $8.25
> >> 200 for $15.50
> >> 500 for $37.00
>
> <<--trim-->>
> --
> | Marvin L Jones | jonz | W3DHJ | OS/2
> | Gunnison, Colorado | @ | Jonesy | linux __
> | 7,703' -- 2,345m | frontier.net | DM68mn SK

3885. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 17:14:27 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <44sejtc77pbipg2cpn5ivqsv9kvs93rvni@4ax.com>
Source record: 51882

"Jimbo the Clown" <james@xicom.com.au> wrote:

>To make best use of existing facilities, why not target the VHF marine
>allocation? No one could whinge about the use of these frequencies for
>marine distress purposes, and every second boat has a transceiver.

Its likely, after experimentation and proof of concept, that we would have
an international frequency set aside for exactly this purpose. I'm getting
in touch with the right people to try to make this happen.

>Here in Aus, you could use channel 67 (the secondary distress channel, thus
>away from the bulk of calling traffic) at 156.375MHz.
>From tried-and-true foxhunting experience...

Yeah, that might be another possibility for a frequency! I'm really curious
to see what Industry Canada suggests, they haven't gotten back to me yet and
must still be debating it.

>Build a single transistor oscillator, using a 12MHz crystal. Force the
>crystal off frequency by 28KHz with some (adjustable) shunt/series
>capacitance. Capacitively couple the output to a tank circuit and antenna
>resonant at 156.375MHz (using the oscillators' 13th harmonic).

More expense and more size, in using an oscillator type circuit. I really
think SAW chips are the way to go.

>Aye, the power and efficiency is fairly lame, but we'd hunt these (144MHz)
>oscillators over several kilometers of bushland using a handheld transciever
>and a 2-el quad or 3-el yagi. A crystal-stability transmitter with one
>transistor!
>If you were enthusiastic, a gain stage or some formal multiplication (with a
>step recovery diode or a varactor) would no doubt improve the circuit out of
>sight. Modulate the crystal pulling capacitance (with a varactor) or the
>supply rail with a pulsed square wave (ie 2 x 555 timers or a single 556
>device), and now you've got a...

Might modulate it with something like a 555, and then control it with a PIC
chip. Definately would add a gain stage after the SAW chip.

Ian

3886. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 17:15:40 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <1hsejt0ki8at284ktup8hj0f1ms36qop6c@4ax.com>
Source record: 51883

Ham <no_sp@m.xxx> wrote:

>I've missed some posts about this after being out of town.
>
>Perhaps somebody has already suggested this but in Silicon Valley they're
>selling FRS transceivers for as little as $15 each without the PL capability.
>For the price that's a pretty cheap radio and it's hardly worth trying to build
>something. How about adapting them? Over water they should provide something
>near their claimed 2 mile range if the antenna is at all above water. I have a
>pair that I paid $20 each for about a year ago and the battery life is very
>good. Even my wife dropping one hasn't put it out of commission.

Since this was discussed at length before, perhaps you can read all the gory
details on google.com :-)

Ian

3887. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 18:07:33 UTC
From: joebramblett@drunkenbard.com
Message-ID: <4F7E2FCFC5F63093.8AD24A0E273D2045.8AF04DC257967730@lp.airnews.net>
Source record: 51884
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

On 20 Jun 2001 17:42:42 GMT, glass2@glass2.lexington.ibm.com wrote:

>Plus, the mechanical vibrations and shocks that the device will have
>to withstand may tend to cause the housing to crack. And, finally,
>once these effects have been accounted for, there's the issue of
>ultraviolet light which may degrade some plastics. In other words,
>packaging the device is going to be a real trick. Of course, I'm
>not saying that it can't be done; just that it'll be difficult.

Storage method could partially negate some of these issues; you can keep it in a shock-resistant case, out of the sun, for example. If the devices are maintained by a club, then the storage methods could be properly supervised. At any rate, I agree that, for the average maritime consumer, the $250 minimum, 'nearly indestructible' EPIRB is a necessity.

>Choosing a frequency may be a bit trickier, though. Several posters
>have already mentioned some of the concerns. You obviously want a
>frequency which will be relatively clear of interference for now and
>the future around your operating area. A safety device which is
>being jammed by legitimate signals won't be of much use.

Of course, the regular EPIRB frequencies of 121.5 and 406 MHz are ideal in serious emergencies, but you don't want to deal with the problems if you've loaned one out and the user intentionally triggers it for something that doesn't really qualify.

Maybe it could be set up to transmit a beacon on another frequency for a non-life-threatenng activation, while the serious emergecy activation button would have a cover to prevent accidental triggering.

>Also, you want a frequency where the device won't interfere with too
>many other legitimate users. Interfering with one person opening
>their garage door is probably unimportant. Causing 25,000 garage
>doors to start opening and closing automatically throughout the day
>and night might be a bit more cause for concern.

If you can do that with a 500mW-2W device that costs less than $100, I want to know how.

>Interfering with a
>tower to airplane communication which results in an airplane crash
>might be the worst case scenario. (Ok, I'm obviously stretching it
>here, but I'm trying to make a point.).

Actually, I think launching the world's entire thermonuclear arsenal at randomly chosen ground targets would be the worst case, but since we hams haven't accidentally done that yet, I suspect we can keep these theoretical boxes from doing it.

>One of the choices for frequency usage may be dictated by the watery
>environment the device is in. If the frequency is too high
>(microwave bands), then water vapour may start to absorb part of the
>transmitted signal, lessening the range. If the device is not
>completely buoyant, then the sea water will attenuate the signal
>extremely rapidly for just about any reasonable radio frequency.
>However, too low of a frequency will require an excessive sized
>antenna for efficient radiation, and, plus, may also cause
>difficulties in attempting to radio-locate the source of the signal
>(Think of the receiving equipment and how it will be doing the radio
>location.).

I was thinking airband (121.5) for the primary emergency signal, and maybe a MURS frequency or, (with their agreement, of course) a CAP VHF frequency for the non-life-threatening assistance signal.

This would be right in the range that most hams are used to fox hunting for, and would allow for a simple rubber ducky to be used, rather than a telescoping antenna that would break easily, or a whip that would potentially degrade quickly in salt air. While the ducky isn't ideal, it's nearly indestructible, and not too hard to allow space for.

Note that by non-life-threatening situations that the beacon could be used for, I'm referring to situations that do require assistance, but aren't particularly time-sensitive or dangerous. Capsized and unable to right, or adrift without serious weather approaching come to mind as examples.

>A weaker, but possibly more prevalent, form of the moral argument is
>if the new safety device causes someone to omit a previous safety
>device from their inventory of safety related equipment. For
>example, if having the RF safety device causes them to leave out a
>whistle, a flag, a balloon, or anything else that they might
>normally carry, then they may be placing themselves at increased
>risk.

Again, assuming this is being handled by a club, it could be provided only as part of a kit, thus allowing them to ensure that all safety equipment is carried.

>Now, consider that, during a typical
>day, five percent of the devices false positive. That results in 50
>false signals per day. Thus, the rescue crews have to make 50
>unnecessary runs per day.

A light and sound combination on the device itself would allow the user to know if it was been activated. (The lack of these on ELT's being proof that the FAA doesn't think things through as well as it

shoudl, IMO) As far as alerting the rescue crews, unless everyone's carrying VHF radios already, you would have to have some sort of 'all clear' signal built into the radio that would be equally had to send accidentally in a real emergency.

>Also, consider the case where a false positive may be interfering
>with a legitimate signal. Radio direction finding one clear signal
>is not too difficult. Radio direction finding one signal out of a
>dozen on the same frequency is almost impossible without some
>extremely complex and expensive equipment.

>Some of the design issues you may want to consider would be things
>like having each device transmit an ID code to uniquely identify it.
>The problem with this is that it's going to require a custom
>programmed part of some type, and this is going to increase the
>device cost.

Given the easy availability of PICs and other methods of programming the beacon, having them ID via morse wouldn't be an unreasonable demand. Just make it so it sends a tone, either modulates the tone or the carrier itself, and all-clears with, say, its ID immediately followed by OK. You don't want to call off the response to a real emergency if someone else accidentally triggers the hits their all clear.

>You may also want to consider making the devices a one-time-only
>type of device to discourage tampering and other sources of false
>positives. An added advantage is that this may require replacement
>of the device after a use, which could decrease the false negative
>situation, too (e.g., After the device has been used once, and the
>batteries partially depleted, the device will have to be replaced,
>rather than being restored to operational status with partially
>depleted batteries.). The disadvantage is that users are going to
>be reluctant to shell out the cost of a new device.

Not necessarily. It could be done as a manufacturer-recyclable, so that returning the unit to be refurbished and tested would reduce the cost dramatically.

Joe Bramblett, KD5NRH
joebramblett@drunkenbard.com
http://www.drunkenbard.com

3888. Re: G3sek Screen Regulator Board Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 18:12:26 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <3UffT0AK83N7EwLD@ntlworld.com>
Source record: 51888

In message <8GGZ6.2013$e5.10811@newsfeeds.bigpond.com>, willy
<willyacht@yahoo.com> writes
>Anybody modified this board for higher screen currents? I want to mod
>this board to handle 2 Russian Tetrodes. Any suggestion on what has to
>be upgraded? Its current range seems to be limited despite what the
>advertising says about handling 2 tubes.

have you tried e-mailing Ian direct? He does show up on rec.radio
newsgroups so may pick this up himself.

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

3889. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 20:27:06 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <oc6fjtsco30bveke7q49g1njrqebv07ekt@4ax.com>
Source record: 51885
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

joebramblett@drunkenbard.com (Joe Bramblett) wrote:

>Maybe it could be set up to transmit a beacon on another frequency for
>a non-life-threatennng activation, while the serious emergecy
>activation button would have a cover to prevent accidental triggering.

If the signal is coded so that it has two states, immediate life-critical emergency, being one state, and not-overly serious emergency yet, as being the other emergency, then this might work. If they were separated to be on two different frequencies, I don't think this is ideal. It would add to the size, add to the expense, and also add to the needed rescue equipment, as well as an antenna would be more optimial in one situation or the other. Since the small clubs & such would have no 121.5 finding equipment or recivers, they would have to buy that in addition, and possibly have to get familiarized and trained at using two different devices for DF'ing, in different situations, and different equipment, with different antenna lengths, etc. The worst possiblility, is being trained well and experienced in using the DF tools in the non-serious emergencies, but when it comes to the real serious ones that might happen once in a few years, they might have difficulty. Since most of the situations would be reasonably serious, at least serious enough that they are going to waste $20+ on a particular incident, I think just one activation with one type of distress would be ideal and quite sufficient. Two types of signals would add to the confusion of how to use the device, etc., and makes it twice as hard to design a device that can't be triggered accidentally.

>Note that by non-life-threatening situations that the beacon could be
>used for, I'm referring to situations that do require assistance, but
>aren't particularly time-sensitive or dangerous. Capsized and unable
>to right, or adrift without serious weather approaching come to mind
>as examples.

Right, this is likely the most common scenario this device would be used for. Time sensitve would be relative. In the summer, an hour would be OK, but 4 hours could become dangerous. In the winter, 35 minutes might be OK, but an hour and a half could become quite dangerous. Without wetsuits in the summer, an hour and a half could start getting dangerous. Without wetsuits in the winter, consider yourself dead in any case. :) Vancouver is a protected bay with reasonably warm waters during the summer & winter, but places like the SF Bay area I imagine would be even more time critical.

>A light and sound combination on the device itself would allow the
>user to know if it was been activated. (The lack of these on ELT's
>being proof that the FAA doesn't think things through as well as it
>shoudl, IMO) As far as alerting the rescue crews, unless everyone's

>carrying VHF radios already, you would have to have some sort of 'all
>clear' signal built into the radio that would be equally had to send
>accidentally in a real emergency.

Either that, or have the device activated in such a way, that the action
would be extremely deliberate and obvious.

>>You may also want to consider making the devices a one-time-only
>>type of device to discourage tampering and other sources of false
>>positives. An added advantage is that this may require replacement
>>of the device after a use, which could decrease the false negative
>>situation, too (e.g., After the device has been used once, and the
>>batteries partially depleted, the device will have to be replaced,
>>rather than being restored to operational status with partially
>>depleted batteries.). The disadvantage is that users are going to
>>be reluctant to shell out the cost of a new device.
>
>Not necessarily. It could be done as a manufacturer-recyclable, so
>that returning the unit to be refurbished and tested would reduce the
>cost dramatically.

Right...

Ian

3890. Re: Source Motorola MC145151

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 20:31:33 UTC
From: Lionel Booth PE <l.booth-pe@worldnet.att.net>
Message-ID: <FcNZ6.10316$3d3.774569@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51886

Just FYI Drake fans...dialelec shows availability of TL442 the R4C product detector mod.
"John Crabtree" <crabtreejr@aol.com> wrote in message news:20010624143623.08641.00000728@ng-bd1.aol.com...
> Hello Brian
>
> Try Dial Electronics at
> http://www.dialelec.com
> They list 5 different varieties. They are in the UK too.
>
> 73 John KC0GGH
>
> "Brian Reay" brian.reay@bigfoot.com on 6/24/01 wrote:
> >I'm try to locate a source for a MC145151- a Motorola synthersiser part
> >(prog divider, phase comp etc.). The part is no longer make and
> > searches of the Web haven't turned up a stockist.
> >
> >Any one know of a stockist that isn't on the Web. Prefer in UK, as
> > postage from US tends to swap the cost!!!!
> >
> >73 Brian G8OSN
>
> >
> >
> >
>
>

3891. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 20:34:16 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <cfNZ6.112271$v5.8521394@news1.rdc1.ct.home.com>
Source record: 51887
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

All modern garage door openers are digitally encoded.
The chances of randomly opening garage doors accidently
with an unmodulated carrier are very unlikely. Imagine the
product liability claims if doors could be tripped to close on
kids or cars without warning--due to a stray signal?

Pete

>>Interfering with one person opening
> >their garage door is probably unimportant. Causing 25,000 garage
> >doors to start opening and closing automatically throughout the day
> >and night might be a bit more cause for concern.
>

3892. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 21:26:41 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B37AC91.BE2B71DF@one.net>
Source record: 51889

This is new to me -- I learned something here, Bob :-)

The problem makes me think of blowout coils. They're used in contactors/switches for high-current DC applications. When you open one of these contactors, the current tends to arc from one switch contact to the other. The current from the arc flows through the blowout coil, and the magnetic field that the current creates blows the arc out of the gap.

Couldn't that work here?

... Rich

Bob wrote:
>
> A high voltage fuse has some special requirements, notably it must break
> without sustaining an arc. If an arc forms, the fuse might as well not be
> there. That's why it's longer and is filled with insulating material that
> has a higher breakdown than air.
>
> I would replace it with the right part. An alternative would be a series
> string of fuses that add up to the sustaining voltage.
>
> Contact Bussman or Littelfuse, for example, for suggestions.
>
> 73, Bob K6DDX

3893. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 22:59:07 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B37C23B.22C77525@coqui.net>
Source record: 51890
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Ian Upright wrote:
>

Sorry, but I've been in and out of this looong thread and may have
missed a few messages.
In life-raft kits on commercial airliners, aren't there little beacon
xmtrs? I recall them as being on dual freqs and sending out a brief ID
code every five minutes.
Is this type of thing an option...and are they terribly expensive?

--

Bill Meacham
Vieques, PR

3894. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 23:19:29 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <ejhfjt8qe45jea17e0rm147p9bqv3dvel7@4ax.com>
Source record: 51891
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Bill Meacham <NOSPAMexray@coqui.net> wrote:

>Sorry, but I've been in and out of this looong thread and may have
>missed a few messages.
>In life-raft kits on commercial airliners, aren't there little beacon
>xmtrs? I recall them as being on dual freqs and sending out a brief ID
>code every five minutes.
>Is this type of thing an option...and are they terribly expensive?

Similar devices exist

http://www.divernet.com/blandfrd/pblhome.htm

They are made in the UK, cost about USD $210, and are too bulky. They transmit on 121.5 & 243 MHz EPIRB frequencies, and I've been told that those frequencies should NOT be used for the level of seriousness that we are intending for these devices. A small boat is overturned with a broken mast, they need a tow to shore before the boaters become hypothermic.. Not super time critical, but it could get very serious if the length of time was long enough.

Ian

3895. AM/SSB/FM digital demodulation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 23:49:37 UTC
From: Thierry Leconte <thierry.leconte@liberty.fr>
Message-ID: <9h8iidknh1@news6.isdnet.net>
Source record: 51892
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

Hi,

If you are interested in the use of DSP for radio receiver, perhaps you
could take a look at my new web page,
that describe a program I wrote for a 56002EVM board :

http://perso.libertysurf.fr/thierry.leconte/demod.html

3896. FRG-7 mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 23:54:54 UTC
From: Thierry Leconte <thierry.leconte@liberty.fr>
Message-ID: <9h8isa$1vku$1@news5.isdnet.net>
Source record: 51893
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

Hi,

I just created a web page about all the mods I have done to my good old
FRG-7.
If your are interested :
http://perso.libertysurf.fr/thierry.leconte/FRG7mods.html

3897. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-25 23:57:12 UTC
From: Znospam+noZs_0106@hpb13799Z.Zboi.hpZ.com.invalid
Message-ID: <slrn9jfg3l.uno.Znospam+noZs_0106@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 51798

On Mon, 25 Jun 2001 06:29:31 -0400, Ralph Mowery <rmowery@dialpoint.net> wrote:
> The other Bob gave good advice. Fuses have three ratings that ate
> important. The normal current rating you see, the voltage rating and
> the maximum current rating. Most fuses in America you see are 32 volt
> fuses, 250 and 600 volt fuses. This is the maximum voltage and you can

Don't forget A.C. vs. D.C. ratings. A.C. voltage ratings are
typically much higher because it is significantly more difficult to
interrupt a D.C. arc.

If anybody has a good, inexpensive source for 70vdc (minimum, 125vdc
preferred) fuses, please let me know.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
"Don't Tread On Me!"

3898. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 00:35:56 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b37d7c7$1_2@newsa.ev1.net>
Source record: 51894

Use "Viteruos enamel" glass type, .67 ohm, 1 watts resistor, which will
expolde if a "parasitic oscillation" happens, which is what most of these
fuse resistors are for.

Bob Dodson <wb5apd@alltel.net> wrote in message
news:3B36CE0F.CA34F3E9@alltel.net...
> I have an amp here with a special fuse in the positive HV lead. The HV
> is +3600 vdc.
> The fuse is a special 1 3/4" long fuse that has been taken apart and
> filled with powdered silica.
> My question is can I replace this with the shorter 1 1/4" CERAMIC fuses
> that are available here in USA. These 1 3/4" long fuses are made in
> Russia and hard to get plus the have to fill them with silica thing.
> I want to keep the fuse inline. I have magnetic breakers on the xfr
> primary BUT I have had some tube flashovers and the HV fuse blew but
> zero damage to the HV diodes or anything else. In fact I have had more
> than 1 flashover with some new tubes till the vacuum is reformed and the
> internal gold particles or whatever has done it thing. The fuse really
> works well to protect everything. The one in there now other than being
> longer and filled with silica is normal fuse size in dia..
> I know folks say to never put a fuse in the HV line but I really think
> I would have blown the diode string if not for the fuse.
> --
> 73
> Bob Dodson WB5APD My Web Page
> Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
> E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
> ==
> I MONITOR 144.200
> 144mhz [2m] Station 432mhz [70cm] Station
> 8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
> MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
> [EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
> ==

3899. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 02:36:34 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <SySZ6.94315$tb6.23577260@typhoon.austin.rr.com>
Source record: 51895

Joe,
I will be happy to keep the group informed. I will be presenting a paper at the Central States VHF Conference on July 28 in Dallas. I also have gotten the go ahead to write a four part series for QEX from Doug Smith. I hope to use the material I am presenting for Central States and expand on it for the series.

My current design uses the Tayloe detector on a small Radio Shack protoboard. It has a 74CBT3253, 74AC74, 74AC04, and two LT1115s. I drive the clock with a HP8640B signal generator. The outputs of the two LT1115 op-amps directly drive the sound card as I and Q. The PC does everything else. You won't believe the performance you get. And its all in Visual Basic which most mere mortals should be able to program in.

By the way right now I don't even have a front end low pass filter. On 40 M it works pretty good without it even though I don't recommend that. I have a lot more work to do but it is already working extremely well.

73,
Gerald
"W3JDR" <j.r@usa.com> wrote in message
news:4_EZ6.25056$1T5.1285624@typhoon2.gnilink.net...
> Gerald,
> Sounds like you're doing exactly what I've been hoping someone would do.
I'm
> surprised that no one has used a PC sound card before to do the I-Q
> processing.
> I travel a lot, and I've often thought it would be nice to have an
extremely
> small, low power, multi-band radio I can just stuff into a corner of my
bag.
> Since my laptop goes wherever I go, it would be a natural to use it as the
> DSP processor, audio amp, and front panel for a full-featured rig.
>
> Please keep me and the group informed....this is ground-breaking stuff.
>
> Joe
> W3JDR
>
>
> "Gerald Youngblood" <gyoungblood@austin.rr.com> wrote in message
> news:3DxZ6.85507$lq1.21352935@typhoon.austin.rr.com...
> > Joe,
> > The design you describe below with the Tayloe Detector directly driving
a

> PC
> > sound card for DSP is exactly what I am building. I am using Visual
> Basic,
> > DirectX8 and the Intel Signal Processing Library. I have it working now
> > using FFT fast convolution filtering. I don't have the I & Q balancing
> yet
> > but I know generally how to do it. You can't beat this design for
> > simplicity, low cost, and performance from what I have seen so far.
> > 73,
> > Gerald
> >
> > "W3JDR" <j.r@usa.com> wrote in message
> > news:LflZ6.12725$h27.514265@typhoon1.gnilink.net...
> > > Ralph,
> > > I think the reference to 3rd harmonic responses means that the circuit
> > will
> > > theoretically detect signals at odd harmonics of the LO sampling
> > frequency.
> > > In practice, there are also responses to signals at all harmonics of
the
> > > sampling frequency. The magnitude of these responses is a function of
> the
> > > order of the harmonic, and heavily favors the odd harmonics. This just
> > > points out the need for an RF input filter, but this filter can be
> > somewhat
> > > 'sloppy' compared to image-reject filters required for heterodyne
> > receivers.
> > >
> > > What's really cool about Dan's circuit is that everything for a
phasing
> > type
> > > DC receiver, up to the audio phase shift network, can be integrated on
> one
> > > chip. Historically, the audio phase shift circuit has been the most
> > > troublesome part of a phasing receiver, but modern DSP technology
makes
> it
> > > possible to implement that part with extremely high precision and very
> low
> > > component complexity. With DSP, software can be implemented to
> > automatically
> > > compensate for phase and amplitude imbalances in the hardware.
> > >
> > > I think Dan's technique, combined with DSP I/Q audio processing, will
> make
> > > it possible to build very inexpensive & high-performance multi-band
> > radios.
> > > I'd like to hear about some experimentation along these lines.
> > >

> > > Joe
> > > W3JDR
> > >
> > >
> > > "Ralph Lane" <crlane@erols.com> wrote in message
> > > news:3B356163.471D6795@erols.com...
> > > > Gerald, I am confused. I was under the impression that the Tayloe
> > detector
> > > > output was dc to audio output with the bandwidth set by the .47
> > microfarad
> > > > caps.
> > > > The harmonics of the local osc. should be of little concern. Am I
> > missing
> > > > something?
> > > >
> > > > Ralph
> > > >
> > > > Gerald Youngblood wrote:
> > > >
> > > > > John,
> > > > > To get good second harmonic suppression you have to have good
clock
> > > > > symmetry. I did not in the test that I did earlier. I plan to
> > correct
> > > that
> > > > > in my future layout.
> > > > >
> > > > > With poor symmetry I got:
> > > > >
> > > > > 14.318 MHz -26 dB (This should be down >40 dB with a good clock)
> > > > > 21.4782 MHz -13 dB
> > > > > 28.6369 MHz -31 dB
> > > > > 50.111 MHz -25 dB
> > > > >
> > > > > What you need with the Tayloe Detector is a simple low pass filter
> > > rather
> > > > > than a band pass filter. The detector itself is a narrow band
pass
> > > filter
> > > > > you do have to get rid of the harmonics.
> > > > >
> > > > > 73,
> > > > > Gerald, AC5OG
> > > > >
> > > > > -----Original Message-----
> > > > > From: Crabtreejr@aol.com [mailto:Crabtreejr@aol.com]
> > > > > Sent: Friday, June 22, 2001 10:33 AM
> > > > > To: gyoungblood@austin.rr.com
> > > > > Subject: Re. Tayloe Mixer
> > > > >

> > > > > Hello Gerald
> > > > >
> > > > > Thanks for the excellent post. I like the description of it being
a
> > > comb
> > > > > filter - slowly it is starting to make sense to me. The
> implications
> > of
> > > it
> > > > > being sensitive to odd harmonics are that front-end filters will
be
> > > > > necessary, possibly a little wider than octave filters if they
have
> > > steep
> > > > > roll-offs. I was begining to think that the Tayloe Mixer with no
> > front
> > > end
> > > > > filtering might be a little too good to be true.
> > > > >
> > > > > Would it be possible for you to do some measurements around the
> second
> > > and
> > > > > third harmonics of the fundamental frequency, ie around 14.3 and
> 21.45
> > > MHz,
> > > > > and then post them? This would be helpful to me and no doubt
others
> > to
> > > > > understand this mixer.
> > > > >
> > > > > Thanks and 73
> > > > >
> > > > > John KC0GGH
> > > > >
> > > > > On 2001/06/21 you posted:
> > > > > <<Bozidar,
> > > > > Your analogy sounds like a very good description to me but Dan
would
> > be
> > > > > better at confirming it. Another way of thinking of it is that
when
> > the
> > > > > carrier is at zero beat the in-phase side of the detector will
> > integrate
> > > 0
> > > > > deg and 180 degree segments of a cosine wave which adds to zero
> > through
> > > the
> > > > > differential inputs of the op amp. When you offset the carrier
> either

> > > way
> > > > > it will no longer add to zero but will be a wave which corresponds
> to
> > > the
> > > > > difference frequency. If you think about the sum frequency which
is
> > the
> > > > > same as 2X the carrier frequency you will have two complete cycles
> of
> > > which
> > > > > also add to zero. In other words with perfect components even
> > harmonics
> > > add
> > > > > to zero in the output of the detector.
> > > > >
> > > > > For those who do think digital, this looks a lot like a comb
filter
> > > where it
> > > > > responds to odd harmonics of the carrier frequency. By the way
you
> > only
> > > > > need a roofing filter with this detector to get rid of the
> harmonics.
> > > My
> > > > > measured output from the detector looks like this with no input
> > filter:
> > > > >
> > > > > 7.1591 MHz 0 dB
> > > > > 7.16385 MHz -3 dB
> > > > > 7.16743 MHz -6 dB
> > > > > 7.21065 MHz -20 dB
> > > > > 7.61212 MHz -50 dB
> > > > >
> > > > > If I did my math correctly that is a 9.5 KHz bandpass and a Q of
> 753.
> > I
> > > > can
> > > > > reduce the bandpass simply by changing the sampling capacitor
value.
> > > > >
> > > > > 73 to all,
> > > > > Gerald, AC5OG >>
> > > >
> > >
> > >
> > >
> >
> >
>
>

3900. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 07:58:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B3840A2.88CBE105@eznec.com>
Source record: 51896
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

I think a lot (but not all) of the negative responses you've gotten might have been due to the wording of your original question:

>First of all, do any such inexpensive radio transmitters exist? (I was >hoping in the US $20-30 dollar or less range) Possible? The transmitter

I and others pointed out how unlikely we think it would be for you to find a commercial transmitter meeting your criteria, and why. But this is a very different thing than a unit that can be designed and built for free by volunteers, and which doesn't have to meet any legal requirements for stability, spurious emissions, power level, and so forth, which won't undergo extensive testing or reliability assessment, which won't incur any liability in case of failure at a critical moment, and which can be sold at essentially the parts cost. What you're now proposing -- a unit containing maybe $20 or $30 worth of parts, designed and built for free, and unburdened by any legal niceties -- is probably possible. Now that the newsgroup readers have a better understanding of what the rules are, I'm sure you'll get more good suggestions about how to proceed. I hope you'll let us all know what you ended up with when you've gotten them all built and in operation.

Roy Lewallen, W7EL

Ian Upright wrote:

> . . .

> Sorry, I do apologize for being a rather harsh for my comments directed
> towards you, when they should have been directed to a message I read just
> prior to that, and I guess my boiling point had runneth over. I became
> TERRIBLY offended by that message, some of the others, as well as other
> moderately offensive messages I had recieved personally by email prior to
> that, I was pretty pissed off at the whole group in general (and almost
> rather I hadn't even bothered to post here in the first place), I don't need
> to be offended when I'm here just looking for technical tips and creative
> ideas, so thus, I have little use for a group of people that have offended
> me -- I can easily find the help I need elsewhere from people who are less
> hostile and offensive, more open minded, with a more creative and positive
> attitude. In fact, you'd be surprised how helpful, professional, and open
> minded the folks have been in the sci.electroncis newsgroups.

>. . .

3901. Portable Scanner Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 09:47:32 UTC
From: Roby <plroberto@usa.net>
Message-ID: <MPG.15a278a3eca599659896a7@news.polito.it>
Source record: 51797
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.scanner

Hello,
I'm planning to build a simple receive antenna for portable scanner use made of a copper wire (60-70cm) connected directlly to the BNC.
I'll use it to improve the reception in the 100 - 900 MHz (mainly 100-200MHz).
I'm wondering how will this antenna perform and which bandwith will it have.
Another question: how can I improve the bandwidth of the antenna (i have been told that is possible to put some capacitor somewhere to lower the Q and rise the bandwidth) for using it over all the bands (100-900MHz)

Does anybody help me?

Thanks,
Roberto

3902. Re: AM/SSB/FM digital demodulation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 11:35:28 UTC
From: John <jca1954@iprimus.com.au>
Message-ID: <3b38723c@news.iprimus.com.au>
Source record: 51799
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

I'm there
"Thierry Leconte" <thierry.leconte@liberty.fr> wrote in message
news:9h8iidknh1@news6.isdnet.net...
>
> Hi,
>
> If you are interested in the use of DSP for radio receiver, perhaps you
> could take a look at my new web page,
> that describe a program I wrote for a 56002EVM board :
>
> http://perso.libertysurf.fr/thierry.leconte/demod.html
>
>
>
>

3903. CW19 - Homebrew LCD morse code kit - practice TX/RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 13:41:54 UTC
From: Rocky Ng <vr2ng@pacific.net.hk>
Message-ID: <9ha36p$55d$1@hfc.pacific.net.hk>
Source record: 51800

CW19 (http://www.geocities.com/cw19kit) is a morse code practice kit.
Features:
- Decode manually keyed morse code from 5WPM to 20+WPM.
- Use with Hitachi compatible LCD modules (2 row x 16 chars)
- Display wrong keying sequence
- Support all A-Z, 0-9, and standard symbols
- On screen configuation menu, use your morse key to configure it
- User select WPM speed by on screen menu
- User select buzzer pitch by on screen menu
- NO JUMPER to set.
- You may keyin your callsign as welcome message
- Contain 26 sets of Alphabet for copy practice
- Contain 10 sets of Number for copy practice

3904. Re: Portable Scanner Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 14:40:29 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0106260640.555cbc34@posting.google.com>
Source record: 51801
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.scanner

Roby <plroberto@usa.net> wrote in message
news:<MPG.15a278a3eca599659896a7@news.polito.it>...
> Hello,
> I'm planning to build a simple receive antenna for portable scanner use
> made of a copper wire (60-70cm) connected directlly to the BNC.
> I'll use it to improve the reception in the 100 - 900 MHz (mainly 100-
> 200MHz).
> I'm wondering how will this antenna perform and which bandwith will it
> have.
> Another question: how can I improve the bandwidth of the antenna (i have
> been told that is possible to put some capacitor somewhere to lower the Q
> and rise the bandwidth) for using it over all the bands (100-900MHz)
>
> Does anybody help me?
>
> Thanks,
> Roberto

I'd just stick up a 1/4 ground plane for the lowest freq to be used.
It should work well enough for gov work. Being as you want 100-200
mhz, just cut it for about 100-150 mhz. It will work well enough on
that range of freq. It will still receive the high UHF stuff with a
less optimum performance. If it's not good enough, make another one
for UHF. They are very small and cheap to make. Don't add anything to
broaden the bandwidth. You don't need it for receive purposes, and it
will just reduce the performance on the range you cut it for. You
could also try a discone or similar, but they cost more. A GP can be
made from a so-239 and 5 pieces of wire. Cheap. MK

3905. Re: AM/SSB/FM digital demodulation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 17:02:20 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B38C0A5.229B@pop.removethistomailme.net>
Source record: 51802
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew

```
Thierry Leconte wrote:
>
> Hi,
>
> If you are interested in the use of DSP for radio receiver, perhaps you
> could take a look at my new web page,
> that describe a program I wrote for a 56002EVM board :
>
> http://perso.libertysurf.fr/thierry.leconte/demod.html

Nice page!

-- jm

-----------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-----------------------------------------------------
```

3906. amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 19:12:03 UTC
From: glen <gweir4@home.com>
Message-ID: <3B3907B9.80A21283@home.com>
Source record: 51803

hello does anybody know a good website that i can order an amp for my
cb.
Thankyou very much

3907. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 19:13:11 UTC
From: la8ak@online.no
Message-ID: <3b37c6b6.103035016@news.online.no>
Source record: 51804

HV fuses are history, but not used with modern transmitters - only amateurs who don't know better. much better practice is to use a smaller (47 ohm) series resistor but higher power in the supply output and have the fuse on mains side

On Mon, 25 Jun 2001 17:26:41 -0400, Rich Griffiths <richg@one.net> wrote:

>This is new to me -- I learned something here, Bob :-)
>
>The problem makes me think of blowout coils. They're used in
>contactors/switches for high-current DC applications. When you open one
>of these contactors, the current tends to arc from one switch contact to
>the other. The current from the arc flows through the blowout coil, and
>the magnetic field that the current creates blows the arc out of the
>gap.
>
>Couldn't that work here?
>
>... Rich
>
>
>Bob wrote:
>>
>> A high voltage fuse has some special requirements, notably it must break
>> without sustaining an arc. If an arc forms, the fuse might as well not be
>> there. That's why it's longer and is filled with insulating material that
>> has a higher breakdown than air.
>>
>> I would replace it with the right part. An alternative would be a series
>> string of fuses that add up to the sustaining voltage.
>>
>> Contact Bussman or Littelfuse, for example, for suggestions.
>>
>> 73, Bob K6DDX

3908. Re: amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 19:59:06 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <dQ5_6.2641$aX5.297274@paloalto-snr1.gtei.net>
Source record: 51805

"glen" <gweir4@home.com> wrote in message
news:3B3907B9.80A21283@home.com...
> hello does anybody know a good website that i can order an amp for my
> cb.
> Thankyou very much
>

Email rhollingsworth@fcc.gov , he will be glad to help you out. He even
makes house calls...

3909. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 21:00:47 UTC
From: Ian Upright <ian-news@upright.net>
Message-ID: <aothjt8q12cj2saq87c44rlj59ln2la2b6@4ax.com>
Source record: 51806
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Roy Lewallen <w7el@eznec.com> wrote:

>I and others pointed out how unlikely we think it would be for you to
>find a commercial transmitter meeting your criteria, and why. But this
>is a very different thing than a unit that can be designed and built for
>free by volunteers, and which doesn't have to meet any legal
>requirements for stability, spurious emissions, power level, and so
>forth, which won't undergo extensive testing or reliability assessment,
>which won't incur any liability in case of failure at a critical moment,
>and which can be sold at essentially the parts cost. What you're now
>proposing -- a unit containing maybe $20 or $30 worth of parts, designed
>and built for free, and unburdened by any legal niceties -- is probably
>possible. Now that the newsgroup readers have a better understanding of
>what the rules are, I'm sure you'll get more good suggestions about how
>to proceed. I hope you'll let us all know what you ended up with when
>you've gotten them all built and in operation.
>
>Roy Lewallen, W7EL

As far as I know I was always talking about part & assembly costs, so I'm not sure where anyone got the idea that my $20 - $30 range had to be the end-resulting product cost that this might sell for on the market, or what a person might have to pay to obtain one of these devices. I was simply discussing the cost of the parts and the cost of assembly, which I still think is quite doable for $20 - $30. Costs for testing, legalities, marketing, overhead, design, or whatever costs there may be added over and above that, sure, one could envision so much of this so that the price could end up being ten thousand dollars a unit, especially if the volume was low, but I don't think I ever insinuated that all this should be included in the $20-30 range (and if I did, I certainly didn't mean to).

In fact, one of my opening statements was this:

>As a side note, I'd like to remind people that a whistle costs about 5
>dollars, and a cheap water-submerisble transmitter I think could be built
>for 20.

I didn't say sold for 20, but perhaps some people interpreted it as such?

Ian

3910. marconi marine morse key

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 21:23:14 UTC
From: David Bunting <dande.b@virgin.net>
Message-ID: <u27_6.28346$mK4.2567369@news6-win.server.ntlworld.com>
Source record: 51807

anyone got one, fair price paid

--

--
http://www.virgin.net/

3911. Help w/Murch 2000A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-26 22:56:06 UTC
From: Norm Melick <henmel@worldnet.att.net>
Message-ID: <3B39131E.3CA8C83C@worldnet.att.net>
Source record: 51808

I rescued an Murch 2000A from the dumpster. It's not in bad shape cosmetically or mechanically. However, the middle inductor's insulator is melted at the end, so the unit is out of round. I guess the guy ran too much power through it.

Anyway, does anybody have the middle inductor for one of these that they will part with, or possibly the whole unit for parts? I'd really like to save this one.

Alternatively, has anybody experimented with replacing just the insulator? The coil itself looks great.

Thanks much,

Norm/KQ6SD

3912. Re: 2 meter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 00:03:28 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B3922D0.563872D1@erols.com>
Source record: 51809

Brian,

I think you would be better advised to buy a decent used 2 meter radio. They use pretty sophisticated circuitry if you want a modern one and they are not really cheap. If you look around, OR you don't mind crystal control, I would think you could find a used Icom 22S for around $50.00!

73

3913. WTB: Manuals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 00:10:26 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B392472.D0FF9617@erols.com>
Source record: 51810

Want to buy the following:

Kenwood TS520 Operating Manual. Prefer original, not copy

Heathkit SB201 Manual. Prefer original unmarked copy.

Collins 51J2 Manual. Will take clean copy.

Thanks and 73,

Bruce

3914. Re: Help w/Murch 2000A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 00:19:44 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <7j9ijt8e664hocekfkt9pttl4l2gs2sit8@4ax.com>
Source record: 51812

Why don't you check with one of the tuner manufactures? I was able to
get one of the "air core" inductors from MFJ.

Danny

On Tue, 26 Jun 2001 22:56:06 GMT, Norm Melick
<henmel@worldnet.att.net> wrote:

>I rescued an Murch 2000A from the dumpster. It's not in bad shape
>cosmetically or mechanically. However, the middle inductor's insulator
>is melted at the end, so the unit is out of round. I guess the guy ran
>too much power through it.
>
>Anyway, does anybody have the middle inductor for one of these that they
>will part with, or possibly the whole unit for parts? I'd really like to
>save this one.
>
>Alternatively, has anybody experimented with replacing just the
>insulator? The coil itself looks great.
>
>Thanks much,
>
>Norm/KQ6SD

3915. Re: amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 00:26:41 UTC
From: Bill Turner W7TI <w7ti@jps.net>
Message-ID: <b0aijtoam1q645bkt5s9fbu52rd2trr2lc@4ax.com>
Source record: 51811

On Tue, 26 Jun 2001 19:12:03 GMT, glen <gweir4@home.com> wrote:

>hello does anybody know a good website that i can order an amp for my
>cb.
>Thankyou very much

Send an email to info@fcc.gov telling them your plans, and
especially your address. They'll be quite interested.

BT

3916. Re: Source Motorola MC145151

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 01:45:12 UTC
From: jos <soj@sympatico.ca>
Message-ID: <3B393AA8.D70DC645@sympatico.ca>
Source record: 51813

The full correct number is MC145151P2.

Lionel Booth PE wrote:

> Just FYI Drake fans...dialelec shows availability of TL442 the R4C product
> detector mod.
> "John Crabtree" <crabtreejr@aol.com> wrote in message
> news:20010624143623.08641.00000728@ng-bd1.aol.com...
> > Hello Brian
> >
> > Try Dial Electronics at
> > http://www.dialelec.com
> > They list 5 different varieties. They are in the UK too.
> >
> > 73 John KC0GGH
> >
> > "Brian Reay" brian.reay@bigfoot.com on 6/24/01 wrote:
> > >I'm try to locate a source for a MC145151- a Motorola synthersiser part
> > >(prog divider, phase comp etc.). The part is no longer make and
> > > searches of the Web haven't turned up a stockist.
> > >
> > >Any one know of a stockist that isn't on the Web. Prefer in UK, as
> > > postage from US tends to swap the cost!!!!
> > >
> > >73 Brian G8OSN
> >
> > >
> > >
> > >
> >
> >

3917. Re: amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 02:05:40 UTC
From: w4pqwhs@aol.com
Message-ID: <20010626220540.28889.00000817@ng-cn1.aol.com>
Source record: 51814

contact FCC in Washington, they will be able to advise you..

3918. Re: Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 04:53:11 UTC
From: Erich <erich@ridgenet.net>
Message-ID: <MPG.15a30696139f6c6d989686@news.ridgenet.net>
Source record: 51815

In article <GNoZ6.109135$v5.8294035@news1.rdc1.ct.home.com>,
commquart@home.com says...
> The first issue (pretty sure) of the original Communications Quarterly
> Magazine
> ran such an article. If you can find someone with back issues,
> you might start there.
>
> Pete
>
> "Todd Daugherty" <daughert@chipsnet.com> wrote in message
> news:24ba7cdb.0106240811.1266a22e@posting.google.com...
> > Hello,
> >
> >
> > Does anyone know how to convert a microwave oven into a microwave
> > transmitter? I heard it could be done can anyone help
> >
> > Thanks
> > Todd N9OGL
>
>
>
Try this link:
http://www.amwireless.com/archives/1990/summer90/pg117.pdf

Erich
KA6AMD

3919. 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 08:01:33 UTC
From: pascal <invest@ppsoffice.com>
Message-ID: <xpg_6.14495$CP2.2846521@afrodite.telenet-ops.be>
Source record: 51816

Hi,

Where can I find ready made 2.4GHz TX/RX with outdoor antenna's

to be used as a stereo audio studio to transmitter link in a pirate radio broadcast situation

so, I'd prefer not the pro/ expensive stuff, decent working material is OK

distance between 2 sites is about 1 mile, clear sight

Thanks

3920. Re: amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 08:04:57 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9hc3vd$e2c$1@plutonium.btinternet.com>
Source record: 51817

> contact FCC in Washington, they will be able to advise you..
==========

Ha ha ha ha, ha, ha, ha, ha, ha, ha, ha . . . . . .

Your joke is appreciated even on this side of the pond. Got any more
?

Reg, G4FGQ

3921. FS:Homebrew Rack Transmitter, PS and Modulator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 10:24:57 UTC
From: kb0ksa@aol.com
Message-ID: <20010627062458.05137.00000954@ng-ci1.aol.com>
Source record: 51818

Hello,
Thanks for reading this post!
I have a late 50s rack transmitter. The power tube is missing so I don't know what it was. The transmitter was setup for 5 band, AM/SSB operation. The panels are silver gray hammertone and they are in good condition.
The PS and Modulator has some rust on the transformers but the chassics looks OK.
I don't know if any of this stuff works or not but I figure the parts are worth about $100.00. Shipping on you or delivery within 150 miles of Springfield, MO.
It has 2 great looking dials and it would make someone a great old homebrew system once its restored .Pic's are available.
E-mail me with questions.
Tnx and 73...John

3922. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 12:43:15 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B39D5DE.82E3C6DE@earthlink.net>
Source record: 51819

Pascal wrote:

> Where can I find ready made 2.4GHz TX/RX with outdoor antenna's
> to be used as a stereo audio studio to transmitter link in a pirate
> radio broadcast situation

Why in the name of all that's holy do these people think we'll
informatively answer questions like this as a group? As radio amateurs,
we _RESPECT_ communications law, and understand that by scoffing it we
risk not only legal sanctions, but ramifications to the allocations of
our spectrum as well.

To the B/C radio pirates, freebanders, CB'ers running amps over the
legal limit, and others who pursue illegal radio: _PLEASE_ don't bring
your questions for help here! If it is a legitimate pursuit, we will
(normally) be happy to help you. If you're looking to disrupt existing
services (as pirate radio will), please don't ask here.

Henry C. Gernhardt, III
KE4PIB/AG

3923. IBC boardmaker 912+ pcb router

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 15:05:58 UTC
From: "Craig A. Ferris" <cferris@aeronix.com>
Message-ID: <3B39F656.2C2A0F@aeronix.com>
Source record: 51820

I have for trade a pcb router. It functions like the lpkf and t-tech machines. Included is the driver software. I am looking for qrp gear like the k2 or ft-817, or a ts-850.

73,
Craig NR4E
Melbourne, FL

3924. Panel/Chassis BNC connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 17:10:31 UTC
From: bmurrey@amexol.net
Message-ID: <7a5106ad.0106270910.5e4fe7a5@posting.google.com>
Source record: 51821
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I have about 500 panel/chassis mount BNC connectors for sale. These include the nut and the lock washers. All new, not pulls, centerpin has a nice solder cup for easy connections.

25 for $10.00 plus $2.40 shipping.

100 for $30.00 plus $6.20 shipping.

73 de KB9BVN

==
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
TEN TEC SCOUT @ 5W or NORCAL 40A @950mW
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
==

3925. NU-75H Tubes, 75TH?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 17:53:01 UTC
From: hanavin@ren.eecis.udel.edu
Message-ID: <9hd6htclu1@dewey.udel.edu>
Source record: 51822

Hi,
I have a few NU-75H Tubes and am looking for info on them. They are made by National Union (hytron corp). It is about the size of a 6146, looks to be a triode, with grid and plate cap coming out the top of the glass evnvelope. It has 8 pin octal socket and graphite plate.

Im just wondering if this sounds like a 75TH, I never seen on of them. Any help will be apreciated.

3926. Updated IOTA List for download 27-Jun-2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 18:27:15 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <7Ap_6.1297$ef.167768@newsread2.prod.itd.earthlink.net>
Source record: 51823
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The free downloadable IOTA List has been updated as of 27-Jun-2001.
- available for download on the IOTA List page of the site listed below

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

3927. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 21:19:32 UTC
From: 385912512382@vip.hr
Message-ID: <1evoncw.zj4cux161l1dsN%385912512382@vip.hr>
Source record: 51826

W3JDR <j.r@usa.com> wrote:

> I think Dan's technique, combined with DSP I/Q audio processing, will make
> it possible to build very inexpensive & high-performance multi-band radios.
> I'd like to hear about some experimentation along these lines.

DSP-10 radio uses DSP and undersampling IF by using EZ-KIT DSP.

73 de 9A6JGJ!

3928. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 21:19:35 UTC
From: 385912512382@vip.hr
Message-ID: <1evobch.vxmhz1nz18y6N%385912512382@vip.hr>
Source record: 51825

Grant <nq5tNO@SPAMgte.net> wrote:

> Roy Lewallen wrote:
> >
> > Not so in the U.S. See for example
> > http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm.
> >
>
> If the "you can't even build it" rule actually applies to me building
> one (assuming I can come up with a working device from the material in
> the patent), and then using it (for no financial gain), then it is
> essentially an unenforceable and absurd law in any case.

Patents are public documents. Purpose of patent is that author or owner
gains money out of possible commercial production.
If you can not see it and try it how you can eventually produce it.

Selling kits would be illegal but just making I think not...

Regards,
Jerko Golubovic
9A6JGJ

3929. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 21:19:36 UTC
From: 385912512382@vip.hr
Message-ID: <1evobt3.1pxmbufg83t8gN%385912512382@vip.hr>
Source record: 51827

Ralph Lane <crlane@erols.com> wrote:

> > Let me clear up another misconception, this is NOT a mixer although it has
> > some of the characteristics. It is really a quadrature commutating digital
> > filter. Therefore it does not generate the sum frequency that a mixer does.
> > This is why it does not have the high loss/noise figure (6 dB+) that a mixer
> > does. I have done a lot of reasearch and I have not found anything exactly
> > like it. It is NOT a commutating mixer. Those have been around forever and
> > they generate both sum and difference frequencies. This is a very high Q
> > quadrature bandpass filter operating at the carrier frequency, which is in
> > DSP terms equal to Fs/4 (sampling rate divided by 4). In DSP when you do
> > downconversion at Fs/4 you do not have any loss in the mixer either because
> > you simply change the sign every other sample like this 0,1,0,-1,0,1...

I would rather call it translator than mixer. It translates baseband
from HF to 0 Hz.

From what I can see this is just fine example of raping Shannon-Nyquist
theorem. This is what happens whan you get aliasing situation (bad
aliasing filter for example). Result sampled signal is garbage.

Same thing happeed to me in mentioned software when I put insufficient
number of points (iterations per second) in parameters - result was not
good at all and envelope of signal was floating in harmonic way with
frequency being equal to difference. But even then I did not realized
what Dan realized although from today point of wiew it is so obvious to
me.

There are number of ways to do that. Up to now doing so was considered
bad. Now it turned to be useful :) .

Regards,
Jerko Golubovic
9A6JGJ

3930. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 21:19:37 UTC
From: 385912512382@vip.hr
Message-ID: <1evomfr.ksm3mx148akt6N%385912512382@vip.hr>
Source record: 51824

Terry Ritter <ritter@io.com> wrote:

> On Thu, 21 Jun 2001 09:10:19 +0100, in
> <1evch2r.1fxab551fc06aiN%bpasaric@mac.com>, in
> rec.radio.amateur.homebrew bpasaric@mac.com (Bozidar Pasaric) wrote:
>
> >[...]
> >We all know those situations when we watch a film or TV and when a
> >carriage passes by, but the wheels turn very slowly forwards or even
> >backwards. Obviously, what we see is the difference frequency between
> >the shooting speed of the camera (25 pictures per second) and the
> >frequency of the spokes in the wheel. First, the process is digital,
> >because the picture is either on, or off; and so are the spokes. Second,
> >there is no sum of frequencies, only the difference, so it is not a
> >picture of a mixer.
>
> Well, that is an interesting analogy. It basically seems to be a
> Nyquist sampling problem, with the sampling rate being too slow to
> resolve the motion of the spokes. But if we can't see the spokes at
> their full rotational rate, we surely can't expect to see the sum of
> sampling plus that rate. So, in my view, the experiment does not
> testify that no sum frequency occurs.

Same with this - you cannot hear that.

> In my view, any switching mixer *must* create both sum and difference
> frequencies. (Indeed, a switching mixer *also* will create sum and

It removes one of them with phase network after.
Speaking about phase networks - I need to shift Q by 90 degrees in range
300 Hz to 3000 Hz and get orthogonal axes on XY plot. All particular
frequencies are sine waves. When you do shift sine wave by 90 degrees
you get cosine wave. cos(x) is first derivation of sin(x). Classic
derivator won't work here - that is why we use networks.
Somebody mentioned that he used PC to do that. OK, sample I on left and
Q on right and then you derivate right and sum that two ones properly.
Is it so simple or I am wrong in something?

If it is, I can do so with PIC 16F874.

> Perhaps we can encourage a deeper discussion.

I will be glad to participate.

73 de 9A6JGJ!

3931. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 21:28:14 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B3A4FEE.1EA2E618@clifto.com>
Source record: 51828

Henry Gernhardt/Andrea Winship wrote:
> Pascal wrote:
> > Where can I find ready made 2.4GHz TX/RX with outdoor antenna's
> > to be used as a stereo audio studio to transmitter link in a pirate
> > radio broadcast situation
>
> Why in the name of all that's holy do these people think we'll
> informatively answer questions like this as a group? As radio amateurs,
> we _RESPECT_ communications law, and understand that by scoffing it we
> risk not only legal sanctions, but ramifications to the allocations of
> our spectrum as well.

I'll be happy to answer his question.

Try 2.4GHz-TX/RX-with-outdoor-antenna's-R-Us.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

3932. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 22:43:53 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <Jkt_6.102231$tb6.25653582@typhoon.austin.rr.com>
Source record: 51829

Jerko,
First of all make sure that you understand how a phasing receiver works in analog. Next you should read The Scientist and Engineer's Guide to Digital Signal Processing which can be found for free at www.DSPguide.com. Next you should read an article by Richard Lyons called Quadrature Signals: Complex, But Not Complicated, which can be found at http://www.dspguru.com/info/tutor/quadsig.htm on the www.dspguru.com site. This should get you started. If you want to go further you should read Understanding Digital Signal Processing also by Richard Lyons, which you can buy from Amazon. All three of these references are excellent but I would recommend reading in the order that I have given them. Don't let the math scare you because using DSP in practice is actually easier than the math implies. I don't really understand it all but I can use it in practice.

73,
Gerald

-----Original Message-----
From: Jerko Golubovic [mailto:385912512382@vip.hr]
Sent: Wednesday, June 27, 2001 4:19 PM
To: Gerald Youngblood
Subject: DSP od I and Q

Hello!

I am reading homebrew newsgroup regarding Tayloe mixer and I am interested in doing I and Q with DSP. Could you please point me on appropriate resources regarding this topic.

For first it would help me to know how exactly you need to deal with I and Q using DSP.

I never used any DSP techniques, but I am willing to learn them.

73 de 9A6JGJ!

3933. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 22:43:54 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <Kkt_6.102232$tb6.25653586@typhoon.austin.rr.com>
Source record: 51830

Jerko,
First of all make sure that you understand how a phasing receiver works in analog. Next you should read The Scientist and Engineer's Guide to Digital Signal Processing which can be found for free at www.DSPguide.com. Next you should read an article by Richard Lyons called Quadrature Signals: Complex, But Not Complicated, which can be found at http://www.dspguru.com/info/tutor/quadsig.htm on the www.dspguru.com site. This should get you started. If you want to go further you should read Understanding Digital Signal Processing also by Richard Lyons, which you can buy from Amazon. All three of these references are excellent but I would recommend reading in the order that I have given them. Don't let the math scare you because using DSP in practice is actually easier than the math implies. I don't really understand it all but I can use it in practice.

73,
Gerald

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Sent: Wednesday, June 27, 2001 4:19 PM
To: Gerald Youngblood
Subject: DSP od I and Q

Hello!

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For first it would help me to know how exactly you need to deal with I and Q using DSP.

I never used any DSP techniques, but I am willing to learn them.

73 de 9A6JGJ!

3934. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-27 22:48:25 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <Zot_6.102233$tb6.25658562@typhoon.austin.rr.com>
Source record: 51831

Jerko,
See comments below:

"Jerko Golubovic" <385912512382@vip.hr> wrote in message
news:1evomfr.ksm3mx148akt6N%385912512382@vip.hr...
> Terry Ritter <ritter@io.com> wrote:
>
> > On Thu, 21 Jun 2001 09:10:19 +0100, in
> > <1evch2r.1fxab551fc06aiN%bpasaric@mac.com>, in
> > rec.radio.amateur.homebrew bpasaric@mac.com (Bozidar Pasaric) wrote:
> >
> > >[...]
> > In my view, any switching mixer *must* create both sum and difference
> > frequencies. (Indeed, a switching mixer *also* will create sum and
>
> It removes one of them with phase network after.
> Speaking about phase networks - I need to shift Q by 90 degrees in range
> 300 Hz to 3000 Hz and get orthogonal axes on XY plot. All particular
> frequencies are sine waves. When you do shift sine wave by 90 degrees
> you get cosine wave. cos(x) is first derivation of sin(x). Classic
> derivator won't work here - that is why we use networks.
> Somebody mentioned that he used PC to do that. OK, sample I on left and
> Q on right and then you derivate right and sum that two ones properly.
> Is it so simple or I am wrong in something?

You are right, you sample I on the left and Q on the right. I then do a
Complex Fast Fourier Transform on the input and do the filtering and
sideband selection in the frequency domain. Since the Tayloe Detector gives
I & Q directly all you need to do is to use low noise amplifiers to drive
the sound card. Very simple.

>
> If it is, I can do so with PIC 16F874.

Unlikely. You need more horsepower than a PIC would have. Todays PCs with
sound cards are much easier to deal with and are extremely fast.

>
> > Perhaps we can encourage a deeper discussion.
>
> I will be glad to participate.
>
> 73 de 9A6JGJ!

3935. For Sale: EVM 56K

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 00:34:40 UTC
From: markaren1@earthlink.nospam.net
Message-ID: <3b3d7b0c.171653314@news.earthlink.net>
Source record: 51832

Two complete working Motorola 56002 EVM boards.

Inc drawings, manuals software etc. The whole, complete Monty.

Tested working etc. and great for building interesting de-modulators !

$55 each inc. shipping to USA.

Mark - markaren1@earthlink.net

3936. Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 04:14:40 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B3AAF30.BEA09324@visi.com>
Source record: 51833

Hey gang,
I'm building up a charger for my 12V lead acid batteries. Is it true
that it is safe to leave this type of battery on a trickle charge of
13.80 VDC from the charger?

If so, what is the expected current at this voltage?

Tnx es 72

Bob WB0POQ

3937. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 05:31:22 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <ekz_6.104304$Uo3.2363374@news6.giganews.com>
Source record: 51834

Not a good idea to set the voltage. Better to adjust for a trickle of current.

73, Bob K6DDX

3938. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 08:37:48 UTC
From: Sverre Holm <sverre@ifi.uio.no>
Message-ID: <Pine.GSO.4.21.0106281036020.13225-100000@granvin.ifi.uio.no>
Source record: 51835

> > Somebody mentioned that he used PC to do that. OK, sample I on left and
> > Q on right and then you derivate right and sum that two ones properly.
> > Is it so simple or I am wrong in something?
>
> You are right, you sample I on the left and Q on the right. I then do a
> Complex Fast Fourier Transform on the input and do the filtering and
> sideband selection in the frequency domain. Since the Tayloe Detector gives
> I & Q directly all you need to do is to use low noise amplifiers to drive
> the sound card. Very simple.
>

The filtering in the frequency domain is one approximation to a
Hilbert transform, which is really what is required here.

Sverre

---

73 de LA3ZA
http://www.qsl.net/la3za

3939. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 10:08:42 UTC
From: Johan Vannebo <vannebo@online.no>
Message-ID: <InD_6.803$tD1.86239@news3.oke.nextra.no>
Source record: 51836

Manufacturers usually recommend constant voltage trickle charging for lead-acid batteries. The trickle charging current will of course depend on such things as battery size, temperature, battery condition, etc., but should decay to a fairly low value when the battery is fully charged. I've used a chip from Unitrode (now Texas Instruments) UC3906. This one is temperature compensated and will take care of all cycles of battery charging and maintenance. It requires just a few external components to work.

Johan

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:3B3AAF30.BEA09324@visi.com...
> Hey gang,
> I'm building up a charger for my 12V lead acid batteries. Is it true
> that it is safe to leave this type of battery on a trickle charge of
> 13.80 VDC from the charger?
>
> If so, what is the expected current at this voltage?
>
> Tnx es 72
>
> Bob WB0POQ

3940. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 11:22:50 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b3b1309.1683940@news.cantech.net.au>
Source record: 51837

On Thu, 28 Jun 2001 12:08:42 +0200, "Johan Vannebo"
<vannebo@online.no> wrote:

>Manufacturers usually recommend constant voltage trickle charging for
>lead-acid batteries. The trickle charging current will of course depend on
>such things as battery size, temperature, battery condition, etc., but
>should decay to a fairly low value when the battery is fully charged. I've
>used a chip from Unitrode (now Texas Instruments) UC3906. This one is
>temperature compensated and will take care of all cycles of battery charging
>and maintenance. It requires just a few external components to work.

Johan

The UC3906 is specifically for gel-cells IIRC. The charging regime is
not optimised for wet cells.

Don't know what Bob has, but I suspect he would have said gel if that
was the case ....

>
>
>"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
>news:3B3AAF30.BEA09324@visi.com...
>> Hey gang,
>> I'm building up a charger for my 12V lead acid batteries. Is it true
>> that it is safe to leave this type of battery on a trickle charge of
>> 13.80 VDC from the charger?
>>
>> If so, what is the expected current at this voltage?
>>
>> Tnx es 72
>>
>> Bob WB0POQ
>
>

3941. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 12:05:14 UTC
From: Johan Vannebo <vannebo@online.no>
Message-ID: <X5F_6.788$Jp5.10958@news1.oke.nextra.no>
Source record: 51838

You're right. I used it for a sealed lead-acid battery.

Johan

"budgie" <budgie@nowhere.cantech.net.au> wrote in message
news:3b3b1309.1683940@news.cantech.net.au...
> On Thu, 28 Jun 2001 12:08:42 +0200, "Johan Vannebo"
> <vannebo@online.no> wrote:
>
> >Manufacturers usually recommend constant voltage trickle charging for
> >lead-acid batteries. The trickle charging current will of course depend
on
> >such things as battery size, temperature, battery condition, etc., but
> >should decay to a fairly low value when the battery is fully charged.
I've
> >used a chip from Unitrode (now Texas Instruments) UC3906. This one is
> >temperature compensated and will take care of all cycles of battery
charging
> >and maintenance. It requires just a few external components to work.
>
> Johan
>
> The UC3906 is specifically for gel-cells IIRC. The charging regime is
> not optimised for wet cells.
>
> Don't know what Bob has, but I suspect he would have said gel if that
> was the case ....
>
> >
> >
> >"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
> >news:3B3AAF30.BEA09324@visi.com...
> >> Hey gang,
> >> I'm building up a charger for my 12V lead acid batteries. Is it
true
> >> that it is safe to leave this type of battery on a trickle charge of
> >> 13.80 VDC from the charger?
> >>
> >> If so, what is the expected current at this voltage?
> >>
> >> Tnx es 72
> >>
> >> Bob WB0POQ
> >
> >

>

3942. IC-2GXE Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 12:45:57 UTC
From: rahul <vu3raz@yahoo.com>
Message-ID: <3B3B2705.4E65DDDD@yahoo.com>
Source record: 51839

Hello,

As described in lots of mods.. I successfully reset the CPU of my old IC-2GXE 2 Mtr. I am able to receive from 50 to 204 MHz. Unfortunately it does not transmit bellow 137 Mhz...

I wish to use for 6 Mtr... any idea how do I open Xmit on 50 Mhz??

Thanks and regards

Rahul

3943. IC-2GXE Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 12:46:50 UTC
From: rahul <vu3raz@yahoo.com>
Message-ID: <3B3B273A.74699125@yahoo.com>
Source record: 51840

Hello,

As described in lots of mods.. I successfully reset the CPU of my old IC-2GXE 2 Mtr. I am able to receive from 50 to 204 MHz. Unfortunately it does not transmit bellow 137 Mhz...

I wish to use for 6 Mtr... any idea how do I open Xmit on 50 Mhz??

Thanks and regards

Rahul

3944. IC-2GXE Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 12:47:11 UTC
From: rahul <vu3raz@yahoo.com>
Message-ID: <3B3B274F.4521E27E@yahoo.com>
Source record: 51841

Hello,

As described in lots of mods.. I successfully reset the CPU of my old IC-2GXE 2 Mtr. I am able to receive from 50 to 204 MHz. Unfortunately it does not transmit bellow 137 Mhz...

I wish to use for 6 Mtr... any idea how do I open Xmit on 50 Mhz??

Thanks and regards

Rahul

3945. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 14:23:42 UTC
From: Dave <auinaduyf@email.com>
Message-ID: <9hfekg$de7mu$1@ID-49477.news.dfncis.de>
Source record: 51843

Not all pirates are idiots causing interference.....I grant you most are-
but not all!

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote in message
news:3B39D5DE.82E3C6DE@earthlink.net...
> Pascal wrote:
>
> > Where can I find ready made 2.4GHz TX/RX with outdoor antenna's
> > to be used as a stereo audio studio to transmitter link in a pirate
> > radio broadcast situation
>
> Why in the name of all that's holy do these people think we'll
> informatively answer questions like this as a group? As radio amateurs,
> we _RESPECT_ communications law, and understand that by scoffing it we
> risk not only legal sanctions, but ramifications to the allocations of
> our spectrum as well.
>
> To the B/C radio pirates, freebanders, CB'ers running amps over the
> legal limit, and others who pursue illegal radio: _PLEASE_ don't bring
> your questions for help here! If it is a legitimate pursuit, we will
> (normally) be happy to help you. If you're looking to disrupt existing
> services (as pirate radio will), please don't ask here.
>
> Henry C. Gernhardt, III
> KE4PIB/AG

3946. Re: Portable Scanner Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 15:12:21 UTC
From: I-am-your-president <president@blackhouse.com>
Message-ID: <daimjtoh4vhq9h703guugqkl2n3glsjn82@4ax.com>
Source record: 51842
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.scanner

On Tue, 26 Jun 2001 11:47:32 +0200, Roby <plroberto@usa.net> wrote:

>Hello,
>I'm planning to build a simple receive antenna for portable scanner use
>made of a copper wire (60-70cm) connected directlly to the BNC.
>I'll use it to improve the reception in the 100 - 900 MHz (mainly 100-
>200MHz).
>I'm wondering how will this antenna perform and which bandwith will it
>have.
>Another question: how can I improve the bandwidth of the antenna (i have
>been told that is possible to put some capacitor somewhere to lower the Q
>and rise the bandwidth) for using it over all the bands (100-900MHz)
>
Forget it.

The normal simple Lamba/4 antennas hava a useable bandwidth
of about 40 % of the center frequency .

I recommend the use of a telescope antenna, where you can
adjust the length manually.

The rubber coated spring coil antennas have a useable bandwidth
of about 10 %.

Broadband antennas are complicated and not good for portables.
You will need a few different antennas for covering the whole range.

pr.

3947. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 16:01:43 UTC
From: c_moss_hamspam@bigfoot.com
Message-ID: <mskmjtofomjk5rqqj112goa93dckpgm9m1@4ax.com>
Source record: 51844

> Where can I find ready made 2.4GHz TX/RX with outdoor antenna's
> to be used as a stereo audio studio to transmitter link in a pirate
> radio broadcast situation

A company called Mainline might be helpful with ideas etc there :)

http://www.mainlinegroup.co.uk/

You'd need to ring em up really.

---

remove the _hamspam from email address to reply direct

http://www.lanamps.pwp.blueyonder.co.uk

3948. Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 17:38:06 UTC
From: George Eckschmiedt <"geckschm(nospam)"@telus.net>
Message-ID: <3B3B6C01.167602EA@telus.net>
Source record: 51845

Greetings,
Any ideas for restoring car batteries for non-critical applications? A
found only one reference, where the author used sodium-sulphate
(Glaubers Salt), but the drugstore asked $18.00 for 100 grams of the
stuff, so for that price one might as well buy a new battery :-)
Thanks
George VE7CEH

3949. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 18:40:36 UTC
From: k4yz@aol.comK4YZ
Message-ID: <20010628144036.07840.00001121@ng-cs1.aol.com>
Source record: 51846

>> Where can I find ready made 2.4GHz TX/RX with outdoor antenna's
>> to be used as a stereo audio studio to transmitter link in a pirate
>> radio broadcast situation

If the person requesting this info is in the US and thinks the FCC won't prosecute, I suggest they read some of the current "news releases" on the ARRL site about recent "pirate" operators.

I don't have enough bux to fend off that much heat.

73 and good luck

Steve, K4YZ

Paratus et Vigilans

"An America Not Prepared For War In Peacetime Will Not Know Peace In Any Time"

"The Measure Of A Man Is Not In How He Touches A Woman, But In How He Touches A Woman's Heart"

3950. Re: 2.4 Gig wireless link

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 19:35:28 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B3B8700.5926EDE8@coqui.net>
Source record: 51747

Steve Robeson wrote:

> If the person requesting this info is in the US and thinks the FCC won't
> prosecute, I suggest they read some of the current "news releases" on the ARRL
> site about recent "pirate" operators.
>
> I don't have enough bux to fend off that much heat.
>
> 73 and good luck
>
> Steve, K4YZ

Makes ya wonder why they aren't bothering the Kentucky Militia
patriot/pirate on 6890/6900 after a couple months of regular
programming.

--

Bill Meacham WX4A
Vieques, PR

3951. Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 20:31:53 UTC
From: paul <apollo_six@nospambtinternet.com>
Message-ID: <mpApeDB5Q5O7EwyT@btinternet.com>
Source record: 51748

Manufacturers of large carbon comp non inductive resistors

Anyone looking for these should try HVR, Jarrow, UK.

Large sizes suitable for Dummy Loads.

http://www.hvrint.com

--

3952. Re: HV Fuse Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 21:10:31 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B3B9D47.B74C57D2@alltel.net>
Source record: 51749

I am the original poster on the HV fuse thing. I already have a 50 ohmm
50 watt in series
with the + HV lead being fed by the HV fuse. I also have Magnetic ckt
breakers on the xfmr mains.
Even with that I think with a flash over I would blow the full wave
diode's IF it were not for the HV fuse in there also. Have had several
flashover's of GS23b 4cx1600U on 432 mhz. Afraid to remove the HV fuse
since it works so well to protect the diode's in full wave bridge ckt.
Do you think the 50 ohm reistor will protect the diode bridge without
HV fuse. I am afraid to find out so far.
73
bob
wb5apd

J M Noeding wrote:
>
> HV fuses are history, but not used with modern transmitters - only
> amateurs who don't know better. much better practice is to use a
> smaller (47 ohm) series resistor but higher power in the supply
> output and have the fuse on mains side
>
> On Mon, 25 Jun 2001 17:26:41 -0400, Rich Griffiths <richg@one.net>
> wrote:
>
> >This is new to me -- I learned something here, Bob :-)
> >
> >The problem makes me think of blowout coils. They're used in
> >contactors/switches for high-current DC applications. When you open one
> >of these contactors, the current tends to arc from one switch contact to
> >the other. The current from the arc flows through the blowout coil, and
> >the magnetic field that the current creates blows the arc out of the
> >gap.
> >
> >Couldn't that work here?
> >
> >... Rich
> >
> >
> >Bob wrote:
> >>
> >> A high voltage fuse has some special requirements, notably it must break
> >> without sustaining an arc. If an arc forms, the fuse might as well not be
> >> there. That's why it's longer and is filled with insulating material that
> >> has a higher breakdown than air.

> >>
> >> I would replace it with the right part. An alternative would be a series
> >> string of fuses that add up to the sustaining voltage.
> >>
> >> Contact Bussman or Littelfuse, for example, for suggestions.
> >>
> >> 73, Bob K6DDX

--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

3953. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 21:14:54 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <tjn7edrju5300f@corp.supernews.com>
Source record: 51750

"George Eckschmiedt" <"geckschm(nospam)"@telus.net> wrote in message
news:3B3B6C01.167602EA@telus.net...
> Greetings,
> Any ideas for restoring car batteries for non-critical applications?

You might want to look at http://www.shaka.com/~kalepa/desulf.htm .
They claim good results for this method. I haven't tried it...yet.

73,

John, K6QQ

3954. Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 22:19:55 UTC
From: ken <no-one@device=null.com>
Message-ID: <9hgai8$i14l8@continuity.mcom.com>
Source record: 51752

Does anyone have any comments positive or negative on the Red Hot Radio 20 Meter rig? I was thinking of buying one of the kits.

I found a few things on eHam but nothing really conclusive, but there were comments about the xmit being chirpy. I did notice on their web site that they were still using the TiCK version 1 as the keyer (its up to vers. 4 now) and the circuit board seemed a bit crowded, most of the resistors were on end and so were many of the caps for example.

All comments welcome,
Ken

3955. Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 22:21:26 UTC
From: ken <no-one@device=null.com>
Message-ID: <9hgal2$i14l9@continuity.mcom.com>
Source record: 51751

Does anyone have any comments positive or negative on the Red Hot Radio 20 Meter rig? I was thinking of buying one of the kits.

I found a few things on eHam but nothing really conclusive, but there were comments about the xmit being chirpy. I did notice on their web site that they were still using the TiCK version 1 as the keyer (its up to vers. 4 now) and the circuit board seemed a bit crowded, most of the resistors were on end and so were many of the caps for example.

All comments welcome,
Ken

3956. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-28 23:35:01 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9hgetk$t3o$1@neptunium.btinternet.com>
Source record: 51753

Hi Paul,

Who says such resistors are purely resistive up to at least up to 30
MHz?

By how much do they deviate from the ideal?

Don't believe anything the magazines and manufacurers say without some
kind of authentification.

The fact that something might by chance happen to work is no
indication whatsoever how well it works.

All maufacurers of dummy loads for amateur use should be prosecuted
for infringements of the trade's descriptions act.

And all radio magazines whch advertise such perfect wares should be
likewise prosecuted.

But don't worry about it too much or you will go potty..

============================
Regards from Reg, G4FGQ
For free radio design software go to:-
http://www.btinternet.com/~g4fgq.regp
============================
paul <apollo_six@nospambtinternet.com> wrote in message
news:mpApeDB5Q5O7EwyT@btinternet.com...
> Manufacturers of large carbon comp non inductive resistors
>
> Anyone looking for these should try HVR, Jarrow, UK.
>
> Large sizes suitable for Dummy Loads.
>
> http://www.hvrint.com
>
>
> --
>

3957. Parts for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 00:11:13 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <9JP_6.22$q34.26119@news1.iquest.net>
Source record: 51754
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I'm selling off some excess parts here at the shack. XYL says they have to
go or I can't buy the new K1 I so desperately need.

PN2222A's

50 for $4.50 inc shipping
100 for $8.25 inc shipping
200 for $15.50 inc shipping

BNC Panel/Chassis Mount connectors (I have 1000)

25 for $10.00 plus 2.40 shipping
50 for $17.00 plus 4.00 shipping
100 for $30.00 plus 6.20 shipping
200 for $56.00 pluss 8.00 shipping

I also have 2 5K 10 turn precison Knob Pots by Bourns.
These list for about $35 each in most catalogs, or more even.

They are pulls from another project I was working on but I have checked them
and will guarantee they are in perfect working order. I'd like $15 each,
free shipping.

Interested?

Email to bmurrey@amexol.net with any questions you might have.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

3958. FS: RF power transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:08:43 UTC
From: markaren1@earthlink.nospam.net
Message-ID: <3b3bd501.7307467@news.earthlink.net>
Source record: 51755

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1611391131

Regards,

Mark. KE6LVK, G8JVX etc.

3959. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:13:32 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B3BD63C.3A022F5F@one.net>
Source record: 51756

Depends on what you mean by "trickle charge".

I consider 13.8 to be a little high for most batteries. It's better to set the current, if you can monitor that (and you should). I've been using group 24 batteries (a common automotive/marine size) and gel cells for years. The 24s do well on a float/trickle charge of 200 to 300 mA, which I get at 13.2 to 13.6 V.

There's lots of stuff to read on the web. The many sources of advice that you'll find won't all agree. The above is my experience.

The sources I liked best are the car battery FAQ at http://nyquist.ee.ualberta.ca/~schmaus/batfaq.html and the deep-cycle faq at http://nyquist.ee.ualberta.ca/~schmaus/dcbat.html

... Rich

Bob Liesenfeld wrote:
>
> Hey gang,
> I'm building up a charger for my 12V lead acid batteries. Is it true
> that it is safe to leave this type of battery on a trickle charge of
> 13.80 VDC from the charger?
>
> If so, what is the expected current at this voltage?
>
> Tnx es 72
>
> Bob WB0POQ

3960. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:17:35 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B3BD72F.AC845E5@one.net>
Source record: 51757

It can be done. But the fact that lead-acid battery recycling is such a big business makes me think it's not really practical.

What do the recyclers do? They chop up the batteries and recover the lead for making new batteries. If it made more sense to "restore" the batteries, I expect they'd be doing that, but they aren't.

... Rich

George Eckschmiedt wrote:
>
> Greetings,
> Any ideas for restoring car batteries for non-critical applications? A
> found only one reference, where the author used sodium-sulphate
> (Glaubers Salt), but the drugstore asked $18.00 for 100 grams of the
> stuff, so for that price one might as well buy a new battery :-)
> Thanks
> George VE7CEH

3961. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:35:55 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <%XQ_6.392$j27.24625@news02.optonline.net>
Source record: 51759

Reg,

Bought any good wire wound non-inductive resistors lately ? Light
bulbs work better.

Hmmm, dummy loads ... maybe that's why dummy is part of the name :)

Bob Camp
KB8TQ

3962. RF power transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:39:57 UTC
From: markaren1@earthlink.nospam.net
Message-ID: <3b3bb6bd.63295023@news.earthlink.net>
Source record: 51758

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1611391131

Reagrds,

Mark

3963. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 01:53:27 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <9ZQ_6.10316$e5.30894@newsfeeds.bigpond.com>
Source record: 51760

Well if you read Vishay or Dale data sheets they use a very good term "Virtually" Non Inductive. But that still means that they not purely resistive and truly non inductive. Actually i run 4000 watts, i wonder if the FCC believes its virtually 1500 watts.

But these surface mounted packages work very well for passive grid terode amps.

Willy
"Reg Edwards" <G4fgq.Regp@btinternet.com> wrote in message news:9hgetk$t3o$1@neptunium.btinternet.com...
> Hi Paul,
>
> Who says such resistors are purely resistive up to at least up to 30
> MHz?
>
> By how much do they deviate from the ideal?
>
> Don't believe anything the magazines and manufacurers say without some
> kind of authentification.
>
> The fact that something might by chance happen to work is no
> indication whatsoever how well it works.
>
> All maufacurers of dummy loads for amateur use should be prosecuted
> for infringements of the trade's descriptions act.
>
> And all radio magazines whch advertise such perfect wares should be
> likewise prosecuted.
>
> But don't worry about it too much or you will go potty..
> ---
> ============================
> Regards from Reg, G4FGQ
> For free radio design software go to:-
> http://www.btinternet.com/~g4fgq.regp
> ============================
> paul <apollo_six@nospambtinternet.com> wrote in message
> news:mpApeDB5Q5O7EwyT@btinternet.com...
> > Manufacturers of large carbon comp non inductive resistors
> >
> > Anyone looking for these should try HVR, Jarrow, UK.
> >
> > Large sizes suitable for Dummy Loads.
> >

> > http://www.hvrint.com
> >
> >
> > --
> >
>
>

3964. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 02:50:24 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <Q1S_6.14156$C81.1126833@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51761

I've got some made by a company called Carborundum. I haven't tested them yet, but they do claim zero reactance. They are tubular, and they seem to be made of some kind of composition material, with metallized ends.

Pete Gianakopoulos
Chicago, Il.

willy <willyacht@yahoo.com> wrote in message
news:9ZQ_6.10316$e5.30894@newsfeeds.bigpond.com...
> Well if you read Vishay or Dale data sheets they use a very good term
> "Virtually" Non Inductive. But that still means that they not purely
> resistive and truly non inductive. Actually i run 4000 watts, i wonder
if
> the FCC believes its virtually 1500 watts.
>
> But these surface mounted packages work very well for passive grid
terode
> amps.
>
> Willy
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> news:9hgetk$t3o$1@neptunium.btinternet.com...
> > Hi Paul,
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> > Who says such resistors are purely resistive up to at least up to 30
> > MHz?
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> > But don't worry about it too much or you will go potty..
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> > ============================
> > Regards from Reg, G4FGQ

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> > > Large sizes suitable for Dummy Loads.
> > >
> > > http://www.hvrint.com
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>

3965. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 02:57:11 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <WUR_6.10337$e5.30436@newsfeeds.bigpond.com>
Source record: 51762

These are the best resistors to use. The so called Globar type. They very hard to find and very expensive, Surplus Sales sells them at stupid prices. I have never seen a true 50 ohm version, most are 47 ohms. You probably going to have to get 2 X 100 Ohms to get a good 50 ohm resistors. Anyway at the prices they sell these resistors for i would just go out and invest in Bird load, it will last you a life time and you will never blow it. The MFJ cantenna is the biggest piece of crap i have ever come across. Likw most of their products.

Willy
"NANCY GIANAKOPOULOS" <n.gianakopoulos@worldnet.att.net> wrote in message
news:Q1S_6.14156$C81.1126833@bgtnsc04-news.ops.worldnet.att.net...
> I've got some made by a company called Carborundum. I haven't tested them
> yet, but they do claim zero reactance. They are tubular, and they seem to
> be made of some kind of composition material, with metallized ends.
>
> Pete Gianakopoulos
> Chicago, Il.
>
> willy <willyacht@yahoo.com> wrote in message
> news:9ZQ_6.10316$e5.30894@newsfeeds.bigpond.com...
> > Well if you read Vishay or Dale data sheets they use a very good term
> > "Virtually" Non Inductive. But that still means that they not purely
> > resistive and truly non inductive. Actually i run 4000 watts, i wonder
> if
> > the FCC believes its virtually 1500 watts.
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> terode
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> > > paul <apollo_six@nospambtinternet.com> wrote in message
> > > news:mpApeDB5Q5O7EwyT@btinternet.com...
> > > > Manufacturers of large carbon comp non inductive resistors
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> > > > Anyone looking for these should try HVR, Jarrow, UK.
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> > > > Large sizes suitable for Dummy Loads.
> > > >
> > > > http://www.hvrint.com
> > > >
> > > >
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> >
>
>

3966. Re: Lead acid battery charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 02:59:28 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B3BEF03.BBDA0E93@att.net>
Source record: 51763

My motorhome uses two 12-volt deep discharge RV batteries in parallel. They are under constant charge by the "smart" inverter at an indicated voltage of 13.2 volts. The trickle-charge current is around 200 mils or so. Batteries seem to last indefinitely at this charge level with occasional attention to water level.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Rich Griffiths wrote:
>
> Depends on what you mean by "trickle charge".
>
> I consider 13.8 to be a little high for most batteries. It's better to
> set the current, if you can monitor that (and you should). I've been
> using group 24 batteries (a common automotive/marine size) and gel cells
> for years. The 24s do well on a float/trickle charge of 200 to 300 mA,
> which I get at 13.2 to 13.6 V.
>
> There's lots of stuff to read on the web. The many sources of advice
> that you'll find won't all agree. The above is my experience.
>
> The sources I liked best are the car battery FAQ at
> http://nyquist.ee.ualberta.ca/~schmaus/batfaq.html and the deep-cycle
> faq at http://nyquist.ee.ualberta.ca/~schmaus/dcbat.html

3967. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 03:03:28 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B3BEFF2.8B250662@att.net>
Source record: 51764

Those resistors are/were used in the famous Heathkit Cantenna. I have always measured a d-c resistance of 47 ohms and the impedance as measured by the AEA/Tempo CIA/HF also shows a real part of 47 ohms and negligible reactance up to 30 MHz.

I think the Cantenna was something like $12.95 back in 1970! Still works fine . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

willy wrote:
>
> These are the best resistors to use. The so called Globar type. They very
> hard to find and very expensive, Surplus Sales sells them at stupid prices.
> I have never seen a true 50 ohm version, most are 47 ohms. You probably
> going to have to get 2 X 100 Ohms to get a good 50 ohm resistors. Anyway at
> the prices they sell these resistors for i would just go out and invest in
> Bird load, it will last you a life time and you will never blow it. The MFJ
> cantenna is the biggest piece of crap i have ever come across. Likw most of
> their products.

3968. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 04:07:28 UTC
From: Bill Meacham <NOSPAMexray@coqui.net>
Message-ID: <3B3BFF00.62E60602@coqui.net>
Source record: 51765

Rich Griffiths wrote:
>
> It can be done. But the fact that lead-acid battery recycling is such a
> big business makes me think it's not really practical.
>
> What do the recyclers do? They chop up the batteries and recover the
> lead for making new batteries. If it made more sense to "restore" the
> batteries, I expect they'd be doing that, but they aren't.
>
> ... Rich

Back in the 70s, recycling batteries was pretty common. I recall one battery shop that had a massive charging system and hundreds of batteries sitting on charge at any given time. Basically, all they did was flush them out and pour fresh electrolyte into them. Occasionally they would 'behead' a battery to get to the plates for a more thorough cleaning, then seal it back up. As I understand, the typical cause for the battery's demise was deterioration of the plates. Overheating may have caused them to warp and short, or a layer of scale had built up on the plates.
The costs to comply with environmental concerns (and fire dept. regulations!) nowadays would certainly prohibit doing the type of work this shop did.
--

Bill Meacham
Vieques, PR

3969. Re: Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 07:20:11 UTC
From: nielsen@remove_this.oz.net
Message-ID: <9hha7b$77i$0@216.39.171.5>
Source record: 51767

On Thu, 28 Jun 2001 15:21:26 -0700, ken wrote:
> Does anyone have any comments positive or negative on the Red Hot Radio
> 20 Meter rig? I was thinking of buying one of the kits.
>
> I found a few things on eHam but nothing really conclusive, but there
> were comments about the xmit being chirpy. I did notice on their web
> site that they were still using the TiCK version 1 as the keyer (its up
> to vers. 4 now) and the circuit board seemed a bit crowded, most of the
> resistors were on end and so were many of the caps for example.

I have a Red Hot Norcal 20 and am quite happy with it. I haven't noticed any chirp problems. The receiver is quite good in terms of both selectivity and sensitivity, better than my TS-570D(G). It comes with a Tick 1, but the instructions do suggest upgrading (I did). Still, you get a lot of radio for $150.

There are a lot of parts, but the manual is well-written and assembly isn't difficult. All parts mount on the p.c. board, so there are no wires. The checkout is done in sections as you assemble it, so it's hard to go wrong. It was fun to build and is fun to use.

Bob, N7XY

3970. 17mtr DSB: New Pictures

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 11:08:46 UTC
From: n2cqr@clix.pt
Message-ID: <3b3c614a.5314378@news.clix.pt>
Source record: 51766

I put some recent pictures of the 17 meter DSB rig on my web site.
Just go to the URL that appears below and click on the "17 meter DSB"
link.

I decided to use one pole of the 4 pole double throw TR relay to
switch the VXO output from the transmitter balanced modulator to the
receiver's mixer.

Looks like the RX will be direct conversion with one stage of RF amp,
diode ring mixer, simple SSB low pass filter, and enough audio
amplification to drive a speaker. (I'll probably resort to an LM386.)

73 de CU2JL (aka N2CQR)
Bill Meara
Sao Miguel Island,
The Azores, Portugal
http://planeta.clix.pt/n2cqr

3971. Re: Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 11:45:49 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9hhpsu0pqp@enews1.newsguy.com>
Source record: 51768

Ken

I have the original Norcal 20 and it's dynamite. There was initially considerable chirp but there was a mod to fix that and I believe the Red Hot version already includes the mod. If not it's pretty simple.

The main thing about the RHR/NC-20 is the receiver. Dave made a choice that receiver performance was more important than power consumption. For TOIP, the receiver far outperforms any other receiver in it's class, and many higher end rigs. When the band is crowded, this is a very real and obvious difference. Strong nearby signals that will give my K1 or Icom 706 fits, the NC-20 will blithely ignore. However, there is a price. The rig consumes about twice the receive power of other QRP rigs, so if your interest is backpacking, it may not be the best choice.

As far as the TiCK, just socket the thing then whenever you get a round tuit, pop in a TiCK 4.

The rig isn't trivial to build, but Dave's instructions are excellent, so if you are at all reasonable with the slobbering iron it should be no trouble.

Operating the radio is somewhat different. Since it uses the AFA for frequency annunciation, and there is no dial, you never actually have to look at the radio. This makes it feel quite a bit different. I've often thought that would be ideal for mobile, but I've never tried it.

The big delta is that as far as I know, Dave hasn't been shipping them, so if you order direct, you may be in for a long wait. Every so often one shows up on QRP-L so that may be a better route. The problem with that is you need to be fast. I don't think I've seen a RHR20 last more than a couple of hours, so if you work for a living, and can't keep a close eye on your email, it could be tough.

didleydadidah

"ken" <no-one@device=null.com> wrote in message
news:9hgai8$i14l8@continuity.mcom.com...
> Does anyone have any comments positive or negative on the Red Hot Radio
> 20 Meter rig? I was thinking of buying one of the kits.
>
> I found a few things on eHam but nothing really conclusive, but there
> were comments about the xmit being chirpy. I did notice on their web
> site that they were still using the TiCK version 1 as the keyer (its up
> to vers. 4 now) and the circuit board seemed a bit crowded, most of the
> resistors were on end and so were many of the caps for example.
>
> All comments welcome,

> Ken
>

3972. Re: Please send me information how to get started into serious Remote Ham Radio Operation.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 14:33:13 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B3C91A9.C892482@erols.com>
Source record: 51769

Marcus,

In general, anything you would do at a "remote" location you would also do at a fixed location. There are only a few parts to setting up a station, they don't vary much whether you're going to be there for a day or forever!

The radio is the same. Of course radios for portable operation can be simpler or often tend to be less valuable than those used at a fixed location. Examples are QRP radios made especially for portable use.

The antenna is the issue. Can you leave an antenna installed at your portable location. If so your installation is much simpler. Depending on the type of antenna you will only require a tuner. IF you can't leave the antenna installed, or if you are contemplating "pseudo mobile" operation it gets more difficult.

By "pseudo mobile" operation I mean traveling around, going form motel room to motel room and having your radio there for companionship! Here you are faced with an ever changing antenna installation problem. I like the concept of a mobile whip, either designed to be installed quickly in a motel room window or used while mounted on the car. If you ask for a ground floor room where you can park close to the room, you just run a short length of coax out the window to the antenna and go on as you would on the road!

In short we need more information on what you are planning. And remember, you require a license to operate ham radio equipment!

73

3973. Re: RC car schematics and info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 14:42:45 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B3C93E5.FCC45EB7@erols.com>
Source record: 51770

John,

As you have heard, there are specific frequencies set aside on 6 meters for Radio Control. Ham radio is generally a hobby where people talk to each other, Talking to an airplane or car is not quite the same!

I don't know what kind of experimentation you have in mind, but I wonder if the Niko car is the best platform for what you want to do. It would seem to me, and this is from a few years of experience with RC cars and airplanes (20 some years ago, but valid nonetheless) that you would be better off with a more open design. I know you already have the Niko, but consider what you are planning. You will want access ot all parts of the system for experiments, and most commercial RC cars sold with radios use a brick type of integrated radio that is hard to modify!

Of course you will have to convert the radio to 6 meters. Not an especially difficult problem if you have any electronics background. Remember you will have to convert both the transmitter and the receiver to the same frequency. You will also want to be careful to check out the frequency because you can cause interference to others using it. Radio Control depends on only one carrier on frequency at a time. The cost of having an airplane shot down because of interference is quite high!

73

3974. Re: Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 14:53:54 UTC
From: Bruce Muscolino <w6toy@erols.com>
Message-ID: <3B3C9682.C18FDF12@erols.com>
Source record: 51771

Ken,

Just a thought. The best place to find information about QRP radios is QRP-L. YOu can join the list (QRP-L@lehigh.edu) and find lots of RHR users. I had one that was part of the original NorCal group buy. I recently sold it (unbuilt) to a friend down in Texas who built it and is very happy with it.

73

3975. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 15:06:18 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B3C996A.122D106A@clifto.com>
Source record: 51772

Gerald Youngblood wrote:
> Next you
> should read an article by Richard Lyons called Quadrature Signals: Complex,
> But Not Complicated, which can be found at
> http://www.dspguru.com/info/tutor/quadsig.htm on the www.dspguru.com site.

It sure complicated things for me. I always thought quadrature signals
were 90 degrees different in phase.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

3976. Help me locate aluminum tubing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 15:23:36 UTC
From: jimmy john <jj@sandwitch.org>
Message-ID: <4A8A59F2BDCDD311BFC800508BA36AC80965CAD0@www.premiersi.com>
Source record: 51773

I've been wanting to construct a yagi for 6M, but am finding tubing hard to get at reasonable cost. A local supplier quoted me $6.75 (PER FOOT!) for 60 feet of 6061 1/2" x .068 ID. (I'll go ahead and plug this "ripper-offer": amro.com - stay away from them)

Buying lengths longer that 8' seems difficult because then you get into more costly freight handlers instead of UPS or other regular delivery services. While Texas Towers seems to have about the best prices I've seen (abt. 80 cents per foot), anyone know of others that have even better prices? I need about 9' for each element and 24' for the boom. I'd really like to NOT splice things so it's as strong as possible.

Looking in central Indiana area, preferably.

thanks,

jj

3977. Re: IC-2GXE Mods

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 16:14:05 UTC
From: "Gary Tait, The Real" <tait@primeline.net>
Message-ID: <3B3CA94D.A778F54D@primeline.net>
Source record: 51774

rahul wrote:
>
> Hello,
>
> As described in lots of mods.. I successfully reset the CPU of my old
> IC-2GXE 2 Mtr. I am able to receive from 50 to 204 MHz. Unfortunately
> it does not transmit bellow 137 Mhz...
>
> I wish to use for 6 Mtr... any idea how do I open Xmit on 50 Mhz??
>
> Thanks and regards
>
> Rahul
You probalby cannot, the RF strip and PA may not handle 52 Mhz. Your bet
bet is to get a 6M transciver, or a transverter.
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
I dont't fix Spamproof E-mail addresses, so if you wish to email
me and get a reply, use a real ,un-spam proofed address.

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

3978. FA: Collins Type 813 Transmitting Tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 18:20:16 UTC
From: GH <nbc_red@mailcity.com>
Message-ID: <3B3CB983.63C22111@mailcity.com>
Source record: 51775
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1250477982

3979. Re: Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 20:07:38 UTC
From: ken <no-one@device=null.com>
Message-ID: <9hin66$lrdb1@continuity.mcom.com>
Source record: 51776

WB8RCR wrote:

> Ken
>
> you are at all reasonable with the slobbering iron it should be no trouble.
> ^^^^^^^^

Hee! :-)

3980. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 21:34:42 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B3CF472.48904983@dialpoint.net>
Source record: 51778

What are the inductors used for that you are talking about ? The reason is in the way they are used. Some make for beter impedance matching. If I remember correctly when they are center tapped you get 1/4 the reactance but if they are tightly coupled then this is modified quiet a bit. Just going by an artical I read a while back on the 88 milihenry telephone loading coils, the coupling makes what you would think of as 22 mh a low value and the actual value of each coil is more.

Rewt wrote:
>
> I've noticed that on some inductors, there is a tap midway through the
> inductor? What is the purpose? How do you calculate reactance at
> that point?

3981. Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 21:54:03 UTC
From: Rewt <root@gtld-servers.com>
Message-ID: <f0upjtcacuutik5f8gsh5f69mavl1li1go@4ax.com>
Source record: 51777

I've noticed that on some inductors, there is a tap midway through the inductor? What is the purpose? How do you calculate reactance at that point?

3982. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-29 22:58:34 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <ITRp5CAagQP7Ewp8@g3ohx.demon.co.uk>
Source record: 51779

In article <3B3B6C01.167602EA@telus.net>, George Eckschmiedt
<"geckschm(nospam)"@telus.net> writes
>Greetings,
>Any ideas for restoring car batteries for non-critical applications? A
>found only one reference, where the author used sodium-sulphate
>(Glaubers Salt), but the drugstore asked $18.00 for 100 grams of the
>stuff, so for that price one might as well buy a new battery :-)
>Thanks
>George VE7CEH
>

Yes... buy a new one, George. Essentially, a dead car battery is a dead
car battery. If you lash out $60 (is that what a battery with a 3-year
guarantee costs in VE?), and treat it gently (no nasty starting of cars,
and a bit of full discharging and recharging from time-to-time), I
understand that it will probably last you a lifetime. However, I've
never done it myself - and I doubt if anyone has!!
Ian.

3983. Re: Help me locate aluminum tubing

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 00:52:07 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B3D22B6.312B09E5@home.com>
Source record: 51780

You might check local metal salvage yards.

In Phoenix, we have a place called "Davis Metals" downtown on Washington Street. They are a metal surplus place that sells aluminum sheets for $1.50 per pound (they have scads of it!) and tubing for $3.00 per lb. You can get a fair amount of aluminum in a pound! They have a wide range of tubing sizes, but not enough different ones to get telescoping elements.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

jimmy john wrote:
>
> I've been wanting to construct a yagi for 6M, but am finding tubing hard to
> get at reasonable cost. A local supplier quoted me $6.75 (PER FOOT!) for 60
> feet of 6061 1/2" x .068 ID. (I'll go ahead and plug this "ripper-offer":
> amro.com - stay away from them)
>
> Buying lengths longer that 8' seems difficult because then you get into more
> costly freight handlers instead of UPS or other regular delivery services.
> While Texas Towers seems to have about the best prices I've seen (abt. 80
> cents per foot), anyone know of others that have even better prices? I need
> about 9' for each element and 24' for the boom. I'd really like to NOT
> splice things so it's as strong as possible.
>
> Looking in central Indiana area, preferably.
>
> thanks,
>
> jj

3984. Re: 17mtr DSB: New Pictures

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 00:52:50 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <Cp9%6.122791$v5.9290162@news1.rdc1.ct.home.com>
Source record: 51781

Looks good to me. Glad to someone actually homebrewing and
experimenting! Keep it up.

Pete

"Bill Meara " <n2cqr@clix.pt> wrote in message
news:3b3c614a.5314378@news.clix.pt...
> I put some recent pictures of the 17 meter DSB rig on my web site.
> Just go to the URL that appears below and click on the "17 meter DSB"
> link.
>
> I decided to use one pole of the 4 pole double throw TR relay to
> switch the VXO output from the transmitter balanced modulator to the
> receiver's mixer.
>
> Looks like the RX will be direct conversion with one stage of RF amp,
> diode ring mixer, simple SSB low pass filter, and enough audio
> amplification to drive a speaker. (I'll probably resort to an LM386.)
>
> 73 de CU2JL (aka N2CQR)
> Bill Meara
> Sao Miguel Island,
> The Azores, Portugal
> http://planeta.clix.pt/n2cqr
>
>

3985. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 01:34:55 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <l1a%6.34065$Mb7.1075233@brie.direct.ca>
Source record: 51782

"Rewt" <root@gtld-servers.com> wrote in message
news:f0upjtcacuutik5f8gsh5f69mavl1li1go@4ax.com...
> I've noticed that on some inductors, there is a tap midway through the
> inductor? What is the purpose? How do you calculate reactance at
> that point?
>
If the coil is a radio tank coil, the center-tap could be
for feeding B+ in a push-pull circuit.

3986. Wanted Junk HW9 or 9a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 02:34:58 UTC
From: taskew9722@aol.com
Message-ID: <20010629223458.05663.00001815@ng-mh1.aol.com>
Source record: 51783

Need Not working Heath HW9 or 9a for parts to repair one I got stung on in trade

Contact---Jack -- WF0C
Mtn View, Mo
at jshoe@socket.net with info

tnx Jack

3987. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 03:23:24 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <0fhqjt4mq44mmg42h3l60daqu1jaco1gfk@4ax.com>
Source record: 51784

Ralph Mowery <rmowery@dialpoint.net>
shared these priceless pearls of wisdom:

->What are the inductors used for that you are talking about ? The reason
->is in the way they are used. Some make for beter impedance matching.
->If I remember correctly when they are center tapped you get 1/4 the
->reactance but if they are tightly coupled then this is modified quiet a
->bit. Just going by an artical I read a while back on the 88 milihenry
->telephone loading coils, the coupling makes what you would think of as
->22 mh a low value and the actual value of each coil is more.

Jesus Jingle. Did they REALLY give you a license?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3988. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 03:24:03 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <mhhqjt04f9mqqvamd5h0g7t9dufgm4h43n@4ax.com>
Source record: 51785

"John S. MacKay" <k35454@direct.ca>
shared these priceless pearls of wisdom:

->>
-> If the coil is a radio tank coil, the center-tap could be
->for feeding B+ in a push-pull circuit.
->
Jesus Jingle. Did they REALLY give you a license?

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

3989. FA: Two Collins Radio S-Line Knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 04:18:42 UTC
From: GH <nbcred@mailcity.com>
Message-ID: <3B3D45C6.38AD24C5@mailcity.com>
Source record: 51786

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251510612

3990. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 04:36:03 UTC
From: Rewt <root@gtld-servers.com>
Message-ID: <cjlqjt0f3co1vptof3u99e63v9p29b57kl@4ax.com>
Source record: 51787

Is there an official calculation documented anywhere for that?

Thanks.

On Fri, 29 Jun 2001 17:34:42 -0400, Ralph Mowery
<rmowery@dialpoint.net> wrote:

>What are the inductors used for that you are talking about ? The reason
>is in the way they are used. Some make for beter impedance matching.
>If I remember correctly when they are center tapped you get 1/4 the
>reactance but if they are tightly coupled then this is modified quiet a
>bit. Just going by an artical I read a while back on the 88 milihenry
>telephone loading coils, the coupling makes what you would think of as
>22 mh a low value and the actual value of each coil is more.
>
>
>Rewt wrote:
>>
>> I've noticed that on some inductors, there is a tap midway through the
>> inductor? What is the purpose? How do you calculate reactance at
>> that point?

3991. FA: Rohde and Schwarz DC to 3 GHz attenuator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 06:02:57 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B3D6B91.9010504@armscroft.demon.co.uk>
Source record: 51788

Hi folks,

Check out this Rhode and Schwarz attenuator at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251450636

0 to 109db of attenuation from DC to 3 GHz.

No reserve!

VY 73

Mark

3992. FA: HV mica capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 06:27:14 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B3D7142.1010506@armscroft.demon.co.uk>
Source record: 51789

Hi folks,

Two separate lots of mica capacitors. Check them out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251456093

and

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251457369

Good luck if you decide to bid!

73

Mark

3993. A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 06:54:07 UTC
From: Rewt <root@gtld-servers.com>
Message-ID: <6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com>
Source record: 51790

I have a transmitter than uses 20A at 13.8V DC when transmitting. If I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A... Now, that doesn't seem to be nearly enough as using the thing makes the lights dim!

Whats wrong with my math?

3994. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 07:27:57 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B3D7F7D.B6C7D410@coqui.net>
Source record: 51791

Rewt wrote:
>
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?

Sounds like the math is ok. But you might wanna offer some info on what
and how you are powering this mystery rig with.
Sounds like fried final transistors in a CB amp, lacking better info.

--

Bill Meacham
Vieques, PR

3995. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 08:34:55 UTC
From: paul <apollo_six@nospambtinternet.com>
Message-ID: <SoE0eiAv8YP7EwsN@btinternet.com>
Source record: 51792

www.aspelect.demon.co.uk/birdwattnew.html

www.aspelect.demon.co.uk/bird50ohms.html#where50ohms

www.aspelect.demon.co.uk/birdrftermalineloads.html#rftermalineloads

Paul

In article <%XQ_6.392$j27.24625@news02.optonline.net>, Bob Camp
<bob@cq.nu> writes
>Reg,
>
>Bought any good wire wound non-inductive resistors lately ? Light
>bulbs work better.
>
>Hmmm, dummy loads ... maybe that's why dummy is part of the name :)
>
> Bob Camp
> KB8TQ
>
>
>
>

--

To try and not succeed is better than not to try at all (Anon)

3996. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 10:09:14 UTC
From: Dave <auinaduyf@email.com>
Message-ID: <9hk8fd$edlld$1@ID-49477.news.dfncis.de>
Source record: 51793

It is probably on 50% efficient- so over 500watts in, may make the lights
dim when you key up.
Rewt <root@gtld-servers.com> wrote in message
news:6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com...
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?
>

3997. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 12:55:11 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <P_j%6.124638$v5.9373754@news1.rdc1.ct.home.com>
Source record: 51794

You have to know the current at 120 VAC. You are assuming
the power supply is 100 percent efficient in converting from
120VAC to 12VDC. You math is fine as far as it goes, but it
is based on the assumption of 100% efficient voltage conversion.

Pete

"Rewt" <root@gtld-servers.com> wrote in message
news:6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com...
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?
>

3998. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 13:05:32 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <w8k%6.6167$ck5.587029@newsread2.prod.itd.earthlink.net>
Source record: 51795

Hi there,

If your radio shack is on a 15 amp circuit (supplied by a 14 gage wire) and you are drawing 14 amps for some lightas, a computer, a monitor, a battery charger or two for the HT(s), maybe a coffee pot, and then you transmit....

What lights are dimming? The whole house? How old is the wiring in the building. Just on the one branch circuit? Maybe you are running the lights and the rig from a discout store extension cord? Is your central air on? It sounds like 2.3 amps is the straw that broke the camel's back. Keep the rig... get a new house <grin>.

Rewt <root@gtld-servers.com> wrote in message news:6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com...
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?
>

3999. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 15:17:58 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b3ded4b$1_1@newsa.ev1.net>
Source record: 51697

You forgot all about "effeiceny", most solid state gear is rarely more then
50% effecient, when concerning actual RF output.

Rewt <root@gtld-servers.com> wrote in message
news:6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com...
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?
>

4000. parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 15:22:17 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <J8m%6.17036$C81.1311055@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51698

http://listings.ebay.com/aw/listings/list/all/category4659/index.html

4001. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 15:40:38 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tjrsnoj4tue552@corp.supernews.com>
Source record: 51699

> You forgot all about "effeiceny", most solid state gear is rarely
more then
> 50% effecient, when concerning actual RF output.
>

Since he knows the transmitter's DC current draw and voltage,
transmitter efficiency doesn't enter into the calculation. The power
supply efficiency does. Still not enough current draw that should
affect the AC voltage and make the lights dim. It could be that there
are some poor (corroded, high resistance) connections along the way.
If the radio is on the end of a string of outlets, check each one on
the same circuit for good, tight, clean connections. Check for
aluminum wiring if its an older house. This stuff was famous for
corrosion and loose connections.

4002. Dentron MLA2500 Modifications question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 17:34:08 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tjrok7im0eap54@corp.supernews.com>
Source record: 51796

This could be a general question rather than a question specific
to the MLA2500. I am in the process of putting a 4CX800 in
the amp. Don't tell me not to do it because I am 75% finished.
All I have left is the grid bias supply and am trying to figure out
just what I am going to use as a chimney. I'll probably wrap
some sort of silicon rubber sheet around the tube like the Alphas
did in some of their amplifiers. My question is do any of you
have any neat ideas on how to design the grid bias supply? I need
about -55 volts or so. The mods I have seen use a fixed grid
bias, but I would like to put something like -100v on the tube inbetween
actual transmissions. This would be something like the "electronic
bias" used on some 4-400 and 3-500 amplifiers. In that method they
use rectified RF to turn on and off the cathode bias.

So I would like to have -100v (or up to -150v) on the grid while the
amp is keyed but no RF input. As soon as I get RF input the grid
bias drops to -55v. I guess I could use a string of zeners and somehow
select the full string when idle and then one diode when RF is present.

????

Doug N4IJ

4003. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 18:16:06 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9hl4v8$et1$1@uranium.btinternet.com>
Source record: 51700

Have a chat with Niagra Falls power station senior mainenance
engineer.

Do the generators slow down when you speak into the microphone or hold
down the key?

No need to bring up the subject of advanced mathematics. If you have
sufficient understanding of 8-year old kids' arithmetic there's
nothing to worry about.

Except perhaps your electricity bill. ;o)

Reg, G4FGQ

4004. Rohde & Schwarz attenuator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 18:23:19 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B3E1917.6080005@armscroft.demon.co.uk>
Source record: 51701

Image added. Have a look at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251450636

73

4005. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 21:02:55 UTC
From: mcalhoun@ksu.edu
Message-ID: <9hlepv$p16@unix1.cc.ksu.edu>
Source record: 51702

>Yes... buy a new one, George. Essentially, a dead car battery is a dead
>car battery. If you lash out $60 (is that what a battery with a 3-year
>guarantee costs in VE?), and treat it gently (no nasty starting of cars,
>and a bit of full discharging and recharging from time-to-time), I
>understand that it will probably last you a lifetime....

NOT true in my case! I've used auto batteries as my basic shack supply
for over 20 years, and they last just about the same time in the shack
as they do in cars. I've used several kinds of chargers, some homebrew,
some commercial; once even windpower. About the only thing someone has
suggested but which I have NOT tried is mounting them on a "shaker" so
the acid is stirred mechanically!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4006. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-06-30 21:38:43 UTC
From: jgboyles@aol.com
Message-ID: <20010630173843.10574.00002153@ng-fg1.aol.com>
Source record: 51703

>Now, that doesn't seem to be nearly enough as using the thing makes
>the lights dim!

Rf in the shack can cause this especially if you use flourescent lighting. I had an all band dipole and one leg ran close to the shack. On 17 meters, I would completely extinguish one shop light on voice peaks. No problem on other bands. Rearranging the antenna, baluns, and ferrite will cure this. If you are dimming incadescant lights, I would look into the wiring, connections ect. as others have suggested
73 Gary N4AST

4007. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 00:00:02 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B3E6802.685808C4@one.net>
Source record: 51704

Rotten luck, Myron ;-) My 2-year-guarantee battery is still doing
fine after almost 5 years. The last one, I gave away to a neighbor
after about 4 years rather than haul it 750 miles to a new QTH. And I'm
still using some gel cells that are well over 8 years old.

--Rich
--
no soap boxes
no PhD - guess that's why I get things done.
misc. other qualifications, but I've never seen them keep anyone from
making mistakes

Myron A Calhoun wrote:
>
> >Yes... buy a new one, George. Essentially, a dead car battery is a dead
> >car battery. If you lash out $60 (is that what a battery with a 3-year
> >guarantee costs in VE?), and treat it gently (no nasty starting of cars,
> >and a bit of full discharging and recharging from time-to-time), I
> >understand that it will probably last you a lifetime....
>
> NOT true in my case! I've used auto batteries as my basic shack supply
> for over 20 years, and they last just about the same time in the shack
> as they do in cars. I've used several kinds of chargers, some homebrew,
> some commercial; once even windpower. About the only thing someone has
> suggested but which I have NOT tried is mounting them on a "shaker" so
> the acid is stirred mechanically!
>
> --Myron.
> --
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4008. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 00:51:37 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B3E7419.9AEABB76@inreach.com>
Source record: 51705

The best way to treat a non-deep cycle battery is to keep it as fully charged as possible, never discharge it completely, and to never shake it. Discharging the battery too much damages the plates and the lead oxide, lead sulfate coating, as does shaking it, which flakes off the oxide and sulfate.
Non-deepcyles are designed for temporary high current flow, with minimal discharge, followed by immediate re-charge, hence, the car battery application, starting the car followed by a recharge.
kc6ufe

Myron A Calhoun wrote:
>
> >Yes... buy a new one, George. Essentially, a dead car battery is a dead
> >car battery. If you lash out $60 (is that what a battery with a 3-year
> >guarantee costs in VE?), and treat it gently (no nasty starting of cars,
> >and a bit of full discharging and recharging from time-to-time), I
> >understand that it will probably last you a lifetime....
>
> NOT true in my case! I've used auto batteries as my basic shack supply
> for over 20 years, and they last just about the same time in the shack
> as they do in cars. I've used several kinds of chargers, some homebrew,
> some commercial; once even windpower. About the only thing someone has
> suggested but which I have NOT tried is mounting them on a "shaker" so
> the acid is stirred mechanically!
>
> --Myron.
> --
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4009. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 02:07:04 UTC
From: Rewt <root@gtld-servers.com>
Message-ID: <c01tjt814llf4k3jsubnulqkfdss69tnef@4ax.com>
Source record: 51706

On Sat, 30 Jun 2001 11:40:38 -0400, "Bob Lewis \(AA4PB\)"
<rlewis@staffnet.com> wrote:

>> You forgot all about "effeiceny", most solid state gear is rarely
>more then
>> 50% effecient, when concerning actual RF output.
>>
>
>Since he knows the transmitter's DC current draw and voltage,
>transmitter efficiency doesn't enter into the calculation. The power
>supply efficiency does. Still not enough current draw that should
>affect the AC voltage and make the lights dim. It could be that there
>are some poor (corroded, high resistance) connections along the way.
>If the radio is on the end of a string of outlets, check each one on
>the same circuit for good, tight, clean connections. Check for
>aluminum wiring if its an older house. This stuff was famous for
>corrosion and loose connections.

At this point.. I suspect it is RF getting into it..

Because even if the astron power supply was only 50% effeicient, we
estimated that it was drawing 2.3A if 100% efficient, So -- 5A on a
120V circuit running a light bulb and the power supply shouldn't make
it dim that bad..

For what it's worth, I'd love to redo the wiring in the house.. The
telephones were wired with straight wire.... (not twisted pair) Cross
talk, RF, all sorts of crap gets into it..

4010. WTB: HQ-145 power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 05:43:46 UTC
From: rfman84503@aol.com
Message-ID: <20010701014346.16151.00002172@ng-xc1.aol.com>
Source record: 51707

I am in need of a Hammarlund HQ-145 power transformer. Please let me know if you have one for sale and for how much.

reg

4011. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 07:40:16 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <40itjtg1e4tr068sudg484i2ac8kh3199h@4ax.com>
Source record: 51708

On 30 Jun 2001 01:54:07 -0500, Rewt <root@gtld-servers.com> wrote:

>I have a transmitter than uses 20A at 13.8V DC when transmitting.

Did you actually measure that current or did you get it from the transmitter specification ? It should also noted that some meters may give incorrect readings, when exposed to strong RF fields.

>If I recall correctly, P=VI, so 276 watts...

That is the DC power into the transmitter.

>At 120V AC, thats 2.3A...

You have to remember that traditional linear power supplies are not 100 % efficient, but instead generate quite a lot of heat. The power to generate this heat is also taken from the mains and the efficiency may be as low as 50 %, thus the double power has to be taken from the mains. That would be nearly 5A rms or 7A peak, assuming the current is sinusoidal.

However, a traditional linear power supply only draws current from the mains as long as the storage capacitor voltage is lower than the instant transformer secondary voltage. With a sufficiently large transformer and capacitor, the output voltage is close to the secondary peak voltage and the rectifiers might conduct for, say 36 degrees of the 180 degree half cycle. However, since the total charge needed remains the same regardless the size of the conduction angle, all that charge must be transferred at that short time. Thus, the peak current in this example would be 5 times the rms current or 25 A. (in modern power supplies "power factor correction" is required to extend the conduction angle and thus reduce the size of the current peak).

The voltage drop in house wiring during this peak current flattens (distorts) the _voltage_ waveform delivered to other loads such as the light bulbs, thus the average power delivered to the bulb drops.

>Now, that doesn't seem to be nearly enough as using the thing makes
>the lights dim!

Did it actually dim or just flicker when the transmitter was turned on or off ?

The eye is very sensitive to light changes, but adapts quickly to the new level. The light output from the bulb depends very strongly of the filament temperature, which depends on the average power and hence the square of the voltage. In practice, the light output from a typical bulb is proportional nearly to the cube of the voltage, thus, a 1 .. 3

percent voltage change is easily visually observed.

If the light appear to be dim for the whole transmission time, then it is reason to suspect that the house wiring is inadequate or the connections are not tight enough or they are corroded. Such bad connections will dissipate a lot of power when heavily loaded, so there is a considerable fire risk, thus, such connections should be checked.

If a bad connection has a 1 ohm resistance, with 5 A rms load it will dissipate 25 W, but if the power supply draws 25 A during 20 % of a cycle, the peak dissipation will be 625 W and the average dissipation 125 W with a very real fire risk, thus the current waveform has a great influence on the dissipation in bad connections.

Paul OH3LWR

4012. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 12:57:41 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B3F1E45.B771A1A5@one.net>
Source record: 51709

"William F. Hagen" wrote:
>
> The best way to treat a non-deep cycle battery is to keep it as fully
> charged as possible, never discharge it completely, and to never shake
> it. Discharging the battery too much damages the plates and the lead
> oxide, lead sulfate coating, as does shaking it, which flakes off the
> oxide and sulfate.

I agree completely.

These points may be key to the different experiences many of us have
with batteries.

> Non-deepcyles are designed for temporary high current flow, with minimal
> discharge, followed by immediate re-charge, hence, the car battery
> application, starting the car followed by a recharge.
> kc6ufe
>

"Ordinary" automotive batteries are indeed designed for this kind of
service. But I've heard from folks who have obtained battery lifetimes
many times the usual automotive lifetime by keeping them on a float
charge and otherwise treating them well, as you recommend above. And
that advice applies to gel cells, too.

... Rich

4013. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 14:03:28 UTC
From: NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net>
Message-ID: <Q4G%6.602$Fy3.60096@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51710

The resistors that I have are indeed 50 Ohm units; I bought them at the Rockwell-Collins inventory disposal for something like 25 cents apiece. I know that they are fairly expensive, but like everything else that they sell.....cheap!

Pete Gianakopoulos KE9OA

George, W5YR <w5yr@att.net> wrote in message news:3B3BEFF2.8B250662@att.net...
> Those resistors are/were used in the famous Heathkit Cantenna. I have
> always measured a d-c resistance of 47 ohms and the impedance as measured
> by the AEA/Tempo CIA/HF also shows a real part of 47 ohms and negligible
> reactance up to 30 MHz.
>
> I think the Cantenna was something like $12.95 back in 1970! Still works
> fine . . .
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
> Amateur Radio W5YR, in the 55th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
> willy wrote:
> >
> > These are the best resistors to use. The so called Globar type. They very
> > hard to find and very expensive, Surplus Sales sells them at stupid prices.
> > I have never seen a true 50 ohm version, most are 47 ohms. You probably
> > going to have to get 2 X 100 Ohms to get a good 50 ohm resistors. Anyway at
> > the prices they sell these resistors for i would just go out and invest in
> > Bird load, it will last you a life time and you will never blow it. The MFJ
> > cantenna is the biggest piece of crap i have ever come across. Likw most of
> > their products.

4014. "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 22:06:29 UTC
From: jwg6@cornell.edu
Message-ID: <9ho6t5rie2@news01.cit.cornell.edu>
Source record: 51711

What is the function of "decoupling resistors" in (for instance) an audio circuit (speech amp)?
I have seen "decoupling" components referred to in Handbook articles, but there doesn't seem to be any text in the theory chapters describing what purpose they serve.

thanks very much
jg

4015. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 22:13:40 UTC
From: Dave <auinaduyf@email.com>
Message-ID: <9ho79p$eml4u$1@ID-49477.news.dfncis.de>
Source record: 51712

Same as in an RF circuit- a high impedance/resistance path to the supply line. In other words, something that ensures the voltage swing is in the right place- NOT on the supply rail.

JG in NY <jwg6@cornell.edu> wrote in message news:9ho6t5rie2@news01.cit.cornell.edu...
> What is the function of "decoupling resistors" in (for instance) an audio
> circuit (speech amp)?
> I have seen "decoupling" components referred to in Handbook articles, but
> there doesn't seem to be any text in the theory chapters describing what
> purpose they serve.
>
> thanks very much
> jg
>

4016. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 23:10:05 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tjvbeijsbamcfc@corp.supernews.com>
Source record: 51713

> Same as in an RF circuit- a high impedance/resistance path to the
supply
> line. In other words, something that ensures the voltage swing is in
the
> right place- NOT on the supply rail.
>
Or put another way, it prevents the power supply line from responding to the audio frequency range and coupling the signal between stages via the common supply line. If there's enough coupling via the supply line you will get feedback, typically called "motor boating" because it sounds like that - "put, put, put". If you hear this in an old radio, it's a pretty sure bet that one or more decoupling capacitors are defective.

4017. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-01 23:58:26 UTC
From: c_moss_hamspam@bigfoot.com
Message-ID: <t4evjtsdrrorled7uhlgf64sf0d5if3eja@4ax.com>
Source record: 51714

Hi.

>What is the function of "decoupling resistors" in (for instance) an audio
>circuit (speech amp)?
>I have seen "decoupling" components referred to in Handbook articles, but
>there doesn't seem to be any text in the theory chapters describing what
>purpose they serve.

Not heard of 'decoupling resistors' before !

Decoupling capacitors are for getting rid of noise on supply lines/DC voltages -
ie, trying to maintain a clean DC supply to a part of the circuit, provides a
low-impedance to ac on DC supply lines.

Clive

4018. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 00:00:34 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b3fb941_1@newsa.ev1.net>
Source record: 51715

Must of the time "de-coupling" components in AF circuits are used to "Block" DC current from entering a given stage of the circuit.
Many times the parts is a capacitor, which "blocks" DC current.
If a resistor is used, it will not "block" DC current, but will limit the amount of current that will flow in the circuit.
A DC voltage may be used to operate a given portion of the circuit, but must be removed in an other, the capacitor will "block" it, but allow the AF to pass into the next stage.
A capacitor will "block" DC but allow AC to pass, dependent on the capacitence of th cap and the frequency of the AC impressed on the cap.

JG in NY <jwg6@cornell.edu> wrote in message news:9ho6t5rie2@news01.cit.cornell.edu...
> What is the function of "decoupling resistors" in (for instance) an audio
> circuit (speech amp)?
> I have seen "decoupling" components referred to in Handbook articles, but
> there doesn't seem to be any text in the theory chapters describing what
> purpose they serve.
>
> thanks very much
> jg
>

4019. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 00:12:26 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tjvf3e92edtk5d@corp.supernews.com>
Source record: 51716

> Not heard of 'decoupling resistors' before !
>
decoupling resistors are often used. They go in series with the supply line to provide a higher impedance, making it easier for the capacitors to stabilize the line (i.e. an RC filter).

4020. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 00:19:39 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B3FBE75.775E@pop.removethistomailme.net>
Source record: 51717

Matt Erickson wrote:
>
> Must of the time "de-coupling" components in AF circuits are used to "Block"
> DC current from entering a given stage of the circuit.
> Many times the parts is a capacitor, which "blocks" DC current.

Nope, that's a coupling capacitor, not a decoupling one.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4021. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 00:22:51 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B3FBF35.609@pop.removethistomailme.net>
Source record: 51718

Jim Weir wrote:
>
> "John S. MacKay" <k35454@direct.ca>
> shared these priceless pearls of wisdom:
>
> ->>
> -> If the coil is a radio tank coil, the center-tap could be
> ->for feeding B+ in a push-pull circuit.
> ->
> Jesus Jingle. Did they REALLY give you a license?
>

Hmm. What did it say in *your* edition of the Bash book?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4022. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 01:39:25 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B3FD0CD.8CE952A6@coqui.net>
Source record: 51719

JG in NY wrote:
>
> What is the function of "decoupling resistors" in (for instance) an audio
> circuit (speech amp)?
> I have seen "decoupling" components referred to in Handbook articles, but
> there doesn't seem to be any text in the theory chapters describing what
> purpose they serve.
>
> thanks very much
>
What a crazy thread! Basically, de-coupling is just as the word says.
Some component, capacitor or resistor, that will keep the AC (audio or
RF) component from finding an alternate route to where you don't want it
to go. That may imply sending it to ground, or attenuating it.
Its a conceptual thing and you can't simply label a component as
'decoupling' without looking at the whole circuit.

Bill Meacham
Vieques, PR

4023. Re: Why Tapped Inductors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 01:49:02 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B3FD30E.9021583A@coqui.net>
Source record: 51720

John Miles wrote:
>
> Jim Weir wrote:
> >
> > "John S. MacKay" <k35454@direct.ca>
> > shared these priceless pearls of wisdom:
> >
> > ->>
> > -> If the coil is a radio tank coil, the center-tap could be
> > ->for feeding B+ in a push-pull circuit.
> > ->
> > Jesus Jingle. Did they REALLY give you a license?
> >
>
> Hmm. What did it say in *your* edition of the Bash book?
>
> -- jm
>
Thats really not a 'wrong' answer, but isn't the one that would win in multiple choice these days. Ain't many push-pull RF output stages that have been common in the past generation, but this was very often the case in times gone by. Look at any old 30's rig with a pair of 10's or 50's and you will see the answer is indeed correct. If you're from the Bash, or bashing-Bash era, you probably don't realize this.
My immediate answer to the original question would be totally different and include the term "Q".

--
Bill Meacham WX4A
Vieques, PR

4024. re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 01:51:23 UTC
From: jwg6@cornell.edu
Message-ID: <9hok2r$d9o$1@news01.cit.cornell.edu>
Source record: 51721

Thanks guys!

This discussion has already been most helpful. I will refer to some of the examples I saw to see how the components are arranged and how they are functioning in the particular circuits.

Really appreciate the help...

Joel

4025. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 02:15:01 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b3fd8c9$1_2@newsa.ev1.net>
Source record: 51722

Symantics...

John Miles <jmiles@pop.removethistomailme.net> wrote in message
news:3B3FBE75.775E@pop.removethistomailme.net...
> Matt Erickson wrote:
> >
> > Must of the time "de-coupling" components in AF circuits are used to
"Block"
> > DC current from entering a given stage of the circuit.
> > Many times the parts is a capacitor, which "blocks" DC current.
>
> Nope, that's a coupling capacitor, not a decoupling one.
>
> -- jm
>
> ----------
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> ----------

4026. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 03:24:07 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B3FE957.1F3F8975@coqui.net>
Source record: 51723

Matt Erickson wrote:
>
> Symantics...

Semantics.

--

Bill Meacham
Vieques, PR

4027. Need some Hi Voltage Caps HELP !!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 05:20:50 UTC
From: k9uwa@arrl.net
Message-ID: <9hp0bi$ea2@dispatch.concentric.net>
Source record: 51724

Does anyone know where I can get 6 caps....100 Mfd @ 500 Volts...
prefer twist lock can type...size on the old ones is 3.25 Inches high and
1.5 inches in diameter......can't take anything much larger than in
height and nothing larger in diameter than that.....
thanks for any help anyone can offer......
John k9uwa

4028. FA: ITT/Jennings Tank Circuit Sliderule

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 06:03:41 UTC
From: Mark Buckles <mark@markbuckles.com>
Message-ID: <3B400EBC.9D98FCB8@markbuckles.com>
Source record: 51725
Cross-posted to: rec.audio.tubes,rec.radio.swap,rec.radio.amateur.homebrew,sci.electronics.design

For auction on eBay:
ITT Jennings Tank Circuit Sliderule
http://www.markbuckles.com/ebayred.html
Item # 1162775608

Regards,
Mark Buckles
San Diego
eBay rating: +364

4029. Re: Portable Scanner Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 07:52:18 UTC
From: Roby <plroberto@usa.net>
Message-ID: <MPG.15aa469f7e74b99e9896a9@news.polito.it>
Source record: 51726
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.scanner

Thank you very much to everyone.

Roberto

4030. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 08:33:31 UTC
From: Ian Wade <ian.wade@netro.co.uk>
Message-ID: <M6$evlAbHDQ7EwH1@netro.co.uk>
Source record: 51727

In article <tjrsnoj4tue552@corp.supernews.com>, Bob Lewis (AA4PB)
<rlewis@staffnet.com> writes
>> You forgot all about "effeiceny", most solid state gear is rarely
>more then
>> 50% effecient, when concerning actual RF output.
>>
>
>Since he knows the transmitter's DC current draw and voltage,
>transmitter efficiency doesn't enter into the calculation. The power
>supply efficiency does. Still not enough current draw that should
>affect the AC voltage and make the lights dim. It could be that there
>are some poor (corroded, high resistance) connections along the way.
>If the radio is on the end of a string of outlets, check each one on
>the same circuit for good, tight, clean connections. Check for
>aluminum wiring if its an older house. This stuff was famous for
>corrosion and loose connections.
>
>
>

Good advise. Then, having done all that, try narrowing the problem down
by a process of elimination:

1. Replace the transmitter with some car headlight bulbs drawing about
the same current. Does the problem go away?

2. Replace the power supply with another one. Does the problem go away?
If it does, then your power supply could have developed a leakage-to-
ground fault (e.g. through breakdown of transformer winding insulation),
which is potentially very dangerous.

3. Run the power supply and transmitter from a power outlet in a
different part of the house, or at a neighbour's house.

--
73
Ian, G3NRW
g3nrw@tapr.org

4031. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 12:00:48 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tk0ojm7lpl5gc8@corp.supernews.com>
Source record: 51728

> Symantics...
>
Symantics is important - if you ask an engineer for a "decoupling"
circuit you'll not get a DC block. Decoupling blocks AC and passes DC.
Coupling capacitors block DC and pass AC. Two totally different things
which are applied in two different portions of an audio amplifier.

4032. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 18:28:38 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <q3307.129936$v5.9820825@news1.rdc1.ct.home.com>
Source record: 51729

"Making the lights dim" is also very vague and subjective.
I'd to know the AC voltage with and without the load.
Sometimes only a few volts change will produce a noticable
effect on a bulb's brilliance..

Pete

"Rewt" <root@gtld-servers.com> wrote in message
news:6ftqjtkgbgfjv9s0fvhfbvh37dqu6pdqsj@4ax.com...
> I have a transmitter than uses 20A at 13.8V DC when transmitting. If
> I recall correctly, P=VI, so 276 watts... At 120V AC, thats 2.3A...
> Now, that doesn't seem to be nearly enough as using the thing makes
> the lights dim!
>
> Whats wrong with my math?
>

4033. FS: 2 Plate Xfmrs - 1 KW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 20:41:42 UTC
From: K6SDE <k6sde@my-deja.com>
Message-ID: <3B40DC86.C9B7A3B6@my-deja.com>
Source record: 51730

Two new plate tranformers. 1 kV or 2 kV, 500 W or 1 kW.
$55.

Details at:
http://www.geocities.com/k6sde/Xfmrs/Xfmr.html

Ian, K6SDE

4034. Drop by - www.ab7sl.com - today

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-02 20:59:57 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <hh507.11251$ck5.1184641@newsread2.prod.itd.earthlink.net>
Source record: 51731
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Lots of neat STUFF to do at www.ab7sl.com such as...

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4035. Re: A Stupid Math Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 00:33:54 UTC
From: davearea51@aol.com
Message-ID: <20010702203354.04075.00002173@ng-mf1.aol.com>
Source record: 51732

What you are experiencing is quite normal. All your math, although correct, is based on average current draw from the wall. When you transmit, chances are, the transmitter, on peaks, depletes the charge on the energy storage capacitors in the power supply. Yes, they are for energy storage as they are typically FAR too large for "filtering". When the charge is depleted on peaks, its just like turning the power supply on, as the inrush current must restore the energy drained from the capacitors by the transmitter. I think if you measure the peak current our of the wall, it will be far in excess of the average current. That's why the lights dim.

Dave - W0LEV

4036. Re: Microwaves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 00:46:54 UTC
From: davearea51@aol.com
Message-ID: <20010702204654.04075.00002175@ng-mf1.aol.com>
Source record: 51733

I believe the San Bernadino Microwave Society has presented such a scheme in one of their publications. Rather than phase lock the critter, I think they INJECTION locked the magie with relatively good results. If I remember, the noise sidebands ended up about -70 to -80 dBc; not bad for a power microwave oscillator!.

Dave - W0LEV

4037. 6/25 Vandenberg AFB Launch Schedule

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 02:11:02 UTC
From: Throbber <kd6nrp@earthlink.net>
Message-ID: <WQ907.11811$ck5.1250165@newsread2.prod.itd.earthlink.net>
Source record: 51734
Cross-posted to:
rec.radio.amateur.homebrew,rec.radio.amateur.space,sci.space.history,sci.space.shuttle,sci.space.station,sci.space.tech

The updated Vandenberg AFB missile launch schedule has been posted at

http://home.earthlink.net/~kd6nrp

Regards,

Brian Webb, KD6NRP

4038. Re: Collins Type 813 Transmitting Tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 05:58:16 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <Y9d07.398$bd.119038@newshog.newsread.com>
Source record: 51735
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap

There was a guy at our last swap...June 16th that had two large boxes of
them. sold them for $10 each.

--
Roger Halstead (K8RI)
www.rogerhalstead.com
N833R S# CD-2 World's oldest Debonair?
"GH" <nbc_red@mailcity.com> wrote in message
news:3B3CB983.63C22111@mailcity.com...
>
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1250477982

4039. FS/FT: Crystals, all ham band frequencies!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 15:28:44 UTC
From: k5dh@raytheon.com
Message-ID: <Mwl07.189$Mf6.3620@dfw-service2.ext.raytheon.com>
Source record: 51736
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

List available at this link:

http://www.qsl.net/k5dh/crystals.html

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

4040. High quality FREE radio design programs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 16:39:34 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9hst1h$pi8$3@plutonium.btinternet.com>
Source record: 51737

Professional-grade programs slanted towards radio amateurs. A variety of technical subjects including simple coil and capacitance loaded antennas, transmission lines, Pi-L networks, power amplifiers, ground radials,

Small single files. Download in a few seconds each. Not zipped up. Run immediately. Enter numerical data. Obtain numerical output.

There ARE such things as free lunches after all.

==========
Regards from Reg, G4FGQ
For free radio design software go to:-
http://www.btinternet.com/~g4fgq.regp
==========

4041. What are the useful bits from this 10KV lab power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 20:04:10 UTC
From: Ken Hoover <ken.hoover@DIE.SPAM.DIE.yale.edu>
Message-ID: <MPG.15abef40dd214a81989682@news.yale.edu>
Source record: 51738

Greetings-

A non-ham friend rescued a 10KV power supply that someone in another building (probably a research lab) had sent to the trash. When he told me what he'd found and that he intended to gut it and use it to rack VCR's or something, I *had* to go take a look.

When I went down to see it, he had removed the font cover which exposed a 4-1000A tube assembly which, I assume, was used for fine control of the power flow. Thinking they would look cool on the shelf in my shack, I removed and took home the tube/chimney/base and set them as shelf decor in my "shack" where they do indeed look cool. 8-)

However, I realized the next day (hey, I'm kinda slow sometimes) that a 10KV power supply in a nice 5 foot rack represented all of the the most expensive components of a nice amplifier -- especially if I reunited it with its tube.

The manufacturer listed on the front panel (Kilovolt Corporation of Hackensack NJ) must be long gone because I can't find any references to it at all on the web. I can't find a date label on it but it has to be around 20 years old. The power supply is rated for 10KV and 250ma and is excellent condition overall (no dust, strange smells or scorch marks). I dare not plug it in, of course.

Any thoughts/suggestions would be appreciated as to what bits are worth grabbing out of this. I can basically have any of its innards that I want.

I've been doing some reading and figured that, at minimum, the transformer, possibly the rectifier circuit and some of the high-power resistors out of this thing might be useful. It has a couple of massive capacitors (10KV 6/6mfd and 12KV 3mfd -- I told you they were big!) which, judging from their age, probably have PCB's in them so I'm not going to mess with that.

My key question is whether the main transformer -- which takes 208V single-phase input and has an output tap labeled "5000V" -- would work to drive the 4-1000A at ham levels. Specifically, if I need (according to some stuff I found on the web) about 3700V at 0.7A to properly drive the tube could I get it out of a setup built around this transformer?

Please send email with suggestions/thoughts to my callsign @ arrl.net. I'd be especially interested in amp schematics that incorporate a 4-1000A tube.

- 73 Ken Hoover KE1LR

--
Ken Hoover KE1LR | Unix is unix,
Systems Programmer | except for the differences.
Yale University ITS/WSS |

4042. Re: Need some Hi Voltage Caps HELP !!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-03 21:08:56 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B423467.69F48E2C@midwestmicro-tek.com>
Source record: 51739

I'm assuming that you have tried all the usual places. If you can't find them at places like antique electronics then you might try taking a page from the guys that restore old radios. A lot of .1 and .01 high voltage caps where the rolled paper types that are now impossable to find so what they do is hollow out the old ones and then insert modern equivalents and then seal up the old cap. You might try that with the cans if you still have them.

Rick KC0GIX

John Goller, k9uwa wrote:

> Does anyone know where I can get 6 caps....100 Mfd @ 500 Volts...
> prefer twist lock can type...size on the old ones is 3.25 Inches high and
> 1.5 inches in diameter......can't take anything much larger than in
> height and nothing larger in diameter than that.....
> thanks for any help anyone can offer......
> John k9uwa

4043. FA: Assortment of Ceramic stand off insulators

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 03:54:48 UTC
From: lhndmw@aol.com
Message-ID: <20010703235448.12596.00001588@ng-ma1.aol.com>
Source record: 51740

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251279908

4044. FS: Heathkit model 201 Linear Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 05:06:34 UTC
From: you@somehost.somedomain
Message-ID: <uvx07.15$666.56@newsfeed.slurp.net>
Source record: 51741

I have a Heathkit Model 201 Linear Amp. $350.00
Contact iron@netcnct.net
Thanks Jimmy

4045. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 09:15:54 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B42DEC9.DD4A2CDA@coqui.net>
Source record: 51742
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Richard McCollum wrote:
>
> It is the preferred way to do CW today if anyone did any. The large
> commercial transmitter used by W1AW to do their code practice does it
> precisely this way. Good on-off keying of a large transmitter is not easy
> at speed.
>
> Yes, in a lot of ways it is using a drop forge to crack walnuts but it
> avoids other circuit problems.
>
> Dick

Now, wait a minute Dick. Are you telling us that W1AW has been
transmitting A2 all along? I don't think so. If so, I've worn out a
switch for naught going into CW mode as I tune across the band and
happen across W1AW.
Maybe I've missed something for not being as active as I should be, but
I've yet to hear modulated CW (A2) even once in routine operating.
I have a problem with the ascertation that most Cw these days is MCW and
transmitters can't be managed at 'speed'.
Please clarify this and I promise I'll get myself up to speed.

--

Bill Meacham WX4A
Vieques, PR

4046. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 10:43:47 UTC
From: Richard McCollum <rmccollOMA@worldnet.att.net>
Message-ID: <DrC07.22809$C81.1778832@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51743
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

"Bill Meacham" <NOexray@coqui.net> wrote in message
news:3B42DEC9.DD4A2CDA@coqui.net...
> Richard McCollum wrote:
> >
> > It is the preferred way to do CW today if anyone did any. The large
> > commercial transmitter used by W1AW to do their code practice does it
> > precisely this way. Good on-off keying of a large transmitter is not
easy
> > at speed.
> >
> > Yes, in a lot of ways it is using a drop forge to crack walnuts but it
> > avoids other circuit problems.
> >
> > Dick
>
> Now, wait a minute Dick. Are you telling us that W1AW has been
> transmitting A2 all along? I don't think so. If so, I've worn out a
> switch for naught going into CW mode as I tune across the band and
> happen across W1AW.
> Maybe I've missed something for not being as active as I should be, but
> I've yet to hear modulated CW (A2) even once in routine operating.
> I have a problem with the ascertation that most Cw these days is MCW and
> transmitters can't be managed at 'speed'.
> Please clarify this and I promise I'll get myself up to speed.
>
> --
>
> Bill Meacham WX4A
> Vieques, PR

When you transmit a single tone thru an SSB transmitter, what comes out? An
unmodulated carrier -- you cannot tell on the receiving end whether it is
being done this way or with an oscillator and power amp. There is no
difference! Key the tone, key the carrier, machts nichts.
With FSK you shift between two tones and there is no way to tell on the
receiving end if I am keying tones or keying two rf oscillators. In W1AWs
case, if I push a 750 hz tone thru an SSB transmitter at 7039.25 USB or
7040.75 LSB you cannot tell it from a MOPA at 7040; it is still A1. Think
about it.

Dick

4047. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 11:26:18 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B42FD5A.27BF9653@one.net>
Source record: 51744
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

I think "they" have changed all these codes on you, fellas (again,
sigh).

The initial "A" designator now applies to double sideband, full carrier
emissions.

... Rich

Richard McCollum wrote:
>
> "Bill Meacham" <NOexray@coqui.net> wrote in message
> news:3B42DEC9.DD4A2CDA@coqui.net...
> > Richard McCollum wrote:
> > >
> > > It is the preferred way to do CW today if anyone did any. The large
> > > commercial transmitter used by W1AW to do their code practice does it
> > > precisely this way. Good on-off keying of a large transmitter is not
> easy
> > > at speed.
> > >
> > > Yes, in a lot of ways it is using a drop forge to crack walnuts but it
> > > avoids other circuit problems.
> > >
> > > Dick
> >
> > Now, wait a minute Dick. Are you telling us that W1AW has been
> > transmitting A2 all along? I don't think so. If so, I've worn out a
> > switch for naught going into CW mode as I tune across the band and
> > happen across W1AW.
> > Maybe I've missed something for not being as active as I should be, but
> > I've yet to hear modulated CW (A2) even once in routine operating.
> > I have a problem with the ascertation that most Cw these days is MCW and
> > transmitters can't be managed at 'speed'.
> > Please clarify this and I promise I'll get myself up to speed.
> >
> > --
> >
> > Bill Meacham WX4A
> > Vieques, PR
>
> When you transmit a single tone thru an SSB transmitter, what comes out? An
> unmodulated carrier -- you cannot tell on the receiving end whether it is
> being done this way or with an oscillator and power amp. There is no
> difference! Key the tone, key the carrier, machts nichts.

> With FSK you shift between two tones and there is no way to tell on the
> receiving end if I am keying tones or keying two rf oscillators. In W1AWs
> case, if I push a 750 hz tone thru an SSB transmitter at 7039.25 USB or
> 7040.75 LSB you cannot tell it from a MOPA at 7040; it is still A1. Think
> about it.
>
> Dick

4048. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 11:32:44 UTC
From: Richard McCollum <rmccollOMA@worldnet.att.net>
Message-ID: <w9D07.22827$C81.1781080@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51745
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

You are correct but old habits and terminology die hard.

"Rich Griffiths" <richg@one.net> wrote in message
news:3B42FD5A.27BF9653@one.net...
> I think "they" have changed all these codes on you, fellas (again,
> sigh).
>
> The initial "A" designator now applies to double sideband, full carrier
> emissions.
>
> ... Rich
>
>
> Richard McCollum wrote:
> >
> > "Bill Meacham" <NOexray@coqui.net> wrote in message
> > news:3B42DEC9.DD4A2CDA@coqui.net...
> > > Richard McCollum wrote:
> > > >
> > > > It is the preferred way to do CW today if anyone did any. The
large
> > > > commercial transmitter used by W1AW to do their code practice does
it
> > > > precisely this way. Good on-off keying of a large transmitter is
not
> > easy
> > > > at speed.
> > > >
> > > > Yes, in a lot of ways it is using a drop forge to crack walnuts but
it
> > > > avoids other circuit problems.
> > > >
> > > > Dick
> > >
> > > Now, wait a minute Dick. Are you telling us that W1AW has been
> > > transmitting A2 all along? I don't think so. If so, I've worn out a
> > > switch for naught going into CW mode as I tune across the band and
> > > happen across W1AW.
> > > Maybe I've missed something for not being as active as I should be,
but
> > > I've yet to hear modulated CW (A2) even once in routine operating.
> > > I have a problem with the ascertation that most Cw these days is MCW
and

> > > transmitters can't be managed at 'speed'.
> > > Please clarify this and I promise I'll get myself up to speed.
> > >
> > > --
> > >
> > > Bill Meacham WX4A
> > > Vieques, PR
> >
> > When you transmit a single tone thru an SSB transmitter, what comes out?
An
> > unmodulated carrier -- you cannot tell on the receiving end whether it
is
> > being done this way or with an oscillator and power amp. There is no
> > difference! Key the tone, key the carrier, machts nichts.
> > With FSK you shift between two tones and there is no way to tell on the
> > receiving end if I am keying tones or keying two rf oscillators. In
W1AWs
> > case, if I push a 750 hz tone thru an SSB transmitter at 7039.25 USB or
> > 7040.75 LSB you cannot tell it from a MOPA at 7040; it is still A1.
Think
> > about it.
> >
> > Dick

4049. Homebrew Spec Analyzer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 12:43:25 UTC
From: Brian <bclark207nospam'n@home.com>
Message-ID: <gr36ktoin2q3ljlf3210plcj0sgl8a1c73@4ax.com>
Source record: 51746

I was given a older (circa '92) satellite receiver (working when last used) that has a 950-1450Mhz varactor tuner in it. Questions:

Given the variety of homebrew spectrum analyzers using CATV and UHF varactor tuners, is it possible this 950-1450 Mhz tuner has some promise?

Would it be terribly difficult to use the 70Mhz IF output in such a design without special support chips?

Thanks in advance.

Brian

4050. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 13:50:33 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <JaF07.135699$v5.10216355@news1.rdc1.ct.home.com>
Source record: 51647
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Places very stringent requirements on carrier balance

Peter

"Richard McCollum" <rmccollOMA@worldnet.att.net> wrote in message
news:DrC07.22809$C81.1778832@bgtnsc04-news.ops.worldnet.att.net...
>
> "Bill Meacham" <NOexray@coqui.net> wrote in message
> news:3B42DEC9.DD4A2CDA@coqui.net...
> > Richard McCollum wrote:
> > >
> > > It is the preferred way to do CW today if anyone did any. The large
> > > commercial transmitter used by W1AW to do their code practice does it
> > > precisely this way. Good on-off keying of a large transmitter is not
> easy
> > > at speed.
> > >
> > > Yes, in a lot of ways it is using a drop forge to crack walnuts but it
> > > avoids other circuit problems.
> > >
> > > Dick
> >
> > Now, wait a minute Dick. Are you telling us that W1AW has been
> > transmitting A2 all along? I don't think so. If so, I've worn out a
> > switch for naught going into CW mode as I tune across the band and
> > happen across W1AW.
> > Maybe I've missed something for not being as active as I should be, but
> > I've yet to hear modulated CW (A2) even once in routine operating.
> > I have a problem with the ascertation that most Cw these days is MCW and
> > transmitters can't be managed at 'speed'.
> > Please clarify this and I promise I'll get myself up to speed.
> >
> > --
> >
> > Bill Meacham WX4A
> > Vieques, PR
>
> When you transmit a single tone thru an SSB transmitter, what comes out?
An
> unmodulated carrier -- you cannot tell on the receiving end whether it is
> being done this way or with an oscillator and power amp. There is no
> difference! Key the tone, key the carrier, machts nichts.
> With FSK you shift between two tones and there is no way to tell on the
> receiving end if I am keying tones or keying two rf oscillators. In W1AWs

> case, if I push a 750 hz tone thru an SSB transmitter at 7039.25 USB or
> 7040.75 LSB you cannot tell it from a MOPA at 7040; it is still A1. Think
> about it.
>
> Dick
>
>

4051. Re: Homebrew Spec Analyzer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 14:20:00 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <kCF07.135757$v5.10220825@news1.rdc1.ct.home.com>
Source record: 51648

The 70 MHz is just about where you would want it.

I'd use a simple bandpass filter, followed by an inexpensive
DBM to bring the IF down to the 10.7 MHz range where you
could use cheap ceramic and LC filters to set the bandwidth.

Do you know the LO range, and whether if it is high or low side
injection? You will have to do some modification of the tuner's
frontend, and perhaps the VCO, to get HF/VHF coverage.

Pete

"Brian" <bclark207nospam'n@home.com> wrote in message
news:gr36ktoin2q3ljlf3210plcj0sgl8a1c73@4ax.com...
> I was given a older (circa '92) satellite receiver (working when last
> used) that has a 950-1450Mhz varactor tuner in it. Questions:
>
> Given the variety of homebrew spectrum analyzers using CATV and UHF
> varactor tuners, is it possible this 950-1450 Mhz tuner has some
> promise?
>
> Would it be terribly difficult to use the 70Mhz IF output in such a
> design without special support chips?
>
> Thanks in advance.
>
> Brian

4052. Re: What are the useful bits from this 10KV lab power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 14:23:33 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <FFF07.135758$v5.10221203@news1.rdc1.ct.home.com>
Source record: 51649

Not knowing all of the taps on the transformer, another
possibility is feeding the transformer 125VAC on its
208 primary winding to get approximately half the secondary
voltage. 220VAC is preferred, but if you run a dedicated
30 amp 125VAC feed (to electrical code spec!) just for the amp it should
work.

Pete

"Ken Hoover" <ken.hoover@DIE.SPAM.DIE.yale.edu> wrote in message
news:MPG.15abef40dd214a81989682@news.yale.edu...
> Greetings-
>
> A non-ham friend rescued a 10KV power supply that someone in another
> building (probably a research lab) had sent to the trash. When he told
> me what he'd found and that he intended to gut it and use it to rack
> VCR's or something, I *had* to go take a look.
>
> When I went down to see it, he had removed the font cover which
> exposed a 4-1000A tube assembly which, I assume, was used for fine
> control of the power flow. Thinking they would look cool on the shelf
> in my shack, I removed and took home the tube/chimney/base and set them
> as shelf decor in my "shack" where they do indeed look cool. 8-)
>
> However, I realized the next day (hey, I'm kinda slow sometimes) that
> a 10KV power supply in a nice 5 foot rack represented all of the the
> most expensive components of a nice amplifier -- especially if I
> reunited it with its tube.
>
> The manufacturer listed on the front panel (Kilovolt Corporation of
> Hackensack NJ) must be long gone because I can't find any references to
> it at all on the web. I can't find a date label on it but it has to be
> around 20 years old. The power supply is rated for 10KV and 250ma and
> is excellent condition overall (no dust, strange smells or scorch
> marks). I dare not plug it in, of course.
>
> Any thoughts/suggestions would be appreciated as to what bits are
> worth grabbing out of this. I can basically have any of its innards
> that I want.
>
> I've been doing some reading and figured that, at minimum, the
> transformer, possibly the rectifier circuit and some of the high-power
> resistors out of this thing might be useful. It has a couple of massive
> capacitors (10KV 6/6mfd and 12KV 3mfd -- I told you they were big!)
> which, judging from their age, probably have PCB's in them so I'm not

> going to mess with that.
>
> My key question is whether the main transformer -- which takes 208V
> single-phase input and has an output tap labeled "5000V" -- would work
> to drive the 4-1000A at ham levels. Specifically, if I need (according
> to some stuff I found on the web) about 3700V at 0.7A to properly drive
> the tube could I get it out of a setup built around this transformer?
>
> Please send email with suggestions/thoughts to my callsign @ arrl.net.
> I'd be especially interested in amp schematics that incorporate a 4-
> 1000A tube.
>
> - 73 Ken Hoover KE1LR
>
> --
> Ken Hoover KE1LR | Unix is unix,
> Systems Programmer | except for the differences.
> Yale University ITS/WSS |

4053. MD-1 Tester, Fuel Quantity Gage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 15:13:28 UTC
From: B Hernlem <alihernlem@hotmail.com>
Message-ID: <3B428A1D.9D2EFF10@hotmail.com>
Source record: 51650
Cross-posted to: rec.radio.amateur.boatanchors,rec.aviation.military,rec.radio.amateur.homebrew

Anybody have one of these? I picked one up a while back. It is a precision adjustable capacitance box designed for calibrating (military) aircraft fuel gauges. It is a General Radio product containing two massively constructed air variable capacitors and a switched bank of fixed capacitors to add capacitance to one of the variables.

I am trying to determine whether this unit is functioning normally. I would like to compare observations with someone who has a known working unit.

Please respond by e-mail.

Brad

4054. FS: Componants for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 15:14:52 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <1qG07.276$q34.99137@news1.iquest.net>
Source record: 51651

I have for sale the following:

Rohm PN2222A's in TO92 case.

50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

Also

Chassis/Panel Mount BNC connectors with washers and lock nut.

25 for $12.40
50 for $21.00
100 for $36.00
500 for $138.00

All prices include shipping to anywhere in the USA. I will ship to foreign addresses but please check with me first so I can get you the proper shipping fees. Qty's of 25/50/100 are shipped in padded, reinforced, envelopes. Qty 500 is shipped in a small cardboard shipping carton.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

4055. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 15:49:59 UTC
From: Richard McCollum <rmccollOMA@worldnet.att.net>
Message-ID: <HWG07.30108$J91.1015560@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51652
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Agreed but with modern balanced mixers 40-50 db is relatively easy and simple-minded. You also get some help by setting the carrier a tad outside the passband of the filter. Having spent a lot of time adjusting carrier balance controls I am happy those days are pretty much over.

It is for that reason, among many others, I am not too happy to see the current crop of rice boxes do Antique Modulation so they can be sold to CBers.

Dick

"Peter J. Bertini" <commquart@home.com> wrote in message
news:JaF07.135699$v5.10216355@news1.rdc1.ct.home.com...
> Places very stringent requirements on carrier balance
>
> Peter
>
>
> "Richard McCollum" <rmccollOMA@worldnet.att.net> wrote in message
> news:DrC07.22809$C81.1778832@bgtnsc04-news.ops.worldnet.att.net...
> >
> > "Bill Meacham" <NOexray@coqui.net> wrote in message
> > news:3B42DEC9.DD4A2CDA@coqui.net...
> > > Richard McCollum wrote:
> > > >
> > > > It is the preferred way to do CW today if anyone did any. The
large
> > > > commercial transmitter used by W1AW to do their code practice does
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> > > > precisely this way. Good on-off keying of a large transmitter is
not
> > easy
> > > > at speed.
> > > >
> > > > Yes, in a lot of ways it is using a drop forge to crack walnuts but
it
> > > > avoids other circuit problems.
> > > >
> > > > Dick
> > >
> > > Now, wait a minute Dick. Are you telling us that W1AW has been
> > > transmitting A2 all along? I don't think so. If so, I've worn out a
> > > switch for naught going into CW mode as I tune across the band and
> > > happen across W1AW.

> > > Maybe I've missed something for not being as active as I should be,
but
> > > I've yet to hear modulated CW (A2) even once in routine operating.
> > > I have a problem with the ascertation that most Cw these days is MCW
and
> > > transmitters can't be managed at 'speed'.
> > > Please clarify this and I promise I'll get myself up to speed.
> > >
> > > --
> > >
> > > Bill Meacham WX4A
> > > Vieques, PR
> >
> > When you transmit a single tone thru an SSB transmitter, what comes out?
> An
> > unmodulated carrier -- you cannot tell on the receiving end whether it
is
> > being done this way or with an oscillator and power amp. There is no
> > difference! Key the tone, key the carrier, machts nichts.
> > With FSK you shift between two tones and there is no way to tell on the
> > receiving end if I am keying tones or keying two rf oscillators. In
W1AWs
> > case, if I push a 750 hz tone thru an SSB transmitter at 7039.25 USB or
> > 7040.75 LSB you cannot tell it from a MOPA at 7040; it is still A1.
Think
> > about it.
> >
> > Dick
> >
> >
>
>

4056. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 18:18:09 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B435DE1.96AD30C5@coqui.net>
Source record: 51653
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Rich Griffiths wrote:
>
> I think "they" have changed all these codes on you, fellas (again,
> sigh).
>
> The initial "A" designator now applies to double sideband, full carrier
> emissions.
>
> ... Rich

I'm gonna have to go to the books on this and see what has changed. I think we are talking about the same thing, just calling it by different names.
I certainly agree with FSK being sent as 2 individual SSB audio tones, but I'm not on base with the concept of CW being classified as a single audio tone on/off transmission.
--

Bill Meacham
Vieques, PR

4057. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 19:09:32 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10107041501090.21339-100000@gloria.cam.org>
Source record: 51655
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

On Wed, 4 Jul 2001, Bill Meacham wrote:

> Rich Griffiths wrote:
> >
> > I think "they" have changed all these codes on you, fellas (again,
> > sigh).
> >
> > The initial "A" designator now applies to double sideband, full carrier
> > emissions.
> >
> > ... Rich
>
> I'm gonna have to go to the books on this and see what has changed. I
> think we are talking about the same thing, just calling it by different
> names.
> I certainly agree with FSK being sent as 2 individual SSB audio tones,
> but I'm not on base with the concept of CW being classified as a single
> audio tone on/off transmission.
> -
>
> Bill Meacham
> Vieques, PR
>

I probably should dig further into the thread, but one can get very
different results when feeding an audio oscillator into the mic
jack of a transmitter.

"Modulated CW", which used to be A2, was when a keyed audio oscillator
was fed into the mic jack of an AM transmitter. You'd commonly see
that in cheap walkie talkies for the 27MHz range, when they had a button
on the front for sending code. I'm not so sure how common the mode
was, but you would see it described in articles for use on VHF for
local use (expecially when the US Novice license lost voice privilieges
on 2M, but could still use A1 and A2).

Likewise, what used to be F2 was feeding a keyed audio oscillator
into an FM transmitter. You still see it, with CW ID'ing of repeate5rs.

Either of these give you a full carrier, and you are merely using
a code practice oscillator instead of a microphone to modulate the
transmitter.

Feeding an audio oscillator into an SSB transmitter does of course
give the equivalent of a simple carrier. The proviso is that the
oscillator has to be a clean sine wave, and the balanced modulator

in the transmitter has to be well balanced 9and the unwanted sideband has to be eliminated). If one of these factors is missing, you will get A2 modulation, ie a single tone on a carrier.

Michael VE2BVW

4058. Re: RADCOMM ARTICLE 07/1989

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 19:10:19 UTC
From: la8ak@online.no
Message-ID: <3b4239f9.1497059@news.online.no>
Source record: 51654

On Sun, 17 Jun 2001 14:17:14 +0200, "PA5KE" <pa5ke@euronet.nl> wrote:

>LA1BFA was so kind to inform me about an article in Radcom that discribes
>the use of a QQE 06/40 in a 50 MHz lineair amplifier.
>If do not know if a electronical version of Radcomm does exist but if so I
>would be very thankfull for a copy of the following article:
>
>RadComm no. 7 1989 (p.36). "Valve amplifier, updated QQE06/40" for 50MHz
>
>Thank you for reading and hope you can help!
>
>73 de PA5KE
>Peter
>
>
Great news, see Radcom July 01 (pg49), back issues since 1964 are
available on CD-roms, check www.rsgb.org/shop

73,
LA8AK

4059. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 22:52:24 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B439E28.B1D1E4C1@one.net>
Source record: 51656
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Bill Meacham wrote:
>
> Rich Griffiths wrote:
> >
> > I think "they" have changed all these codes on you, fellas (again,
> > sigh).
> >
> > The initial "A" designator now applies to double sideband, full carrier
> > emissions.
> >
> > ... Rich
>
> I'm gonna have to go to the books on this and see what has changed. I
> think we are talking about the same thing, just calling it by different
> names.

Yeah, I think so too. I agree with the substance of what you guys are
saying. I just had to throw in that bit of trivia.

> I certainly agree with FSK being sent as 2 individual SSB audio tones,
> but I'm not on base with the concept of CW being classified as a single
> audio tone on/off transmission.
> --
>
> Bill Meacham
> Vieques, PR

The regs recognize for a whole bunch of ways to generate CW or FSK. The
definitive part of the code for these modes is the third character: an
"A" or "B" (= telegraphy) for CW or "D" (= data transmission) for FSK.
One of the many ways of generating CW is single-sideband, suppressed
carrier with a single channel containing quantized or digital
information on a modulating subcarrier transmitting telegraphy
(designated code J2A). The corresponding designator for FSK generated
by SSB is J2D (I think).

It all seems rather absurd to me.

... Rich

4060. Re: What does FSK sound like on an ordinary radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-04 23:09:37 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B43A231.CB1662E2@coqui.net>
Source record: 51657
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.homebrew

Rich Griffiths wrote:

> The regs recognize for a whole bunch of ways to generate CW or FSK. The
> definitive part of the code for these modes is the third character: an
> "A" or "B" (= telegraphy) for CW or "D" (= data transmission) for FSK.
> One of the many ways of generating CW is single-sideband, suppressed
> carrier with a single channel containing quantized or digital
> information on a modulating subcarrier transmitting telegraphy
> (designated code J2A). The corresponding designator for FSK generated
> by SSB is J2D (I think).
>
> It all seems rather absurd to me.
>
> ... Rich

I checked out the FCC site for the 'new' emission designators. What
used to be so simple is now pretty complicated since they use two
different systems.
http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=47&PART=2&SECTION=201&TYPE=TEXT
-and-
http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=47&PART=90&SECTION=207&TYPE=TEXT
--

Bill Meacham
Vieques, PR

4061. WTB: 70E-8 PTO Collins

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 00:13:42 UTC
From: w1xyz@aol.com
Message-ID: <20010704201342.12350.00001494@ng-fr1.aol.com>
Source record: 51658

Hi,

The 70E-8 from my 32V-2 is kaput. Anybody have a good one, or one that has good mechanical parts? Mine has a stripped screw in the slug mechanism.

Pay well and quick for a decent one.

Thanks

Bob
W1XYZ
Sudbury MA

4062. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 08:36:33 UTC
From: 123 <yano@home.com>
Message-ID: <IGV07.21322$F7.87125@news1.sshe1.sk.home.com>
Source record: 51659

Sodium Sulfate ! ? Why not just add Sodium Hydroxide to the Sulphuric acid Electrolyte

2NaOH + H2SO4 = Na2SO4 +2 H2O A saturated solution of NaOH is ~ 10 Normal or 40% W/V add drop-wise to Sulfuric Acid solution with careful stirring, NB both solutions are highly corrosive handle with appropriate care ! and replenish sulfuric acid with about volume equal to that volume of 10N Sodium Hydroxide used !

Yukio YANO
VE5YS
l
"George Eckschmiedt" <"geckschm(nospam)"@telus.net> wrote in message news:3B3B6C01.167602EA@telus.net...
> Greetings,
> Any ideas for restoring car batteries for non-critical applications? A
> found only one reference, where the author used sodium-sulphate
> (Glaubers Salt), but the drugstore asked $18.00 for 100 grams of the
> stuff, so for that price one might as well buy a new battery :-)
> Thanks
> George VE7CEH
>

4063. Aluminum panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 12:35:29 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B445F11.407B0F8@mwci.net>
Source record: 51660
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Does anyone know where new *black* wrinkle finish 19 inch
aluminum relay rack panels (just like the good old days) can be
purchased?

Bill W0IYH

4064. FS:AMP STUFF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 18:10:22 UTC
From: kg4fet@aol.combadspam
Message-ID: <20010705141022.12557.00001268@ng-mr1.aol.com>
Source record: 51661

I have some Misc items FS

Weston Model 302 volt meter: this is a rectifier type volt meter reading from 0-1500 volts. Meter is in good condition and I do have pics. 30.00 OBO + shipping

Weston Model 302 MA meter: This is also a rectifier type meter reading 0-5 MA. This meter is also in good condition and I have pics of this one as well. 30.00OBO + shipping
Both meters are accurate against a DVOM

Adjust-A-Volt Variable auto transformer. is adujustable from 0-165 volts @1.25 amps max. This is a single Phase variable transformer in very good condition. Contacts are intact and in good contition as well. Make me an offer + shipping on this item. Pics of this are also available

I set of brass stand offs.
4 2.50 in (63mm)
2 1.50 in (37mm)
2 .75 in (18mm)
2 .25 in (6mm)
4.00 shipped on these.

The best I saved for last
Electran 117v 50-60cy in and 1000v 25ma transformer. Transformer ohms ok but I was unable to put it under a load. Make me a reasonable offer + shipping on this item. I also have pics of these last 2 items if you wish to see them as to condition
73 guys and thanks for the read
DE KG4FET Sandor
904-924-7114

4065. Re: FS:AMP STUFF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 18:16:57 UTC
From: kg4fet@aol.combadspam
Message-ID: <20010705141657.12557.00001271@ng-mr1.aol.com>
Source record: 51662

I am looking for a desk mic for my FT 100 so I would do some horse tradind for this stuff as well.
Thanks again DE KG4FET Sandor

4066. Re: Red Hot Radio 20

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 19:59:51 UTC
From: ken <no-one@device_null.com>
Message-ID: <3B44C737.113E0173@device_null.com>
Source record: 51663

Tried that and I was inundated with messages. Even the daily blob of messages was too much to wade through. I'd rather spend time using the radio than reading about using it. :-)

Ken

Bruce Muscolino wrote:

> Ken,
>
> Just a thought. The best place to find information about QRP radios is
> QRP-L. YOu can join the list (QRP-L@lehigh.edu) and find lots of RHR
> users. I had one that was part of the original NorCal group buy. I
> recently sold it (unbuilt) to a friend down in Texas who built it and is
> very happy with it.
>
> 73

4067. Re: Dentron MLA2500 Modifications question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 22:38:00 UTC
From: "Dennis W. Ostrowski" <dwostrowski@lucent.com>
Message-ID: <3B44EC48.7F21C600@lucent.com>
Source record: 51664

Douglas Snowden wrote:
>
> This could be a general question rather than a question specific
> to the MLA2500. I am in the process of putting a 4CX800 in
> the amp. Don't tell me not to do it because I am 75% finished.
> All I have left is the grid bias supply and am trying to figure out
> just what I am going to use as a chimney. I'll probably wrap
> some sort of silicon rubber sheet around the tube like the Alphas
> did in some of their amplifiers. My question is do any of you
> have any neat ideas on how to design the grid bias supply? I need
> about -55 volts or so. The mods I have seen use a fixed grid
> bias, but I would like to put something like -100v on the tube inbetween
> actual transmissions. This would be something like the "electronic
> bias" used on some 4-400 and 3-500 amplifiers. In that method they
> use rectified RF to turn on and off the cathode bias.
>
> So I would like to have -100v (or up to -150v) on the grid while the
> amp is keyed but no RF input. As soon as I get RF input the grid
> bias drops to -55v. I guess I could use a string of zeners and somehow
> select the full string when idle and then one diode when RF is present.
>
> ????
>
> Doug N4IJ

Doug,

Leave the grid bias as is and switch the screen voltage on thru an additional
contact on the antenna relay.

I use a single form C contact with the transfer or 'fixed' contact connected to
the screen grid, the 'make' contact connected to the screen supply, and the
'break' contact connected to a 100 ohm resistor to ground.

The easiest way is to use an extra contact on the antenna switching relay,
(where you may chose to use a 3PDT instead of a 2PDT relay for that function),
but a separate relay works equally well.

As a safety measure, I also add a 10K resistor from the screen to ground in
case the relay ever makes a bad contact to the 100 ohm resistor.

I have used this method many times with no problems.

When that screen voltage drops to ZERO, that the tube will shut off without
having to make any change to the control grid bias level.

Good luck with your project.

Regards,

Dennis O.

4068. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 22:47:34 UTC
From: 385912512382@vip.hr
Message-ID: <1ew1t0q.iks2agf34plgN%385912512382@vip.hr>
Source record: 51666

Rich Griffiths <richg@one.net> wrote:

> It can be done. But the fact that lead-acid battery recycling is such a
> big business makes me think it's not really practical.
>
> What do the recyclers do? They chop up the batteries and recover the
> lead for making new batteries. If it made more sense to "restore" the
> batteries, I expect they'd be doing that, but they aren't.

I heard of method to destroy sulphate on plates is modulating charging current with frequency on which its crystal structure resonates. It was designed as "unit" that you connect in series with battery and they recommend constant use of such device to prevent crystals formation.

There was no details in article regarding frequency or any details on method. I tried to ask friend of mine who studied chemistry what frequency may be in question, he asked his college who is assistant ih Physics departement but we did not come up with solution.

Anybody knows some details regarding this.

Regards,
9A6JGJ

4069. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 22:50:48 UTC
From: Gerald Youngblood <gyoungblood@austin.rr.com>
Message-ID: <cb617.25623$WT.4875874@typhoon.austin.rr.com>
Source record: 51667

```
Clifton,
The Q signal is shifted 90 degrees in phase counter clockwise from the I
signal.
Gerald

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3B3C996A.122D106A@clifto.com...
> Gerald Youngblood wrote:
> > Next you
> > should read an article by Richard Lyons called Quadrature Signals:
Complex,
> > But Not Complicated, which can be found at
> > http://www.dspguru.com/info/tutor/quadsig.htm on the www.dspguru.com
site.
>
> It sure complicated things for me. I always thought quadrature signals
> were 90 degrees different in phase.
>
> --
>
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-
+-+
> | Cliff Sharp | "Speech isn't free when it comes postage-due."
|
> | WA9PDM | -- Jim Nitchals, founder, FREE
|
> +-+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

4070. PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 23:06:56 UTC
From: Morris Odell <morriso@nospam.vifp.monash.edu.au>
Message-ID: <9i2r6o$i0b$1@towncrier.cc.monash.edu.au>
Source record: 51665
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

I want to make a plug in PCB with gold plated edge connection fingers. Does anyone know if this can be done on a homebrew on-off basis?

Morris

4071. Re: Is Svetlana Still in business?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-05 23:19:23 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B44F5FB.ADA1058B@coqui.net>
Source record: 51669

Douglas Snowden wrote:
>
> Doug N4IJ

Nothing on their website indicates that they have gone.
--

Bill Meacham
Vieques, PR

4072. Re: Is Svetlana Still in business?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 00:06:38 UTC
From: "Geoffrey G. Rochat" <geoff.nospam@nospam.pkworks.com>
Message-ID: <9i2u6t$42v$1@news-central.tiac.net>
Source record: 51670

Bill Meacham wrote in message <3B44F5FB.ADA1058B@coqui.net>...
>Douglas Snowden wrote:
>>
>> Doug N4IJ
>
>Nothing on their website indicates that they have gone.
>--
>
>Bill Meacham
>Vieques, PR
>

This has been a lively topic on rec.audio.tubes for some time. If you check carefully, you'll see that their website hasn't been updated since circa April 2000. My understanding, based on postings and e-mails from Eric Barbour, ex-Svetlana application engineer, is that money problems on the American side of the operation have made them close their California office, but their Georgia office (as of several months ago) remains open. The factory in Russia is still in operation, and Canadian and European distributors of Svetlana audio tubes seem to have new stock, but there are hints that some USA distributors of Svetlana audio tubes have had some delivery problems. I do not know the current situation, nor do I know how it affects Svetlana's RF tubes. If anyone reading this has deeper insights or more current knowledge I, and I suspect lots of other people, both here and on rec.audio.tubes, would appreciate hearing about it.

4073. FA: Exceptional, late model, backlit Racal RA1792

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 00:42:34 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B45097A.7080508@armscroft.demon.co.uk>
Source record: 51671

[No readable article body recovered]

4074. FA: Exceptional, late model, backlit Racal RA1792

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 00:43:05 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B450999.7010603@armscroft.demon.co.uk>
Source record: 51672

Hi folks,

Check out this one! This radio is of real collectors grade and probably the best of its type currently available!

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1252989299

Happy bidding!

73

4075. BTR 160 Microwave tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 00:53:33 UTC
From: Howard Duck <travesty6@hotmail.com>
Message-ID: <EW717.24349$NY.1868257@news20.bellglobal.com>
Source record: 51673

Greetings all:

I am trying to track down information and sources for a Tube made in the US by Varjan, a BTR 160. It's a microwave tube, goes up to 1.3 GHz.

Anyone know of where I can get some information, and perhaps a source of these tubes?

Cheers,

The Duck

4076. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 01:31:47 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B451503.F1640214@one.net>
Source record: 51674

Jerko:

There are a few sites on the internet that advertize special pulse chargers that are supposed to do what you've heard about. I don't remember the URLs, but I found them just by doing a Lycos search, so you should be able to find them too.

What they were claiming didn't sound right to me, either. I work in a chemistry lab and have done a bit of study of how to solubilize and precipitate lead in industrial processes and in the environment. I'm no expert on lead-acid batteries, but I just don't believe the pulse charging business. (However, note that those "special" pulse chargers are not to be confused with ordinary chargers that simply turn the current on and off at a low pulse rate. The low-pulse-rate chargers are just trying to keep the battery topped-off without overcharging.)

... Rich

Jerko Golubovic wrote:
>
> Rich Griffiths <richg@one.net> wrote:
>
> > It can be done. But the fact that lead-acid battery recycling is such a
> > big business makes me think it's not really practical.
> >
> > What do the recyclers do? They chop up the batteries and recover the
> > lead for making new batteries. If it made more sense to "restore" the
> > batteries, I expect they'd be doing that, but they aren't.
>
> I heard of method to destroy sulphate on plates is modulating charging
> current with frequency on which its crystal structure resonates. It was
> designed as "unit" that you connect in series with battery and they
> recommend constant use of such device to prevent crystals formation.
>
> There was no details in article regarding frequency or any details on
> method. I tried to ask friend of mine who studied chemistry what
> frequency may be in question, he asked his college who is assistant ih
> Physics departement but we did not come up with solution.
>
> Anybody knows some details regarding this.
>
> Regards,
> 9A6JGJ

4077. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 02:13:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B451ECC.52C467C@eznec.com>
Source record: 51675
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

I do know that gold is never plated directly over copper, because the two will alloy. A barrier, always nickel in my experience, is plated onto the copper first. So you'll have to be able to plate both nickel and gold. Hopefully somebody will be able to tell you how.

Roy Lewallen, W7EL

Morris Odell wrote:
>
> I want to make a plug in PCB with gold plated edge connection fingers. Does
> anyone know if this can be done on a homebrew on-off basis?
>
> Morris

4078. Is Svetlana Still in business?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 02:14:52 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tk9t0n26n9pifb@corp.supernews.com>
Source record: 51668

Doug N4IJ

4079. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 03:57:17 UTC
From: "Geoffrey G. Rochat" <geoff.nospam@nospam.pkworks.com>
Message-ID: <9i3bmvdsh1@news-central.tiac.net>
Source record: 51676
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

I've been investigating this myself for some time. Both Antique Electronics (www.tubesandmore.com) and Caswell Plating (www.caswellplating.com) have small-scale electroplating kits for both gold and nickel. They're intended for repair and restoration work, but I wonder if they'd work in this application as well. I've never gotten around to actually trying this, and I'd be interested in hearing if somebody has any actual experience doing this on homebrew PCBs.

Roy Lewallen wrote in message <3B451ECC.52C467C@eznec.com>...
>I do know that gold is never plated directly over copper, because the
>two will alloy. A barrier, always nickel in my experience, is plated
>onto the copper first. So you'll have to be able to plate both nickel
>and gold. Hopefully somebody will be able to tell you how.
>
>Roy Lewallen, W7EL
>
>Morris Odell wrote:
>>
>> I want to make a plug in PCB with gold plated edge connection fingers. Does
>> anyone know if this can be done on a homebrew on-off basis?
>>
>> Morris

4080. F/S Printed Circuits Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 04:22:00 UTC
From: Jack Taylor <n7oo@theriver.com>
Message-ID: <9i3ed8$lp1$0@206.97.58.247>
Source record: 51677

This is the Third Edition by Clyde F. Coombs, Jr. Features 35 authoritive chapters including three new chapters on surface mount technology. This thoroughly revised, updated and expanded edition is the source for information on printed circuits for professionals as well as for new-comers.

Packed with useful, practical information, this huge handbook is divided into seven job-specific parts to help you find the data you need.

Published in hardback by McGraw-Hill, this book is in good shape and will be a handy addition to anyone's library.

$12.50 shipped media rate.

73 de Jack

4081. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 05:09:35 UTC
From: David Emrich <demrich@ihgtech.com.au>
Message-ID: <9i3h6h$m0d$1@yeppa.connect.com.au>
Source record: 51678
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

Roy Lewallen wrote in message <3B451ECC.52C467C@eznec.com>...
>I do know that gold is never plated directly over copper, because the
>two will alloy. A barrier, always nickel in my experience, is plated
>onto the copper first. So you'll have to be able to plate both nickel
>and gold. Hopefully somebody will be able to tell you how.
>
>Roy Lewallen, W7EL
>

Interesting. I wonder if anyone could elucidate on the properties of the
gold/copper allow?

David.

4082. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 11:10:29 UTC
From: Mark Harriss <ningauble@bigpond.com>
Message-ID: <3B459CA5.DDD07325@bigpond.com>
Source record: 51679
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

Copper usually makes up the extra material in the various jewellery
gold alloys, 24 karat is pure gold and is very soft with no strength
the more copper, the harder the alloy gets.

David Emrich wrote:

> Roy Lewallen wrote in message <3B451ECC.52C467C@eznec.com>...
> >I do know that gold is never plated directly over copper, because the
> >two will alloy. A barrier, always nickel in my experience, is plated
> >onto the copper first. So you'll have to be able to plate both nickel
> >and gold. Hopefully somebody will be able to tell you how.
> >
> >Roy Lewallen, W7EL
> >
>
> Interesting. I wonder if anyone could elucidate on the properties of the
> gold/copper allow?
>
> David.

4083. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 18:16:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B460068.8129614D@eznec.com>
Source record: 51680
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

Typical jewelry is around 14 carat, or 14/24 = 58% gold. In contrast, a good quality connector has about 100 microinches of gold plated over 1400 microinches of copper (so-called "one ounce" copper), so the ratio is very different even if the two metals aren't intentionally mixed. The purpose of the gold is to prevent oxidatation and other corrosion of the contact surface. If gold is plated directly over copper, the effect is that enough copper migrates to the surface that the contact can corrode. This also sometimes happens when a nickel barrier is porous due to a defective process. I'm not certain, but think this process can occur over time.

That's just about all I know about the topic, learned during a career in electronic product design and development. I was fortunate enough to have real experts available to analyze and solve corrosion and plating problems, so never had to learn more than the basics. Hopefully a real expert can give more complete answers.

Roy Lewallen, W7EL

Mark Harriss wrote:
>
> Copper usually makes up the extra material in the various jewellery
> gold alloys, 24 karat is pure gold and is very soft with no strength
> the more copper, the harder the alloy gets.
>
> David Emrich wrote:
>
> > Roy Lewallen wrote in message <3B451ECC.52C467C@eznec.com>...
> > >I do know that gold is never plated directly over copper, because the
> > >two will alloy. A barrier, always nickel in my experience, is plated
> > >onto the copper first. So you'll have to be able to plate both nickel
> > >and gold. Hopefully somebody will be able to tell you how.
> > >
> > >Roy Lewallen, W7EL
> > >
> >
> > Interesting. I wonder if anyone could elucidate on the properties of the
> > gold/copper allow?
> >
> > David.

4084. FA: Nicer than Bird 43 COAXIAL DYNAMICS 81000A (LAST HOURS)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 19:09:21 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B460CE1.DC65FF11@alltel.net>
Source record: 51681

It's going cheap. Last hours no reserve.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1251636557

"NO RESERVE" COAXIAL DYNAMICS MODEL 81000-A HAS OPTIONAL FEMALE QC
N-CONNECTORS
(SAME AS BIRD 43) "ALSO COMES WITH ORIGINAL MANUAL" NOTE- ALL BIRD 43
ELEMENTS WORK
100 % IN IT. BIRD 43 AND COAXIAL DYNAMICS ELEMENTS ARE INTER-
CHANGEABLE. Coaxial Dynamics
also sells an add on Peak Reading Kit same as Bird does for their model
43 (to make it same as Bird 43P). This one looks
almost brand new and works 100%. NOTE THE LARGE "MIRRORED SCALE" AND
MUCH "LARGER EASIER TO
READ METER" THAN A BIRD 43. I am selling JUST the meter and the original
manual. Buyer to pay fixed
packing/shipping charge of $10.75. Payment by Postal MO or Bank Cashier
Check.
--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

4085. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 19:18:07 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B460EEF.36CE9D6F@clifto.com>
Source record: 51682

Gerald Youngblood wrote:
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote...
> > Gerald Youngblood wrote:
> > > Next you
> > > should read an article by Richard Lyons called Quadrature Signals:
> Complex,
> > > But Not Complicated, which can be found at
> > > http://www.dspguru.com/info/tutor/quadsig.htm on the www.dspguru.com
> site.
> >
> > It sure complicated things for me. I always thought quadrature signals
> > were 90 degrees different in phase.
>
> The Q signal is shifted 90 degrees in phase counter clockwise from the I
> signal.

Yup. But what the author is calling "quadrature signals" actually differ
by varying amounts depending on phase angle:

"Let's now call our two [exp(j*2*pi*Fo*t)] and [exp(-j*2*pi*Fo*t)] complex
expressions _quadrature signals_."

The way he diagrams the latter expression on the preceding page, I can't
even conceive of a real-world signal that would do what he describes.

He also says that "If you have a single complex number, represented by a
point on the complex plane, multiplying that number by j OR [exp(j*pi/2)]
will result in a new complex number that's rotated 90 degrees counterclockwise
on the complex plane." Now, *that* is quadrature, the way I learned it.
But the two expressions [exp(j*2*pi*Fo*t)] and [exp(-j*2*pi*Fo*t)] that
he calls quadrature do NOT differ by a factor of j, but by j^2.

So basically, neither his diagram nor his math appears (to me) to be
describing quadrature signals, while he's explicitly stating they are.
And I still have no concept of a real signal described by a phasor
rotating clockwise.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

4086. coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 19:25:37 UTC
From: mcalhoun@ksu.edu
Message-ID: <9i53bh$nj@unix1.cc.ksu.edu>
Source record: 51683

The Butternut HF-6V has a coil/inductor at the base (coil Q) which
apparently serves to tune the antenna for 80/75 meters AND to provide
a DC ground.

I like the idea of that static ground. I have a 33-foot "flagpole
vertical" which I use for 40-meters and up; should I expect any
significant tuning change if I add a similar inductor to it?

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4087. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 19:43:30 UTC
From: mcalhoun@ksu.edu
Message-ID: <9i54d2$319@unix1.cc.ksu.edu>
Source record: 51684

> It can be done. But the fact that lead-acid battery recycling is such a
> big business makes me think it's not really practical.

> What do the recyclers do? They chop up the batteries and recover the
> lead for making new batteries. If it made more sense to "restore" the
> batteries, I expect they'd be doing that, but they aren't.

During the 1986-87 school year I saw several little shops in Nigeria
where car batteries were "reconditioned":
* cut them open at the top,
* remove the plates,
* sort plates according to how good they looked,
* rebuild using the better-looking plates.

They definitely did NOT build new batteries, but this "rebuilding" seemed
to be a thriving industry.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4088. Re: coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 20:11:17 UTC
From: troglodite@aol.com
Message-ID: <20010706161117.10146.00005088@ng-md1.aol.com>
Source record: 51685

>
>I like the idea of that static ground. I have a 33-foot "flagpole
>vertical" which I use for 40-meters and up; should I expect any
>significant tuning change if I add a similar inductor to it?
>

I think the inductance to ground is actually part of the impedance matching. The feedline goes to a tap on that inductor does it not? This is the classic Gamma match. If you want lightning safety, you should have a lightning arrestor in the feedline, tied to a good ground. If you just want to bleed off the static, connect a 2.5Mh RFC from the feedpoint to ground. (There may already be one in your transceiver.)

Note: My comments may be off base in regards to the coil because I am not familiar with the Butternut.

KB9TMY (Formerly K6HWY)

4089. FA: Racal RA1792 - update!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 20:55:38 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B4625CA.8070108@armscroft.demon.co.uk>
Source record: 51686

Hi,

I have added a picture of this really fine receiver today. It doesn't do it justice though :(Check it out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1252989299

GL if you decide to bid!

73

4090. Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 20:56:37 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.15b035eb99f9934a9896c8@news.earthlink.net>
Source record: 51687

Most of us have a Radio Shack pretty close to us. Some of us have stores better then Radio Shack nearby but sometimes the better store is further away (distances vary by location).
Most of us buy last minute parts at Radio Shack, sometimes 5 minutes before closing. Sometimes they have what we need, sometimes not.

Sometimes Radio Shack closes before the posted time - this aggravates us, but we usually still shop there but only if absolutely necessary.
Some of us have witty slogans or monikers for Radio Shack. Some of us get upset when people use witty slogans and monikers.

Some of us don't mind giving our names when making purchases at Radio Shack, some of us do. Some of us make up funny names and use those and some of us think the staff at Radio Shack doesn't get it and this amuses us.
Some of us don't like Radio Shack for one reason or the other.

Some of us think Radio Shack is staffed by morons, while others think they have knowledgeable friendly staff. This surprises us because other retail stores where the staff is paid minimum wage and the manager puts in 60-70 hours a week have much more knowledge employees.
Consensus is the manager at the particular Radio Shack is an important component in the service one receives at Radio Shack.

Some of us remember the "old" Radio Shack and an unnamed but good store nearby. Knowledge of this good, but unnamed store will elevate you highly amongst your pears while newbies will sit back in awe.
Some of us work at Radio Shack and some of us used to work at Radio Shack.

There are at least two and possibly three different "levels" of Radio Shack; Company Store, Privately Owned and Express. (this will be on the test later and the answer will be "D" - all of the above)
Some of us use Radio Shack coupons, some don't. Some of us combine the coupons with other coupons for big savings.

Talk of Radio Shack will bring out cries of Gentlemenship and spawn ill conceived posts about the current ham radio licensing structure and tales of how old licenses are better because the testing was done in front of FCC examiners and you had to scratch schematics into the parking lot using a fork. No, you can never reach the Ham pinnacle that those who performed this feat are at - don't even try.

--
mailto:k7on@earthlink.net >< http://www.qsl.net/k7on/
--

4091. DAIWA CR750U rotator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 21:24:04 UTC
From: la8ak@online.no
Message-ID: <3b462985.259467987@news.online.no>
Source record: 51688

my rotator has stopped. suppose it is the capacitor - quite stupidly
it is mounted inside the outdoor unit.
wonder if it is possible to remove it without removing the rotator
unit from the tower?

Is it necessary to have the capacitor in the rotator or can it be
mounted inside the control unit as with telex/hy-gain type
controllers?

73
Jan-Martin
LA8AK

4092. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 22:37:28 UTC
From: Bill Meacham <NOexray@coqui.net>
Message-ID: <3B463DA8.FE6B4A5@coqui.net>
Source record: 51689

Brian Short wrote:

> Some of us think Radio Shack is staffed by morons

> tales of how old licenses are better because the testing was done in
> front of FCC examiners and you had to scratch schematics into the
> parking lot using a fork.

Troll-o-meter rating

0 1 2 3 4 5 6 7 8 9
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|
|
o

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Bill Meacham
Vieques, PR

4093. Re: Aluminum panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 23:15:48 UTC
From: dharlan <dharlan@ameritech.net>
Message-ID: <3B4646A4.F21E07FE@ameritech.net>
Source record: 51690
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hey Bill,

Well seems to me in the good old days those black wrinkle
panels were steel. A real pain in the Arss. Black wrinkle paint
is available at most auto parts stores and the aluminum panels are
much easier to work with. Use krylon 1613 semi flat black for
back side of the panel and shoot the front with any spray can of
wrinkle.(they all seem to work equally bad)

A good hot day in direct afternoon sun will help insure
a good wrinkle on a flat panel when done in black. Case's boxes and
3 dimensional items will require all of the above and a heat gun
and or gas grill. No basis other than my own experience here but
I have noticed that wrinkle only wrinkles when applied to bare
metal. Use a chemical stripper to remove any other paint or primer,
if you have a hunk of bondo or filler in there just standby with
the heat gun for that spot. Heat it from the back and be prepared
to strip it off and do it again if ya need to.

My observations are based on present day materials, I know
most WWII stuff was primed with Zinc Chromate and all that, but all the
paint formulations have changed. Some changes good, some bad. I blame
the bad changes on the EPA and 68% of the population of California,
I credit the good changes to American engineering and intellect.

GL es 73's

Dan N8ETQ CLE

www.ameritech.net/users/dharlan/dans.htm

"William E. Sabin" wrote:
>
> Does anyone know where new *black* wrinkle finish 19 inch
> aluminum relay rack panels (just like the good old days) can be
> purchased?
>
> Bill W0IYH

4094. Re: Aluminum panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 23:27:30 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B464962.2A007ADA@mwci.net>
Source record: 51691
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

dharlan wrote:

> Hey Bill,
>
> Well seems to me in the good old days those black wrinkle
> panels were steel. A real pain in the Arss. Black wrinkle paint
> is available at most auto parts stores and the aluminum panels are
> much easier to work with. Use krylon 1613 semi flat black for
> back side of the panel and shoot the front with any spray can of
> wrinkle.(they all seem to work equally bad)
>
> A good hot day in direct afternoon sun will help insure
> a good wrinkle on a flat panel when done in black. Case's boxes and
> 3 dimensional items will require all of the above and a heat gun
> and or gas grill. No basis other than my own experience here but
> I have noticed that wrinkle only wrinkles when applied to bare
> metal. Use a chemical stripper to remove any other paint or primer,
> if you have a hunk of bondo or filler in there just standby with
> the heat gun for that spot. Heat it from the back and be prepared
> to strip it off and do it again if ya need to.
>
> My observations are based on present day materials, I know
> most WWII stuff was primed with Zinc Chromate and all that, but all the
> paint formulations have changed. Some changes good, some bad. I blame
> the bad changes on the EPA and 68% of the population of California,
> I credit the good changes to American engineering and intellect.
>
> GL es 73's
>
> Dan N8ETQ CLE
>
> www.ameritech.net/users/dharlan/dans.htm
>
> "William E. Sabin" wrote:
> >
> > Does anyone know where new *black* wrinkle finish 19 inch
> > aluminum relay rack panels (just like the good old days) can be
> > purchased?
> >
> > Bill W0IYH

Thanks Dan. I will try your suggestions.

Bill W0IYH

4095. new ham site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 23:42:59 UTC
From: mitbr <mitbr@earthlink.net>
Message-ID: <72s17.8773$oa1.880910@newsread1.prod.itd.earthlink.net>
Source record: 51692
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

I have launched a new IPHONE ham conference room page.This site has multiple conference rooms from around the world which you can talk to other hams over thier local repeater links. You must have java enabled and have the Vocaltec software on your puter for the conference rooms to work.You can get the software on the site . For those who are familiar with the system , this web page loads much faster than most others on the net and has all know conference rooms so you dont have to visit multiple sites.Click on the urls below to visit the site, you can also visit my Tampa Bay Radio Page.
Click this url to visit the iphone conference page;
http://home.earthlink.net/~mitbr/iphone.htm
73 & enjoy
Tim
KG4JJS
Please visit my Tampa Bay Radio Page
http://home.earthlink.net/~mitbr/Mi01000.htm

4096. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 23:48:08 UTC
From: la8ak@online.no
Message-ID: <3b4633c8.262095397@news.online.no>
Source record: 51693

On Thu, 05 Jul 2001 21:31:47 -0400, Rich Griffiths <richg@one.net>
wrote:

>There are a few sites on the internet that advertize special pulse
>chargers that are supposed to do what you've heard about.
>>
>> I heard of method to destroy sulphate on plates is modulating charging
>> current with frequency on which its crystal structure resonates. It was
>> designed as "unit" that you connect in series with battery and they
>> recommend constant use of such device to prevent crystals formation.
>>
it was mentioned in the second poster
http://www.shaka.com/~kalepa/desulf.htm
the article mentions about ressonace frequency

it was mentioned that P-type mosfets are not readily available, so the
circuit for the simple kit was changed, but still not shown in the
article

Jan-Martin
LA8AK

4097. Re: Aluminum panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-06 23:58:10 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tkck4jomlmm5b@corp.supernews.com>
Source record: 51694
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

A number of the pro-sound dealers have rack equipment available;
panels, screws, etc. Check with www.partsexpress.com They show
aluminum and steel panels in powder black (not crinkle).

4098. Re: coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 01:10:51 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B46618B.7A2F07F@att.net>
Source record: 51695

The little coil at the base of the HF9V and HF6V is there only to slightly improve the feedliine match on 80 meters. It does NOT tune the antenna on 75/80. It's inductance is highly non-critical. It is not tapped and the feedline connects directly to the base of the antenna right above the insulator between the base and the ground tubing.

Adding such a coil to a plain 40-meter vertical could be expected to have a major effect on its feedpoint impedance.

While it serves an additional purpose of bringing the base of the antenna to an earth ground connection, the same can be accomplished with the Butternut or any similar vertical antenna either with a simple 1 or 2 millihenry r-f choke or with a 10K resistor. None of these values are critical. And neither should affect tuning.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Troglodite wrote:
>
> >
> >I like the idea of that static ground. I have a 33-foot "flagpole
> >vertical" which I use for 40-meters and up; should I expect any
> >significant tuning change if I add a similar inductor to it?
> >
>
> I think the inductance to ground is actually part of the impedance matching.
> The feedline goes to a tap on that inductor does it not? This is the classic
> Gamma match. If you want lightning safety, you should have a lightning arrestor
> in the feedline, tied to a good ground. If you just want to bleed off the
> static, connect a 2.5Mh RFC from the feedpoint to ground. (There may already be
> one in your transceiver.)
>
> Note: My comments may be off base in regards to the coil because I am not
> familiar with the Butternut.
>
> KB9TMY (Formerly K6HWY)

4099. Re: Aluminum panels

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 04:49:06 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B4694C2.83B782EF@mwci.net>
Source record: 51696
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Bob Lewis (AA4PB) wrote:

> A number of the pro-sound dealers have rack equipment available;
> panels, screws, etc. Check with www.partsexpress.com They show
> aluminum and steel panels in powder black (not crinkle).

Thanks Bob,

Bill W0IYH

4100. Re: PCB edge connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 05:15:39 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9i65sr$pn3$1@neptunium.btinternet.com>
Source record: 51547
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew

> Morris Odell wrote:
> >
> > I want to make a plug in PCB with gold plated edge connection fingers.
Does
> > anyone know if this can be done on a homebrew on-off basis?

You might be better off cutting off the finger part of an old board,
attaching it to your home-made PCB
and wiring the contacts.

Leon

4101. NOT C56OHX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 07:21:48 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <IlaZPIAMirR7Ewoe@g3ohx.demon.co.uk>
Source record: 51548

Please be aware that I am NOT the QSL manager for C56OHX.
I am getting QSL cards with IRCs.
No, No, NO,,, It ain't me!
Where is this operation from, by the way?
73,
Ian.

4102. mast mounted preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 08:43:55 UTC
From: KB9YXM <kb9yxmNOSPAM@arrl.net>
Message-ID: <9i6i32$292$1@ousrvr3.oulu.fi>
Source record: 51549

I was hoping that someone could help me with plans for a preamplifier.
Actually I need 2 one for 6 meters and one for 2 meters. I am very good at
building but not very good at designing. If someone could point me inthe
direstion of some project schematics. I would appreciate it very much.
L. Julian White
oh8/KB9YXM

--

Julian White
Project Manager
JW IT-Consultants
Sepp&#65533;senkuja 5
Oulu 90800
Finland
gsm +358-45-675-3780
fax +358-45-685-3780
web http://www.indiespin.net

4103. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 13:04:48 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <tke285d7a41o3c@corp.supernews.com>
Source record: 51550

I've never viewed a troll-o-meter and am not familiar with the scale. Could someone please elaborate or do I qualify for a high (low?) rating by asking?
:)
Bob

"Bill Meacham" <NOexray@coqui.net> wrote in message news:3B463DA8.FE6B4A5@coqui.net...
> Brian Short wrote:
>
> > Some of us think Radio Shack is staffed by morons
>
> > tales of how old licenses are better because the testing was done in
> > front of FCC examiners and you had to scratch schematics into the
> > parking lot using a fork.
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>
> Troll-o-meter rating
>
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> o
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> --
>
> Bill Meacham
> Vieques, PR
>

4104. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 13:22:48 UTC
From: Bill M <group0701@billsnet.mailshell.com>
Message-ID: <3B470D28.F8254DF3@billsnet.mailshell.com>
Source record: 51551

TooManyTubes wrote:
>
> I've never viewed a troll-o-meter and am not familiar with the scale. Could
> someone please elaborate or do I qualify for a high (low?) rating by asking?
> :)
> Bob

You have to inject controversial opinions posted solely to start a flame
war to get a reading. You're down in the noise.
-Bill

4105. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 13:31:27 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B470F2F.23A1CFAE@nf.sympatico.ca>
Source record: 51552

Bill M wrote:

> You have to inject controversial opinions posted solely to start a flame
> war to get a reading. You're down in the noise.
> -Bill

ie. Q1, S2

4106. Re: coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 17:10:09 UTC
From: msix@plato.nmia.com
Message-ID: <RnH17.47390$AM.1206896@e420r-sjo3.usenetserver.com>
Source record: 51553

>Butternut or any similar vertical antenna either with a simple 1 or 2
>millihenry r-f choke or with a 10K resistor. None of these values are
>critical. And neither should affect tuning.
Yes, a DC path for static discharge can be any place on the feed line
for both verts and dipoles.
Probably easier to put it across the feed line in the shack...
73 John

4107. Re: mast mounted preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 17:18:37 UTC
From: kg4fet@aol.combadspam
Message-ID: <20010707131837.12393.00001198@ng-mr1.aol.com>
Source record: 51554

>I was hoping that someone could help me with plans for a preamplifier.
>Actually I need 2 one for 6 meters and one for 2 meters. I am very good at
>building but not very good at designing. If someone could point me inthe
>direstion of some project schematics. I would appreciate it very much.
>L. Julian White
>oh8/KB9YXM
>
>--
>
>
>
>
>Julian White
>Project Manager
>JW IT-Consultants
>Seppï¿½senkuja 5
>Oulu 90800
>Finland
>gsm +358-45-675-3780
>fax +358-45-685-3780
>web http://www.indiespin.net
>
>
>
>

Check the Tech Lists on www.6mt.com for circuit designs for preamps for both
bands.
73 de KG4FET Sandor

4108. Roofing filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 18:23:27 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B47539F.D0FF425@visi.com>
Source record: 51555

Hi gang,
I see many references to roofing filters in rx design, but can't find
a good definition of exactly what is meant by the term. Is it a form of
a low pass?

Tnx es 72

Bob WB0POQ

4109. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 18:57:03 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <afmektsvtck0dt498dpphgq4cc78fl870v@4ax.com>
Source record: 51556

On Fri, 06 Jul 2001 23:48:08 GMT, la8ak@online.no (J M Noeding)
wrote:

>it was mentioned that P-type mosfets are not readily available, so the
>circuit for the simple kit was changed, but still not shown in the
>article
>
>Jan-Martin
>LA8AK

The page does have a diagram of a circuit using an N-channel FET.
It is just not in the pdf for the original article. There is also a
design for 24V systems.

It sounds interesting. There are links to some commentary where
people seem to have had positive results, both in reconditioning
batteries that were dying and in keeping batteries in good shape for
long periods.

May be worth a try. I have no experience yet though.

-Rex, KK6MK

4110. Re: Roofing filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 20:42:47 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <UkIVkAAHR3R7EwMz@g3ohx.demon.co.uk>
Source record: 51560

In article <3B47539F.D0FF425@visi.com>, Bob Liesenfeld <wb0poq@visi.com>
writes
>Hi gang,
> I see many references to roofing filters in rx design, but can't find
>a good definition of exactly what is meant by the term. Is it a form of
>a low pass?
>
> Tnx es 72
>
>Bob WB0POQ

A roofing filter is generally fairly wide bandpass filter. Its purpose
is 'damage limitation'. For example, for the 40m band, you could have in
front of the receiver a filter which passed all of the band, but
rejected the strong broadcast stations outside the band.

You have a similar situation at I.F. There is often a fairly wide
bandpass circuit (L-C, ceramic, etc) before the highly-selective crystal
filter. It's a general 'cleaner-upper' filter.

I see no reason why an LPF should not also be considered as a roofing
filter.

Ian.

4111. Re: Roofing filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 20:58:23 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <PJK17.88494$2W4.13295972@news02.optonline.net>
Source record: 51558

Hi Bob,

On a typical 1980's HF radio you do up conversion to the first IF frequency . You have a low pass on the input to the first mixer and a bandpass on the output of the mixer. The first IF is generally in the 45 to 150 MHz range. After the bandpass you down convert to a more rational IF frequency to do the bulk of the filtering and signal processing.

In this scheme of signal processing the bandpass filter in the first IF is called a roofing filter.

Hope this helps.

Bob Camp
KB8TQ

4112. Re: Roofing filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 21:07:57 UTC
From: Bob Doyle <doyle@primenet.com>
Message-ID: <3B477A2D.397B481@primenet.com>
Source record: 51557

I'm not sure you'll find a definition that everyone will agree to...

I use the term 'roofing filter' to describe a filter that is
wider than the final ultimate bandwidth. For instance, one
might use a inexpensive roofing filter at the first IF frequency
and follow that up with an expensive mechanical filter at the
second IF freqency that is designed to the exact characteristics
of interest (i.e, SSB filter).

You might use a roofing filter to limit noise bandwidth,
attenuate large out-of-band signals, eliminate of spurious
responses etc.

I can imagine the term being applied to any type of filter -
be it bandpass, lowpass, or highpass.

Bob.

Bob Liesenfeld wrote:
>
> Hi gang,
> I see many references to roofing filters in rx design, but can't find
> a good definition of exactly what is meant by the term. Is it a form of
> a low pass?
>
> Tnx es 72
>
> Bob WB0POQ

4113. 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 21:25:16 UTC
From: Tor Tveitane <tor@bushsoft.com>
Message-ID: <9i7uts.ts.5@bushnet.h896f6a99.invalid>
Source record: 51559

Hi,

Where can I find drawings or even better: kits to build yagi antennas for
the wireless LAN 2.4 GHz band.

Thanks in advance for any info on this issue...

73 de

Tor

TZ6TOR

4114. Re: Tayloe Mixer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 22:08:02 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B478842.5E48DFCA@clifto.com>
Source record: 51561

Clifton T. Sharp Jr. wrote:
> He also says that "If you have a single complex number, represented by a
> point on the complex plane, multiplying that number by j OR [exp(j*pi/2)]
> will result in a new complex number that's rotated 90 degrees counterclockwise
> on the complex plane." Now, *that* is quadrature, the way I learned it.
> But the two expressions [exp(j*2*pi*Fo*t)] and [exp(-j*2*pi*Fo*t)] that
> he calls quadrature do NOT differ by a factor of j, but by j^2.

Oops. I knew I should come back and look at this. That's silly. But they
still aren't one multiplied by j (or exp(j*pi/2)) to give the other, so
it seems safe to say they aren't a constant 90 degrees different in phase.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

4115. Re: mast mounted preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 22:15:10 UTC
From: KB9YXM <kb9yxmNOSPAM@arrl.net>
Message-ID: <9i81k7$q12$1@ousrvr3.oulu.fi>
Source record: 51562

Thank you
kb9yxm

4116. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 22:23:06 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <q7rqTAAKv4R7Ew7K@g3ohx.demon.co.uk>
Source record: 51563

In article <3B470D28.F8254DF3@billsnet.mailshell.com>, Bill M <group0701
@billsnet.mailshell.com> writes
>TooManyTubes wrote:
>>
>> I've never viewed a troll-o-meter and am not familiar with the scale. Could
>> someone please elaborate or do I qualify for a high (low?) rating by asking?
>> :)
>> Bob
>
>You have to inject controversial opinions posted solely to start a flame
>war to get a reading. You're down in the noise.
>-Bill
>

Bill..

Where can I get one of those nifty troll-o-meters? At the moment, I
can't distinguish between genuine postings and trollings.

I wonder if Radio Shack (it's Tandy in the UK, isn't it?) sell them. I
suppose I could actually go in and ask them, but I don't want to make a
fool of myself in front of the experts. It's a question of how you
pronounce it... 'Troll - OH - meter' or 'Troll - omm - etter'.

Why is life so difficult?

Ian.

4117. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-07 23:38:04 UTC
From: Bill M <group0701@billsnet.mailshell.com>
Message-ID: <3B479D5C.AD2E0295@billsnet.mailshell.com>
Source record: 51564

Tor Tveitane wrote:
>
> Hi,
>
> Where can I find drawings or even better: kits to build yagi antennas for
> the wireless LAN 2.4 GHz band.
>
> Thanks in advance for any info on this issue...
>
> 73 de
>
> Tor
>
> TZ6TOR

Check some of the MMDS television antennas. They are around 2.1-2.2
GHz.
--
Bill M
Vieques, PR

4118. Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 01:40:21 UTC
From: Dave <g3vfp@btinternet.com>
Message-ID: <9i8dm8$64o$1@uranium.btinternet.com>
Source record: 51566
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Please read the comments on this site which discusses the online internet aspects of using XP.

http://grc.com/dos/intro.htm

Best Regards,

Dave

4119. Re: Radio Shack FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 01:46:18 UTC
From: Bill M <group0701@billsnet.mailshell.com>
Message-ID: <3B47BB6A.4BD825A1@billsnet.mailshell.com>
Source record: 51565

Ian Jackson wrote:

> Bill..
>
> Where can I get one of those nifty troll-o-meters? At the moment, I
> can't distinguish between genuine postings and trollings.
>
> I wonder if Radio Shack (it's Tandy in the UK, isn't it?) sell them. I
> suppose I could actually go in and ask them, but I don't want to make a
> fool of myself in front of the experts. It's a question of how you
> pronounce it... 'Troll - OH - meter' or 'Troll - omm - etter'.

You can copy that one and save it for future posts...like maybe when a
postal employee uses the radio.boatanchor group for venting that he
doesn't get any respect.
>
> Why is life so difficult?

Life is tougher for some than others.
--
Bill M
Vieques, PR

4120. Review of the Elecraft K1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 08:51:58 UTC
From: g3cwi@tesco.net
Message-ID: <b8480e86.0107080051.7aa80ff2@posting.google.com>
Source record: 51567

At www.qsl.net/g3cwi

Enjoy!

Richard
G3CWI

4121. 2M transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 10:16:33 UTC
From: Mike Williams <mikerw@btinternet.com>
Message-ID: <B76DE380.E161%mikerw@btinternet.com>
Source record: 51568

Hi all

Does anyone know of a homebrew transverter cct for 2m (To ,say, 10m)

Many thanks

Mike

4122. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 12:50:59 UTC
From: Stagger Lee <SLee@houston-hunks.com>
Message-ID: <3B485733.6D8785B4@houston-hunks.com>
Source record: 51569
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Dave wrote:
>
> Please read the comments on this site which discusses the online internet
> aspects of using XP.

As far as I'm concerned, the owner of the web site is a modern Chicken Little, running around shouting that "the sky is falling."

What has really happened is that Windows XP's TCP stack has been brought into congruence with most versions of Unix, with OS X, and even with some versions of MacOS: The user can fill in the fields of IP packets before they are transmitted. Yes, that allows "spoofing", but it has always been possible for most other OSes. The web site mumbles something about DOS or DDOS attacks, but the perps of DDOS attacks don't care about spoofing anyway since they're not using their own machines. So what if the packets get traced? Spoofers have plenty more compromised "zombie" Windows machines where those came from, and getting the owner of a zombie in trouble seems like icing on the cake.

The problem isn't Windows XP -- it's Windows in general. Badly configured "out of the box", Windows 95/98 machines are easily taken over and turned into zombies by means of several well-known security holes. If you go to to http://www.sdesign.com/securitytest with your Windows or Linux or Mac box and pass their checks, you will be among a tiny minority of users who can do so. In fact, that's what you ought to be doing first -- not worrying about Windows XP!

4123. Re: coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 16:24:50 UTC
From: Woody <woody.white@att.net>
Message-ID: <3B488A58.58C96C5A@att.net>
Source record: 51570

For static discharge, shunt the antenna base to ground with a (low
noise) high value resistor. The 50 ohm system will never notice a
shunt 10K at the antenna.
73, Woody

Myron A Calhoun wrote:
>
> The Butternut HF-6V has a coil/inductor at the base (coil Q) which
> apparently serves to tune the antenna for 80/75 meters AND to provide
> a DC ground.
>
> I like the idea of that static ground. I <SNIP>
--
Woody, WB4QXE
For Ham Radio homebrewing and
Scanning Electron Microscope Images,
visit: http://woody.white.home.att.net

4124. Re: coil to ground at base of quarter-wave vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 16:53:21 UTC
From: k9sqg@aol.com
Message-ID: <20010708125321.17579.00003102@ng-bh1.aol.com>
Source record: 51571

Didn't see the original posting but thought I'd offer two comments. Some hams put an rf choke from the base to ground. Others use a coil to ground as part of the impedance matching.

73s,

Evan

4125. Re: 2M transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 17:14:27 UTC
From: Tom <ki0pa@yahoo.com>
Message-ID: <Tx027.164735$%i7.108471661@news1.rdc1.sfba.home.com>
Source record: 51572

Check with ten-tec. They make transverters. Built and in kit form.

Tom

> Does anyone know of a homebrew transverter cct for 2m (To ,say, 10m)
>
> Many thanks
>
> Mike
>

4126. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 17:56:53 UTC
From: Happy Mark <happy_markNo-SPaM@hotmail.com>
Message-ID: <F9127.143848$XL1.2939579@nlnews00.chello.com>
Source record: 51579
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Stop stupid crossposting....

Stagger Lee <SLee@houston-hunks.com> schreef in berichtnieuws
3B485733.6D8785B4@houston-hunks.com...
> Dave wrote:
> >
> > Please read the comments on this site which discusses the online
internet
> > aspects of using XP.
>
> As far as I'm concerned, the owner of the web site is a modern Chicken
> Little, running around shouting that "the sky is falling."
>
> What has really happened is that Windows XP's TCP stack has been brought
> into congruence with most versions of Unix, with OS X, and even with
> some versions of MacOS: The user can fill in the fields of IP packets
> before they are transmitted. Yes, that allows "spoofing", but it has
> always been possible for most other OSes. The web site mumbles
> something about DOS or DDOS attacks, but the perps of DDOS attacks don't
> care about spoofing anyway since they're not using their own machines.
> So what if the packets get traced? Spoofers have plenty more
> compromised "zombie" Windows machines where those came from, and getting
> the owner of a zombie in trouble seems like icing on the cake.
>
> The problem isn't Windows XP -- it's Windows in general. Badly
> configured "out of the box", Windows 95/98 machines are easily taken
> over and turned into zombies by means of several well-known security
> holes. If you go to to http://www.sdesign.com/securitytest with your
> Windows or Linux or Mac box and pass their checks, you will be among a
> tiny minority of users who can do so. In fact, that's what you ought to
> be doing first -- not worrying about Windows XP!
>

4127. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 19:43:20 UTC
From: W6DKN <w6dkn@qsl.net>
Message-ID: <994621402.873507@ns1.gct21.net>
Source record: 51573
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Dave" <g3vfp@btinternet.com> wrote in message
news:9i8dm8$64o$1@uranium.btinternet.com...
> Please read the comments on this site which discusses the online internet
> aspects of using XP.
>
> http://grc.com/dos/intro.htm
>
> Best Regards,
>
> Dave
>
>

It's no big deal - any decent firewall will protect an internet client machine from being affected - and if you run an internet web server you can easily protect your server, but there is not a lot you can do to prevent a "denial of service" attack to your ISP connection.

In order to exploit the XP raw socket issue - or conduct any type of malicious activity - a hacker has to be able to obtain access to your machine first.

The only ones who will be affected by the TCPIP protocol layer in XP will be the "computer illiterate", and these types will be open to cyber attack regardless of which OS they run - most of them already allow easy NetBios access to their machines from the web and they don't even know it...

73 de W6DKN

4128. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 19:52:01 UTC
From: cerberus@not-me.gov
Message-ID: <3b48b8c2.2307558@news.btinternet.com>
Source record: 51574
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

On Sun, 08 Jul 2001 07:50:59 -0500, Stagger Lee
<SLee@houston-hunks.com> wrote:

>Dave wrote:

>As far as I'm concerned, the owner of the web site is a modern Chicken
>Little, running around shouting that "the sky is falling."

You mean it's NOT?

But it's getting so dark and it's only mid-afternoon.....
Oh Sorry! I just remembered..... This is Scotland.

SB

4129. PCB Vendor comments?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 21:02:56 UTC
From: Andy Brinkley <andy@brinkleyelectronics.com>
Message-ID: <3B48CA49.1008E500@brinkleyelectronics.com>
Source record: 51575

Hello All -

I'm looking for suggestions for potential vendors for a small double sided printed circuit board (approximately 1" x 2") with 40 holes. Initial order quantity would be 100, with potential of future orders.

Anybody have good experiences or bad ones?

Please e-mail me direct.

Thanks

Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

--
Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

4130. Re: PCB Vendor comments?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-08 22:03:48 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tkhm6d9g9fvl6a@corp.supernews.com>
Source record: 51576

I've had good luck with Express PCB, http://www.expresspcb.com/ Good quality board, quick service.

4131. FSM design for 2m -> 70 cm ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 00:00:25 UTC
From: Steve <stephen.wilson@cmr.uq.edu.au>
Message-ID: <3B48F419.8B698327@cmr.uq.edu.au>
Source record: 51577

Dear All,

Can anyone point me to designs for a simple field strength meter for use
in the above bands?

Cheers,

Steve
s.wilson@cmr.uq.edu.au

4132. Re: 2M transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 00:55:03 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B4900E7.EC91E358@bloomer.net>
Source record: 51578

Hamtronics sell very nice kits as well...http://www.hamtronics.com/

Scott
N0EDV

Mike Williams wrote:
>
> Hi all
>
> Does anyone know of a homebrew transverter cct for 2m (To ,say, 10m)
>
> Many thanks
>
> Mike

4133. AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 01:27:34 UTC
From: bluchunks@aol.com
Message-ID: <20010708212734.03509.00004738@ng-fi1.aol.com>
Source record: 51580

I want to build an AM rig. I have a couple of mod transformers which are rated in the 100 watt range. They are multi-impedance type transformers. I was planning on using a pair of 811's as modulators but I don't know what sort of tube(s) I can use in the PA stage. Any recommendations? Thanks

4134. Wanted - pair of IRFD1Z0 N channel MOSFETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 01:56:15 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <3b827.14522$PF2.3141681@news1.rdc1.md.home.com>
Source record: 51581

Hi All!

I'm hunting for a pair of IRFD1Z0 N channel MOSFETs. I'm trying to follow the Electric Radio Mods for the Heath Mohawk. Anybody got one or two? Price paid - no haggling.

73
Bob - N0DGN
Manassas Radio - Home of Homemade Kielbasa & Pirogi

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.264 / Virus Database: 136 - Release Date: 7/4/01

4135. Re: FSM design for 2m -> 70 cm ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 02:18:00 UTC
From: Bill M <group0701@billsnet.mailshell.com>
Message-ID: <3B491458.F7149225@billsnet.mailshell.com>
Source record: 51582

Steve wrote:
>
> Dear All,
>
> Can anyone point me to designs for a simple field strength meter for use
> in the above bands?
>
> Cheers,
>
> Steve
> s.wilson@cmr.uq.edu.au

Unless you just want to build one, something like an old CATV FSM can be had for dirt cheap....And you get accuracy within a few db! Here's an example...
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1252722646
--
Bill M
Vieques, PR

4136. Re: amp help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 02:37:25 UTC
From: leonard bailey <lb5565_@hotmail.com>
Message-ID: <FN827.148136$C7.22119089@typhoon.kc.rr.com>
Source record: 51583

exportradios.com
"glen" <gweir4@home.com> wrote in message news:3B3907B9.80A21283@home.com...
> hello does anybody know a good website that i can order an amp for my
> cb.
> Thankyou very much
>

4137. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 03:08:34 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <ka7ikt4ss5sjt7t34gifkiigqe90p48374@4ax.com>
Source record: 51584

On 09 Jul 2001 01:27:34 GMT, bluchunks@aol.com (BluChunks) wrote:

>I want to build an AM rig. I have a couple of mod transformers which are rated
>in the 100 watt range. They are multi-impedance type transformers. I was
>planning on using a pair of 811's as modulators but I don't know what sort of
>tube(s) I can use in the PA stage. Any recommendations? Thanks

---

Can't hardly go wrong with 6146's. They come in several
varieties (-A, -B, etc) but the differences are minor and all
will work well. Find an ARRL handbook from the '50s or '60s and
you'll have lots of useful AM information. If you can't find one
at your library, eBay usually has several. You can find 6146's
there too.

Have fun.

73, Bill W7TI

4138. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 03:31:42 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <aN927.23090$rh.432395@news6.giganews.com>
Source record: 51585

With all the power you can get from a pair of 811A modulators it might be interesting to build a more powerful RF stage, such as a pair of 813s or at least one of them. That was a popular combination back in the early 1950s.

73, Bob K6DDX

4139. Re: Homebrew Spec Analyzer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 03:54:30 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <WV927.10295$Fy3.912008@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51586

Bob Werth, down in St. Louis, Mo. had several 70MHz SAW filters on hand; you might want to contact him.

Pete Gianakopoulos KE9OA

Peter J. Bertini <commquart@home.com> wrote in message news:kCF07.135757$v5.10220825@news1.rdc1.ct.home.com...
> The 70 MHz is just about where you would want it.
>
> I'd use a simple bandpass filter, followed by an inexpensive
> DBM to bring the IF down to the 10.7 MHz range where you
> could use cheap ceramic and LC filters to set the bandwidth.
>
> Do you know the LO range, and whether if it is high or low side
> injection? You will have to do some modification of the tuner's
> frontend, and perhaps the VCO, to get HF/VHF coverage.
>
> Pete
>
> "Brian" <bclark207nospam'n@home.com> wrote in message
> news:gr36ktoin2q3ljlf3210plcj0sgl8a1c73@4ax.com...
> > I was given a older (circa '92) satellite receiver (working when last
> > used) that has a 950-1450Mhz varactor tuner in it. Questions:
> >
> > Given the variety of homebrew spectrum analyzers using CATV and UHF
> > varactor tuners, is it possible this 950-1450 Mhz tuner has some
> > promise?
> >
> > Would it be terribly difficult to use the 70Mhz IF output in such a
> > design without special support chips?
> >
> > Thanks in advance.
> >
> > Brian
>
>

4140. Re: "decoupling" in af circuits??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 04:05:39 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <n4a27.10303$Fy3.914780@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51587

Decoupling networks can either be RC or LC networks. It will take the form of a low-pass filter; it will either be a series L shunt C or a series R shunt C. The corner frequency will be determined by the time constant of the RC or LC circuit. If a low value of R is used, a relatively large capacitance will be used, in order to have a low enough corner frequency. In high frequency circuits, there will be a large value cap, in parallel with a small value cap, in order to have good high frequency characteristics. As the other folks stated, the purpose of the decoupling network is to decouple, or disconnect the output of a stage from the power supply rail. The way it does it is in this way: Let's say that you have a transistor amplifier stage. Rc might need to be 4.7K. What you would do is put a 100 Ohm resistor in series with the 4.7K resistor that connects to the supply rail. At the junction of these two resistors, you would connect a bypass capacitor to ground. This does not affect the operation of the device, because the device output is 4.7K away from AC ground. It does, however, prevent the output of the device from modulating the power supply rail.

Pete Gianakopoulos KE9OA

John Miles <jmiles@pop.removethistomailme.net> wrote in message news:3B3FBE75.775E@pop.removethistomailme.net...
> Matt Erickson wrote:
> >
> > Must of the time "de-coupling" components in AF circuits are used to "Block"
> > DC current from entering a given stage of the circuit.
> > Many times the parts is a capacitor, which "blocks" DC current.
>
> Nope, that's a coupling capacitor, not a decoupling one.
>
> -- jm
>
> ----------
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> ----------

4141. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 04:07:58 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B492E0D.AAEF5BA7@att.net>
Source record: 51588

From my AM days in the 40's, a pair of 811's to modulate a couple of 6146's
is pretty severe overkill. We used 811's to modulate 812's running up to
500 watts plate input. That was the basic tube set designed by RCA for
medium-power AM rigs in those days.

Why not consider another pair of 6146's for modulator tubes? Even
triode-connected they should be more than adequate.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Bill Turner wrote:
>
> On 09 Jul 2001 01:27:34 GMT, bluchunks@aol.com (BluChunks) wrote:
>
> >I want to build an AM rig. I have a couple of mod transformers which are rated
> >in the 100 watt range. They are multi-impedance type transformers. I was
> >planning on using a pair of 811's as modulators but I don't know what sort of
> >tube(s) I can use in the PA stage. Any recommendations? Thanks
>
> ____
>
> Can't hardly go wrong with 6146's. They come in several
> varieties (-A, -B, etc) but the differences are minor and all
> will work well. Find an ARRL handbook from the '50s or '60s and
> you'll have lots of useful AM information. If you can't find one
> at your library, eBay usually has several. You can find 6146's
> there too.
>
> Have fun.
>
> 73, Bill W7TI

4142. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 04:15:33 UTC
From: "Gary Tait, Very Real" <tait@primeline.net>
Message-ID: <3B492FE4.EA98572E@primeline.net>
Source record: 51589

Tor Tveitane wrote:
>
> Hi,
>
> Where can I find drawings or even better: kits to build yagi antennas for
> the wireless LAN 2.4 GHz band.
>
> Thanks in advance for any info on this issue...
>
> 73 de
>
> Tor
>
> TZ6TOR

Try a helical beam http://users.bigpond.net.au/jhecker/

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4143. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 14:18:55 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <mmejkt8k6mom5i66glh07qh2kqbibjgvj6@4ax.com>
Source record: 51590

On Mon, 09 Jul 2001 04:07:58 GMT, "George, W5YR" <w5yr@att.net>
wrote:

>From my AM days in the 40's, a pair of 811's to modulate a couple of 6146's
>is pretty severe overkill. We used 811's to modulate 812's running up to
>500 watts plate input. That was the basic tube set designed by RCA for
>medium-power AM rigs in those days.

True, 811's are overkill, but if BluChunks wants to go real
cheap, they could be used in parallel class A Heising modulation.
Remember that? No modulation transformer, only a choke. I used
Heising modulation on several rigs I built back in the '50s and
it worked great. Of course, if you already have a modulation
transformer, that's a more efficient way to go.

73, Bill W7TI

4144. Need Schemaic - Old RCA Signal Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 14:27:02 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <9ices6$k51$1@news.hal-pc.org>
Source record: 51591

Looking for the schematic (and manual) for an old
RCA Institute Signal Generator (Kit). It has one
12AZ7 tube... Don't know the exact vintage...
I suspect it's from about 1960-65??
Please email replies direct --> jhardin@hal-pc.org
Jack, W5EB

4145. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 15:24:14 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B49CC9E.88E816E1@midwestmicro-tek.com>
Source record: 51592

Hi Bill,

I am presently looking into building an AM rig myself but have been unable to find a suitable modulation transformer. Where can I find more information on the Heising modulation?

Thanks

Rick KC0GIX

Bill Turner wrote:

> On Mon, 09 Jul 2001 04:07:58 GMT, "George, W5YR" <w5yr@att.net>
> wrote:
>
> >From my AM days in the 40's, a pair of 811's to modulate a couple of 6146's
> >is pretty severe overkill. We used 811's to modulate 812's running up to
> >500 watts plate input. That was the basic tube set designed by RCA for
> >medium-power AM rigs in those days.
>
> _____
>
> True, 811's are overkill, but if BluChunks wants to go real
> cheap, they could be used in parallel class A Heising modulation.
> Remember that? No modulation transformer, only a choke. I used
> Heising modulation on several rigs I built back in the '50s and
> it worked great. Of course, if you already have a modulation
> transformer, that's a more efficient way to go.
>
> 73, Bill W7TI

4146. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 16:20:46 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9icn6t$1b14$1@madmax.keyway.net>
Source record: 51593
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Then that is the real concern. That so many
computer newbies are eazy zombies.

One would tend to think that it would be absurd to spend
so much time fooling around with such things when they
could spend less time making a million dollars honestly.
But there really are people out there with lots of time
on their hands (and doting mommies) that think it would be
real "kewl" to crash a plane, or blow up a building, or deny
service to thousands by tying up systems.

If you threw them all in prison and give them playstations,
they would probably be very happy.

"W6DKN" <w6dkn@qsl.net> wrote in message
news:994621402.873507@ns1.gct21.net...
: "Dave" <g3vfp@btinternet.com> wrote in message
: news:9i8dm8$64o$1@uranium.btinternet.com...
: > Please read the comments on this site which discusses the online
internet
: > aspects of using XP.
: >
: > http://grc.com/dos/intro.htm
: >
: > Best Regards,
: >
: > Dave
: >
: >
:
: It's no big deal - any decent firewall will protect an internet
client
: machine from being affected - and if you run an internet web server
you can
: easily protect your server, but there is not a lot you can do to
prevent a
: "denial of service" attack to your ISP connection.
:
: In order to exploit the XP raw socket issue - or conduct any type
of
: malicious activity - a hacker has to be able to obtain access to
your
: machine first.

:
: The only ones who will be affected by the TCPIP protocol layer in
XP will
: be the "computer illiterate", and these types will be open to cyber
attack
: regardless of which OS they run - most of them already allow easy
NetBios
: access to their machines from the web and they don't even know
it...
:
: 73 de W6DKN
:
:

4147. short pulses made of radio waves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 17:45:34 UTC
From: Kurt Stocklmeir <kurtstocklmeir@worldnet.att.net>
Message-ID: <01c1089a$86a30160$6c3c4f0c@oemcomputer>
Source record: 51594

Are there any simple methods of creating short pulses of radio waves.

Are there any simple methods of picking a middle frequency for a short pulse since it is probably true the pulse will be made up of many frequencies.

A wave is made up of many frequencies. I may want to decrease the amplitude a little of some frequencies (I know some filters will destroy the whole frequency but I am talking about just decreasing the energy of a frequency a little). Are there any simple methods for this.

A pulse generator creates a short pulse with a middle frequency. The pulse is made up of many frequencies. I am having some trouble seeing what happens. I see a lot of short pulses going through a wire. I guess they change direction after a certain amount of time??? A whole bunch of short pulses go in 1 direction and after a certain amount of time they go in the opposite direction??? I think the pulses change direction a certain number of times each second??? But each frequency that makes up a pulse is changing direction a certain number of times??? I guess there is destructive interference for all the frequencies between the pulses???

Are there any good mail catalogs for parts associated with electric circuits.

Thank you for any answers.

4148. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 17:58:23 UTC
From: esj@harvee.billerica.ma.us
Message-ID: <u4rsmyog0.fsf@harvee.billerica.ma.us>
Source record: 51595

"Tor Tveitane" <tor@bushsoft.com> writes:

> Hi,
>
> Where can I find drawings or even better: kits to build yagi antennas for
> the wireless LAN 2.4 GHz band.

http://www.seattlewireless.net/index.cgi/BuildingYagiAntennas

--- eric

4149. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 18:05:32 UTC
From: Dave <auinaduyf@email.com>
Message-ID: <9icrq4$i0cpu$1@ID-49477.news.dfncis.de>
Source record: 51596

What all you guys have missed is the bleedin'obvious! What are the impedances on this mod transformer? When you know the answer to that, you can suggest appropriate tubes!

> I am presently looking into building an AM rig myself but have been unable to
> find a suitable modulation transformer. Where can I find more information on the
> Heising modulation?

> ARRL handbook circa 60's

4150. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 18:32:12 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <cftjkt0uda7kmlf42et7ndtl8t50okq8j5@4ax.com>
Source record: 51597

On Mon, 09 Jul 2001 10:24:14 -0500, Rick Haub
<rhaub@midwestmicro-tek.com> wrote:

>Hi Bill,
>
>I am presently looking into building an AM rig myself but have been unable to
>find a suitable modulation transformer. Where can I find more information on the
>Heising modulation?
>
>Thanks
>
>Rick KC0GIX

Old ARRL handbooks cover it. All you do is take the B+ line from
the PA which would normally go to the power supply and run it
through a conventional choke (not a "swinging" choke) of about
5-10 henrys. You then connect a class A amplifier of suitable
power output (1/2 the DC input to the PA) so its current also
flows through the choke. That's it. Simple and effective. The
only drawback is the modulator tube or tubes have to run class A,
which is only about 30% efficient compared to push-pull class AB
or B which is about 60%. Class A also has the drawback of
drawing power all the time, not just when you are speaking. For
rigs up to 100 watts or so, the loss of efficiency is not a great
concern. For a KW rig, well, let's just say your shack would
stay nice and warm. :-)

73, Bill W7TI

4151. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 19:11:09 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B4A01CD.859274B5@midwestmicro-tek.com>
Source record: 51598

Thanks Bill!

This should work for me since I'm only looking a QRP applications right now.

Rick KC0GIX

Bill Turner wrote:

> On Mon, 09 Jul 2001 10:24:14 -0500, Rick Haub
> <rhaub@midwestmicro-tek.com> wrote:
>
> >Hi Bill,
> >
> >I am presently looking into building an AM rig myself but have been unable to
> >find a suitable modulation transformer. Where can I find more information on the
> >Heising modulation?
> >
> >Thanks
> >
> >Rick KC0GIX
>
> ----------
>
> Old ARRL handbooks cover it. All you do is take the B+ line from
> the PA which would normally go to the power supply and run it
> through a conventional choke (not a "swinging" choke) of about
> 5-10 henrys. You then connect a class A amplifier of suitable
> power output (1/2 the DC input to the PA) so its current also
> flows through the choke. That's it. Simple and effective. The
> only drawback is the modulator tube or tubes have to run class A,
> which is only about 30% efficient compared to push-pull class AB
> or B which is about 60%. Class A also has the drawback of
> drawing power all the time, not just when you are speaking. For
> rigs up to 100 watts or so, the loss of efficiency is not a great
> concern. For a KW rig, well, let's just say your shack would
> stay nice and warm. :-)
>
> 73, Bill W7TI

4152. Re: Re Microsofts XP System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 20:19:22 UTC
From: "\\\\JT\\\\"
Message-ID: <3B4A11CA.A43D03B1@soestdijk.nl>
Source record: 51599
Cross-posted to: aus.radio.amateur.misc,es.rec.radio.amateur,fr.rec.radio.amateur,nl.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Happy Mark wrote:
>
> Stop stupid crossposting....

pot, ketel....

--
\\JT\\

4153. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 21:20:48 UTC
From: joebramblett@drunkenbard.com
Message-ID: <446E7A4A7AEE725B.3845869BF2B7508D.F55B550E6799ADEE@lp.airnews.net>
Source record: 51600
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

On Mon, 25 Jun 2001 20:27:06 GMT, Ian Upright <ian-news@upright.net>
wrote:

>If they were separated to be on
>two different frequencies, I don't think this is ideal. It would add to the
>size, add to the expense, and also add to the needed rescue equipment, as
>well as an antenna would be more optimial in one situation or the other.

Uhh...I'm not talking about putting one on 160m and the other on
2.1GHz. I'm talking about a few MHz spread, at most. Definitely both
within the range of a single rubberized whip. I can get a 2m HT
smaller than my cigarette pack that will handle a lot more than two
frequencies. At the power levels we're discussing, they wouldn't need
to be more than a few kHz apart, but even with the idea of a CAP
frequency and a MURS frequency, you're not talking wildly different
from a hardware standpoint.

>Since the small clubs & such would have no 121.5 finding equipment or
>recivers, they would have to buy that in addition, and possibly have to get
>familiarized and trained at using two different devices for DF'ing, in
>different situations, and different equipment, with different antenna
>lengths, etc.

Rat Shack PRO-Whatever scanner. Mine was $70, and a simple TDOA setup
makes it pretty easy to DF anything it will receive. Remember, the
beacons can't hear, so you don't need to talk to them. 6m, 2m, 440,
MURS, airband, marine VHF, and a lot more falls within the limits of a
really basic scanner.

Joe Bramblett, KD5NRH
joebramblett@drunkenbard.com
http://www.drunkenbard.com

4154. Re: cheap waterproof emergency transmitters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 21:22:25 UTC
From: joebramblett@drunkenbard.com
Message-ID: <571CA93452C924AC.99F6A1A5F1EAA301.D558AA8EA410E81A@lp.airnews.net>
Source record: 51601
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

On Mon, 25 Jun 2001 20:34:16 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>All modern garage door openers are digitally encoded.
>The chances of randomly opening garage doors accidently
>with an unmodulated carrier are very unlikely. Imagine the
>product liability claims if doors could be tripped to close on
>kids or cars without warning--due to a stray signal?

Makes it easier to find the house when you're drunk, too. Just keep
pushing the button until something lights up and opens.

;)

Joe Bramblett, KD5NRH
joebramblett@drunkenbard.com
http://www.drunkenbard.com

4155. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 21:27:46 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <e78kkt8trkhl9f1o1abs0t990ta8r9i1np@4ax.com>
Source record: 51602

On Mon, 09 Jul 2001 14:11:09 -0500, Rick Haub
<rhaub@midwestmicro-tek.com> wrote:

>Thanks Bill!
>
>This should work for me since I'm only looking a QRP applications right now.
>
>Rick KC0GIX

I should also mention - don't forget when you're modulating
tetrodes such as 6146's, the screen must be modulated too.
Simply take the screen dropping resistor which would normally go
to B+ and tie it to the "top" of the Heising choke. No other
connections necessary. Also, don't use an overly large screen
bypass capacitor or the modulating effect will be lost. A .01
mfd is about the max you should use.

This is true regardless of whether you're using Heising or
conventional plate modulation.

73, Bill W7TI

4156. Re: short pulses made of radio waves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 23:02:32 UTC
From: la8ak@online.no
Message-ID: <3b4a3118.19583176@news.online.no>
Source record: 51603

On Mon, 09 Jul 2001 17:45:34 GMT, "Kurt Stocklmeir"
<kurtstocklmeir@worldnet.att.net> wrote:

>Are there any simple methods of creating short pulses of radio waves.
>
one German suggestion is to use a NAND gate, split the signal into to
parts where one goes direct to the NABD gate, and the second through a
number of gates as noninverter to the other input, it will create a
negative going spike where the length depends on transmission delays
in the noninverting gates

this works fb for harmonic generator (xtal calibrator) and electric
noise simulator

LA8AK

4157. Re: PCB Vendor comments?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-09 23:46:15 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <enr27.160$uD5.66046@news1.iquest.net>
Source record: 51604

Might try Far Circuits. Whatcha building?

http://www.cl.ais.net/farcir/

Pretty reasonable. Been around forever.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

"Andy Brinkley" <andy@brinkleyelectronics.com> wrote in message
news:3B48CA49.1008E500@brinkleyelectronics.com...
> Hello All -
>
> I'm looking for suggestions for potential vendors for a small double
> sided printed circuit board (approximately 1" x 2") with 40
> holes. Initial order quantity would be 100, with potential of future
> orders.
>
> Anybody have good experiences or bad ones?
>
> Please e-mail me direct.
>
> Thanks
>
> Andy
>
> ----------
> NC Certified Firefighter III / Instructor II / EMT-A
> FCC Licensed Technician / Amateur Call NC4AB
> http://www.brinkleyelectronics.com
>
>
> --
> Andy
>
> ----------
> NC Certified Firefighter III / Instructor II / EMT-A
> FCC Licensed Technician / Amateur Call NC4AB
> http://www.brinkleyelectronics.com

>
>

4158. BNC's and PN2222's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-10 00:04:20 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <bEr27.161$uD5.66421@news1.iquest.net>
Source record: 51605
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Hi there,

Me again.

I still have some parts left.

Rohm PN2222A's in TO92 case.

50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

Also

Chassis/Panel Mount BNC connectors with washers and lock nut.

25 for $12.40
50 for $21.00
100 for $36.00
500 for $138.00

All prices include shipping to anywhere in the USA. I will ship to foreign addresses but please check with me first so I can get you the proper shipping fees. Qty's of 25/50/100 are shipped in padded, reinforced, envelopes. Qty 500 is shipped in a small cardboard shipping carton.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

4159. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-10 13:22:07 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B4B017F.199D6D0@buttery.org>
Source record: 51606

francine wrote:
>
> Tor Tveitane <tor@bushsoft.com> wrote:
>
> > Where can I find drawings or even better: kits to build yagi antennas for
> > the wireless LAN 2.4 GHz band.
>
> Why would you want a yagi for LAN?
> An omni directional would be better for this purpose, I think.
> There is a webpage about this on:
> http://homepages.wwc.edu/student/kyleti/discone.html

It all depends on what your goals are. If your system is a point-to-multipoint setup (in other words, one access point serving multiple end nodes), directional antennas at the end nodes can be quite appropriate, and extend the range of the wireless LAN significantly. And, obviously, point-to-point links can use directional antennas at both ends.

Many types of antennas, including Yagis, are commercially available for the 2.4 GHz band. They tend to be expensive by ham standards, however. Popular antenna types include omnidirectional fiberglass-covered poles, directional plate-type antennas, and sectorized antennas (corner reflector designs with adjustable wings so the beamwidth can be adjusted); all of these work well for their intended purposes.

My former employer, Broadband2Wireless (a wireless network company, now gone) tested a commercial Yagi for 2.4 GHz, and were not impressed with its performance. It worked well in dry weather, but rain and snow detuned it badly. It might have been suitable for the southwest US, but was a bad choice for Boston.

4160. Where to find microwave advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-10 19:10:12 UTC
From: Scott Kelley <scottk@skelleyco.com>
Message-ID: <3b4b5332@news.zzz.com>
Source record: 51607

Is there a newsgroup where I would find microwave expertise?

Looking for information concerning the mating of a conical horn to
rectangular WR-42 waveguide.

Thanks,
Scott Kelley

4161. Re: Where to find microwave advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 00:17:44 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B4B9DD6.3B49@pop.removethistomailme.net>
Source record: 51608

Scott Kelley wrote:
>
> Is there a newsgroup where I would find microwave expertise?
>
> Looking for information concerning the mating of a conical horn to
> rectangular WR-42 waveguide.
>
> Thanks,
> Scott Kelley

Besides the ARRL and RSGB microwve books, you might do a Google search on "W1GHZ" and/or "N1BWT." There are also a few links to Paul's pages in my microwave-link article below.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4162. Re: Where to find microwave advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 00:35:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B4B9F66.50BB55C3@eznec.com>
Source record: 51609

You might try rec.radio.amateur.antenna. Some of the sci.electronics newsgroups might also be helpful.

Roy Lewallen, W7EL

Scott Kelley wrote:
>
> Is there a newsgroup where I would find microwave expertise?
>
> Looking for information concerning the mating of a conical horn to
> rectangular WR-42 waveguide.
>
> Thanks,
> Scott Kelley

4163. VHF CW or SSB plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 05:00:20 UTC
From: "Joe Bramblett, KD5NRH" <joebramblett@drunkenbard.com>
Message-ID: <AC3587FCD0377638.4EA583A04AAEEC07.9DE452554BFD784E@lp.airnews.net>
Source record: 51610

I'm looking for 2m or 6m CW or SSB plans for both transmitters and receivers. Preferably solid state, designed for 9 or 12VDC, small, backpacking type stuff. I'm starting to get interested in homebrew QRP, and CW seems like the best way to go.

Also, any SSB receiver plans for other bands could be handy to have around, as I'll probably be getting my General out of the way soon, and would like to get in some listening time.

ISTR seeing some plans for add-on BFO's for the various cheap SW receivers; I have a Rat Shack one with an aftermarket external antena jack that I'd like to try to add SSB capability to, if anyone can point me to those plans.

Thanks,

Joe Bramblett, KD5NRH
joebramblett@drunkenbard.com
http://www.drunkenbard.com

4164. Tuns counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 07:06:41 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9igteshkp1@news5.svr.pol.co.uk>
Source record: 51611

Hello
I'm looking for a counter for a 50 turn inductor preferably in the UK.
Any leads would be appreciated.
Don M5AKY
Bristol UK

4165. D-subminiature mixed layout connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 07:37:10 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <UIT27.11901$xf7.632916@e420r-atl3.usenetserver.com>
Source record: 51612
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.equipment

Greetings:

Thanks for reading this.

Anybody have a source for D-subminiature mixed layout connectors that will sell in small quantities?

thanks
John

4166. Re: Where to find microwave advice?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 09:23:13 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <726oktsi1r9pklbl4kjji26p1i67h2qdgq@4ax.com>
Source record: 51613

On Tue, 10 Jul 2001 19:10:12 GMT, "Scott Kelley"
<scottk@skelleyco.com> wrote:

>Is there a newsgroup where I would find microwave expertise?
>
>Looking for information concerning the mating of a conical horn to
>rectangular WR-42 waveguide.
>
>Thanks,
>Scott Kelley
>

Some expertise may be here.

There are two email reflectors where the most of the microwave
denizens hang out. See:
http://www.wa1mba.org/reflect.htm
and
http://www.ham-radio.com/sbms/reflector.html

You could join and ask again.

As to your actual question, I'd say its probably not that critical.
Best is to bend and taper things at the transition, but if the
dimensions of the smallest end of the horn are close to the WR-42
waveguide size, it will probably work ok without tweaking.

-Rex, KK6MK

4167. Re: VHF CW or SSB plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 12:49:34 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3B4C4A2A.8A18CA0F@GTE.net>
Source record: 51614

"Joe Bramblett, KD5NRH" wrote:

> I'm looking for 2m or 6m CW or SSB plans for both transmitters and
> receivers. Preferably solid state, designed for 9 or 12VDC, small,
> backpacking type stuff. I'm starting to get interested in homebrew
> QRP, and CW seems like the best way to go.
>
> Also, any SSB receiver plans for other bands could be handy to have
> around, as I'll probably be getting my General out of the way soon,
> and would like to get in some listening time.
>
> ISTR seeing some plans for add-on BFO's for the various cheap SW
> receivers; I have a Rat Shack one with an aftermarket external antena
> jack that I'd like to try to add SSB capability to, if anyone can
> point me to those plans.
>
> Thanks,
>
> Joe Bramblett, KD5NRH
> joebramblett@drunkenbard.com
> http://www.drunkenbard.com

Locate the Kanga USA site- they have a 6M SSB kit. From years on V/U- not much CW (sadly) -except the weak signal gang - so best probably to try a rig that can also do SSB. You might also consider a transverter on a CB rig or on one of the many 10M all modes..

Dale W4OP

4168. Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 14:08:54 UTC
From: chaos@mindspring.com
Message-ID: <290dccb2.0107110608.926d4a6@posting.google.com>
Source record: 51615

My brother lives about 12 miles from me, but too far away from the CO
to receive DSL or any other high speed internet solution (besides
starband).

So, I was wondering if there was any way to set up a wireless link
between us,
so he could share my DSL connection.

For it to be worth it, I'd need at least a 500kbit connection.

Is this possible with packet radio? I don't think 802.11 would reach,
even with directional antennas.

We live in East Texas, so it's pretty flat here. I'd like to try
rooftop to
rooftop, instead of building towers.

Any ideas? Or, is he stuck with starband?

Let me know,

Dave

4169. Re: For auction: 239 receiver AM/CW/SSB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 14:25:58 UTC
From: 1234 <a@b.c>
Message-ID: <3B4C61F6.E9E02E8C@b.c>
Source record: 51616
Cross-posted to: hk.forsale,rec.radio.amateur.digital,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.space,tw.bbs.rec.radio.amateur

嚙瞌嚙稻嚙緬嚙締嚙豬橘蕭?

```
* wrote:
>
> 1.5-30 MHz continuous
>
> please let me know your offer in HK$
> by the end of July at buy100@hongkong.com
>
> Be brave to bid because I may do you a favor.
>
> [Image]
```

4170. Re: D-subminiature mixed layout connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 15:43:43 UTC
From: Dan Rae <ac6ao@arrl.net>
Message-ID: <9ihs6s$uv1$1@nntp9.atl.mindspring.net>
Source record: 51617
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.equipment

Depends which ones you want. Some of them are really easy to find in the catalogs, others impossible. Start with Mouser and Newark. Prices for the coax inserts vary wildly too.

4171. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 16:13:34 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <ddtokt4631eeg516p7r925c1cblkebeqo9@4ax.com>
Source record: 51618

On 11 Jul 2001 07:08:54 -0700, chaos@mindspring.com (David Frascone)
wrote:

/* I'm assuming you're both licensed ham radio operators */

>My brother lives about 12 miles from me, but too far away from the CO
>to receive DSL or any other high speed internet solution (besides
>starband).
>
>So, I was wondering if there was any way to set up a wireless link
>between us,
>so he could share my DSL connection.
>
>For it to be worth it, I'd need at least a 500kbit connection.
>
>Is this possible with packet radio? I don't think 802.11 would reach,
>even with directional antennas.

If you're thinking of conventional packet radio terminal applications,
the answer is no.

>We live in East Texas, so it's pretty flat here. I'd like to try
>rooftop to
>rooftop, instead of building towers.

If you have line of sight, you ought to do pretty well. If you don't
have line of site, things get iffy real fast.

>Any ideas? Or, is he stuck with starband?

You must have been reading Bob Cringely's column.

http://www.pbs.org/cringely/pulpit/pulpit20010628.html

You can do this with 47CFR15 spread spectrum radios. However, with
unlicensed applications such as this you'd better be working across a
very rural area. If anything interferes with you, tough. You have NO
recourse. That's what unlicensed operation is all about. There is no
license, but of course, there is no legal protection for your
activity. In fact, if you interfere with any other licensed activity
(such as a ham radio operation), you must cease operation immediately.

Good luck, I hope you find something that works for you.

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

4172. Re: VHF CW or SSB plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 16:36:25 UTC
From: kg4fet@aol.combadspam
Message-ID: <20010711123625.01115.00000151@ng-dd1.aol.com>
Source record: 51619

>I'm looking for 2m or 6m CW or SSB plans for both transmitters and
>receivers. Preferably solid state, designed for 9 or 12VDC, small,
>backpacking type stuff. I'm starting to get interested in homebrew
>QRP, and CW seems like the best way to go.

Try www.6mt.com. You will find all that you are looking for there under the tech lists. Also for the guy who replied and said there is little or no CW operation but from the weak signal guys is sadly mistaken. If you listen onthe 6 mtr band when it ois open there are tons and I mean tons of cw sinals up and down the band even outside the 50.000-50.100 gentlemans agreement band plan. So open up the ears and plug in the keys its there to be worked and fun to boot.
73 and catch ya on the 6 mtr band on cw, psk, phone and HSCW (MS).
DE KG4FET Sandor EM90fh

4173. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 17:23:50 UTC
From: Rob Barris <rbarris@quicksilver.com>
Message-ID: <rbarris-6B0506.10235011072001@news.newsguy.com>
Source record: 51623

In article <290dccb2.0107110608.926d4a6@posting.google.com>,
chaos@mindspring.com (David Frascone) wrote:

> My brother lives about 12 miles from me, but too far away from the CO
> to receive DSL or any other high speed internet solution (besides
> starband).
>
> So, I was wondering if there was any way to set up a wireless link
> between us,
> so he could share my DSL connection.
>
> For it to be worth it, I'd need at least a 500kbit connection.
>
> Is this possible with packet radio? I don't think 802.11 would reach,
> even with directional antennas.

It's not unimaginable.

http://www.oreillynet.com/topics/wireless/802.11

http://www.oreillynet.com/pub/a/wireless/2001/05/03/longshot.html

These guys did 5 miles for real, and then calculated the signal loss
that would be seen at a 20-mile range, and re-did the test with an
appropriate attenuator in-line, with good results. Not bad for 31mW.

Rob

4174. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 17:27:10 UTC
From: Flush_Empty_Packet@blueyonder.co.uk
Message-ID: <aqqokt8ujc8upi6u7smha41m8lmut1b866@4ax.com>
Source record: 51620

Hi Dave.

>My brother lives about 12 miles from me, but too far away from the CO
>to receive DSL or any other high speed internet solution (besides
>starband).
>
>Is this possible with packet radio? I don't think 802.11 would reach,
>even with directional antennas.

So long you can get a line-of-site path between you then you can certainly get
802.11 to work over that distance with an external aerial each end :)

Clive

4175. A solution to the DSL problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 18:15:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B4C97C3.A251B760@eznec.com>
Source record: 51621

Sam,

This goes to show there's more than one way to skin a cat. . .

http://www.pbs.org/cringely/pulpit/pulpit20010628.html

Dad

4176. Re: VHF CW or SSB plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 18:18:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B4C9864.1EF6B2D2@eznec.com>
Source record: 51622

Dale Parfitt wrote:
>
> Locate the Kanga USA site- they have a 6M SSB kit. From years on V/U- not
> much CW (sadly) -except the weak signal gang - so best probably to try a
> rig that can also do SSB. You might also consider a transverter on a CB
> rig or on one of the many 10M all modes..
>
> Dale W4OP

It's http://www.bright.net/~kanga/kanga/

Roy Lewallen, W7EL

4177. Re: A solution to the DSL problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 19:59:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B4CB00E.677A336C@eznec.com>
Source record: 51624

My apology. I hate it when my browser does that.

Roy Lewallen, W7EL

4178. Re: A solution to the DSL problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 21:27:49 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <95hpkto18kl1oprlg8if1vj9vpgokjse6n@4ax.com>
Source record: 51625

On Wed, 11 Jul 2001 11:15:31 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Sam,
>
>This goes to show there's more than one way to skin a cat. . .
>
>http://www.pbs.org/cringely/pulpit/pulpit20010628.html
>

...pair of $249 yagi antennas...

gasp

cough

Ouch!

4179. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 21:58:34 UTC
From: hello_nasty@hotmail.com
Message-ID: <7578ddcf.0107111358.48cea1ba@posting.google.com>
Source record: 51626

> My brother lives about 12 miles from me, but too far away from the CO
> to receive DSL or any other high speed internet solution (besides
> starband).
>
> So, I was wondering if there was any way to set up a wireless link
> between us,
> so he could share my DSL connection.
>
> For it to be worth it, I'd need at least a 500kbit connection.
>
> Is this possible with packet radio? I don't think 802.11 would reach,
> even with directional antennas.
>
> We live in East Texas, so it's pretty flat here. I'd like to try
> rooftop to
> rooftop, instead of building towers.
>
> Any ideas? Or, is he stuck with starband?
>

Check out there websites for commercial & homebrew wireless network designs:

http://www.gbonline.com/~multiplx/wireless

http://www.gbppr.org

Example, here is a homebrew 900 MHz bi-directional amplifier:

http://www.gbonline.com/~multiplx/wireless/915amp-pics.html

4180. Re: Tuns counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-11 22:42:47 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <Kv637.29428$B56.5278103@news2-win.server.ntlworld.com>
Source record: 51627

"> I'm looking for a counter for a 50 turn inductor preferably in the UK.
> Any leads would be appreciated.
> Don M5AKY
======
Don,Suggest you consider a ten turn potmeter knob/counter combined with a 6:1 coaxial reducer ,used reversed ,hence 1:6 .This gives you 60 revolutions corresponding to 1000 divisions on the potmeter counter or 50 revolutions corresponding to 833 divisions on the counter

The coaxial reducer is available for GBP 2.50 from Mainline Surplus Sales @ Leicester tel:0870-2410810.
The 10 turn potmeter knob/counter is probably available from the same source or from amateur radio fleamarkets/rallies. Try to find a large (approx 40 mm dia)Beckman unit .

Good Luck

Frank gm0csz.kn6wh@ukrs.org located in the north of Scotland

PS : The Beckman knob/counter are often giving 14 indicated revolutions ,hence max.1400 divisions.
With a reversed 3:1 coaxial reducer you then get 14*3 =42 revolutions ,possibly also OK for your application.

The coaxial reducers can also be found on vintage equipment incl that from Heathkit.

4181. Re: A solution to the DSL problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 00:15:13 UTC
From: Znospam+noZs_0107@hpb13799Z.Zboi.hpZ.com.invalid
Message-ID: <slrn9kpn6e.2pk.Znospam+noZs_0107@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 51631

On Wed, 11 Jul 2001 14:27:49 -0700, Tom2000 <tom2000@mindspring.com> wrote:
> On Wed, 11 Jul 2001 11:15:31 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>>This goes to show there's more than one way to skin a cat. . .
>>http://www.pbs.org/cringely/pulpit/pulpit20010628.html
>
> ...pair of $249 yagi antennas...
>
> *gasp*
>
> *cough*
>
> Ouch!

Yup!

He should have looked at:

http://www.netnimble.com/products/index.html

15db for $50 is pretty good!

Or if he really wanted the yagi style, hardware store parts for
about $20 and some attention to detail could get about the same.

netnimble also sells a weatherproof access point on that page...
That does *not* include all the functionality of the apple base.

sdb

--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
"Don't Tread On Me!"

4182. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 01:15:37 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B4CFA39.AC9B0185@nf.sympatico.ca>
Source record: 51628

Myron A Calhoun wrote:

> During the 1986-87 school year I saw several little shops in Nigeria
> where car batteries were "reconditioned":
> * cut them open at the top,
> * remove the plates,
> * sort plates according to how good they looked,
> * rebuild using the better-looking plates.

I recall as a child during W.W.II (1940s) in the UK, seeing someone drilling out the intercell connections (which as many of us will recall were then in view on top of the battery, not concealed as they are today) in order to restore one or more cells in a 12 volt lead acid auto battery.
Not sure where 'new' plates or cells would come from in those days of shortage and dependence on Transatlantic convoys (God bless Uncle Sam for keeping us alive anyway!). Possibly they were, as above, just sorting out and using the best plates available. Probably make do and mend situation as they do today in Cuba to keep old vehicles running.
Terry.

4183. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 02:18:50 UTC
From: chaos@mindspring.com
Message-ID: <290dccb2.0107111818.2fd5707a@posting.google.com>
Source record: 51629

Jake Brodsky <frussle@erols.com> wrote in message
news:<ddtokt4631eeg516p7r925c1cblkebeqo9@4ax.com>...
> On 11 Jul 2001 07:08:54 -0700, chaos@mindspring.com (David Frascone)
> wrote:
>
> /* I'm assuming you're both licensed ham radio operators */

We are not, but I have wanted to take the test for a while (I have
that darn
study book somewhere), and I'm sure I can talk him into it. Would we
need
code, or no code? Hmm. . . .gotta read more :)

> >We live in East Texas, so it's pretty flat here. I'd like to try
> >rooftop to
> >rooftop, instead of building towers.
>
> If you have line of sight, you ought to do pretty well. If you don't
> have line of site, things get iffy real fast.
>

Is there any way to check and see if line of sight exists, short of
buying a
yagi, and borrowing a spectrum analyzer? Or, would an inexpensive
telescope be
able to see 10 or so miles?

I'm thinking my brother will have to build a little tower to achieve
line of
sight. My house is a 3 story, so I *think* you can see it . . .
unless trees
get in the way . . .

> You must have been reading Bob Cringely's column.
>
> http://www.pbs.org/cringely/pulpit/pulpit20010628.html
>
> You can do this with 47CFR15 spread spectrum radios. However, with
> unlicensed applications such as this you'd better be working across a
> very rural area. If anything interferes with you, tough. You have NO
> recourse. That's what unlicensed operation is all about. There is no
> license, but of course, there is no legal protection for your
> activity. In fact, if you interfere with any other licensed activity
> (such as a ham radio operation), you must cease operation immediately.
>

Wow! That is exactly what I wanted to do. What are the 47CFR15's you
are
talking about? Would that direction be better/worse than attempting
to
put Yagis onto 802.11 cards?

And, finally, *is* there a solution without line of sight? Studying
hard and getting a HAM license is definately worth it. (And think of
the cool new toys I'd get to buy/build with my license)!

Thanks again for so many responses, and sorry for the ignorance . . .

-Dave

4184. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 04:21:32 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9ij8ln$4ui$1@slb6.atl.mindspring.net>
Source record: 51630

On 11 Jul 2001 07:08:54 -0700, chaos@mindspring.com (David Frascone)
wrote:

>>> My brother lives about 12 miles from me, but too
>>> far away from the CO to receive DSL or any other
>>> high speed internet solution (besides
>>> starband).
>>
>> If you have line of sight, you ought to do pretty well.
>> If you don't have line of site, things get iffy real fast.
>>
>
> Is there any way to check and see if line of sight exists,
> short of buying a yagi, and borrowing a spectrum analyzer?
> Or, would an inexpensive telescope be able to see 10 or so
> miles?

Well, Dave, there is an additional factor that will reduce the signal
strengh even if you CAN see his house through a pair of binoculars.

RF signals running parallel to the ground, assuming the antennas are at
ground level, are absorbed by the ground itself. The amount of
attenuation varies depending on the frequency of the radio signal and how
high off the ground the antennas are.

This is an ongoing problem for low power radios such as handhelds and
mobile systems.

Somewhere around here is a computer program I wrote once that calculates
the ground loss among other things, and it was meant to show if one of the
spread spectrum radios My company produced would work in a customer's
application.

I wrote it to be general purpose, and it allows playing with frequency
range, Transmit power, antenna height and antenna gain to see how far the
radio signal will go....

Anyway, I've played with this now and then and a 12 mile link will
require some pretty good antenna elevation at one end, or both would be
better, in order to reduce the ground loss enough to let the system work.

==========

One of the gotcha's in the real world. Even if you have a line-of-sight,
it might not work.

Jim Pennell
N6BIU

4185. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 08:31:19 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <07mqkt09a8nolkoji3g90lbnk8m2te094u@4ax.com>
Source record: 51632

On Wed, 11 Jul 2001 21:21:32 -0700, "Jim Pennell"
<me-nobody@killspam.com> wrote:

> Anyway, I've played with this now and then and a 12 mile link will
>require some pretty good antenna elevation at one end, or both would be
>better, in order to reduce the ground loss enough to let the system work.

Are you using the Fresnel zone diameter in your program to calculate
the losses close to ground ?

Ideally, the first Fresnel zone should be clear of any obstacles and
since the midpath Fresnel zone diameter at 20 km and 2.45 GHz is 50 m,
at least 25 m below the direct line of sight path should be free of
any obstacles, thus, the antennas at both ends should be at least 25 m
higher than the minimum elevation to get a visual contact.

If standard license free WLAN systems are used and guessing that the
radiation power limit is 500 mW (+27 dBm) EiRP in the USA and a
typical receiver sensitivity of -80 dBm and 125 dB path loss, thus at
least 18 dB of receiver antenna gain is required. A 1 m dish antenna
might be sufficient in ideal conditions, assuming no feed line losses.

Paul OH3LWR

4186. DirecTV Dish....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 09:16:36 UTC
From: KC8BQR <hgtsrecycling@peoplepc.com>
Message-ID: <3b4d6add@flexnet239.uunt.net>
Source record: 51633

Any use for it? I have one but discontinued service a year ago, and already disposed of the receiver.

Don

4187. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 12:27:33 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B4D97B5.CBF85D4E@buttery.org>
Source record: 51634

David Frascone wrote:
>
> My brother lives about 12 miles from me, but too far away from the CO
> to receive DSL or any other high speed internet solution (besides
> starband).
>
> So, I was wondering if there was any way to set up a wireless link
> between us,
> so he could share my DSL connection.
>
> For it to be worth it, I'd need at least a 500kbit connection.
>
> Is this possible with packet radio? I don't think 802.11 would reach,
> even with directional antennas.

802.11 CAN be made to work at that range, if you have line of sight.
Probably not at 11Mbps, though - but even 1Mbps would be fast enough for
your purposes. 802.11FH is a better bet for wide-area links than
802.11b; it withstands interference better. (On the other hand, the
radios are more expensive.)

You'll need high-gain antennas at both ends of the link, and amplifiers
if the radios aren't near the antennas. (Amplifiers are permitted on
unlicensed 802.11 links under certain circumstances, basically to make
up for cable loss on outdoor installations.)

4188. Re: DirecTV Dish....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 12:41:15 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B4D9AEB.1DB62576@buttery.org>
Source record: 51635

KC8BQR wrote:
>
> Any use for it? I have one but discontinued service a year ago, and already disposed of the receiver.

DirecTV dishes can be used for all sorts of amateur microwave projects. You'll have to replace the feedhorn, though, since it's designed for 12GHz, and we don't have a ham band there (though you might give it a try at 10 GHz). For example, an 18" dish, combined with a really good LNA, should have enough gain for the S-band (2.4 GHz) downlink for AO-40. (On the other hand, one of those decommissioned Primestar dishes would be even better, since they're larger...)

Basically, what you've got to work with is a dish, manufactured to quite close tolerances (since it has to work well at 12 GHz). With an appropriate feed, it should be possible to make it work on all ham bands from 1.2 GHz to 10 GHz. It won't have enough gain to be worth the trouble on lower frequencies, and probably isn't made to close enough tolerances to work well on 24 GHz.

4189. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 12:48:21 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <ob6rkt0m4aqlotnm1qmd2nqe07bk0pci7k@4ax.com>
Source record: 51636

On 11 Jul 2001 19:18:50 -0700, chaos@mindspring.com (David Frascone) wrote:

>Is there any way to check and see if line of sight exists, short of >buying a
>yagi, and borrowing a spectrum analyzer? Or, would an inexpensive >telescope be
>able to see 10 or so miles?

An inexpensive telescope ought to be fine. If you can see the other end of the path, that's a good start.

>Wow! That is exactly what I wanted to do. What are the 47CFR15's you >are
>talking about? Would that direction be better/worse than attempting >to
>put Yagis onto 802.11 cards?

Oh boy. This is what I despise about the way unlicensed transceivers are marketed. The reason you don't need a license is because you are afforded no protection from interference. There is no coordination with anyone. It's a cheap "take your chances and see what it does" route. If ANY licensed activity complains about your radio system you must cease operation.

Unfortunately, new spread spectrum technology is being deployed in very high numbers and lots of ignorant marketeers are saying things such as "this unit will work reliably in urban areas" and "it's impossible to interfere with a spread spectrum system". If a vendor tells you that, set BS filters to Full, and go find someone else who really knows the situation.

The details are in the Code of Federal Regulations, Title 47, Part 15 (that's what 47CFR15 means).

>And, finally, *is* there a solution without line of sight? Studying >hard and getting a HAM license is definately worth it. (And think of >the cool new toys I'd get to buy/build with my license)!

At the data rates you seek, the answer is "probably not." I'm not saying it's impossible, just unlikely.

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

4190. Re: Wireless point-to-point solutions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 13:58:58 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9ikagj$7oq$1@nntp9.atl.mindspring.net>
Source record: 51637

Paul Keinanen <keinanen@sci.fi> wrote:
>
>Are you using the Fresnel zone diameter
>in your program to calculate the losses close
>to ground ?
>

As I recall, yes I am.. It's been awhile. Oh yes, I also add in the insertion loss of the coax for the transmit and receive antennas since 25 meters of coax on each end really hurts at 2.4 GHz.

I had to get the coax insertion loss Vs frequency formulas for a number of types of coax to allow customer selection of how expensive of a coax they are willing to buy.

Now, the nice part of using the actual equation was, I can set it for any frequency and the coax is allowed for. Beats just using x dB per foot for the coax....

I tossed in a factor for earth curvature, and allow for trees, buildings, and such to intrude into it all. It's amazing how quickly this stuff will screw up a long distance line of sight path.

Jim Pennell
N6BIU

4191. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 17:02:24 UTC
From: la8ak@online.no
Message-ID: <3b4db42a.64738722@news.online.no>
Source record: 51638

On Wed, 11 Jul 2001 22:45:37 -0230, Terry S <tsanford@nf.sympatico.ca>
wrote:

>
>I recall as a child during W.W.II (1940s) in the UK, seeing someone
>drilling out the intercell connections (which as many of us will recall
>were then in view on top of the battery, not concealed as they are
>today) in order to restore one or more cells in a 12 volt lead acid auto
>battery.

you only needed half amount of cells for a British car

-JM

4192. New W9INN Antennas page now online

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 18:13:53 UTC
From: Charles Johnston <charles@ab7sl.com>
Message-ID: <BNI37.1411$q17.174819@newsread2.prod.itd.earthlink.net>
Source record: 51639
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Contact info , diagrams , measured VSWR data and more available at the site listed below....

Look for the W9INN Antennas button

--

73 / DX

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4193. WTB: 82S129 PROMS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 18:25:48 UTC
From: Norm Freidin <info@spantek.on.ca>
Message-ID: <kYl37.262095$Z2.3155321@nnrp1.uunet.ca>
Source record: 51641

I have a need for a small quantity of 82S129 Proms. These were commonly used in the early generation of Cellular Phones, and are used in the Motorola MCX-90 / 100 Two Way Mobile radios. If you can assist me in locating some, would be appreciative.
Thank You...Norm

4194. G4COL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 18:37:30 UTC
From:

4195. Re: DirecTV Dish....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 19:14:21 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B4DF6FF.720FF5B5@att.net>
Source record: 51642

Remember that there are not symmetrical dishes - they are fed off-center,
etc.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Mark J. Dulcey" wrote:
>
> KC8BQR wrote:
> >
> > Any use for it? I have one but discontinued service a year ago, and already disposed of
the receiver.
>
> DirecTV dishes can be used for all sorts of amateur microwave projects.
> You'll have to replace the feedhorn, though, since it's designed for
> 12GHz, and we don't have a ham band there (though you might give it a
> try at 10 GHz). For example, an 18" dish, combined with a really good
> LNA, should have enough gain for the S-band (2.4 GHz) downlink for
> AO-40. (On the other hand, one of those decommissioned Primestar dishes
> would be even better, since they're larger...)
>
> Basically, what you've got to work with is a dish, manufactured to quite
> close tolerances (since it has to work well at 12 GHz). With an
> appropriate feed, it should be possible to make it work on all ham bands
> from 1.2 GHz to 10 GHz. It won't have enough gain to be worth the
> trouble on lower frequencies, and probably isn't made to close enough
> tolerances to work well on 24 GHz.

--

4196. afc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 20:49:53 UTC
From: jimbo@unknown.demon.co.uk
Message-ID: <3b4e0ceb.7033216@news.demon.co.uk>
Source record: 51643

I have just got hold of a satellite tuner can which i have recovered the audio from. I transmit to this via a gunn diode. The pinouts i have for this dont indicate an aft control. How necessary is this as regards to gunn diode drift in weather changes?

4197. ** FLEA at MIT ** Sunday July 15th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 21:49:26 UTC
From: w1gsl@mit.edu
Message-ID: <3b4e1b66$0$1923$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 51644
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

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FLEA all SUMMER at MIT
Sunday July 15th 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
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The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
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SEASON PASS + Advance Discounts

A sellers discount season pass is available which
offers a 33% discount. See the advanced registration
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*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
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!! RAIN or SHINE !! Have no fear of rain, a covered
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MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

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<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

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This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
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To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.
$70 Season Early Bird Buyer

**************************** cut here ******************************

FLEA at MIT 2001 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

_____ Season Early Bird Buyer @ $70 ** NB You may not sell. **

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139

E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

4198. Re: DirecTV Dish....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 21:58:12 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B4E1FD9.6A83@pop.removethistomailme.net>
Source record: 51645

KC8BQR wrote:
>
> Any use for it? I have one but discontinued service a year ago, and already disposed of the receiver.
>
> Don

They kick some serious butt at 10 GHz. Volume 2 of the ARRL
UHF/Microwave Projects Manual
(http://www.arrl.org/catalog/index.php3?category=VHF%2FUHF%2FMicrowave)
has a great chapter on these.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4199. Re: afc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-12 22:05:31 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B4E2191.278C@pop.removethistomailme.net>
Source record: 51646

Jimbo wrote:
>
> I have just got hold of a satellite tuner can which i have recovered
> the audio from. I transmit to this via a gunn diode. The pinouts i
> have for this dont indicate an aft control. How necessary is this as
> regards to gunn diode drift in weather changes?

Depends. What are you transmitting? Wideband FSK and FM video is
relatively tolerant of drift. Voice-bandwidth FM will require
compensation.

You can buy Gunn heaters from http://www.shfmicro.com that will help you
maintain both transceivers at the same temperature.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4200. Digital Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 00:24:13 UTC
From: Hugo Elias <hugo.elias@virgin.net>
Message-ID: <3B4E3FAD.68640D22@virgin.net>
Source record: 51497

Hi,
I am trying to make a very small FM radio receiver, controlled by
a microcontroller. Does anybody know of a chip that tunes into VHF
based in commands sent to it by I2C or SPI or similar?

How on earth do normal digital radio walkmans work??

Any help much appreciated.

Hugo

4201. FS Vectron 5 Mhz Ovenized Clock

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 03:10:07 UTC
From: millerke6f@aol.com
Message-ID: <20010712231007.23629.00004220@ng-mg1.aol.com>
Source record: 51498

Vectron 5 Mhz ovenized clock very compact with SMA to BNC adaptor. Nominal 12-15v DC power. Model 718Y4025. Similar units indicate 10E-8 for stability. Unit calibrated on recently Nuke Clock calibrated HP5370A with 10e-10 clock. This unit was posted on ebay with no takers. dollars post paid conus.

tnx for the read. Bob, KE6F
Bob Miller

4202. Re: FS Vectron 5 Mhz Ovenized Clock

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 03:34:35 UTC
From: Bill M <group0701@bbillsnet.mailshell.com>
Message-ID: <3B4E6C4B.7C96FE98@bbillsnet.mailshell.com>
Source record: 51499

Bob Miller wrote:
>
> Vectron 5 Mhz ovenized clock very compact with SMA to BNC adaptor. Nominal
> 12-15v DC power. Model 718Y4025. Similar units indicate 10E-8 for stability.
> Unit calibrated on recently Nuke Clock calibrated HP5370A with 10e-10 clock.
> This unit was posted on ebay with no takers. dollars post paid conus.
>
> tnx for the read. Bob, KE6F
> Bob Miller

How many dollars?
--
Bill M
Vieques, PR

4203. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 17:29:02 UTC
From: George Eckschmiedt <"geckschm(nospam)"@telus.net>
Message-ID: <3B4F3026.5C8EA221@telus.net>
Source record: 51500

Gentlemen,
Thank you all for the interesting replies. I will consider all suggestions
when I am back from a sailplane camp in the interior of British Columbia.
Regards and 73
George VE7CEH

4204. Re: Digital Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 20:45:01 UTC
From: "Gary Tait, Very Real" <tat@primeline.net>
Message-ID: <3B4F5DCD.499D9832@primeline.net>
Source record: 51501

Hugo Elias wrote:
>
> Hi,
> I am trying to make a very small FM radio receiver, controlled by
> a microcontroller. Does anybody know of a chip that tunes into VHF
> based in commands sent to it by I2C or SPI or similar?
>
> How on earth do normal digital radio walkmans work??
>
> Any help much appreciated.
>
> Hugo

Look up Motorola. They have lines of communications class PLL chips.

Most consumer electronics (Especially the miniaturized stuff) have the
PLL circuit and a 4 bit microcontroller in one chip (with LCD drivers).

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4205. Re: DirecTV Dish....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-13 21:25:33 UTC
From: KC8BQR <hgtsrecycling@peoplepc.com>
Message-ID: <3b4f67c7@flexnet239.uunt.net>
Source record: 51502

Mark J. Dulcey <mark@buttery.org> wrote in message news:3B4D9AEB.1DB62576@buttery.org...

> DirecTV dishes can be used for all sorts of amateur microwave projects.
> You'll have to replace the feedhorn, though, since it's designed for
> 12GHz, and we don't have a ham band there (though you might give it a
> try at 10 GHz). For example, an 18" dish, combined with a really good
> LNA, should have enough gain for the S-band (2.4 GHz) downlink for
> AO-40. (On the other hand, one of those decommissioned Primestar dishes
> would be even better, since they're larger...)
>
> Basically, what you've got to work with is a dish, manufactured to quite
> close tolerances (since it has to work well at 12 GHz). With an
> appropriate feed, it should be possible to make it work on all ham bands
> from 1.2 GHz to 10 GHz. It won't have enough gain to be worth the
> trouble on lower frequencies, and probably isn't made to close enough
> tolerances to work well on 24 GHz.

I wouldn't know how to do that...I'm not that much of a "technical" person...LOL

Anyone want it?

Don

4206. Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 00:21:32 UTC
From: Thompson <Thomp@aol.com>
Message-ID: <ggM37.2940$I%.2306141@typhoon2.gnilink.net>
Source record: 51503

I need to build a power supply for a laptop for the car that will convert 13.8 VDC to 17VDC at about 3 amps.

I know how to design basic, transformer powersupplies that will convert 110 VAC to 13.8 DC, but have never gone the other way.

Can anyone point me toward a web reference?

Thanks

4207. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 00:40:25 UTC
From: Bill M <group0701@bbillsnet.mailshell.com>
Message-ID: <3B4F94F9.410D98C@bbillsnet.mailshell.com>
Source record: 51504

Thompson wrote:
>
> I need to build a power supply for a laptop for the car that will convert
> 13.8 VDC to 17VDC at about 3 amps.
>
> I know how to design basic, transformer powersupplies that will convert 110
> VAC to 13.8 DC, but have never gone the other way.
>
> Can anyone point me toward a web reference?
>
> Thanks

I personally would be a bit leery about running a laptop off of the cars
electrical system. The one time you forget to unplug it when you crank
up might be a disaster. Maybe a charger and spare battery would be
safer?
-
Bill M
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4208. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 01:39:10 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9io7t9$1qd$1@slb7.atl.mindspring.net>
Source record: 51505

Linear Tech offers a program to design switching power supplies.

http://www.linear-tech.com/software/

National Semi makes a similar program:

http://www.national.com/appinfo/power/0,1768,383,00.html

I would think other manufacturers have programs as well, but these may easily suit the purpose of making a +13 V to +17 V power supply. I would hang a fairly beefy LC filter on the input to soak up the spike when starting the car.

Jim Pennell

4209. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 02:15:43 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tkvaqjijmgi530@corp.supernews.com>
Source record: 51506

> I personally would be a bit leery about running a laptop off of the
cars
> electrical system.

Its done all the time. The laptop battery serves to keep things running just fine while starting the engine. Several years ago they made supplies that operated directly from the 12 volt system. Most laptop mfg these days are selling small inverters that covert to 120 VAC and then use their normal AC supply to run the laptop. . You can often pick up the little inverters for $50 or so. One word of warning - these small inverters put out a good deal of RFI so you may want to go for a better unit if you plan on running a ham rig while the computer is running.

4210. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 02:54:14 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9iocaa$79l$1@slb2.atl.mindspring.net>
Source record: 51507

For the ISM frequency ranges which are used for the wireless LAN,
cordless phones, and so on, there is an FCC regulation about the effective
power output and so a gain antenna will almost certainly make the unit
illegal.

It is legal to use a high gain antenna on receiving... Or, if the rig
uses the same antenna for Tx and Rx, the law says the Tx power output has to
be reduced by the antenna gain to keep the radiated power within the law.

To reduce the number of bootleggers, the FCC also mandated using
"non-standard" antenna connectors to keep people from running down to the
corner store and buying a high gain antenna.

==========

All of this adds up to meaning that it'd have to be some sort of hand
made lashup to get the gain and the weird antenna connector.

I can see their point, why the FCC did it this way, they wanted to make
sure it was an even playing field so no single user can have a killer signal
to knock every other user off the air.

Of course, if a user is just out of range for his system, a gain antenna
is mighty tempting....

But if the clown with the high gain antenna blows my cordless phone out
if the water, I'd be unhappy.

Jim Pennell

4211. Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 11:48:11 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <%jW37.6361$O81.2627263@typhoon1.gnilink.net>
Source record: 51508

I'm very interested in tinkering with direct conversion DSP software radios. I'm looking for a piece of open-source software for Windows that takes I and Q audio inputs from a PC sound card and produces an audio output. I don't want to reinvent this part, I just want to work on DSP algorithms between the input and output. I've been told this is readily done using the DirectSound API in Windows, but I can't figure it out. I'd like to work in VB as much as possible, but C and/or C++ are also acceptable.
Does anyone know of such a piece of open-source software? Has anyone done anything in this area who might share source code?

Thanks,

Joe
W3JDR

4212. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 12:42:16 UTC
From: Richard Heindel <rheindel@sprintmail.com>
Message-ID: <I6X37.2833$JS2.313397@newsread1.prod.itd.earthlink.net>
Source record: 51509

Check out Wal-Mart. They have several inverters at reasonable prices. You can get a 30-50W unit for around $10 and a 140W for about $40.

73 Richard WB8KRN

4213. Re: ft530 yaesu

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 13:29:20 UTC
From: Bill M <group0701@bbillsnet.mailshell.com>
Message-ID: <3B504930.AA97DC17@bbillsnet.mailshell.com>
Source record: 51517

Johnn navkee wrote:
>
> Hello - I've a serious problem!
> First , I 'll introduce myself,I am a Amateur from the Netherlands .
> So, maybe you can help me out?
> I am looking for a specific type of manual, as the original
> manual for the Yeasu FT530. What I really want is a copy of the
> manual , it may allso in some sort of digital format, preferably Adobe
> Acrobat PDF format or just in microsoft-word.
>
> If you do has these resource, access to someone who does, or can
> otherwise assist, I'd be interested in exchanging some email-
> P.S. sorry for my verry bad englisch language!
> --
>
> Thanks --

Check here
http://webook.fset.de/20091999PHCHO/txrx.htm

Number 71.
--
Bill M
Vieques, PR

4214. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 14:49:05 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <BZY37.3044$JS2.344576@newsread1.prod.itd.earthlink.net>
Source record: 51510

Keeping things running when power is dropped during engine is NOT the problem. That 60 volt spike is the problem. Filtering required.

Bill

Bob Lewis (AA4PB) <rlewis@staffnet.com> wrote in message news:tkvaqjijmgi530@corp.supernews.com...
> > I personally would be a bit leery about running a laptop off of the
> cars
> > electrical system.
>
> Its done all the time. The laptop battery serves to keep things
> running just fine while starting the engine. Several years ago they
> made supplies that operated directly from the 12 volt system. Most
> laptop mfg these days are selling small inverters that covert to 120
> VAC and then use their normal AC supply to run the laptop. . You can
> often pick up the little inverters for $50 or so. One word of
> warning - these small inverters put out a good deal of RFI so you may
> want to go for a better unit if you plan on running a ham rig while
> the computer is running.
>
>
>
>

4215. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 15:25:14 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tl0p32tm13on29@corp.supernews.com>
Source record: 51511

Its the job of the inverter or DC power supply to take care of the spike and not send it on to the computer. I've got over 300 lap-tops in the field which are used regularly in vehicles with an inverter and never had a reported failure due to spikes.

4216. Re: Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 16:25:38 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3B507282.94CF10F1@one.net>
Source record: 51512

Maybe the folks at TAPR? (Only a guess.)

www.tapr.org

... Rich

W3JDR wrote:
>
> I'm very interested in tinkering with direct conversion DSP software radios.
> I'm looking for a piece of open-source software for Windows that takes I and
> Q audio inputs from a PC sound card and produces an audio output. I don't
> want to reinvent this part, I just want to work on DSP algorithms between
> the input and output. I've been told this is readily done using the
> DirectSound API in Windows, but I can't figure it out. I'd like to work in
> VB as much as possible, but C and/or C++ are also acceptable.
> Does anyone know of such a piece of open-source software? Has anyone done
> anything in this area who might share source code?
>
> Thanks,
>
> Joe
> W3JDR

4217. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 17:56:43 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <nP147.40576$B56.8539025@news2-win.server.ntlworld.com>
Source record: 51513

> > I need to build a power supply for a laptop for the car that will
convert
> > 13.8 VDC to 17VDC at about 3 amps.
> >
> > I know how to design basic, transformer powersupplies that will convert
110
> > VAC to 13.8 DC, but have never gone the other way.
> >
> > Can anyone point me toward a web reference?
==========
A safe way to use a laptop from the car's electrical supply system is to use an inverter nominally 12 V-DC to 230 or 110 AC. I bought one with a 100 W rating (continuously) for equiv US$ 35.-
Dimensions 5 x 4 x 1.5 inches. In this way you can use the standard AC power supply unit supplied with the laptop.....no hassle when cranking the car engine, there is just a brief AC power cut like a similar situation in the home.
I checked for running the inverter with a HF transceiver and suffered some minor hash.
There is no problem when using FM equipment in the car , ie mobile VHF/UHF , Packet , APRS etc

Frank gm0csz.kn6wh@ukrs.org

4218. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 18:16:04 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <oP147.40577$B56.8539443@news2-win.server.ntlworld.com>
Source record: 51514

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message
news:3B4A01CD.859274B5@midwestmicro-tek.com...
> Thanks Bill!
>
> This should work for me since I'm only looking a QRP applications right
now.
>
> Rick KC0GIX
========
For QRP you just use a single output valve audio amplifier with a
loudspeaker output transformer using the primary winding of that transformer
as a choke eg using the anode voltage of the output valve as the HV supply
voltage to the transmitter's output stage.

Frank gm0csz.kn6wh@ukrs.org

4219. Homebrewer Parts for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 20:21:32 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <ST147.353$uD5.178286@news1.iquest.net>
Source record: 51515
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

About a month ago I had some .1 uF caps for sale and ran out quick.
Unfortunately I didn't make a list of those that wanted them after I ran
out.

I have 450 more now. I wasn't sure if I be getting them again but I found
some more.

How about 50 for $3 or 100 for $5.00 (they're abt 15 cents each from Mouser)
and two stamps? I ship in a 4 by 7 padded envelope.

These are green ceramic disk caps, good for bypass caps I am told. That's
what I have used them for. Marked 104K.

I still have BNC chassis connectors for

25 for $12.40
50 for $21.00
100 for $36.00
500 for $138.00

and I have some PN2222A's left for

50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

Let me know if you're interested. All prices are post paid to the USA.

73 es "oo"

==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

4220. FS power resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 22:52:16 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b50ccb7_2@newsa.ev1.net>
Source record: 51518

I have a number of 500 ohm @ 40 watts wire-wound power resistors
flat(Dale type).
$1 each shipped.
Also have a few 5 ohm @ 25 watt
2 for a $1 shipped.

4221. re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-14 23:10:24 UTC
From: jwg6@cornell.edu
Message-ID: <9iqjh0cpn3@news01.cit.cornell.edu>
Source record: 51519

But you can't get 100% modulation with Heising, this way. (Right?)
Can't you use a bypass cap somehow, and reduce the DC input to the final, to provide 100% modulation?

How would the voltage drop to the final plate be calculated, in order to get to this point?

Interesting discussion!
Thanks, guys...
JG

4222. Re: AM Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 00:10:32 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <0on1lt4cvq8fet03f137djceium3t8q8u2@4ax.com>
Source record: 51520

On 14 Jul 2001 23:10:24 GMT, jwg6@cornell.edu (JG in NY) wrote:

>But you can't get 100% modulation with Heising, this way. (Right?)
> Can't you use a bypass cap somehow, and reduce the DC input to the final, to
>provide 100% modulation?

I recall that being said, but in looking at the RF waveform on a
scope, it is so close as to not matter.

73, Bill W7TI

4223. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 01:55:59 UTC
From: Thompson <Thomp@aol.com>
Message-ID: <PK647.5518$I%.3151586@typhoon2.gnilink.net>
Source record: 51521

Thanks! You've given me some things to think about.

Chris

"Bill M" <group0701@bbillsnet.mailshell.com> wrote in message
news:3B4F94F9.410D98C@bbillsnet.mailshell.com...
> Thompson wrote:
> >
> > I need to build a power supply for a laptop for the car that will
convert
> > 13.8 VDC to 17VDC at about 3 amps.
> >
> > I know how to design basic, transformer powersupplies that will convert
110
> > VAC to 13.8 DC, but have never gone the other way.
> >
> > Can anyone point me toward a web reference?
> >
> > Thanks
>
> I personally would be a bit leery about running a laptop off of the cars
> electrical system. The one time you forget to unplug it when you crank
> up might be a disaster. Maybe a charger and spare battery would be
> safer?
> -
> Bill M
> Vieques, PR
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4224. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 02:39:19 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <ln747.360$uD5.188116@news1.iquest.net>
Source record: 51522

You need a DC to DC converter.

I don't have a circuit handy but there are many on the web. Google DC to DC Converter and I bet you find something....some even have surge protection for automobiles.

73

"Thompson" <Thomp@aol.com> wrote in message news:ggM37.2940$l%.2306141@typhoon2.gnilink.net...
> I need to build a power supply for a laptop for the car that will convert
> 13.8 VDC to 17VDC at about 3 amps.
>
> I know how to design basic, transformer powersupplies that will convert 110
> VAC to 13.8 DC, but have never gone the other way.
>
> Can anyone point me toward a web reference?
>
> Thanks
>
>
>
>

4225. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 03:01:35 UTC
From: mcalhoun@ksu.edu
Message-ID: <9ir12f$s63@unix1.cc.ksu.edu>
Source record: 51523

"Bill Cromwell" <bcromwell1@earthlink.net> writes:
>Keeping things running when power is dropped during engine is NOT the
>problem. That 60 volt spike is the problem. Filtering required.

I can understand where a big spike might have come from in the old days
of relay-type regulators, but, in this day of active-device regulators,
someone please tell me what might make such a spike. After all, the
regulator drives the alternator, not the other way around.

Perhaps the starter field disengaging?

And why doesn't that big 60-75 amp-hour battery simply absorb any spikes
that do/might be generated?

And why "60 volt spike"? Why not 20 volts or 40 or 80 or ????

--Myron A. Calhoun.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4226. Odd frequency crystals wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 04:27:25 UTC
From: mbdb@full-moon.com
Message-ID: <3B511BAD.4E08@full-moon.com>
Source record: 51516

Hello

Ii¿½m urgently looking for any fundamental crystals in the ranges below.
Size is not critical but smaller the better. If you have any please
e-mail me and tell me what you want for them!

Mike, M0BST
mbdb@full-moon.com

Any frequency between: 10.090 - 10.200 mhz
11.570 - 11.740
15.030 - 15.150
16.920 - 17.050
18.130 - 18.200
20.060 - 21.500
26.090 - 26.210

4227. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 05:36:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B512BE8.80424EAB@eznec.com>
Source record: 51524

From "Voltage Regulators in Automotive Applications" by Robert Pease
(National Semiconductor Corp.):

"There are severe transients on the 12 volt supply at various times.
These are especially likely to occur when a battery is temporarily
disconnected or when the battery terminals become corroded. These
transients, known in the industry as "load dump", can be as large as +60
to 80 volts, for a few hundred milliseconds. Another severe transient,
which usually occurs when the ignition is turned off, can go to -50
volts for 100 milliseconds. This is known as "field decay", as the
excitation in the alternator dies away.

Other transients which can occur at any time can be as big as 200 to 400
volts for a few microseconds, and these transients can go positive,
negative, or both (ac). Needless to say, no ordinary solid-state
circuits can survive this kind of transient without protection."

He outlines a number of other transients and signals commonly found on
automotive ignition systems. I came across this article in National's
1982 Voltage Regulator Handbook. Although pretty old now, I don't see
any reason to think it's not still valid today.

Roy Lewallen, W7EL

Myron A Calhoun wrote:
>
> "Bill Cromwell" <bcromwell1@earthlink.net> writes:
> >Keeping things running when power is dropped during engine is NOT the
> >problem. That 60 volt spike is the problem. Filtering required.
>
> I can understand where a big spike might have come from in the old days
> of relay-type regulators, but, in this day of active-device regulators,
> someone please tell me what might make such a spike. After all, the
> regulator drives the alternator, not the other way around.
>
> Perhaps the starter field disengaging?
>
> And why doesn't that big 60-75 amp-hour battery simply absorb any spikes
> that do/might be generated?
>
> And why "60 volt spike"? Why not 20 volts or 40 or 80 or ????
>
> --Myron A. Calhoun.
> --
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448

> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4228. Re: afc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 12:28:01 UTC
From: jimbo@unknown.demon.co.uk
Message-ID: <3b518bc0.7757437@news.demon.co.uk>
Source record: 51525

It is voice, FM. I have had a bit of advice of how to use the aft. Is there any way i can check that it is working? Maybe changing the voltage on the microwave power supply slightly and seeing if the can follows the slight changes.

Any advice would be greatly appreciated

Jimbo

On Thu, 12 Jul 2001 22:05:31 GMT, John Miles <jmiles@pop.removethistomailme.net> wrote:

>Jimbo wrote:
>>
>> I have just got hold of a satellite tuner can which i have recovered
>> the audio from. I transmit to this via a gunn diode. The pinouts i
>> have for this dont indicate an aft control. How necessary is this as
>> regards to gunn diode drift in weather changes?
>
>Depends. What are you transmitting? Wideband FSK and FM video is
>relatively tolerant of drift. Voice-bandwidth FM will require
>compensation.
>
>You can buy Gunn heaters from http://www.shfmicro.com that will help you
>maintain both transceivers at the same temperature.
>
>-- jm
>
>--
>http://www.qsl.net/ke5fx
>Note: My E-mail address has been altered to avoid spam
>--

4229. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 12:41:18 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tl33ro4l2rb0e4@corp.supernews.com>
Source record: 51526

While you wouldn't want to connect a lap-top power input directly to the automotive power system without some protection from over-voltage, you can't do that anyway because the lap-top in question requires 17 VDC. You'll need a DC-DC converter or an inverter and a 120 volt AC power supply. Any of these devices properly designed to run from an automotive system will have the required filters to protect themselves and the load from any spikes. The spike protection is not that big of a deal to implement - hams connect mobile rigs to the automotive system all the time.

Assuming you already have a lap-top and an AC charger/adapter, the least expensive way to power it from the vehicle is to purchase a small DC/AC inverter.

4230. Re: Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 13:11:05 UTC
From: magne@clustra.com
Message-ID: <m38zhqpcba.fsf@clustra.com>
Source record: 51527

"W3JDR" <j.r@usa.com> writes:

> I'm very interested in tinkering with direct conversion DSP software radios.
> I'm looking for a piece of open-source software for Windows that takes I and
> Q audio inputs from a PC sound card and produces an audio output. I don't
> want to reinvent this part, I just want to work on DSP algorithms between
> the input and output. I've been told this is readily done using the
> DirectSound API in Windows, but I can't figure it out. I'd like to work in
> VB as much as possible, but C and/or C++ are also acceptable.
> Does anyone know of such a piece of open-source software? Has anyone done
> anything in this area who might share source code?

A couple of links for you:

http://www.gnu.org/software/gnuradio/
http://ham.te.hik.se/~sm5bsz/pcdsp/pcdroot.htm
http://ham.te.hik.se/~sm5bsz/linuxdsp/linroot.htm

--Magne / la1bfa

4231. Re: Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 13:40:30 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <i3h47.6493$I%.3472603@typhoon2.gnilink.net>
Source record: 51528

Thanks for the links Magne. I found these already, but unfortunately they don't fill my needs. SM5BSZ's work is based on DOS and Linux.....I'd like to get something going on Windows (yes, I've heard about the Windows real-time issues, but I've also heard that people have overcome them). The GNU project is just a shell right now...it doesn't look like anything has been contributed by anyone yet.

I'll keep looking and watching. Meanwhile, thanks again.

Joe
W3JDR

"Magne M&#65533;hre" <magne@clustra.com> wrote in message
news:m38zhqpcba.fsf@clustra.com...
> "W3JDR" <j.r@usa.com> writes:
>
> > I'm very interested in tinkering with direct conversion DSP software
radios.
> > I'm looking for a piece of open-source software for Windows that takes I
and
> > Q audio inputs from a PC sound card and produces an audio output. I
don't
> > want to reinvent this part, I just want to work on DSP algorithms
between
> > the input and output. I've been told this is readily done using the
> > DirectSound API in Windows, but I can't figure it out. I'd like to work
in
> > VB as much as possible, but C and/or C++ are also acceptable.
> > Does anyone know of such a piece of open-source software? Has anyone
done
> > anything in this area who might share source code?
>
> A couple of links for you:
>
> http://www.gnu.org/software/gnuradio/
> http://ham.te.hik.se/~sm5bsz/pcdsp/pcdroot.htm
> http://ham.te.hik.se/~sm5bsz/linuxdsp/linroot.htm
>
> --Magne / la1bfa

4232. Re: FS Vectron 5 Mhz Ovenized Clock

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 15:31:56 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <MHi47.162681$v5.12928632@news1.rdc1.ct.home.com>
Source record: 51529

How many do you have???

>
> How many dollars?
> --
> Bill M
> Vieques, PR
>

4233. Power supply description needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 16:01:18 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <t7j47.4886$5t1.4995@nntpserver.swip.net>
Source record: 51530

Looking for a description of a shortcurcuit-proof regulated 60VDC power
supply with foldback overcurrent protection. 2-3A.
/Christer

4234. 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 20:10:04 UTC
From: "Michael A. Covington" <see.www.covingtoninnovations.com.for.address@x>
Message-ID: <zMm47.21661$h6.7893249@newsrump.sjc.telocity.net>
Source record: 51531
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

Where can I get a 4-conductor (not 3-conductor stereo, but really 4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham equipment?

VY 73
N4TMI

4235. Re: afc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 20:44:09 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B5200F8.170B@pop.removethistomailme.net>
Source record: 51532

Jimbo wrote:
>
> It is voice, FM. I have had a bit of advice of how to use the aft. Is
> there any way i can check that it is working? Maybe changing the
> voltage on the microwave power supply slightly and seeing if the can
> follows the slight changes.
>

That's the right idea. With narrowband voice, it'll be fairly obvious
if your AFC loop isn't working. You can verify your AFC's compensation
range by watching the DC bias change as you hit the Gunn transceiver
with a hair dryer and/or can of freeze spray.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4236. Re: Looking for info on building a 6 meter amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 20:53:52 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <Hbp47.45946$B56.10002057@news2-win.server.ntlworld.com>
Source record: 51535

"Aurora" <aurora@NOSPAM.gamehost.d2g.com> wrote in message
news:UQn47.112069$HJ1.3313378@e3500-atl1.usenetserver.com...
> In our area 6 meters is picking up steam!!!!
> I've got an old Yaesu 6 meter mobile that i'm running as base rig.
>
> What I would like to due is build a small linear to would take 10 watts
in.
> Output of say 150 to 200 watts.
>
> I've been combing the web and not finding a whole lot of info on 6 meter
> stuff.
>
> Anyone have any info, or know where to get it?
==========
Suggest you get hold of an article in QST - Oct 1990 , pages 18 -21 incl.
" A compact Brick for 6 meters" , a 100 W 6-meter amplifier, employing a
single Motorola MRF492 bipolar power transistor. This part is perhaps a bit
dated ,but there are probably more modern power mosfets suitable for this
service. The power supply for the above bipolar design is 13.8 V.
PTT is derived from the exiter RF output which is rectified , amplified with
an opamp which switches a bipolar transistor which in turn switches the
PTT.

73 Frank gm0csz.kn6wh@ukrs.org

4237. Looking for info on building a 6 meter amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 21:28:34 UTC
From: Aurora <aurora@NOSPAM.gamehost.d2g.com>
Message-ID: <UQn47.112069$HJ1.3313378@e3500-atl1.usenetserver.com>
Source record: 51533

In our area 6 meters is picking up steam!!!!
I've got an old Yaesu 6 meter mobile that i'm running as base rig.

What I would like to due is build a small linear to would take 10 watts in.
Output of say 150 to 200 watts.

I've been combing the web and not finding a whole lot of info on 6 meter
stuff.

Anyone have any info, or know where to get it?

Thanks!!!!

Karl
KD5LCP

4238. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 22:48:02 UTC
From: Randy Barrow <quicksilver.sam@NOSPAMintrex.net>
Message-ID: <3B521DA2.D356E44B@NOSPAMintrex.net>
Source record: 51534
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

"Michael A. Covington" wrote:
>
> Where can I get a 4-conductor (not 3-conductor stereo, but really
> 4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham
> equipment?
>
> VY 73
> N4TMI

Hi Michael-

This info is dated back from October 1998, so no promises. ;->

Try the nice folks at:

Tower Electronics
Green Bay, Wisconsin

Orders 1-800-662-3422
Tech Info 1-920-435-3359
Fax Line 1-920-435-2980
Email KB9AMM@juno.com

About 4 bucks a piece, 20" long, molded with the following color code:
WHITE - LEFT(Tip)
RED - RIGHT (1st ring)
BROWN - DATA (2nd ring)
BLACK - GND (Sleeve)

Hope this helps,

Randy Barrow
--

==========
Please remove NOSPAM from address for replies
==========

4239. Re: afc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-15 23:17:58 UTC
From: la8ak@online.no
Message-ID: <3b521ddc.353984490@news.online.no>
Source record: 51536

On Sun, 15 Jul 2001 20:44:09 GMT, John Miles
<jmiles@pop.removethistomailme.net> wrote:

>Jimbo wrote:
>>
>> It is voice, FM. I have had a bit of advice of how to use the aft. Is
>> there any way i can check that it is working? Maybe changing the
>> voltage on the microwave power supply slightly and seeing if the can
>> follows the slight changes.
>>
>
>That's the right idea. With narrowband voice, it'll be fairly obvious
>if your AFC loop isn't working. You can verify your AFC's compensation
>range by watching the DC bias change as you hit the Gunn transceiver
>with a hair dryer and/or can of freeze spray.
>
>-- jm
>
check that discriminator dc output voltage varies less with AFC than
without, it is a good idea to use a tuning meter 'connected' across
the discriminator output to see when you lock on to the received
signal

JM

4240. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 00:49:28 UTC
From: Idontwantspam@net
Message-ID: <3b5239ed.42115189@news.bellatlantic.net>
Source record: 51538
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

On Sun, 15 Jul 2001 16:10:04 -0400, "Michael A. Covington"
<see.www.covingtoninnovations.com.for.address@x> wrote:

>Where can I get a 4-conductor (not 3-conductor stereo, but really
>4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham
>equipment?
>
I recently found one of these at a local electronics shop (You-Do-It
in Needham, MA if you are local). It physically fits just fine, and is
a match for the speaker mike cord. Looks to be some tricky soldering
involved for some of the 4 connectors.

It is made by a company called Calrad.

See at their website: http://www.calrad.com/calrad/cat-59page2.html

Look at parts

30-701 (4 CONDUCTOR 3.5mm PLUG)
30-702 (4 CONDUCTOR 3.5mm RIGHT ANGLE PLUG)
30-700A (4 CONDUCTOR 3.5mm CHASSIS JACK)

There may be other makers, but this is the one I found. The special
connector is apparently used on some newer DVD players and camcorders.

HTH,
Happy trails,
Gary

"In three words I can sum up everything I've learned about life: it goes on."
-Robert Frost-

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

4241. FS:(2) PWR RESISTORS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 00:50:19 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <fTq47.45773$J91.2405085@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51539

Have two 64W IRC 100K power resistors for $12 shipped.
WS0E, Joe in MO

4242. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 01:52:45 UTC
From: "Watson A.Name" <NOSPAM@postoffice.pacbell.net>
Message-ID: <3B5248ED.530A053B@postoffice.pacbell.net>
Source record: 51540
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

"Gary S." wrote:
>
> On Sun, 15 Jul 2001 16:10:04 -0400, "Michael A. Covington"
> <see.www.covingtoninnovations.com.for.address@x> wrote:
>
> >Where can I get a 4-conductor (not 3-conductor stereo, but really
> >4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham
> >equipment?
> >
> I recently found one of these at a local electronics shop (You-Do-It
> in Needham, MA if you are local). It physically fits just fine, and is
> a match for the speaker mike cord. Looks to be some tricky soldering
> involved for some of the 4 connectors.

Gee, this is the first time I've ever seen such a thing at least in
miniature size. Telepnone switchboard plugs look like they have more
than one ring, but I don't think they're found anywhere anymore.

What puzzles me is that Radio Scrap carries the three conductor
miniature plugs and jacks, but not the 3 conductor submini plugs. But
they have 3 cond jacks and 2 cond plugs. I can't understand why they
haven't stocked these for years. They got every kind of adapter, but
just not the submini stereo plugs. It's necesary to drive over to the
local independent electronics store to get them.

> It is made by a company called Calrad.
>
> See at their website: http://www.calrad.com/calrad/cat-59page2.html
[snip]

--
@@@@@T@h@e@@i@n@t@e@r@n@e@t@@w@a@s@@c@o@o@l@@u@n@t@i@l@@@@@
My email address is whitelisted. *All* email sent to it
goes directly to the trash unless you put NOSPAM in the
Subject: line. alondra101 <at> hotmail.com
Don't be ripped off by the big book dealers. Go to the URL
that will give you a choice and save you money(up to half).
http://www.everybookstore.com You'll be glad you did!
@@@@@e@v@e@r@y@o@n@e@@f@o@u@n@d@@o@u@t@@a@b@o@u@t@@i@t@@@@@

4243. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 02:28:43 UTC
From: Bill M <group0701@bbillsnet.mailshell.com>
Message-ID: <3B52515B.63E6EB7@bbillsnet.mailshell.com>
Source record: 51541
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

These plugs are in the Mouser catalog. P/n 171-7435, made by DGS
Pro-Audio. 3.5 mm. $1.53 each.
http://www.mouser.com
Is that the correct one?
-
Bill M

"Watson A.Name" wrote:
>
> "Gary S." wrote:
> >
> > On Sun, 15 Jul 2001 16:10:04 -0400, "Michael A. Covington"
> > <see.www.covingtoninnovations.com.for.address@x> wrote:
> >
> > >Where can I get a 4-conductor (not 3-conductor stereo, but really
> > >4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham
> > >equipment?

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4244. Sierra selective voltmeter 128a.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 03:40:46 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B52623E.24CA0CC6@erols.com>
Source record: 51537

I am looking for a manuel or schematic for the 128a. Any out there? I will even settle for a block diagram. I want to get this monster working.

Ralph

4245. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 04:26:47 UTC
From: Randy Barrow <quicksilver.sam@NOSPAMintrex.net>
Message-ID: <3B526D07.98DF3EE5@NOSPAMintrex.net>
Source record: 51542
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

"Michael A. Covington" wrote:
>
> Where can I get a 4-conductor (not 3-conductor stereo, but really
> 4-conductor) miniature phone plug to fit the jacks on Yaesu and Icom ham
> equipment?
>

Hi Michael-

I have found more current info on Tower Electronics.

3.5 mm 4-conductor, 20 inch long cable, straight plug $11.00 each
3.5 mm 4-conductor, 20 inch long cable, right angle plug $12.00 each

http://www.gbonline.com/~multiplx/wireless/tower/page3.html

It's interesting to see the Calrad and Mouser offerings, but I really
like having the premolded plug already made and the built-in strain
relief doesn't hurt either. Of course, having the proper cable already
on the plug is an extra thing you don't have to go hunting for. ;-)

Later,

Randy Barrow
--

==========
Please remove NOSPAM from address for replies
==========

4246. ICOM IC-M12 diode matrix programming

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 05:09:46 UTC
From: Steve <stephen.wilson@cmr.uq.edu.au>
Message-ID: <3B52771A.A27A1F75@cmr.uq.edu.au>
Source record: 51543

Can anyone direct me to info re: diode matrix programming for the above
(marine) handheld.
I have no service manual.

Cheers,

steve w
s.wilson@cmr.uq.edu.au

4247. Re: 4-conductor miniature phone plug

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 05:20:01 UTC
From: "Michael A. Covington" <see.www.covingtoninnovations.com.for.address@x>
Message-ID: <8Qu47.22245$h6.8390025@newsrump.sjc.telocity.net>
Source record: 51544
Cross-posted to: sci.electronics.components,rec.radio.amateur.homebrew

"Bill M" <group0701@bbillsnet.mailshell.com> wrote in message
news:3B52515B.63E6EB7@bbillsnet.mailshell.com...
> These plugs are in the Mouser catalog. P/n 171-7435, made by DGS
> Pro-Audio. 3.5 mm. $1.53 each.
> http://www.mouser.com
> Is that the correct one?
> -
> Bill M

Yes, thanks!

4248. Re: Laptop power supply for car. How do you build?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 06:22:23 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B528876.5099@pop.removethistomailme.net>
Source record: 51545

Roy Lewallen wrote:
>
> From "Voltage Regulators in Automotive Applications" by Robert Pease
> (National Semiconductor Corp.):

Hmm, I wonder if that's up on National's site anywhere. I need to
finish the Web writeup on my mobile MP3 power-control stuff sometime
soon, and wouldn't mind using it as a citation. Pease usually has
decent horse sense.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4249. Re: Tubular non inductive 50 OHM resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 08:47:16 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <oSx47.7116$gj1.685391@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51546

Marketing????????????? Maybe! I've also got some of the BeO2 ceramic TO-220ish looking things that are used in the 800MHz loads that you find in cellular base station equipment. Zero reactance? Nah! Close? Maybe.

Pete

NANCY GIANAKOPOULOS <n.gianakopoulos@worldnet.att.net> wrote in message news:Q1S_6.14156$C81.1126833@bgtnsc04-news.ops.worldnet.att.net...
> I've got some made by a company called Carborundum. I haven't tested them
> yet, but they do claim zero reactance. They are tubular, and they seem to
> be made of some kind of composition material, with metallized ends.
>
> Pete Gianakopoulos
> Chicago, Il.
>
> willy <willyacht@yahoo.com> wrote in message
> news:9ZQ_6.10316$e5.30894@newsfeeds.bigpond.com...
> > Well if you read Vishay or Dale data sheets they use a very good term
> > "Virtually" Non Inductive. But that still means that they not purely
> > resistive and truly non inductive. Actually i run 4000 watts, i wonder
> if
> > the FCC believes its virtually 1500 watts.
> >
> > But these surface mounted packages work very well for passive grid
> terode
> > amps.
> >
> > Willy
> > "Reg Edwards" <G4fgq.Regp@btinternet.com> wrote in message
> > news:9hgetk$t3o$1@neptunium.btinternet.com...
> > > Hi Paul,
> > >
> > > Who says such resistors are purely resistive up to at least up to 30
> > > MHz?
> > >
> > > By how much do they deviate from the ideal?
> > >
> > > Don't believe anything the magazines and manufacurers say without some
> > > kind of authentification.
> > >
> > > The fact that something might by chance happen to work is no
> > > indication whatsoever how well it works.
> > >
> > > All maufacurers of dummy loads for amateur use should be prosecuted
> > > for infringements of the trade's descriptions act.

> > >
> > > And all radio magazines whch advertise such perfect wares should be
> > > likewise prosecuted.
> > >
> > > But don't worry about it too much or you will go potty..
> > > ---
> > > ============================
> > > Regards from Reg, G4FGQ
> > > For free radio design software go to:-
> > > http://www.btinternet.com/~g4fgq.regp
> > > ============================
> > > paul <apollo_six@nospambtinternet.com> wrote in message
> > > news:mpApeDB5Q5O7EwyT@btinternet.com...
> > > > Manufacturers of large carbon comp non inductive resistors
> > > >
> > > > Anyone looking for these should try HVR, Jarrow, UK.
> > > >
> > > > Large sizes suitable for Dummy Loads.
> > > >
> > > > http://www.hvrint.com
> > > >
> > > >
> > > > --
> > > >
> > >
> > >
> >
> >
>
>

4250. tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 10:44:09 UTC
From: gigglez <gigglez_0@hotmail.com>
Message-ID: <3b52b769$1_1@excalibur.gbmtech.net>
Source record: 51447

Does anyone know of any web sites that give pretty good
info or schematics for a tube type dc power supply ?

I have been fooling around with one and two tube radios
for about a year now and would like to have a better
power supply than wiring 9 volt batteries together to
provide power. I would like to build a nice supply using
tubes for rectification and regulation if possible.

Thanks

4251. Re: tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 14:12:21 UTC
From: Bill M <"take out the NO in the reply address"@*.*>
Message-ID: <HyC47.1901$sx2.131917@e420r-atl3.usenetserver.com>
Source record: 51448

gigglez wrote:
>
> Does anyone know of any web sites that give pretty good
> info or schematics for a tube type dc power supply ?
>
> I have been fooling around with one and two tube radios
> for about a year now and would like to have a better
> power supply than wiring 9 volt batteries together to
> provide power. I would like to build a nice supply using
> tubes for rectification and regulation if possible.
>
> Thanks

This may interest you...
http://www.antiqueradio.org/bsupply.htm
--
Bill M
Vieques, PR

4252. Re: Using a Yaesu FT-100 with a Linear Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 14:48:47 UTC
From: s@9bit.qc.ca
Message-ID: <3b52fd86.12086750@news.9bit.qc.ca>
Source record: 51449

I don't own a sb-200, but Since this is a popular amp along with the
sb-220, I found 2 articles in the subject in old QSTs. There are
maybe others.

See the January 1988 issue page 45 and the May 1989 issue page 48.

Special care is needed to key the SB-200 from a solid state
tranceiver because the open voltage of the open relay on the amp is
-130 V to ground and the relay current can be 50 mA. This is not
compatible with your rig (or many others).

You will need a circuit in between the two, or a relay.

In the May 1989 issue there's a simple circuit involving an IRF9612
power MOSFET.

```
rig o-- 1k res.-- + 9V batt --o--o--IRF9612 grid
control | |
rig o----ground | ---- 470 ohm --- ground
-- zener 15 V/1W ->|--- gnd

IRF9612 drain ---- sb-200 -130V
IRF9612 source -- gnd -- sb-200 gnd
```

note the polarity of the zener.
Hope you can redraw the schematic on a piece of paper.
Hope this will be of some use....

Stephan VE2OWL

brenchef3@aol.com (Brenchef3) wrote:

>Greetings!
>
>Wondering if anyone has used their FT-100 with a linear? I'm trying to use
>mine with an SB-200, but the thing (amp) stays switched on all the time. The
>FT-100 switches to ground according to my multimeter, but when there is
>supposed to be an open circuit (amp switched off), the FT-100 registers a
>closed circuit with several K ohm resistance. When the FT-100 amp switch
>closes (amp on), it registers a fully closed circuit with zero resistance.
>Anyone with experience, or that witnessed similar issues with the FT-100?
>
>Thanks very much.
>Bren
>brenchef3@aol.com

4253. Re: tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 15:06:25 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B5302F1.B09AEEC8@midwestmicro-tek.com>
Source record: 51451

Try looking in any ARRL Amatuer Radio Handbook before 1960 (I live in a small town but we have several from the 50's in the local library). In the fifties they still used the 5UY (I don't think thats the number but it is close) for rectification but by the 60's they where using 1N4007s for the most part. You need a 5 volt ac power tap for the 5UY though, that may be hard to come by unless you can scrounge and old transformer or want to buy a new one (new ones can be expensive). Tube rectifiers have a very nice color when they glow but be careful as they can run *very* hot.

Rick

gigglez wrote:

> Does anyone know of any web sites that give pretty good
> info or schematics for a tube type dc power supply ?
>
> I have been fooling around with one and two tube radios
> for about a year now and would like to have a better
> power supply than wiring 9 volt batteries together to
> provide power. I would like to build a nice supply using
> tubes for rectification and regulation if possible.
>
> Thanks

4254. Re: tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 15:23:55 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B53070B.FC42953C@midwestmicro-tek.com>
Source record: 51450

Also try here for a good example

http://www.qsl.net/n6ev/57-116S.jpg

I didn't know the number it isn't 5UY but 5Y3 in this example.

also look at some other stuff on

http://www.qsl.net/n6ev/

It is a good all-around tube page, along with

http://hem.passagen.se/sm0vpo/

Rick KC0GIX

gigglez wrote:

> Does anyone know of any web sites that give pretty good
> info or schematics for a tube type dc power supply ?
>
> I have been fooling around with one and two tube radios
> for about a year now and would like to have a better
> power supply than wiring 9 volt batteries together to
> provide power. I would like to build a nice supply using
> tubes for rectification and regulation if possible.
>
> Thanks

4255. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 16:59:15 UTC
From: "Glenn C. Lasher Jr." <glasher@nycap.rr.com>
Message-ID: <Pine.LNX.4.32.0107161243530.5930-100000@hermes.critternet.mine.nu>
Source record: 51452

WARNING: This project can be dangerous. Please work carefully, and fully understand the entire thing before you begin. If you blow yourself up from ignorance, I take no responsibility. I am willing to answer questions, so if you have them, ask.

Another approach, with which I have had acceptable results, is to push a high voltage into the battery, but regulating the current to something in the 10-20 hour charge rate. The circuit to do this would be a capacitor wired in series with the AC side of a rectifier. The DC side of the rectifier is connected to the battery, the AC side is connected (through the cap and a fuse) to a wall outlet.

The capacitor size should be 32uF for each 1A of current you want to pass, assuming a 60Hz/120VAC supply. Change the capacitance in inverse proportion to any change in frequency or voltage, i.e. switching to 50Hz would call for 27uF per amp, boosting the voltage to 240V would call for 16uF per amp, doing both would call for 13uF per amp.

Connect a DC voltmeter to the battery. If it is possible, make sure that the electrolyte is topped off in all cells. Work in a well-ventliated area to avoid hydrogen buildup and potential fire/explosion hazard.

Connect the AC. If the battery is badly sulfated, you will see a sharp rise in the voltage at the battery terminals (the ones I was working with hit 98V). You will also hear some bubbling from within the battery (this is why you top off the electrolyte and work in a well-ventilated area). Shortly, (within a couple of minutes of peaking), the voltage will begin to drop again. After a while (don't remember how long it took), the voltage will drop well below the battery's rated voltage, (mine dropped down to 5V) and then will start to rise again. At this point, you can either continue to charge with this circuit (stop it when it hits 14V or so), or you can connect it to a more conventional charger.

When you disconnect the device, you will want to be cautious about touching the line cord plug. It will probably have a high DC voltage on it. Allow some time for any hydrogen vapour to dissipate, then short the capacitors, preferably through a resistor.

Whatever you do, keep your eyes on the voltmeter.

Some tips:

- You may want to heatsink the rectifier bridge. I used a heatsink/fan combo from a '486 PC and it kept it nice and cool. If you do this, use a separate power supply for the fan, as the high voltage will likely burn the fan out.

- Do not use a nonpolar electrolytic cap for this task--it doesn't have
enough heat-dissipation capability. Get an older-style oil-filled cap.
It is a lot larger, but it isn't going to blow up on you.

- Keep kids and pets far away from this thing. The last thing you need is
a loved one drawing an arc off of your battery charger.

I did this project using a set of four 55uF oil-filled caps and a group of
four 90Ah Gel bateries. The results were excellent.

On Fri, 6 Jul 2001, Jerko Golubovic wrote:

> Rich Griffiths <richg@one.net> wrote:
>
> > It can be done. But the fact that lead-acid battery recycling is such a
> > big business makes me think it's not really practical.
> >
> > What do the recyclers do? They chop up the batteries and recover the
> > lead for making new batteries. If it made more sense to "restore" the
> > batteries, I expect they'd be doing that, but they aren't.
>
> I heard of method to destroy sulphate on plates is modulating charging
> current with frequency on which its crystal structure resonates. It was
> designed as "unit" that you connect in series with battery and they
> recommend constant use of such device to prevent crystals formation.
>
> There was no details in article regarding frequency or any details on
> method. I tried to ask friend of mine who studied chemistry what
> frequency may be in question, he asked his college who is assistant ih
> Physics departement but we did not come up with solution.
>
> Anybody knows some details regarding this.
>
> Regards,
> 9A6JGJ
>

--
glasher@nycap.rr.com
After 163 days, Verizon still couln't deliver Telocity DSL.

4256. Stop by anytime - www.ab7sl.com -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 18:28:31 UTC
From: -- AB7SL -- <ctj92@hotmail.com>
Message-ID: <jnG47.7463$23.854834@newsread2.prod.itd.earthlink.net>
Source record: 51453
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Lots of great STUFF to do at www.ab7sl.com such as...

All - NEW - W9INN antenna page!!

1. Ham Radio Links (some unusual)
2. Several Ham Radio Web Rings !
3.AB7SL Biography
4.Personal Photos
5.Station Description
6.Software Downloads
7.The DX Page (w / Telnet links)
8.Downloadable IOTA List
9.W7NH - Elmer Tribute
8.Prescott Arizona Page
9.Online DX Logbook
10.3D Art Gallery (downloads)
11.Music Page (downloads)
12.Frequently Asked Questions
13.Free-For-All Links Page
14.Guestbook
15.Equipment Photos
16.Downloadable DXCC Countries List
17.Downloadable ITU Prefixes List
18.W9INN Antennas Page
--

Charles Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4257. Re: WTB: 82S129 PROMS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 22:11:58 UTC
From: Andy Brinkley <andy@brinkleyelectronics.com>
Message-ID: <3B536673.6573CA86@brinkleyelectronics.com>
Source record: 51454

Norm Freidin wrote:

> I have a need for a small quantity of 82S129 Proms. These were commonly
> used in the early generation of Cellular Phones, and are used in the
> Motorola MCX-90 / 100 Two Way Mobile radios. If you can assist me in
> locating some, would be appreciative.
> Thank You...Norm

Norm -

We can supply either the burned or unburned proms.

Our programming capabilities are listed at :

http://www.brinkleyelectronics.com/programming/prog1.htm

Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

--
Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

4258. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-16 23:48:50 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B538009.778A@pop.removethistomailme.net>
Source record: 51455

Jim Pennell wrote:
>
> For the ISM frequency ranges which are used for the wireless LAN,
> cordless phones, and so on, there is an FCC regulation about the effective
> power output and so a gain antenna will almost certainly make the unit
> illegal.

Antenna gain is not restricted under part 15 as far as I'm aware -- only
ERP.

It would be pretty stupid to regulate antenna gain, since higher antenna
gain makes interference to other users LESS likely.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4259. Anybody got '99 or '00 ARRL Antenna Manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 00:29:11 UTC
From: Jim Garland <4cx250b@miavx1.muohio.edu>
Message-ID: <3B5386D7.F2D8A88C@miavx1.muohio.edu>
Source record: 51456
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi Gang,
I'm working on an antenna tuner design while I'm at my vacation cabin in the Montana mountains, and forgot to bring the software CD with me from my ARRL Antenna Manual. I need the program called AAT.EXE ("automatic antenna tuner"), and wonder if somebody could email it to me (attached as a file, zipped or not). I've got a week's vacation left, and hope to use the free time productively. Thanks very much.
73,

Jim W8ZR

email: W8ZR@arrl.net
or
4cx250b@miavx1.muohio.edu

4260. Re: Anybody got '99 or '00 ARRL Antenna Manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 01:13:03 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <j847lt8je8i82q1n65tk75esatfth5dlf4@4ax.com>
Source record: 51458
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

It's on its way.

On Mon, 16 Jul 2001 18:29:11 -0600, Jim Garland
<4cx250b@miavx1.muohio.edu> wrote:

>Hi Gang,
>I'm working on an antenna tuner design while I'm at my vacation cabin in
>the Montana mountains, and forgot to bring the software CD with me from
>my ARRL Antenna Manual. I need the program called AAT.EXE ("automatic
>antenna tuner"), and wonder if somebody could email it to me (attached
>as a file, zipped or not). I've got a week's vacation left, and hope to
>use the free time productively. Thanks very much.
>73,
>
>Jim W8ZR
>
>email: W8ZR@arrl.net
>or
> 4cx250b@miavx1.muohio.edu

4261. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 01:28:09 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B5394A9.83C294A2@buttery.org>
Source record: 51457

John Miles wrote:
>
> Jim Pennell wrote:
> >
> > For the ISM frequency ranges which are used for the wireless LAN,
> > cordless phones, and so on, there is an FCC regulation about the effective
> > power output and so a gain antenna will almost certainly make the unit
> > illegal.
>
> Antenna gain is not restricted under part 15 as far as I'm aware -- only
> ERP.
>
> It would be pretty stupid to regulate antenna gain, since higher antenna
> gain makes interference to other users LESS likely.

You're right. However, since most of the available wireless LAN equipment has a fixed power output, it puts an effective ceiling on the amount of antenna gain you can use. The limit is quite high, however, since the ERP limit is higher when directional antennas are used; you can legally attach 24dBi antennas to at least some wireless LAN gear, and you can even use amplifiers under some circumstances (mostly when the wireless LAN gear is far away from the antenna, so you have lots of cable loss to make up for).

There is quite a bit of gear made for this use; alas, none of it is cheap. A couple of manufacturers (I happen to know of these because my former employer used them):

Andrew Corporation: http://www.andrew.com - makes just about everything
Til-Tek: http://www.tiltek.com - makes antennas

By the way, I noticed a couple of not-horribly-expensive Yagi antennas for 2.4 GHz in the HRO catalog. They're selling them as 2400 MHz ATV antennas, but they should also work for LANs. They have a 15.5 dBi model for $200 and a 21 dBi model for $230, as well as a 15 dBi omni antenna for $200. They're on page 94.

4262. input impedance for tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 02:31:18 UTC
From: Bill Jackson <nospam@newsranger.com>
Message-ID: <WrN47.21745$Kf3.278772@www.newsranger.com>
Source record: 51459

In the ham radio handbook, for the discussion of tube rig building, it is stated that the input impedance of the 3cx-1500 is about 54 ohms. How do you arrive at this figure?

BW.

4263. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 03:35:04 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9j0c0g$1rq$1@slb0.atl.mindspring.net>
Source record: 51460

John Miles wrote:
>
> Jim Pennell wrote:
> >
> > For the ISM frequency ranges which are used for the wireless LAN,
> > cordless phones, and so on, there is an FCC regulation about the
effective
> > power output and so a gain antenna will almost certainly make the unit
> > illegal.
>
> Antenna gain is not restricted under part 15 as far as I'm aware -- only
> ERP.
>
> It would be pretty stupid to regulate antenna gain, since higher antenna
> gain makes interference to other users LESS likely.

Yes, but the way the rules were applied on the commercial product my company made, the transmitter was +30 dBm and the antenna was +6 dBi gain maximum for a total ERP of +36 dBm which was the legal limit.

So, if we wanted a higher gain antenna to help the Rx path gain, to comply with the FCC rules we had to reduce the Tx power to keep the ERP at +36 dBm Max.

Assuming it was being used as a Tx/Rx antenna, and since most transmitters didn't lend themselves to programmable power output, that meant the antenna gain WAS restricted by law.

If it had a separate Rx antenna then you could use as high of a gain antenna as you might wish.... So, the non-standard antenna connectors were required on only the transmit antenna connector.

==========

Now, I suspect quite a few of the products out there offer high gain antennas with the disclaimer that "In order to comply with FCC regulations, the transmit power must be reduced"

And, of course, most end users won't even read the disclaimer, much less reduce the Tx power. So I imagine quite a lot of systems are illegal and nobody cares too much as long as they don't interfere with others.

My original point was why it might be difficult to find a high gain antenna that can be connected to a system, and how this mess came about in the first place.

There's quite a lot of the rules for the ISM band products that are downright weird, and I had to fight many of them when I applied for type acceptance on the first frequency hoppers that the FCC had ever seen under these rules.

Fortunately, I am not doing that any more but it was an interesting time.

Jim Pennell

4264. Re: input impedance for tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 05:31:02 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B53CD89.40C8DDE2@att.net>
Source record: 51461

RF RMS voltage at the input divided by RMS RF current at the input.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Bill Jackson wrote:
>
> In the ham radio handbook, for the discussion of tube rig building, it is stated
> that the input impedance of the 3cx-1500 is about 54 ohms. How do you arrive at
> this figure?
>
> BW.

4265. ex-PMR Conversion Website

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 13:08:35 UTC
From: leigh@media.keele.ac.uk
Message-ID: <9j1dcjafj1@planet.kis.keele.ac.uk>
Source record: 51462

Hello - very rare advert for my website:

www.qsl.net/m5gwh/pmrpage.htm - covers conversion of ex PMR sets - mainly European sets but also Motorola, etc - plenty of links for identification, conversion, supply of sets for conversion to amateur frequencies.

Thanks.

Leigh.....

--

Leigh M. Preece Media and Communications Centre
Keele University. Staffs. UK. ST5 5BG
==========
Ex-PMR Radio Page: http://www.qsl.net/m5gwh/pmrpage.htm

4266. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 22:35:11 UTC
From: rshprd <ka9flx@arrl.net>
Message-ID: <z4357.150639$mG4.72341546@news1.mntp1.il.home.com>
Source record: 51463

The rules (15.247) are very specific (and somewhat cryptic).

Oh yeah, before we go any further, all of this stuff only applies to spread spectrum devices!!!

The first thing you have to do is watch the ERP and EIRP along with the dBm, dBd, and dBi. The last one, dBi, can get you into trouble. dBi is referenced to an Isotropic antenna or "perfect radiator", that does not exist. However, a dipole dBd, which to most of us is a basic antenna, has 2.1dB gain compared to an Isotropic. Power is still dBm, but it gets muddied in the rules because of the constant references to EIRP and dBi.

So forget watts and RX microvolts altogether for this stuff, and stick with the decibel all the way around. If you are really hung up on watts, do it after all the calculations. :-)

Basically, in an omni configuration, the FCC limit is +30 EIRP, which is a little more than half a watt ERP.

In a point - multipoint configuration, where a common site is feeding many remote points, the remote units are allowed up to +36 EIRP if they employ a directional antenna. Basically, the FCC gives you a little more because you are focusing your signal.

It is important to note, that in the above scenarios, the FCC limits the power fed to the "intentional radiator" to +30dBm. The EIRP restriction obviously makes this allowable only with a 0dBi gain antenna, or in the latter case above 6dBi gain antenna.

Now, there is one wonderful loophole remaining for point to point links. That is as follows:

Start with the maximum allowable power at the "intentional radiator" (a.k.a. antenna input) of +30dBm. For every 3dB of antenna gain, over 6dBi, take away 1dB of allowable power to the "intentional radiator". Again, the FCC is providing more to the user for the increased focus of the antenna.

With this last scenario, it is possible, with higher gain antennas (+20dBi Parabolas), to use an off the shelf WLAN transceiver with a typical output power of 100mW (+20dBm), and achieve some pretty high EIRP/ERP that is completely legal.

Point 2 Point (ONLY) e.g. both antennas are directional.
Example: (and I am incorrectly assuming no transmission line loss. Hey, its an example!)

+30dBm power to the intentional radiator with +6dBi gain, EIRP= +36
+29dBm power to the intentional radiator with +9dBi gain. EIRP= +38 (ooh, 2

more dB!)
+28dBm power to the intentional radiator with +12dBi gain. EIRP= +40
(starting to get the picture?)
+27dBm power to the intentional radiator with +15dBi gain. EIRP= +42
(Theoretical limit for a high power off shelf unit)
+26dBm power to the intentional radiator with +18dBi gain. EIRP= +44
(Starting to really get good!)
+25dBm power to the intentional radiator with +21dBi gain. EIRP= +46
+24dBm power to the intentional radiator with +24dBi gain. EIRP= +48 (need I
continue?)

Typical RX thresholds are between -77 and -87dBm for a quality link.
Remember antenna gain works both ways!

As can be seen above, the higher power off the shelf models 500mW (+27dBm)
are, ironically, less desirable because you will reach the legal limit
sooner with less antenna gain, whereas a lower power unit will allow a
higher gain antenna (tightly focused beam), providing a better quality link.

However, 2.4GHz is microwave, and subject to the same problems as any other
microwave system. Therefore, before you start thinking about making that 5
to 15 mile hop between your place and your buddy, consider this.

You will still need to do a proper path analyses for a 2.4GHz point to point
link, and even if you can meet all of those requirements, remember that
these are still part 15 devices. If you cause interference to ANYBODY,
including the existing amateur service at 2.4GHz, you must cease operation.
This has already happened in California, where a WLAN based network provided
was ordered to shutdown operation because the system interfered with
licensed amateur operations, which have priority.

Now, I know what some might be thinking. "If I am a HAM, then I can continue
to operate as a primary service". Wrong! Not unless you want to use a
modulation scheme that is legal for the service, and oh yeah, that pesky 10
minute ID requirement. Kind of blows away the whole WLAN idea now doesn't
it? ;-)

Yes, these things are wonderful and getting cheaper. Will they replace
terrestrial microwave?, not likely. However, they do have a lot of
excellent possibilities for both amateurs and non-amateurs. I could easily
see, with some coordinated effort, these devices being used to create a
regional area wireless network backbone, something akin to packet (only lots
better), no small effort there, but possible.

The speeds are getting up there too. 10Mbps is available today, which
provides about 5Mbps usable throughput after overhead, sometimes better,
sometimes worse. Still, even the older 1.6 and 2.0 Mbps devices provide
reasonable throughput that would rival ISDN or cable.

Food for thought in any case!

Regards,
Bob-KA9FLX

mailto:ka9flx@arrl.net
http://www.qsl.net/ka9flx

"Jim Pennell" <me-nobody@killspam.com> wrote in message
news:9j0c0g$1rq$1@slb0.atl.mindspring.net...
> John Miles wrote:
> >
> > Jim Pennell wrote:
> > >
> > > For the ISM frequency ranges which are used for the wireless LAN,
> > > cordless phones, and so on, there is an FCC regulation about the
> effective
> > > power output and so a gain antenna will almost certainly make the unit
> > > illegal.
> >
> > Antenna gain is not restricted under part 15 as far as I'm aware -- only
> > ERP.
> >
> > It would be pretty stupid to regulate antenna gain, since higher antenna
> > gain makes interference to other users LESS likely.
>
>
> Yes, but the way the rules were applied on the commercial product my
> company made, the transmitter was +30 dBm and the antenna was +6 dBi gain
> maximum for a total ERP of +36 dBm which was the legal limit.
>
> So, if we wanted a higher gain antenna to help the Rx path gain, to
> comply with the FCC rules we had to reduce the Tx power to keep the ERP at
> +36 dBm Max.
>
> Assuming it was being used as a Tx/Rx antenna, and since most
> transmitters didn't lend themselves to programmable power output, that
meant
> the antenna gain WAS restricted by law.
>
> If it had a separate Rx antenna then you could use as high of a gain
> antenna as you might wish.... So, the non-standard antenna connectors
> were required on only the transmit antenna connector.
>
> ============================
>
> Now, I suspect quite a few of the products out there offer high gain
> antennas with the disclaimer that "In order to comply with FCC
regulations,
> the transmit power must be reduced"
>
> And, of course, most end users won't even read the disclaimer, much
less
> reduce the Tx power. So I imagine quite a lot of systems are illegal and
> nobody cares too much as long as they don't interfere with others.

>
> My original point was why it might be difficult to find a high gain
> antenna that can be connected to a system, and how this mess came about in
> the first place.
>
> There's quite a lot of the rules for the ISM band products that are
> downright weird, and I had to fight many of them when I applied for type
> acceptance on the first frequency hoppers that the FCC had ever seen under
> these rules.
>
> Fortunately, I am not doing that any more but it was an interesting
time.
>
>
>
> Jim Pennell
>
>
>

4267. Need FET info, low input capacitance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 23:20:32 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <tl9i31rambjo60@corp.supernews.com>
Source record: 51464

Looking for info on J-FET (field effect transistors) that have very low input capacitance...gate to drain and source. I need a device that has < 1 pF input C and will oscillate in the 0.5 to 20 Mhz range, noise floor is not important. Voltages are 5 to 10 or so, low power, high impedance application.

I have been using the 2N5486 but it's input C is 7 pf and is not working out well in my application. I have heard that UHF FETs tend to have much lower input C. I suppose that transconductance (or whatever it is for FETs) similar to the 2N5486 would be ok.
Thanks
Bob
kb8tl@yahoo.com

4268. Re: Need FET info, low input capacitance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 23:45:14 UTC
From: "Dennis W. Ostrowski" <dwostrowski@lucent.com>
Message-ID: <3B54CE0A.67083FF1@lucent.com>
Source record: 51465

TooManyTubes wrote:

> Looking for info on J-FET (field effect transistors) that have very low
> input capacitance...gate to drain and source. I need a device that has < 1
> pF input C and will oscillate in the 0.5 to 20 Mhz range, noise floor is not
> important. Voltages are 5 to 10 or so, low power, high impedance
> application.
>
> I have been using the 2N5486 but it's input C is 7 pf and is not working out
> well in my application. I have heard that UHF FETs tend to have much lower
> input C. I suppose that transconductance (or whatever it is for FETs)
> similar to the 2N5486 would be ok.
> Thanks
> Bob
> kb8tl@yahoo.com

Bob,

Can't you simply use a 1 picofarad input coupling cap. with your existing
J-FET?

If the input capacitance is 7 pf and you use a 1 pf coupling cap you should get
about 1/8 th of the original input voltage coupled to the gate, but if you have
adequate circuit gain then everything will still work fine.

Oscillators only require an overall circuit gain of 1 at a phase angle of 180
degrees.

Regards,

Dennis O.

4269. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-17 23:55:31 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9j2jgs$lc6$1@slb7.atl.mindspring.net>
Source record: 51466

Bob-KA9FLX wrote:
>
>The rules (15.247) are very specific
>(and somewhat cryptic).
>
>Oh yeah, before we go any further, all
>of this stuff only applies to spread
>spectrum devices!!!

Thanks, Bob, you explained it much more clearly then I did. And you were right, I keep confusing dBi and dBd antenna gains....

Jim Pennell
N6BIU

4270. Re: 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 01:30:55 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B54E97C.159A@pop.removethistomailme.net>
Source record: 51467

rshprd wrote:
>
> Food for thought in any case!
>
> Regards,
> Bob-KA9FLX
> mailto:ka9flx@arrl.net
> http://www.qsl.net/ka9flx

Thanks for a very informative post -- I'm archiving this one.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4271. Re: tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 02:07:07 UTC
From: caveteursus@aol.com
Message-ID: <20010717220707.23733.00003067@ng-mn1.aol.com>
Source record: 51468

Try Steve Bench's website on members.aol.com -- I don't have it bookmarked on this computer, but a google search should find it.

Great site

Jack
xWA8PZL

4272. Re: input impedance for tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 02:37:24 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <ED657.55134$qs5.9605647@news02.optonline.net>
Source record: 51469

Hi Bill,

Is the tube running in grounded grid or grounded cathode ?

I suspect it's grounded grid, in which case the plate RF current is
running through the cathode. In that case you have the RF driving
voltage / RF plate current = input impedance (more or less).

Bob Camp
KB8TQ

"Bill Jackson" <nospam@newsranger.com> wrote in message
news:WrN47.21745$Kf3.278772@www.newsranger.com...
> In the ham radio handbook, for the discussion of tube rig building,
it is stated
> that the input impedance of the 3cx-1500 is about 54 ohms. How do
you arrive at
> this figure?
>
> BW.
>
>

4273. Top 10 Most Wanted IOTA list update

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 03:23:04 UTC
From: -- AB7SL -- <ctj92@hotmail.com>
Message-ID: <si757.58$vj4.11166@newsread1.prod.itd.earthlink.net>
Source record: 51470
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The Top Ten Most Wanted IOTA's data included in the free downloadable IOTA
list
has been updated as of 17-Jul-2001.

Located on the IOTA List Page of the web site listed below.....

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73 / DX

Charles T Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4274. need homebrew parts and selling some

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 03:49:40 UTC
From: eimacman@aol.com
Message-ID: <20010717234940.03559.00004925@ng-cf1.aol.com>
Source record: 51471

LOOKING FOR SOME AMP PARTS
FOR THE WINTER PROJECT
!!!!!!!!!!!!!!!
looking for a socket and chimney for the 4-1000 tube
eimac brand only

looking for a b/w 800 plate choke

looking for a triplett meter model # 220-6

i have a eimac sk 410 socket
to sell or trade fits the
3cx1200a7 and d7 tubes
and maybe 3-500?
i have simpson model 136-0-5
meter to sell or trade

i have a triplett meter model # 440 g to sell or trade

i have 4 matching micronta
meters 2x2 faces brand new
to sell or trade

thanks
joseph

4275. wanted schematic yaesu mobile adapter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 06:40:13 UTC
From: vsw1@aol.com
Message-ID: <20010718024013.19323.00006866@ng-mq1.aol.com>
Source record: 51472

need schematic for yaesu FMA-2070 mobile adapter. clarence wilken N9WSN
vsw1@aol.com

4276. Re: Need FET info, low input capacitance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 11:51:34 UTC
From: Bob <kb8tl@yahoo.com>
Message-ID: <9j3tam$l3j2@eccws12.dearborn.ford.com>
Source record: 51473

I hadn't thought of that one, I'll give it a try. Thanks

Dennis W. Ostrowski <dwostrowski@lucent.com> wrote in message
news:3B54CE0A.67083FF1@lucent.com...
> TooManyTubes wrote:
>
> > Looking for info on J-FET (field effect transistors) that have very low
> > input capacitance...gate to drain and source. I need a device that has <
1
> > pF input C and will oscillate in the 0.5 to 20 Mhz range, noise floor is
not
> > important. Voltages are 5 to 10 or so, low power, high impedance
> > application.
> >
> > I have been using the 2N5486 but it's input C is 7 pf and is not working
out
> > well in my application. I have heard that UHF FETs tend to have much
lower
> > input C. I suppose that transconductance (or whatever it is for FETs)
> > similar to the 2N5486 would be ok.
> > Thanks
> > Bob
> > kb8tl@yahoo.com
>
> Bob,
>
> Can't you simply use a 1 picofarad input coupling cap. with your existing
> J-FET?
>
> If the input capacitance is 7 pf and you use a 1 pf coupling cap you
should get
> about 1/8 th of the original input voltage coupled to the gate, but if you
have
> adequate circuit gain then everything will still work fine.
>
> Oscillators only require an overall circuit gain of 1 at a phase angle of
180
> degrees.
>
> Regards,
>
> Dennis O.
>

4277. Looking for a crystal calibrator circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 14:48:13 UTC
From: funkeemonkee7@yahoo.co.uk
Message-ID: <41141056.0107180648.4968a4bf@posting.google.com>
Source record: 51474

I need outputs at 1 Mhz, 100 KHz, 10 KHz, 1 Khz and 100 Hz.
Can anyone point me in the direction of a suitable circuit ?

Many thanks

4278. Re: Looking for a crystal calibrator circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 16:46:35 UTC
From: K7MEM <jda@rupert.tds-az.lmco.com>
Message-ID: <3B55BD6B.446B9B3D@rupert.tds-az.lmco.com>
Source record: 51477

Miner49er wrote:
>
> I need outputs at 1 Mhz, 100 KHz, 10 KHz, 1 Khz and 100 Hz.
> Can anyone point me in the direction of a suitable circuit ?
>
> Many thanks

You could start by looking in just about any ARRL Handbook published since
the dawn of creation. :) Your local public should have a few issues on the shelf.

Most crystal calibrators are built for 100 KHz operation. Usually the ones built into receivers are of this type and are not switchable to any other resolution. A nice schematic of such a unit is at:

Build A 100Khz Crystal Calibrator

http://www.rason.org/Projects/calibrat/calibrat.htm

But, that doesn't mean this is the only kind of calibrator. You can start out with a crystal that is much higher and then divide it down. I have one at home that I built over 20 years ago that uses a 1 MHz crystal and is followed by a couple of SN7490 counter chips to give me 1 MHz, 500 KHz, 100 KHz, etc. markers. Of course this can be done with more up to date chips than that but I can zero beat it with WWV and depend on the divided markers to be right on frequency.

You will probably find that getting a crystal for 1 or 2 MHz, and then dividing down, will be cheaper than purchasing a 100 KHz crystal. The 100 KHz crystals usually cost much more than other crystals.

Martin

--
Martin E. Meserve K7MEM
martin.e.meserve AT lmco.com

I respond to news groups and E-Mail on my own time and therefore my responses may not be as timely as you, or I, would like them to be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

4279. How do I recieve 900mhz stereo??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 17:44:30 UTC
From: Mario <mm@mm.com>
Message-ID: <9j4htu$9n0@dispatch.concentric.net>
Source record: 51475

I have a device called a Soncibox IMTuner which broadcasts stereo sound from my computer to a reciever hooked up to my stereo. I would like to have multiple recievers but they don't sell them seperately. What can I make/modify to recieve this 900mhz stereo signal.

The people at SonicBox said that many 900mhz devices can pick it up like wireless speakers and the such. But I don't want to spend alot of money. I was hoping that there is a 900mhz reciever kit I could build, or plans for a homemade 900mhz -> to 90mhz down converter. But I have been unable to find much usefull information since this is a legally sketchy range.

Does anybody know where I could find some information to do this?? I have an old moded scanner (or maybe it is so old it didn't have to be modded) but I was hoping for a stereo solution.

Thanks,

mario

4280. Re: How do I recieve 900mhz stereo??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-18 21:29:38 UTC
From: "Gary Tait, Very Real" <tat@primeline.net>
Message-ID: <3B55FFC2.A339C6A0@primeline.net>
Source record: 51476

Mario wrote:
>
> I have a device called a Soncibox IMTuner which broadcasts stereo sound from
> my computer to a reciever hooked up to my stereo. I would like to have
> multiple recievers but they don't sell them seperately. What can I
> make/modify to recieve this 900mhz stereo signal.
>
> The people at SonicBox said that many 900mhz devices can pick it up like
> wireless speakers and the such. But I don't want to spend alot of money. I
> was hoping that there is a 900mhz reciever kit I could build, or plans for a
> homemade 900mhz -> to 90mhz down converter. But I have been unable to find
> much usefull information since this is a legally sketchy range.
>
> Does anybody know where I could find some information to do this?? I have
> an old moded scanner (or maybe it is so old it didn't have to be modded) but
> I was hoping for a stereo solution.
>
> Thanks,
>
> mario

There is nothing illegal whatsoever about recieving 900 Mhz.
(it's the cel-phone freqquencies int the 800-900Mhz range
that are the hot potato)

What I'd do first is see if it transmits each channel discretely,
modulates each channels as a subcarrier on a main carrier, multiplexes
it like
regular FM stereo.

You might be able to find something used on E-bay, or if you are brave
enough,
hack a cel phone to provide frequencies to downconvert to something
easier to
process, suh as the 90 Mhz range.
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4281. Re: Looking for a crystal calibrator circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 00:20:05 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3B56278B.1DDA64C7@cmcorp.com>
Source record: 51478

Miner49er wrote:

> I need outputs at 1 Mhz, 100 KHz, 10 KHz, 1 Khz and 100 Hz.
> Can anyone point me in the direction of a suitable circuit ?
>
> Many thanks

Start with a 1 Mhz crystal clock, a very common computer item.
Divide it by 10 using 1/2 of a 74HC390 for 100 KHz,
and again using the other half for 10 KHz. etc.

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

4282. Re: Need FET info, low input capacitance

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 00:49:16 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <g8q57.9271$gj1.864516@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51479

A 2N4416 would do the trick; the input C is typically 4pF. Another device
that would do the trick is a J310; this device makes a great oscillator,
probably better than the 4416.

Pete Gianakopoulos KE9OA
Chicago, Il.

Bob <kb8tl@yahoo.com> wrote in message
news:9j3tam$l3j2@eccws12.dearborn.ford.com...
> I hadn't thought of that one, I'll give it a try. Thanks
>
> Dennis W. Ostrowski <dwostrowski@lucent.com> wrote in message
> news:3B54CE0A.67083FF1@lucent.com...
> > TooManyTubes wrote:
> >
> > > Looking for info on J-FET (field effect transistors) that have very
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> > > input capacitance...gate to drain and source. I need a device that has
<
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> > > pF input C and will oscillate in the 0.5 to 20 Mhz range, noise floor
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> not
> > > important. Voltages are 5 to 10 or so, low power, high impedance
> > > application.
> > >
> > > I have been using the 2N5486 but it's input C is 7 pf and is not
working
> out
> > > well in my application. I have heard that UHF FETs tend to have much
> lower
> > > input C. I suppose that transconductance (or whatever it is for FETs)
> > > similar to the 2N5486 would be ok.
> > > Thanks
> > > Bob
> > > kb8tl@yahoo.com
> >
> > Bob,
> >
> > Can't you simply use a 1 picofarad input coupling cap. with your
existing
> > J-FET?
> >
> > If the input capacitance is 7 pf and you use a 1 pf coupling cap you
> should get

> > about 1/8 th of the original input voltage coupled to the gate, but if
you
> have
> > adequate circuit gain then everything will still work fine.
> >
> > Oscillators only require an overall circuit gain of 1 at a phase angle
of
> 180
> > degrees.
> >
> > Regards,
> >
> > Dennis O.
> >
>
>

4283. Re: *Basic* receiver-RF-circuit question...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 01:16:47 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B5634FF.84D4867D@dialpoint.net>
Source record: 51482

Because the antenna is usually a low impedance and it is connected to
the low impedance point on the coil of a tuned circuit. If it was
connected to the top of the coil it would load down the higher impedance
of the tuned circuit and the selectivity would be very broad. Usually
the opposit if what is desired.

JG in NY wrote:
>
> Even in the simplest receiver circuits, the antenna input signal is commonly
> coupled inductively to the first (tuned circuit) stage of the receiver.
>
> I.e., the antenna goes to a coil, the opposite end of which is grounded, and
> the signal is coupled to the initial tuned circuit's L.
>
> Why is it coupled in this manner? Why not connect the antenna input directly
> to the parallel tuned circuit??
>
> Could someone please offer an explanation? Many thanks!
> JG

4284. *Basic* receiver-RF-circuit question...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 01:30:35 UTC
From: jwg6@cornell.edu
Message-ID: <9j5d7rhdk1@news01.cit.cornell.edu>
Source record: 51481

Even in the simplest receiver circuits, the antenna input signal is commonly coupled inductively to the first (tuned circuit) stage of the receiver.

I.e., the antenna goes to a coil, the opposite end of which is grounded, and the signal is coupled to the initial tuned circuit's L.

Why is it coupled in this manner? Why not connect the antenna input directly to the parallel tuned circuit??

Could someone please offer an explanation? Many thanks!
JG

4285. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 03:00:26 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10107182256230.15560-100000@gloria.cam.org>
Source record: 51486

On Wed, 18 Jul 2001, Ralph Lane wrote:

> Hay, what happened to Dan's small parts, I can't find him!
> Ralph
>
>
I have no idea; I haven't checked the site in a couple of months.

However, the ISP where the website is, http://www.fix.net
has a message dated July 16th about some technical problems,
including disappeared webpages. It says that "90% should be
restored by now". Perhaps that's where the problem lies.

Otherwise, one could hope that the webpage has merely changed
locations, and it simply hasn't shown up in the searchengines
yet (I just checked with yahoo, and it showed the old URL, which
gives a 404 error).

Dan's was around long before he had a webpage, so one might
contact him by mail. I don't happen to have the address, though.

Michael VE2BVW

4286. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 03:52:08 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B565977.AB8AFCEB@home.com>
Source record: 51485

I notice that Dan's uses fix.net to host its web page.

This service also hosts the Norcal QRP web page, which has been down for
the
last week due to server problems at fix.net.

Likely "Dan's" is having the same problem.

Ralph Lane wrote:
>
> Hay, what happened to Dan's small parts, I can't find him!
> Ralph

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4287. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 04:06:24 UTC
From: QSB@QRM-QRN.net
Message-ID: <slrn9lcn5v.5vu.QSB@animas.frontier.net>
Source record: 51487

On Wed, 18 Jul 2001 23:00:26 -0400, Michael Black scribbled:
>
>On Wed, 18 Jul 2001, Ralph Lane wrote:
>
>> Hay, what happened to Dan's small parts, I can't find him!
>>
>I have no idea; I haven't checked the site in a couple of months.
>
>However, the ISP where the website is, http://www.fix.net
>has a message dated July 16th about some technical problems,
>....
>Dan's was around long before he had a webpage, so one might
>contact him by mail. I don't happen to have the address, though.

Looking at the *cached* page at google yields his page
dated "06-05-2001" (? May 6 or June 5 ?):

Dan's
Small Parts and Kits
Box 3634
Missoula, Montana 59806-3634

Phone 406 258 2782

The rest of his page is there, too.

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

4288. Attaching external antenna to wireless home LAN?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 04:22:15 UTC
From: jacques_bouchard@yahoo.com
Message-ID: <Xns90E33BF3BAF3jacquesbouchardyahoo@216.187.106.195>
Source record: 51488

This was originally posted on alt.internet.wireless and rec.radio.amateur.antenna, but I received no reply so I thought I'd try this group instead.

A picture of the equipment referred to below can be found at http://www.geocities.com/sniveling_coward_ca/anypoint.jpg

I have an Intel Anypoint wireless network at home (1.6mbps, 2.4GHz HomeRF). It consists of one USB device for my desktop, and one PC card for my laptop. The USB device has an internal antenna that's in fact a pattern etched directly on the circuit board; the PC card has a rubber-coated antenna connected to the card by a metal (copper or brass) bracket.

The range is 150 feet, which in theory should be sufficient for me to work outside on the patio. However, on some days I can lose the connection even if I'm in the next room. I've looked into extending my reach (or at least improving reception and transmission) by attaching an external antenna, but I'm going blindly about this. I know that antennae are a science onto themselves, and while I can work a soldering iron pretty good I know next to nothing about this technology.

I tried clipping a regular stereo antenna (the long plastic T-shape flat cable that pins to a wall) onto the etched antenna without noticeable improvement. I did notice, however, a tiny female TNC-like connector on the board. A continuity test reveals that it's connected to the etched antenna, so I'm thinking it might make a suitable connector.

The PC card has a rubber-coated antenna that connects to the card through a metal bracket that could serve as connecting point.

All I need to know is what type of antenna would be suitable, and what connection point would be preferrable. Naturally, I'm looking for inexpensive alternatives, since this is a relatively inexpensive - albeit suitable - network. I've visited several sites explaining the fabrication process for different types of antennae, but I wouldn't know which model is suitable for my needs.

Thanks for your help.

jaybee

4289. Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 04:32:17 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B5662D1.351E7D47@erols.com>
Source record: 51480

Hay, what happened to Dan's small parts, I can't find him!
Ralph

4290. Re: *Basic* receiver-RF-circuit question...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 05:35:29 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B5671A1.D23E4EB4@erols.com>
Source record: 51483

The basic reason for using inductive coupling is to allow matching the antenna impedence to the input tuned circuit. the antenna impedence is quite low (50-100 ohms) compared to the tuned circuit impedence (several 1000 ohms). Receivers sometimes have a second input antenna connector connected directly to the input tuned circuit for connecting short antennas that have high impedences.
Hope this helps
Ralph

JG in NY wrote:

> Even in the simplest receiver circuits, the antenna input signal is commonly
> coupled inductively to the first (tuned circuit) stage of the receiver.
>
> I.e., the antenna goes to a coil, the opposite end of which is grounded, and
> the signal is coupled to the initial tuned circuit's L.
>
> Why is it coupled in this manner? Why not connect the antenna input directly
> to the parallel tuned circuit??
>
> Could someone please offer an explanation? Many thanks!
> JG

4291. Need Dentron MLA-2500 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 05:37:31 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tlchnctalr8n52@corp.supernews.com>
Source record: 51484
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I am trying to troubleshoot a MLA2500 with a schematic from
a MLA2500B and there must be some differences in the control
circuitry. I get about 1500 volts as soon as the amp is powered
on. When the time delay relay kicks on the voltage rises to about
2200 volts. Fortunately I don't have any tubes in the amplifier
to get ruined because to the early HV. Either electronic or printed
schematic would be helpful.

Thanks in advance

Doug N4IJ

4292. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 08:28:18 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <EZy57.68654$B56.13773578@news2-win.server.ntlworld.com>
Source record: 51489

> WARNING: This project can be dangerous. Please work carefully, and fully
> understand the entire thing before you begin. If you blow yourself up
> from ignorance, I take no responsibility. I am willing to answer
> questions, so if you have them, ask.
>
> Another approach, with which I have had acceptable results, is to push a
> high voltage into the battery, but regulating the current to something in
> the 10-20 hour charge rate. The circuit to do this would be a capacitor
> wired in series with the AC side of a rectifier. The DC side of the
> rectifier is connected to the battery, the AC side is connected (through
> the cap and a fuse) to a wall outlet.
==========
If available a variac (variable auto-transformer) would be a safer set-up.

Just add a rectifier diode or bridge, connect battery and monitor battery
voltage and charging current.
Gently increase voltage until current starts flowing and then keep current
down to less than 0.1 C (being 4.5 A for a 45 Ah battery)v by reducing
voltage until voltage has been reduced to approx.14.5 V .
Then allow battery to be charged by a normal charger.
If the variac is for a lower amp rating ,keep the charging current to this
lower rate until battery voltage permits charging on a normal charger.

73 Frank gm0csz.kn6wh@ukrs.org

4293. Re: Need Dentron MLA-2500 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 13:56:34 UTC
From: Bob Dodson <wb5apd@alltel.net>
Message-ID: <3B56E712.D8534434@alltel.net>
Source record: 51490
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

try

ftp://bama.sbc.edu/downloads/dentron/mla2500/sch1.gif

ftp://bama.sbc.edu/downloads/dentron/mla2500/sch2.gif

73 bob wb5apd

Douglas Snowden wrote:
>
> I am trying to troubleshoot a MLA2500 with a schematic from
> a MLA2500B and there must be some differences in the control
> circuitry. I get about 1500 volts as soon as the amp is powered
> on. When the time delay relay kicks on the voltage rises to about
> 2200 volts. Fortunately I don't have any tubes in the amplifier
> to get ruined because to the early HV. Either electronic or printed
> schematic would be helpful.
>
> Thanks in advance
>
> Doug N4IJ

--
73
Bob Dodson WB5APD My Web Page
Dahlonega Ga. EM84AK http://www.homestead.com/wb5apd
E-Mail mailto:wb5apd@arrl.net FAX Number 775-514-2688
==========
I MONITOR 144.200
144mhz [2m] Station 432mhz [70cm] Station
8877/1.5kw 2x17 No EL @90' 4cx1600u/1.5kw 1X38 No EL @85'
MGF1302 0.8nf ERP=87,990 watts MGF1302 0.9nf ERP=95,741 watts
[EME-HSCW-SSB-CW] [EME-HSCW-SSB-CW]
==========

4294. Re: tube rectified power supplies

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 15:10:54 UTC
From: 385912512382@vip.hr
Message-ID: <1ewr4qm.41w7rx1rw1636N%385912512382@vip.hr>
Source record: 51491

gigglez <gigglez_0@hotmail.com> wrote:

> Does anyone know of any web sites that give pretty good
> info or schematics for a tube type dc power supply ?
>
> I have been fooling around with one and two tube radios
> for about a year now and would like to have a better
> power supply than wiring 9 volt batteries together to
> provide power. I would like to build a nice supply using
> tubes for rectification and regulation if possible.

Thanks also from me regarding URLs.

Although somebody may think this is silly issue, for tube amplifiers
such supply (with good inductor) is must. It is simply not it without!

73 de 9A6JGJ!

4295. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 15:42:42 UTC
From: Dale Rice <rice@starband.net>
Message-ID: <SdD57.2256$mm.148831349@twister2.starband.net>
Source record: 51494

The copper penny story is almost certainly true. I used to make some very respectable detectors when I was a kid by taking two pieces of copper bell wire and roasting one in a gas pilot light until it turned black. I then twisted it until the outer black stuff fell off leaving a reddish oxide. I then took the other wire and scraped it clean and twisted the two together. It worked as good as a regular crystal diode for me. I tried a lot of other stuff but this was the easiest and always worked and didn't need adjustment.

"Bruce Torelli" <nospamnospambtorelli@ieee.org> wrote in message news:2eD57.1650$P04.96779@newsread2.prod.itd.earthlink.net...
> I'm looking for information on primitive homemade radios. A few of us in
> the office have been talking about how to build a radio (or a diode) from
> stuff around the house?
>
> It all started with a story about POWs building radios using a corroded
> copper penny for a diode? I don't know if that's true either. I have also
> heard that a razor blade could be used like a cats whisker. Any body really
> know anything about this? Not much turns up when searching the information
> goat path.
>
> All feedback appreciated.
>
> Thanks
>
> --
> Bruce Torelli
> Jonesboro, GA
>
>

4296. Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 15:42:54 UTC
From: Bruce Torelli <nospamnospambtorelli@ieee.org>
Message-ID: <2eD57.1650$P04.96779@newsread2.prod.itd.earthlink.net>
Source record: 51492

I'm looking for information on primitive homemade radios. A few of us in the office have been talking about how to build a radio (or a diode) from stuff around the house?

It all started with a story about POWs building radios using a corroded copper penny for a diode? I don't know if that's true either. I have also heard that a razor blade could be used like a cats whisker. Any body really know anything about this? Not much turns up when searching the information goat path.

All feedback appreciated.

Thanks

--
Bruce Torelli
Jonesboro, GA

4297. Seeking Specs on 8908 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 16:04:55 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <oBD57.6143$b3.2051883@feed.centurytel.net>
Source record: 51493

I pulled this square peg (octal based, more accurately) out of a Hy Gain 644
"Footwarmer". It was marked "HyGain 760002". I was told that it's an 8908.
Both tubes have suffered a "smoke leak" (vacuum leak) and need replacing.
None of my manuals give the specs for this tube. I would like to find a
less expensive substitute.
Does anyone have it in any of their books?

4298. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 16:54:50 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <904elt4o57ros4h59j536fj08f02cnqh68@4ax.com>
Source record: 51495

On Thu, 19 Jul 2001 15:42:54 GMT, "Bruce Torelli"
<nospamnospambtorelli@ieee.org> wrote:

>I'm looking for information on primitive homemade radios. A few of us in
>the office have been talking about how to build a radio (or a diode) from
>stuff around the house?
>
>It all started with a story about POWs building radios using a corroded
>copper penny for a diode? I don't know if that's true either. I have also
>heard that a razor blade could be used like a cats whisker. Any body really
>know anything about this? Not much turns up when searching the information
>goat path.

The razor blade part works. When I was 11 I built a crystal radio
with a razor blade, crystal earphone, a disk capacitor (around 200 pF)
and a coil of enameled wire which I tuned with a slider. The razor
blade used a stub of pencil and a paper clip to turn in to a detector.
It worked, but frankly a good point contact germanium diode would
outperform it.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

4299. Re: Attaching external antenna to wireless home LAN?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 21:44:18 UTC
From: JWheeler <"kd5bcu a sydcom dot net">
Message-ID: <3b575268_3@corp-news.newsgroups.com>
Source record: 51496

Thanks for your help.
>
>
>
> jaybee

Have you tried contacting the maker? I have seen similar equiment from Cisco system, so I know that what you are talking about exists. In the application I saw, the antenna was similar to the antenna seen on most new amateur radio hand held radios. I would have to assume that it was set for a specific frequency, tho.

4300. Re: Seeking Specs on 8908 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 21:47:51 UTC
From: "Dennis W. Ostrowski" <dwostrowski@lucent.com>
Message-ID: <3B575587.98B196A1@lucent.com>
Source record: 51397

n7kn wrote:
>
> I pulled this square peg (octal based, more accurately) out of a Hy Gain 644
> "Footwarmer". It was marked "HyGain 760002". I was told that it's an 8908.
> Both tubes have suffered a "smoke leak" (vacuum leak) and need replacing.
> None of my manuals give the specs for this tube. I would like to find a
> less expensive substitute.
> Does anyone have it in any of their books?

There is NO direct replacement that I know of.

Maco, (a CB linear manufacturer in the 70's), worked with GE to put that tube into a compactron based package called the M-2057. (later called the Y-2057).

The M in the tube designation stood for MACO. (MAjestic COmmunications Co, Memphis, Tn.)

The closest match to an existing tube with an octal base is the 6LW6, but the filament voltage is different, the transconductance figures are less, the capacitance numbers are different, and I believe the base pin outs are different.

If I remember correctly, that Hygain Footwarmer was a grid driven amplifier and I had to change it's input and output tuning to match the pair of 6LW6 tubes.

The original tubes had their filaments connected in parallel, and you have to connect them in series in order to use the pair of 6LW6's

The 6LW6 CAN be made to work as a sub. in that amp. because I have done it; but that was long ago, and I don't trust the accuracy of my memory enough to provide any greater detail.

I hope the limited amount of information that I was able to provide will be of some use to you.

Regards,

Dennis O.

4301. Re: Attaching external antenna to wireless home LAN?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 22:10:30 UTC
From: jacques_bouchard@yahoo.com
Message-ID: <Xns90E3B8DBFB0C8jacquesbouchardyahoo@216.187.106.195>
Source record: 51398

"JWheeler" <kd5bcu a sydcom dot net> wrote in
news:3b575268_3@corp-news.newsgroups.com:

> Thanks for your help.
>>
>>
>>
>> jaybee
>
> Have you tried contacting the maker? I have seen similar equiment from
> Cisco system, so I know that what you are talking about exists. In the
> application I saw, the antenna was similar to the antenna seen on most
> new amateur radio hand held radios. I would have to assume that it was
> set for a specific frequency, tho.

The Anypoint Wireless equipment is that type of equipment that
manufacturers - in this case Intel - hate to offer support on, because
they're working on something better. On the Intel wireless newsgroup, they
refuse to answer questions, referring users instead to their web site,
which isn't very comprehensive.

Since there is no outside connection for an external antenna, I doubt
Intel makes them available. I did see an internel connector however, for
which I may fashion a mini TNC connector. My only question remains the type
of antenna I should build (since buying one would be almost as expensive as
the cost of the unit). From what I've read, an omni-directional antenna
rated at 2.4 GHz might do the trick.

jaybee

4302. I need advice on a homebrew antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-19 23:44:02 UTC
From: n9rk@aol.com
Message-ID: <20010719194402.19079.00000320@ng-fb1.aol.com>
Source record: 51399

Hello all
I live in an apartment building and have some restrictions on what I can put up.
I want to build a vertical antenna for 10, 12, 15, 17, and 20. I was thinking of just using some tubing to be cut to be resonant on 20m, add some wire radials at the bottom, and use an auto antenna tuner to tune it. Now, the only thing is that the only place I would have to put this antenna is to attach it with arms to our mast running up the side of the chimney. My question(s) is: 1: Would the chimney interfere with the antennas preformance? 2: At the top of the mast are some beams which would be about 5 feet above the vertical antenna. Would these interfere with the tuning of the vertical? Any other ideas on a vertical antenna to build for the bands I mentioned? The antenna has to be under 20 feet tall and no radials, counterpoise, or whatever sticking out over the edge of the roof. Would any commerically made antenna fit these needs??
Please email me direct at: N9RK@aol.com
73,
Renee N9RK

4303. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 02:28:09 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B579739.A9AE758A@visi.com>
Source record: 51400

Allodoxaphobia wrote:
>
> On Wed, 18 Jul 2001 23:00:26 -0400, Michael Black scribbled:
> >
> >On Wed, 18 Jul 2001, Ralph Lane wrote:
> >
> >> Hay, what happened to Dan's small parts, I can't find him!

I found him via the NorCal site at:

http://www.fix.net/~jparker/dans.html

Bob L. WB0POQ

4304. Connector info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 02:33:22 UTC
From: "John D. Farr" <johnfarr@ro.com>
Message-ID: <VJM57.1627$m11.166108@e420r-atl1.usenetserver.com>
Source record: 51401
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Greetings. Thanks for looking at this.

I have a piece of equipment that has what looks like an overgrown Centronics connector. It has a rectangular housing, 24 contacts and a pitch of just under 0.2 inches. It is used to connect the plugins to the mainframe of the 140 series of HP spectrum analyzers and oscilloscopes. I need to find some of these.

I have been unable to find a source after an extensive search with the usual vendors and manufacturers. I know that HP made some of their own and that Amphenol once made a compatible connector. I don't even know the name of the connector series. It would be a great help someone could tell me the name of what I'm looking for. It would put me in bliss if someone could sell me one too.

Thanks,

John
KC4ZXX

4305. Re: Seeking Specs on 8908 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 06:20:14 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <j5Q57.6232$b3.2094246@feed.centurytel.net>
Source record: 51402

Thanks for this infomation. It isn't much, but it's a start.
Unfortunately, my books don't cover the 6LW6 either.
If you replaced them with the 6LW6 and rewired the filaments in series, that should tell me the 8908 is a 12 volt tube.
8908s are available through RF Parts for $100 each. I really don't think this old CB amp is worth dumping $200 into.

I think I might be better off to salvage the parts for a future project using 811As or some other currently produced tube.

Dennis W. Ostrowski <dwostrowski@lucent.com> wrote in message news:3B575587.98B196A1@lucent.com...

> There is NO direct replacement that I know of.
>
> Maco, (a CB linear manufacturer in the 70's), worked with GE to put that tube
> into a compactron based package called the M-2057. (later called the Y-2057).
>
> The M in the tube designation stood for MACO. (MAjestic COmmunications Co,
> Memphis, Tn.)
>
> The closest match to an existing tube with an octal base is the 6LW6, but the
> filament voltage is different, the transconductance figures are less, the
> capacitance numbers are different, and I believe the base pin outs are
> different.
>
> If I remember correctly, that Hygain Footwarmer was a grid driven amplifier and
> I had to change it's input and output tuning to match the pair of 6LW6 tubes.
>
> The original tubes had their filaments connected in parallel, and you have to
> connect them in series in order to use the pair of 6LW6's
>
> The 6LW6 CAN be made to work as a sub. in that amp. because I have done it; but
> that was long ago, and I don't trust the accuracy of my memory enough to provide
> any greater detail.
>

> I hope the limited amount of information that I was able to provide will
be of
> some use to you.
>
>
> Regards,
>
> Dennis O.

4306. faulty LM723 regulator in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 13:32:23 UTC
From: lgagnon@sherrittoil.com
Message-ID: <1d3b4598.0107200532.35ec76de@posting.google.com>
Source record: 51404

Hello. I am attempting to repair a power supply for a Wavetek 3001 signal generator. The supply provides +18, -18, +27 and +7.3volts DC. The +18 volt line supply is based around an LM723 regulator feeding an NPN series pass power transistor. The -18 volt line is derived from the +18 volt line using an op-amp comparing against ground. The +7.3 volt line is pre-regulated only and uses the other side of MC1458 op amp plus a series pass transistor. It feeds LM7805 regulators throughout the unit so I am not to worried about it.

The symptoms are difficult to adjust to +18 volts, drifting at no load, drop from 18volts to 8 volts when loaded with resistive 1 amp. These symptoms suggest to me that the LM723 regulator is faulty. Because there is power out on each line I doubt it has anything to do with the pass transistors or any pre-regulation transistor. How would I go about checking the LM723 before simply replacing it?? The reason I don't want to just replace and try is that it is a LM723H TO-100 can type and I am only able to obtain the DIP14 package so I will have to retrofit!

Voltages at the LM723 appear reasonable, with 6.3v at the Vref....any ideas out there would be greatly appreciated. Larry Gagnon VE6MK

4307. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 14:08:24 UTC
From: bpasaric@mac.com
Message-ID: <1ewu6z8.p8h7wq1doiv7kN%bpasaric@mac.com>
Source record: 51403

Go to <http://www.midnightscience.com>. They might help.
Bozidar, 9A2HL

4308. Re: Connector info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 15:19:33 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-2007010819330001@dhcp-40-159.caltech.edu>
Source record: 51405
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

In article <VJM57.1627$m11.166108@e420r-atl1.usenetserver.com>, "John D. Farr" <johnfarr@ro.com> wrote:

>Greetings. Thanks for looking at this.
>
>I have a piece of equipment that has what looks like an overgrown Centronics
>connector. It has a rectangular housing, 24 contacts and a pitch of just
>under 0.2 inches. It is used to connect the plugins to the mainframe of the
>140 series of HP spectrum analyzers and oscilloscopes. I need to find some
>of these.
>
>I have been unable to find a source after an extensive search with the usual
>vendors and manufacturers. I know that HP made some of their own and that
>Amphenol once made a compatible connector. I don't even know the name of
>the connector series. It would be a great help someone could tell me the
>name of what I'm looking for. It would put me in bliss if someone could
>sell me one too.
>

These connectors are now manufactured by WPI and available from Newark Electronics. 1 800-463-9275 WPI makes a number of Amphenols old connectors. The ones you looking for are called "26 Series" 24 pin plug with polarization pins is about $35 24 pin polarization receptacle is $40.

73 WB6IQD Tom

4309. Re: *Basic* receiver-RF-circuit question...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 19:42:01 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9ja1dk$j2i$1@wanadoo.fr>
Source record: 51406

But I believe there is another option to match a low impedance antenna to a high Q input circuit : the capacitive coupling. Instead a tap on the coil, we can make a tap between two capacitors. The tap is connected to the antenna and the ratio between the two capacitors determines the input impedance.

However I think Inductive coupling is often prefered, because it provides a return path for DC and other atmospherics currents.

Thank you for your comments on my point of view.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Ralph Lane" <crlane@erols.com> a &#65533;crit dans le message news: 3B5671A1.D23E4EB4@erols.com...
The basic reason for using inductive coupling is to allow matching the antenna
impedence to the input tuned circuit. the antenna impedence is quite low (50-100
ohms) compared to the tuned circuit impedence (several 1000 ohms). Receivers
sometimes have a second input antenna connector connected directly to the input
tuned circuit for connecting short antennas that have high impedences.
Hope this helps
Ralph

JG in NY wrote:

> Even in the simplest receiver circuits, the antenna input signal is commonly
> coupled inductively to the first (tuned circuit) stage of the receiver.
>
> I.e., the antenna goes to a coil, the opposite end of which is grounded, and
> the signal is coupled to the initial tuned circuit's L.
>
> Why is it coupled in this manner? Why not connect the antenna input directly
> to the parallel tuned circuit??
>
> Could someone please offer an explanation? Many thanks!
> JG

4310. Re: Looking for a crystal calibrator circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 19:57:04 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9ja29s$f6u$1@wanadoo.fr>
Source record: 51407

You can also try to salvage a 10.0 or 12.8 MHz TCXO from a discarded synthesized VHF radio. The frequency stability will be certainly far better than that you'd get with computer crystals.

(Obviously it's not possible to get in a simple way a 1 MHz output with a 12.8 or 10.7 MHz oscillator, but you can consider this solution considering your precise needs). Other frequencies are OK.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Miner49er" <funkeemonkee7@yahoo.co.uk> a &#65533;crit dans le message news:
41141056.0107180648.4968a4bf@posting.google.com...
I need outputs at 1 Mhz, 100 KHz, 10 KHz, 1 Khz and 100 Hz.
Can anyone point me in the direction of a suitable circuit ?

Many thanks

4311. Re: Looking for a crystal calibrator circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 20:45:56 UTC
From: la8ak@online.no
Message-ID: <3b588fdd.776511220@news.online.no>
Source record: 51408

On Fri, 20 Jul 2001 21:57:04 +0200, "J.F. FOURCADIER"
<jf.fourcadier@wanadoo.fr_NOSPAM> wrote:

>You can also try to salvage a 10.0 or 12.8 MHz TCXO from a discarded
>synthesized VHF radio. The frequency stability will be certainly far better
>than that you'd get with computer crystals.
>
>(Obviously it's not possible to get in a simple way a 1 MHz output with a
>12.8 or 10.7 MHz oscillator, but you can consider this solution considering
>your precise needs). Other frequencies are OK.
>
>--
>
>73 de F4DAY
>
Jean-Fran&#65533;ois, obviously it is a very good idea to use 12.8MHz and
divide by 128 for 100kHz

73
jan-martin
LA8AK

4312. End fed zep info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 22:17:07 UTC
From: n9rk@aol.com
Message-ID: <20010720181707.19934.00000425@ng-fn1.aol.com>
Source record: 51409

Can someone please email me a description of how to build an end fed zep? Or is there a web site where I can go to get this information? Please email me at:
N9RK@aol.com
73,
Renee N9RK

4313. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 22:23:36 UTC
From: rshprd <ka9flx@arrl.net>
Message-ID: <lb267.159173$mG4.76903857@news1.mntp1.il.home.com>
Source record: 51410

Believe it or not, the boyscout handbook still has a xtal radio design using, I think, a safety ping and some raw germanium and/or equivalent detector piece etc..

I also have heard about using a rusty razor blade.

PBS had a special about POWs. One of the things that was talked about revolved around the POWs using all sorts of stuff to make simple rcvrs to keep up on the outside world.

Sorry, cannot remember the specifics of the show.

"Bruce Torelli" <nospamnospambtorelli@ieee.org> wrote in message news:2eD57.1650$P04.96779@newsread2.prod.itd.earthlink.net...
> I'm looking for information on primitive homemade radios. A few of us in
> the office have been talking about how to build a radio (or a diode) from
> stuff around the house?
>
> It all started with a story about POWs building radios using a corroded
> copper penny for a diode? I don't know if that's true either. I have also
> heard that a razor blade could be used like a cats whisker. Any body
really
> know anything about this? Not much turns up when searching the information
> goat path.
>
> All feedback appreciated.
>
> Thanks
>
> --
> Bruce Torelli
> Jonesboro, GA
>
>

4314. PN2222A's for sale - back in stock

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 23:07:35 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <AQ267.587$uD5.354006@news1.iquest.net>
Source record: 51411
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I had several requests for the PN2222A's that I had to turn down because I ran out. I now have more in stock, these are Fairchild PN2222A's.

If interested let me know...and I still have BNC's if you are interested:

Fairchild PN2222A's in TO92 case.

50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

Also

Chassis/Panel Mount BNC connectors with washers and lock nut.

25 for $12.40
50 for $21.00
100 for $36.00
500 for $138.00

All prices include shipping to anywhere in the USA. I will ship to foreign addresses but please check with me first so I can get you the proper shipping fees. Qty's of 25/50/100 are shipped in padded, reinforced, envelopes. Qty 500 is shipped in a small cardboard shipping carton.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

4315. Wire antenna info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 23:51:17 UTC
From: n9rk@aol.com
Message-ID: <20010720195117.19846.00000487@ng-fn1.aol.com>
Source record: 51413

I would like to work 20 m and up and I am still kicking around ideas for an antenna. Does anyone have a good idea for some sort of wire antenna that can be strung between 2 chimneys that are approx 75 - 90 feet apart? Dipoles are out of the question as there would be nothing for support in the center. A coax fed antenna would be prefered but any ideas welcome! Please email me at:
N9RK@aol.com
73,
Renee N9RK

4316. Re: Seeking Specs on 8908 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-20 23:52:50 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9jag8i$gc5$2@woodrow.ucdavis.edu>
Source record: 51414

Hi there,

I actually have the GE data sheet for that tube, but you won't find them cheap or easy. Best to retrofit the amplifier with some 811a types and get on with your life. I've only seen two or three mfgrs use that tube and it's physical large so I just installed a pair of 811a's and they work fine when set for the proper zsac.

cheers
skipp

http://sonic.ucdavis.edu

: n7kn <n7kn@hotmail.com> wrote:
: I pulled this square peg (octal based, more accurately) out of a Hy Gain 644
: "Footwarmer". It was marked "HyGain 760002". I was told that it's an 8908.
: Both tubes have suffered a "smoke leak" (vacuum leak) and need replacing.
: None of my manuals give the specs for this tube. I would like to find a
: less expensive substitute.
: Does anyone have it in any of their books?

4317. FA: 1.2/1.3GHz TX/RX units

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 00:02:21 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B58C68D.2030001@armscroft.demon.co.uk>
Source record: 51415

Hi folks,

Check out these commercial grade TX/RX units. Ideal for 23cms packet nodes! Easy to modify for amateur use. Have a look at

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1257069195

Regards

Mark

4318. Frequency Counter Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 00:16:35 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B58C9E1.B038CC89@home.com>
Source record: 51416

Our club is offering an inexpensive frequency counter kit for sale.

The stock counter is good to over 75 MHz, and with a minor parts substitution (a 74AC00), is typically good to over 150 MHz with a rf sensitivity of less than 100 mV, typically 10 mV at 7 MHz.

The kit is designed to fit in an Altoids mint tin which it uses as an acoustical resonator for the frequency readout.... which is in morse code. It also makes a great cw "numbers" trainer!

The kit is $20 which includes shipping. This is a very inexpensive way to pick up a nice piece of test equipment to help in building homebrew gear.

Further information including pictures, specifications, and ordering can be found at:

http://www.extremezone.com/~nk7m/cwafc.htm

and on Bob Hightower's website:

http://www.extremezone.com/~nk7m/

Bob is handling this. His email address is: nk7m@extremezone.com

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4319. Re: Seeking Specs on 8908 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 00:16:56 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <YR367.6312$b3.2128714@feed.centurytel.net>
Source record: 51417

I would be interested in seeing that data.
And, that is the plan I'm leaning more toward. 811As look very appealing at 17.50 each rather than $100.
I would be very interested in a homebrew project involving four 811As that has been written more recently than 1970.
I think the earliest design I have was published in QST in 1960.
73

Skipp <skipp@pilot.ucdavis.edu> wrote in message news:9jag8i$gc5$2@woodrow.ucdavis.edu...
> Hi there,
>
> I actually have the GE data sheet for that tube, but you won't find them
> cheap or easy. Best to retrofit the amplifier with some 811a types and get
> on with your life. I've only seen two or three mfgrs use that tube and
> it's physical large so I just installed a pair of 811a's and they work
> fine when set for the proper zsac.
>
> cheers
> skipp
>
> http://sonic.ucdavis.edu
>
> : n7kn <n7kn@hotmail.com> wrote:
> : I pulled this square peg (octal based, more accurately) out of a Hy Gain 644
> : "Footwarmer". It was marked "HyGain 760002". I was told that it's an 8908.
> : Both tubes have suffered a "smoke leak" (vacuum leak) and need replacing.
> : None of my manuals give the specs for this tube. I would like to find a
> : less expensive substitute.
> : Does anyone have it in any of their books?
>
>
>
>
>
>
>

4320. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 00:26:01 UTC
From: gigglez <gigglez@hotmail.com>
Message-ID: <3b58be09$1_2@excalibur.gbmtech.net>
Source record: 51412

"Dale Rice" <rice@starband.net> wrote:
>The copper penny story is almost certainly true. I used to make
>some very
>respectable detectors when I was a kid by taking two pieces of copper
>bell wire
>and roasting one in a gas pilot light until it turned black. I then
>twisted it
>until the outer black stuff fell off leaving a reddish oxide. I
>then took the
>other wire and scraped it clean and twisted the two together. It
>worked as good
>as a regular crystal diode for me. I tried a lot of other stuff
>but this was the
>easiest and always worked and didn't need adjustment.
>
>"Bruce Torelli" <nospamnospambtorelli@ieee.org> wrote in message
>news:2eD57.1650$P04.96779@newsread2.prod.itd.earthlink.net...
>> I'm looking for information on primitive homemade radios. A few
>of us in
>> the office have been talking about how to build a radio (or a
>diode) from
>> stuff around the house?
>>
>> It all started with a story about POWs building radios using a
>corroded
>> copper penny for a diode? I don't know if that's true either.
>I have also
>> heard that a razor blade could be used like a cats whisker. Any
>body really
>> know anything about this? Not much turns up when searching the
>information
>> goat path.

I have heard the story of the copper oxide and copper diode, also
have heard of using a bowl of lemon juice with a cats whisker as a detector,
heard the US Navy used this in the early days.

I myself have used flame rectification by heating a 3/16 diameter
rod in a flame to detect with, got poor results but it did work.
>>
>> All feedback appreciated.
>>
>> Thanks
>>
>> --

>> Bruce Torelli
>> Jonesboro, GA
>>
>>
>
>

4321. Re: faulty LM723 regulator in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 01:19:05 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3B58D845.593EC921@cmcorp.com>
Source record: 51418

Larry Gagnon wrote:

> Hello. I am attempting to repair a power supply for a Wavetek 3001
> signal generator. The supply provides +18, -18, +27 and +7.3volts DC.
> The +18 volt line supply is based around an LM723 regulator feeding an
> NPN series pass power transistor. The -18 volt line is derived from
> the +18 volt line using an op-amp comparing against ground. The +7.3
> volt line is pre-regulated only and uses the other side of MC1458 op
> amp plus a series pass transistor. It feeds LM7805 regulators
> throughout the unit so I am not to worried about it.
>
> The symptoms are difficult to adjust to +18 volts, drifting at no
> load, drop from 18volts to 8 volts when loaded with resistive 1 amp.

So did you TEST the drive voltages to the series pass and driver?
When you have 8 volts out, what is the base voltage of the series pass?
what is the base voltage of the driver?
These tell the story much better than just replacing the chip.

> These symptoms suggest to me that the LM723 regulator is faulty.

Why do you think this?

>
> Because there is power out on each line I doubt it has anything to do
> with the pass transistors or any pre-regulation transistor. How would
> I go about checking the LM723 before simply replacing it?? The reason
> I don't want to just replace and try is that it is a LM723H TO-100 can
> type and I am only able to obtain the DIP14 package so I will have to
> retrofit!
>
> Voltages at the LM723 appear reasonable, with 6.3v at the Vref....any
> ideas out there would be greatly appreciated. Larry Gagnon VE6MK

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

4322. Re: End fed zep info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 01:20:30 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3B58D8A0.740134EF@cmcorp.com>
Source record: 51419

half wave antenna feed with a 1/4 wave stub.
Think J-Pole.

N9RK wrote:

> Can someone please email me a description of how to build an end fed zep? Or is
> there a web site where I can go to get this information? Please email me at:
> N9RK@aol.com
> 73,
> Renee N9RK

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

4323. 811A amp project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 01:43:17 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <T6567.6343$b3.2133116@feed.centurytel.net>
Source record: 51420

I'm looking for information on building a 80-10 meter amp using four 811A tubes.
The latest article I have was written in 1960. I'm hoping to find something a little more current with easier-to-find parts.

John Black, n7kn
PO Box 1920
Orting, WA 98360

4324. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 01:47:46 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3B58DF42.F0F896B1@olywa.net>
Source record: 51421

gee. i just went there and had no problem.

Ralph Lane wrote:
>
> Hay, what happened to Dan's small parts, I can't find him!
> Ralph

4325. one tube radio receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 02:07:01 UTC
From: rhn@nicholson.com
Message-ID: <9jao45$e0e$1@samba.rahul.net>
Source record: 51422

Long ago, I built a couple of one tube radio receivers (one was a radioshack perfboard kit), now lost with all the junk thrown out from the parents attic. I seem to remember them using 2 batteries, a variable cap, inductor, about a half dozen other passive components, a switch, and earphones.

Are there any online documents, or books still in print, which might have a schematic of some simple one tube radio receivers. I'd like to build one again to show what electronics looked like before devices with merely a million transistors were considered obsolete thowaways.

I also remember building a 3 tube kit regenerative (Lafayette?), where 1 tube was the rectifier and another the audio amp.

Thanks!

--
Ron Nicholson rhn@nicholson.com http://www.nicholson.com/rhn/
#include <canonical.disclaimer> // only my own opinions, etc.

4326. Re: Connector info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 02:17:10 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B58E626.C8227A4E@valley.net>
Source record: 51423
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components

Hello--
IIRC, the connector family was called the Amphenol "Blue Ribbon" series. Hope this helps--
73,
Brad AA1IP

"John D. Farr" wrote:

> Greetings. Thanks for looking at this.
>
> I have a piece of equipment that has what looks like an overgrown Centronics
> connector. It has a rectangular housing, 24 contacts and a pitch of just
> under 0.2 inches. It is used to connect the plugins to the mainframe of the
> 140 series of HP spectrum analyzers and oscilloscopes. I need to find some
> of these.
>
> I have been unable to find a source after an extensive search with the usual
> vendors and manufacturers. I know that HP made some of their own and that
> Amphenol once made a compatible connector. I don't even know the name of
> the connector series. It would be a great help someone could tell me the
> name of what I'm looking for. It would put me in bliss if someone could
> sell me one too.
>
> Thanks,
>
> John
> KC4ZXX

4327. Flyback transformers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 02:55:18 UTC
From: caveteursus@aol.com
Message-ID: <20010720225518.15478.00000331@ng-fl1.aol.com>
Source record: 51424

I was looking through the 2001 Handbook chapter on power supplies interested in winding a flyback transformer for a +/- 24V 5a (peak) switching supply, probably running ~50kHz. Does anyone have any links to a source for "winding your own"?

The 2001 ARRL Handbook does have a few paragraphs, I'm looking for more sources.

I've succesfully built the supply using a boost/boost inverter with their separate inductors, but was looking to save some real estate.

Jack
xWA8PZL

4328. How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 02:57:53 UTC
From: tek_guy@hotmail.com
Message-ID: <cbf4a67d.0107201857.22499ffe@posting.google.com>
Source record: 51425

Hello.

I'd like to set up my own local coverage repeater for some hams in my area...preferably something cheap (under $500) and try to use as much of my own stuff as possible. I currently have a Yaesu VX-5R and dual band 144/440 gain antenna and feedline that I could use, along with power supplies. I'd like to set up the repeater on UHF, in-band.

What do I need?
Is it that expensive to set up a local coverage UHF repeater?

73s,

Jim
KG4NEL

4329. Re: one tube radio receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 04:01:07 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <78767.2143$Px1.222301@newsread2.prod.itd.earthlink.net>
Source record: 51426

Try here:

http://sm0vpo.8m.com/

and here:

http://www.mines.uidaho.edu/~glowbugs/

Have fun... DE

Bill KU8H

<rhn@nicholson.com> wrote in message news:9jao45$e0e$1@samba.rahul.net...
> Long ago, I built a couple of one tube radio receivers (one was a
> radioshack perfboard kit), now lost with all the junk thrown out from
> the parents attic. I seem to remember them using 2 batteries, a
> variable cap, inductor, about a half dozen other passive components,
> a switch, and earphones.
>
> Are there any online documents, or books still in print, which might
> have a schematic of some simple one tube radio receivers. I'd like to
> build one again to show what electronics looked like before devices
> with merely a million transistors were considered obsolete thowaways.
>
> I also remember building a 3 tube kit regenerative (Lafayette?), where
> 1 tube was the rectifier and another the audio amp.
>
> Thanks!
>
> --
> Ron Nicholson rhn@nicholson.com http://www.nicholson.com/rhn/
> #include <canonical.disclaimer> // only my own opinions, etc.
>

4330. Re: Dan's Small Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 04:05:03 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <Pb767.3416$Xn.293395@newsread1.prod.itd.earthlink.net>
Source record: 51427

He's back.

Ralph Lane <crlane@erols.com> wrote in message
news:3B5662D1.351E7D47@erols.com...
> Hay, what happened to Dan's small parts, I can't find him!
> Ralph
>

4331. Re: one tube radio receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 05:50:00 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <cK867.164$gA.227899@news4.aus1.giganews.com>
Source record: 51428

Gee, it'd be fun to design a regenerative one tuber! I have built them and they are very simple and easy.

Parallel tuned circuit from grid to ground (with about a 1 Meg in series with the grid, 100 pF in parallel with it). Cathode or one side of filament to ground. Plate to tickler coil on tuned circuit, thence to headphones with bypass capacitor and positive of B battery.

Regeneration rheostat in parallel with tickler coil. Another winding on the tuned circuit to go to antenna.

Battery to light the filament. Power switch need only be in filament battery.

Tube to use, well almost any triode. The common one in the old days was the 01-A, also known as the 201-A and a few other ways. Another good one was the type 30. If you want to use more modern tubes, there were a few like 1H5Gt and so on.

As a matter of fact, when I was in college and my gf in high school, her project was just such a radio. I designed and built it for her, got it working, then tore it apart so she could build it in class. It worked, and the teacher was positively flabbergasted!

As a footnote to all the above, I recently discovered that I STILL HAVE THIS RADIO. It was built on a piece of wood. Used Fahnstock clips for external connections. It'd work fine with a dry cell as filament source and a B battery of 45 or 67 Volts.

73, Bob K6DDX

4332. Re: faulty LM723 regulator in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 06:05:27 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3b591cfa$0$192@news.impulse.net>
Source record: 51429

You aren't providing enough info for long distance troubleshooting. Are you sure the pass transister is OK or not being current limited? What are you using to measure the voltages? I ask because the 723 is known to oscillate. If you are only using a VOM or DMM, try looking with an oscilloscope also. BTW, isn't Vref supposed to be 7 volts?

-CB

"Larry Gagnon" <lgagnon@sherrittoil.com> wrote in message news:1d3b4598.0107200532.35ec76de@posting.google.com...
> Hello. I am attempting to repair a power supply for a Wavetek 3001
> signal generator. The supply provides +18, -18, +27 and +7.3volts DC.
> The +18 volt line supply is based around an LM723 regulator feeding an
> NPN series pass power transistor. The -18 volt line is derived from
> the +18 volt line using an op-amp comparing against ground. The +7.3
> volt line is pre-regulated only and uses the other side of MC1458 op
> amp plus a series pass transistor. It feeds LM7805 regulators
> throughout the unit so I am not to worried about it.
>
> The symptoms are difficult to adjust to +18 volts, drifting at no
> load, drop from 18volts to 8 volts when loaded with resistive 1 amp.
> These symptoms suggest to me that the LM723 regulator is faulty.
> Because there is power out on each line I doubt it has anything to do
> with the pass transistors or any pre-regulation transistor. How would
> I go about checking the LM723 before simply replacing it?? The reason
> I don't want to just replace and try is that it is a LM723H TO-100 can
> type and I am only able to obtain the DIP14 package so I will have to
> retrofit!
>
> Voltages at the LM723 appear reasonable, with 6.3v at the Vref....any
> ideas out there would be greatly appreciated. Larry Gagnon VE6MK

4333. Tubes to burn-please help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 06:15:29 UTC
From: Bob Smith <drbob@pcii.net>
Message-ID: <9jb6mn$21t$1@news.chorus.net>
Source record: 51430

I have just come into a large collection of tubes-old radio and TV, many of them NOS in the boxes. I have no idea what to do with them (sell, trade, what are they worth). Any suggestions gratefully accepted. Please email me... Bob

4334. Re: Tubes to burn-please help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 06:37:30 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <6r967.10900$sE4.240888@news6.giganews.com>
Source record: 51431

How about a list?

4335. Re: End fed zep info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 10:31:58 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B595ACF.FAADEEA4@earthlink.net>
Source record: 51432

Renee---

> Can someone please email me a description of how to build an end fed
> zep?

It's actually pretty simple. You will need either a balun or an antenna tuner---I would recommend the antenna tuner. Taking into account velocity factor, cut a 1/4-wave length of twin-lead transmission line. 300 ohm TV twinlead should work. At the top of your mast, connect one of the two leads to a 1/2-wave length of wire. The other end is left to float.

The 1990 ARRL antenna book has a discussion on end-fed zepps, describing how this works. It seems counterintuitive until you see the current/voltage distributions and how they fold over in the transmission line.

Also, the name ``end-fed zepp'' has come to refer to any antenna of this construction type, not just the tuned type. The HF antenna that I will be putting up will be running through a tuner, have about 15' or so of twinlead, and be attached to a 200' or so radiating element. At an average height of 30' or so, my friend N4AR tells me that this type of setup should let me work the local nets with no problems. It'll have gain, but I haven't asked him about the directivity or DX possibilities.

Hope it helps,

Henry C. Gernhardt, III
KE4PIB/AG

4336. Re: Wire antenna info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 10:37:41 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B595C16.4C27ACF4@earthlink.net>
Source record: 51433

Renee---

> I would like to work 20 m and up and I am still kicking around ideas
> for an antenna. Does anyone have a good idea for some sort of wire
> antenna that can be strung between 2 chimneys that are approx 75 - 90
> feet apart?

If you have the right supports, the right insulators, and the right strain relief, then there shouldn't be a problem stringing a 20M dipole between the chimneys you describe. At my field day site, I saw a full-length (200-odd foot) dipole stretched between two trees, with no center support.

Your only problem would be the coax run. For what I understand to be best results, you need to let the transmission line drop normal to the antenna wire for a ways. You could let the line run over the roofline and down the side of the building, if that is an option.

Otherwise, if you're looking at a wire antenna, consider the end-fed zepp, as your previous post indicated. Simple to build, simple to install, feedpoint at one of the two chimneys rather than offset or in the middle.

Next question: Can you install a chimney mast? at 20M, a shortened yagi, or even a cubical quad, could be feasable.

Good luck,

Henry C. Gernhardt, III
KE4PIB/AG

4337. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 11:19:55 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <Hlf67.1412$SK6.208672@news6-win.server.ntlworld.com>
Source record: 51437

> I'd like to set up my own local coverage repeater for some hams in my
> area...preferably something cheap (under $500) and try to use as much
> of my own stuff as possible. I currently have a Yaesu VX-5R and dual
> band 144/440 gain antenna and feedline that I could use, along with
> power supplies. I'd like to set up the repeater on UHF, in-band.
>
> What do I need?
> Is it that expensive to set up a local coverage UHF repeater?
==========
A cheap local repeater could be made with a single low power trx and a
"parrot repeater box".

The parrot repeater operates on a single freq. When someone accesses the
"repeater" his/her speech is stored in a ISD1020AP or 1016AP chip and
subsequently replayed. The only disadvantage is that the caller hears
his/her msg again and the receiver will have to wait for the parrot's
response.
The parrot box was described in a QST article a few years ago.
Suggest you check the QST index at the ARRL site.

GL

Frank gm0csz.kn6wh@ukrs.org

4338. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 11:45:47 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B596B6B.7744368E@dialpoint.net>
Source record: 51436

Go here and look around for some very good info on repeaters.

http://www.repeater-builder.com/rbtip/

A good antenna and feedline can eat up most of the money. First you have to have a place to put one. Sometimes you can talk the town or county into using some space on one of their buildings or towers or water towers. Cehck with their emergency management people . Have somekind of club plan for emergency communications plan if you do this. If you can do the electronic work yourself you can put one together for around $ 500 for uhf. That is about $ 200 or $ 300 for the controller and about that much for a transceiver that you cna use such as a GE Mastrll an dduplexer and the crystals. If you can get out for under $ 1000 you are doing good.

They can be put together for lots less but you have to know where to shop and how to cut the corners.

KG4NEL wrote:
>
> Hello.
>
> I'd like to set up my own local coverage repeater for some hams in my
> area...preferably something cheap (under $500) and try to use as much
> of my own stuff as possible. I currently have a Yaesu VX-5R and dual
> band 144/440 gain antenna and feedline that I could use, along with
> power supplies. I'd like to set up the repeater on UHF, in-band.
>
> What do I need?
> Is it that expensive to set up a local coverage UHF repeater?
>
> 73s,
>
> Jim
> KG4NEL

4339. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 12:22:22 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <2ue67.174159$v5.15351050@news1.rdc1.ct.home.com>
Source record: 51434

The heart of any good repeater is the duplexer and antenna system. If intermod is a problem, you will need preselector filters and even dual isolators if you are sharing a mountain top site with commercial users. The duplexer is not an area to skimp on. Fortunately, you can often find good used ones on the swap group or eBay.

Regards

Pete

"KG4NEL" <tek_guy@hotmail.com> wrote in message news:cbf4a67d.0107201857.22499ffe@posting.google.com...
> Hello.
>
> I'd like to set up my own local coverage repeater for some hams in my
> area...preferably something cheap (under $500) and try to use as much
> of my own stuff as possible. I currently have a Yaesu VX-5R and dual
> band 144/440 gain antenna and feedline that I could use, along with
> power supplies. I'd like to set up the repeater on UHF, in-band.
>
> What do I need?
> Is it that expensive to set up a local coverage UHF repeater?
>
> 73s,
>
> Jim
> KG4NEL

4340. Re: faulty LM723 regulator in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 12:24:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <7we67.174160$v5.15352122@news1.rdc1.ct.home.com>
Source record: 51435

Save my email address. I may have can 723s in my
IC cabinet (dates from the 60s and 70s). I can provide
one fairly cheap (mostly postage, if I can find them!!)

Pete

"Larry Gagnon" <lgagnon@sherrittoil.com> wrote in message
news:1d3b4598.0107200532.35ec76de@posting.google.com...
> Hello. I am attempting to repair a power supply for a Wavetek 3001
> signal generator. The supply provides +18, -18, +27 and +7.3volts DC.
> The +18 volt line supply is based around an LM723 regulator feeding an
> NPN series pass power transistor. The -18 volt line is derived from
> the +18 volt line using an op-amp comparing against ground. The +7.3
> volt line is pre-regulated only and uses the other side of MC1458 op
> amp plus a series pass transistor. It feeds LM7805 regulators
> throughout the unit so I am not to worried about it.
>
> The symptoms are difficult to adjust to +18 volts, drifting at no
> load, drop from 18volts to 8 volts when loaded with resistive 1 amp.
> These symptoms suggest to me that the LM723 regulator is faulty.
> Because there is power out on each line I doubt it has anything to do
> with the pass transistors or any pre-regulation transistor. How would
> I go about checking the LM723 before simply replacing it?? The reason
> I don't want to just replace and try is that it is a LM723H TO-100 can
> type and I am only able to obtain the DIP14 package so I will have to
> retrofit!
>
> Voltages at the LM723 appear reasonable, with 6.3v at the Vref....any
> ideas out there would be greatly appreciated. Larry Gagnon VE6MK

4341. GM3OXX OXO Tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 14:13:42 UTC
From: miner_49er@hotmail.com
Message-ID: <3f432089.0107210613.1cd7ab6e@posting.google.com>
Source record: 51438

Building The OXO Tx. Can't find 2N4427 or 2N3866 anywhere, can anyone suggest a source or suitable alternative. I am in UK.

4342. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 15:17:47 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9jc6ft$m7r$1@nntp9.atl.mindspring.net>
Source record: 51439

KG4NEL wrote:
>
> Hello.
>
> I'd like to set up my own local coverage repeater for some hams in my
> area...preferably something cheap (under $500) and try to use as much
> of my own stuff as possible. I currently have a Yaesu VX-5R and dual
> band 144/440 gain antenna and feedline that I could use, along with
> power supplies. I'd like to set up the repeater on UHF, in-band.
>
> What do I need?
> Is it that expensive to set up a local coverage UHF repeater?
>

==========

It is possible to set up a simple repeater system using two radios and separate antennas. You would need some sort of cw id'r and a timeout timer which can be built with simple ttl logic.

This approach may suffer from overload, where the Tx gets into the Rx antenna, but if you separate the antennas physically it can work well enough.

Using the SAME radio for both Tx and Rx is usually not feasable due to the way the radios work internally.

So separate radios have the best chance of being used as a repeater.

==========

Duplexers can be expensive but they do allow using a single antenna for both Tx and Rx and they also protect the Rx from signal overload.

And, yes, there are many better and more powerful control systems that can be used....

For that matter, you could rig just about any PC to function as a cw ID'r and timeout timer. You could even make it a voice ID using the sound card.

For FCC purposes, you need a control system of some sort, and having the repeater at your house would probably qualify since it would be under direct control.

If you wanted to get fancy, you could rig the PC to be able to respond to a dialup modem and control the repeater that way from a distance.

I imagine there are programs that can be found on the web for controlling a repeater. If not, it'd be fairly simple to create one with enough functionality. This PC controller approach is more then you need for a minimum repeater system, but worth thinking about as a fairly quick way to add a LOT of functionality to the system.

By the way, if you get an Rx that has the CTSS tone decoder option, you could set that up and it would give your repeater a PL access control which most repeaters seem to have these days.

==========

So, you could start with separate antennas and just a few parts for the control system and make it more complex as time goes by. However, at the minimum you will need two radios.

Or at least a separate Rx of some sort.

Jim Pennell
N6BIU

4343. What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 15:51:38 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9jc8gb$7ve$1@uranium.btinternet.com>
Source record: 51440

WHAT THE HANDBOOKS DARE NOT PRINT

The SWR-meter is located in the transmission system immediately at the output of the transmitter. It is often housed in the transmitter case itself.

Immediately following the meter is a variable impedance transforming network, sometimes known as the tuner. The SWR meter can also be housed in the tuner case. But in any event the transmitter and tuner are electrically near to each other with the SWR meter in between.

A transmission line of coaxial or balanced-pair construction runs between the tuner output and the antenna feedpoint.

From one frequency band to another, from one end of a band to the other, the antenna input impedance changes greatly from one complex value to another. These swings in impedance vs frequency are reflected back to the transmitter end of the line unchanged in magnitude.

Transmitters are designed to work into a particular value of load resistance Ro. This is the resistive load into which the transmitter is capable of developing its maximum, undistorted peak output power without exceeding any internal voltage, current or dissipation ratings. It is highly desrable, therefore, for the load on the transmitter to be set to the design value at the start of a transmission and continuously monitored during normal operation.

The tuner's purpose is to transform the wide range of impedances vs frequency, seen looking into the transmission line, to the constant resistive value of Ro at the the tuner input. In modern equipment this operation may be performed automatically, the tuner coils and capacitors being switched by relays or driven by electric motors.

The SWR meter is essentially a 4-arm, RF resistance bridge. Three of the bridge arms are intgral to the meter and the 4th arm, the only variable arm, is the input impedance of the tuner. The circuit is arranged such that the transmitter is the signal source. The values of the bridge ratio arms are chosen such that the 4th arm, the input impedance of the tuner, is effectively the transmitter load.

Inside the meter the bridge RF unbalance voltage is rectified and displayed on a moving coil meter. When the input resistance of the tuner is equal to Ro the bridge is balanced, meter deflection is zero and the transmitter is operating with its design value of load

resistance. The purpose of the SWR meter, therefore, is to indicate that this important condition has been, or has not been realised.

It should be noted that when the bridge is not at balance the meter deflection gives very little information about what the actual load on the transmitter is. There is a very large number of combinations of resistance and reactance which will give a particular off-zero meter deflection and this is further confused by the uncertainty in transmitter RF output volts.

So the meter indicates only whether or not the transmitter load is Ro. But this is all that's required of it. Brightness of a pea lamp would provide the same information more economically if the meter movement and scales were not needed for other transmitter monitoring purposes.

It is now clear that an automatic tuner makes use of the magnitude and phase of the bridge unbalance voltage to maintain the bridge in a state of balance.

Also note, for the meter to indicate correctly, it must be designed around the same value of Ro as the transmitter it is used with. The standard adopted to allow meter interchngeability is Ro = 50 + j0 ohms. So meters generally differ from each other only by their through-power handling capability and operating frequency range. Internal circuitry and physical construction vary widely with frequency range but the basic mode of operation is always that of an RF resistance bridge. It doesn't actually measure anything.

****
Regards, Reg, G4FGQ
Free radio design software
http://www.G4FGQ.com
****

4344. PSK31 Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 16:06:30 UTC
From: miner_49er@hotmail.com
Message-ID: <3f432089.0107210806.26546766@posting.google.com>
Source record: 51441

I am thinking of getting on PSK31. Will a standard IC741 / 2N2222 /
1N4148 using 9 pin serial to key and PTT interface work, or do I need
something else ?

Thanks

4345. Re: PSK31 Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 16:37:42 UTC
From: c.moss_stopspam@blueyonder.co.uk
Message-ID: <usbjltsm4g6l1e0ksismu4vqqc535t019b@4ax.com>
Source record: 51442

>I am thinking of getting on PSK31. Will a standard IC741 / 2N2222 /
>1N4148 using 9 pin serial to key and PTT interface work, or do I need
>something else ?

Forget the 741, just use an NPN transistor with a couple of resistors on the base (with your diode).

4346. Re: PSK31 Interface

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 17:32:22 UTC
From: "f.dinger" <f.dinger@ntlworld.com>
Message-ID: <4Ok67.3156$SK6.411009@news6-win.server.ntlworld.com>
Source record: 51443

> I am thinking of getting on PSK31. Will a standard IC741 / 2N2222 /
> 1N4148 using 9 pin serial to key and PTT interface work, or do I need
> something else ?
==========
Suggest you have look at the following :

QST , January 2001 , page 65 Hints & Kinks : PSK31/Packet Switchbox, by
KN6TC
This design does not use galvanic isolation between soundcard and radio .

An example of isolation by means of audio transformers can be found in :
QST , June 2001 ,pages 70-71 Hints & Kinks : A Radio/Data interface
connection, by N8ME.

Personally I would always go for an interface with galvanic isolation
between the PC's soundcard and radio, either by means of transformers or
opto-couplers.

73 Frank gm0csz.kn6wh@ukrs.org

4347. Re: one tube radio receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 19:56:39 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B59DE77.2687027B@midwestmicro-tek.com>
Source record: 51444

Also try this page.

http://www.qsl.net/n6ev/Glowbug.html

He has got some reprints from the 1957 ARRL RAH. I built the one tube 6U8
based receiver and got some good signals with it.

Rick KC0GIX

rhn@nicholson.com wrote:

> Long ago, I built a couple of one tube radio receivers (one was a
> radioshack perfboard kit), now lost with all the junk thrown out from
> the parents attic. I seem to remember them using 2 batteries, a
> variable cap, inductor, about a half dozen other passive components,
> a switch, and earphones.
>
> Are there any online documents, or books still in print, which might
> have a schematic of some simple one tube radio receivers. I'd like to
> build one again to show what electronics looked like before devices
> with merely a million transistors were considered obsolete thowaways.
>
> I also remember building a 3 tube kit regenerative (Lafayette?), where
> 1 tube was the rectifier and another the audio amp.
>
> Thanks!
>
> --
> Ron Nicholson rhn@nicholson.com http://www.nicholson.com/rhn/
> #include <canonical.disclaimer> // only my own opinions, etc.

4348. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 22:27:24 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9jek3inff1@plutonium.btinternet.com>
Source record: 51309

>
> It all started with a story about POWs building radios using a corroded
> copper penny for a diode?

Before silicon rectifiers came along they were made from selenium, and
before that from copper/copper oxide. So a penny should work.

73, Leon

4349. Re: GM3OXX OXO Tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 22:30:17 UTC
From: crabtreejr@aol.com
Message-ID: <20010721183017.09285.00000475@ng-fa1.aol.com>
Source record: 51445

Max, miner_49er@hotmail.com (Max) on 7/21/01 wrote:

>Building The OXO Tx. Can't find 2N4427 or 2N3866 anywhere, can
>anyone suggest a source or suitable alternative. I am in UK.

Try Dial Electronics, who are in the UK, at
www.dialelec.com

73 John KC0GGH

John Crabtree

4350. Re: 811A amp project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 23:42:47 UTC
From: JC Quinn <kc4ee@sonet.net>
Message-ID: <tlk4rup39elic6@corp.supernews.com>
Source record: 51446

You might take a look at using the Ameritron AL811H for a pattern. Any part
you need should be available from them.
73
Jim, kc4ee@sonet.net
"n7kn" <n7kn@hotmail.com> wrote in message
news:T6567.6343$b3.2133116@feed.centurytel.net...
> I'm looking for information on building a 80-10 meter amp using four 811A
> tubes.
> The latest article I have was written in 1960. I'm hoping to find
something
> a little more current with easier-to-find parts.
>
> John Black, n7kn
> PO Box 1920
> Orting, WA 98360
>
>

4351. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-21 23:43:56 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <s34dj9.9dg.ln@localhost.localdomain>
Source record: 51297

Reg Edwards wrote:

> WHAT THE HANDBOOKS DARE NOT PRINT
<snip>
> Internal circuitry and physical construction vary widely with
> frequency range but the basic mode of operation is always that of
> an RF resistance bridge. It doesn't actually measure anything.

Interesting but not controversial enough. We are waiting for
the other shoe to drop?

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4352. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 00:22:05 UTC
From: Bill M <"take out the NO in the reply address"@*.*>
Message-ID: <cYo67.3349$YK4.380573@e420r-atl1.usenetserver.com>
Source record: 51298

Eamon Skelton wrote:
>
> Reg Edwards wrote:
>
> > WHAT THE HANDBOOKS DARE NOT PRINT
> <snip>
> > Internal circuitry and physical construction vary widely with
> > frequency range but the basic mode of operation is always that of
> > an RF resistance bridge. It doesn't actually measure anything.
>
> Interesting but not controversial enough. We are waiting for
> the other shoe to drop?
>
> 73, Ed. EI9GQ.
>
> --
> Remove 'X' to reply by e-mail.
> http://homepage.eircom.net/~ei9gq
> Linux 2.4.6

I too am waiting for the $20 alternative for reading reflected power.
--
Bill M
Vieques, PR

4353. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 00:25:03 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B5A1D5E.1E53ACED@home.com>
Source record: 51299

Agreed. The meters I have seen run off of rectified, filtered DC.
Therefore the rf frequency characteristic of the meters in all the SWR
bridges I have seen is a "don't care". No problem.....

The only problem that I have run into with QRP stuff is that the
detected reflected voltage can be not much bigger than the voltage drop
in the diode, which can cause a poor match to look good. That is why I
use resistive bridge SWR meters. Resistive bridges are great for QRP,
not so good for QRO.

Nice discussion on how a SWR bridge works though.

- Dan Tayloe, N7VE

Eamon Skelton wrote:
>
> Reg Edwards wrote:
>
> > WHAT THE HANDBOOKS DARE NOT PRINT
> <snip>
> > Internal circuitry and physical construction vary widely with
> > frequency range but the basic mode of operation is always that of
> > an RF resistance bridge. It doesn't actually measure anything.
>
> Interesting but not controversial enough. We are waiting for
> the other shoe to drop?
>
> 73, Ed. EI9GQ.
>
> --
> Remove 'X' to reply by e-mail.
> http://homepage.eircom.net/~ei9gq
> Linux 2.4.6

4354. AD9851 Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 01:39:18 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3B5A2D56.3F63C9FE@GTE.net>
Source record: 51300

Anyone know of a distributor that sells the AD9851 DDS IC in single qty?

Tnx,

Dale W4OP

4355. Re: faulty LM723 regulator in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 01:53:30 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3b5a3194.136855@news.sprint.ca>
Source record: 51301

thanks to all the mostly helpful ideas from the responses I managed to
fix the power supply. After carefully checking all voltages I
discovered a floating ground circuit and after simply repairing the
dry solder joint culprit the signal generator is now back in
action....cheers to all....Larry VE6MK
****
to send direct email remove "fake" from address

4356. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 01:53:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B5A3224.E6E96E8@eznec.com>
Source record: 51302

You'll find a description of a simple and inexpensive QRP directional wattmeter that gives accurate readings down to 5 mW in February 1990 QST, p. 19. It also appeared in the ARRL Handbook for a couple of editions at about the same time.

Roy Lewallen, W7EL

Dan Tayloe wrote:
>
> Agreed. The meters I have seen run off of rectified, filtered DC.
> Therefore the rf frequency characteristic of the meters in all the SWR
> bridges I have seen is a "don't care". No problem.....
>
> The only problem that I have run into with QRP stuff is that the
> detected reflected voltage can be not much bigger than the voltage drop
> in the diode, which can cause a poor match to look good. That is why I
> use resistive bridge SWR meters. Resistive bridges are great for QRP,
> not so good for QRO.
>
> Nice discussion on how a SWR bridge works though.
>
> - Dan Tayloe, N7VE

4357. Re: Wire antenna info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 02:40:31 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5A3D0E.5ACAACF8@att.net>
Source record: 51303

Chimneys are a highly visible and attractive "mount" for mast and antenna.
TV and small VHU/UHF arrays can usually be handled.

BUT,

Chimneys are not designed to handle other than simple downward compression
loads. Bending loads and torsion/shearing loads cannot be tolerated very
well without disasterous results.

I would strongly urge you to reconsider attaching anything other than a
small TV or VHF antenna to a chimney. A 20-meter array would easily destroy
the chimney in even a fairly moderate wind.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Henry Gernhardt/Andrea Winship wrote:

> Next question: Can you install a chimney mast? at 20M, a shortened
> yagi, or even a cubical quad, could be feasable.

4358. Re: AD9851 Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 04:59:48 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B5A5E4C.693D@pop.removethistomailme.net>
Source record: 51304

```
Dale Parfitt wrote:
>
> Anyone know of a distributor that sells the AD9851 DDS IC in single qty?
>
> Tnx,
>
> Dale W4OP

Try http://www.findchips.com.

-- jm

-------------------------------------------------------
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam
-------------------------------------------------------
```

4359. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 07:12:53 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9jdu8tjct1@wanadoo.fr>
Source record: 51305

In my country, it's better to have the equipment first, then to negociate the place, and finally to install the equipment within the 15 working days after we get the authorization ! :-)

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Ralph Mowery" <rmowery@dialpoint.net> a &#65533;crit dans le message news: 3B596B6B.7744368E@dialpoint.net...
Go here and look around for some very good info on repeaters.

http://www.repeater-builder.com/rbtip/

A good antenna and feedline can eat up most of the money. First you have to have a place to put one. Sometimes you can talk the town or county into using some space on one of their buildings or towers or water towers. Cehck with their emergency management people . Have somekind of club plan for emergency communications plan if you do this.

4360. Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 07:45:07 UTC
From: "P.K.Chin" <pkchin@pd.jaring.my>
Message-ID: <9jdvm9$e7a$1@news4.jaring.my>
Source record: 51306

Hi everyone,

I am looking for this IC TCM3105 for our student's project. Can someone help me to locate where I can purchase two pieces for this project. I know that this chip is out of production by now. But I am sure someone may have two pieces around. Please help me.
My e-mail address: pkchin@pd.jaring.my. Thank you.

P.K.Chin,
9M2CW

Address: 30, Persiaran Bandar Baru Tambun 13,
Desa Tambun Indah,
31400 Ipoh,
Malaysia.

4361. New Packet Modem for LAN's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 10:24:27 UTC
From: c.moss_stopspam@blueyonder.co.uk
Message-ID: <6eallt4eck0a5eklvte6dpfjimpnud3e2p@4ax.com>
Source record: 51307

Hi.

I'm trying to find a network chip (as used on Network cards - NICS) that can be easily interfaced to fast 8-bit uP.

It's for a new high-speed (well 128KBit/s min) packet modem that needs to be connected to the pc via LAN and not the usual RS232 port so i need to interface the 8-bit uP to the LAN.

There are various network chips out there (ie, DP8390) but they need something more than a simple 8-bit bus connection and didunt want to have to add extra hardware to deal with it - which would make the modem more expensive :(

Any ideas ?

Regards ... Clive

4362. Re: one tube radio receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 11:32:14 UTC
From: search engines work <haveaniceday@hotmail.com>
Message-ID: <3b5aabae$1_2@excalibur.gbmtech.net>
Source record: 51308

rhn@nicholson.com wrote:
>Long ago, I built a couple of one tube radio receivers (one was
>a
>radioshack perfboard kit), now lost with all the junk thrown out
>from
>the parents attic. I seem to remember them using 2 batteries, a
>variable cap, inductor, about a half dozen other passive components,
>a switch, and earphones.
>
>Are there any online documents, or books still in print, which might
>have a schematic of some simple one tube radio receivers. I'd like
>to
>build one again to show what electronics looked like before devices
>with merely a million transistors were considered obsolete thowaways.
>
>I also remember building a 3 tube kit regenerative (Lafayette?),
>where
>1 tube was the rectifier and another the audio amp.
>
>Thanks!
>
>--
>Ron Nicholson rhn@nicholson.com http://www.nicholson.com/rhn/
>
>#include <canonical.disclaimer> // only my own opinions, etc.

here are some links,

http://www.ezlink.com/~crash/parks/1distget.html

http://www.lindsaybks.com/

The lindsays book site has many old book reprints with schematics
and info, only problem you will have is getting some of the parts
but they are all available if you look hard enough.

Use a good search engine like Google and search for one tube
radio, or regenerative recievers, may also search grid leak
detectors.

4363. 2N5155 Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 17:19:52 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9jf1fr$u5r$1@newsg2.svr.pol.co.uk>
Source record: 51310

Can anyone tell me an equivalent and/or UK source please?
Don M5AKY
Bristol

4364. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 17:29:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B5B0D70.139B8165@eznec.com>
Source record: 51311

You might want to use an old penny -- they don't make 'em like they used to. From 1864 to 1962, pennies were bronze (95% Cu, 5% Sn and Zn). From 1962 to 1982, brass (95% Cu, 5% Zn). Since 1982, pennies have been only 2.5% copper, the rest zinc. The copper is plated on the outside, so it should work ok as long as all the copper isn't corroded away. But who knows, maybe Zinc Oxide rectifies too.

Roy Lewallen, W7EL

http://www.usmint.gov/about_the_mint/fun_facts/index.cfm?action=fun_facts2

Leon Heller wrote:
>
> >
> > It all started with a story about POWs building radios using a corroded
> > copper penny for a diode?
>
> Before silicon rectifiers came along they were made from selenium, and
> before that from copper/copper oxide. So a penny should work.
>
> 73, Leon

4365. Re: AD9851 Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 18:31:33 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B5B1C05.E1FE14EB@buttery.org>
Source record: 51312

Dale Parfitt wrote:
>
> Anyone know of a distributor that sells the AD9851 DDS IC in single qty?

Although many distributors will sell you single chips, it's less expensive to order small quantities directly from the Analog Devices web site (http://www.analog.com). A single AD9851BRS costs $22.40 there. However, most of their parts, including the AD9851, are shipped from Taiwan, so it takes at least a week to get them.

If you're in more of a hurry, you could try a distributor; the Analog Devices web site has a list of them. I checked a bit, and found one that claims to have stock and will sell single parts - Future Electronics (http://www.futureelectronics.com). But they want $45.58 for a single AD9851. The other ones I checked either don't sell single parts or don't have them in stock.

4366. need info on HV rect

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 19:02:57 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tlm8r6ig0tko85@corp.supernews.com>
Source record: 51313

i'm looking for a bridge recitifer good for about 3000 vac input and with
draw less than 10ma..
i want to replace a 2X2 tube and get a little higher voltage out by going to
the solid state bridge..
are there any compact units ?
who sells them?
tnx
hank wd5jfr

4367. Re: need info on HV rect

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 19:11:01 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B5B2543.E2B6CF4B@ay.com.au>
Source record: 51314

Henry Kolesnik wrote:
>
> i'm looking for a bridge recitifer good for about 3000 vac input and with
> draw less than 10ma..
> i want to replace a 2X2 tube and get a little higher voltage out by going to
> the solid state bridge..

You could just make one out of a handful of conventional HV diodes.

> are there any compact units ?

Compactness might be a problem, but you could pot the result in epoxy
to squeeze it smaller. Build it and try it out, if is dies in a puff of
smoke you've only lost a few cents of diodes and some time.

--
Alan Yates
http://www.alanyates.com/
The Moon is Waxing Crescent (6% of Full)

4368. Re: GM3OXX OXO Tx

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 19:15:53 UTC
From: la8ak@online.no
Message-ID: <3b5af1af.488054@news.online.no>
Source record: 51315

On 21 Jul 2001 22:30:17 GMT, crabtreejr@aol.com (John Crabtree) wrote:

>Max, miner_49er@hotmail.com (Max) on 7/21/01 wrote:
>
>>Building The OXO Tx. Can't find 2N4427 or 2N3866 anywhere, can
>>anyone suggest a source or suitable alternative. I am in UK.
>
>Try Dial Electronics, who are in the UK, at
> www.dialelec.com
>
if you buy it from UK, suppose BFW16 is a more readily available
device, but BFR96 is possibly a lot cheaper and better

>73 John KC0GGH
>
>
>John Crabtree

4369. FS: TT22 GEC NOS valves

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 19:23:53 UTC
From: arnoldg@enitel.no
Message-ID: <3b5b27df.41304641@news.enitel.no>
Source record: 51316
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes,rec.radio.amateur.boatanchors

Hello,

I just found 3 pcs of the GEC valve TT22. This is a very close
equivalent to KT 88, but a special version with a top cap for the
anode. A max anodevoltage of 1250V and a dissipation of 45W (KT 88 is
42W). The heater is 12.6V 0.8A.
This is a rather scarce valve and usually very expensive. I want
$ 50.- each or best offer. E-mail me if interested.

Best regards,

Arnold Goks�yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

4370. Re: 2N5155 Transistor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 20:17:52 UTC
From: crabtreejr@aol.com
Message-ID: <20010722161752.07661.00000637@ng-fp1.aol.com>
Source record: 51317

Don Vosper M5AKY, don@vosperd.freeserve.co.uk on 7/22/01 wrote:

>Can anyone tell me an equivalent and/or UK source please?
>Don M5AKY

Try Dial Electronics, who are in the UK at
www.dialelec.com

73 John KC0GGH

4371. 22-July-2001 IOTA list update

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-22 20:54:16 UTC
From: -- AB7SL -- <ctj92@hotmail.com>
Message-ID: <Y3H67.5699$Px1.690566@newsread2.prod.itd.earthlink.net>
Source record: 51318
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

At the site listed below on the IOTA List Page....

--

73 / DX

Charles T Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4372. Re: AD9851 Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 00:17:57 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B5B6DB5.5BDD@pop.removethistomailme.net>
Source record: 51319

Mark J. Dulcey wrote:
>
> Dale Parfitt wrote:
> >
> > Anyone know of a distributor that sells the AD9851 DDS IC in single qty?
>
> Although many distributors will sell you single chips, it's less
> expensive to order small quantities directly from the Analog Devices web
> site (http://www.analog.com). A single AD9851BRS costs $22.40 there.
> However, most of their parts, including the AD9851, are shipped from
> Taiwan, so it takes at least a week to get them.
>

Beware of Analog's shipping and handling charges; they're out of
control. I ordered a half-dozen each AD603s and AD8307s from their site
a few weeks ago, and the S/H for UPS Ground delivery was almost $25.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4373. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 02:15:07 UTC
From: Bruce Torelli <nospamnospambtorelli@ieee.org>
Message-ID: <LML67.6402$Px1.757623@newsread2.prod.itd.earthlink.net>
Source record: 51320

Happy People,

I posted my question in 2 news groups, rec.antiques.radio+phono and rec.radio.amateur.homebrew. As a courtesy to the interested, I assembled the feedback and have posted it to both groups. I intentionally withheld their names of folks that mailed me a response. My apologies if this violates news group etiquette.

Thanks again for all the nifty info.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Posts to rec.radio.amateur.homebrew:
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
You might want to use an old penny -- they don't make 'em like they used to. From 1864 to 1962, pennies were bronze (95% Cu, 5% Sn and Zn). From 1962 to 1982, brass (95% Cu, 5% Zn). Since 1982, pennies have been only 2.5% copper, the rest zinc. The copper is plated on the outside, so it should work ok as long as all the copper isn't corroded away. But who knows, maybe Zinc Oxide rectifies too.

Roy Lewallen, W7EL

http://www.usmint.gov/about_the_mint/fun_facts/index.cfm?action=fun_facts2

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Before silicon rectifiers came along they were made from selenium, and before that from copper/copper oxide. So a penny should work.
Leon
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
I have heard the story of the copper oxide and copper diode, also have heard of using a bowl of lemon juice with a cats whisker as a detector, heard the US Navy used this in the early days.

I myself have used flame rectification by heating a 3/16 diameter rod in a flame to detect with, got poor results but it did work.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Believe it or not, the boyscout handbook still has a xtal radio design using, I think, a safety pin and some raw germanium and/or equivalent detector piece etc..

I also have heard about using a rusty razor blade.

PBS had a special about POWs. One of the things that was talked about revolved around the POWs using all sorts of stuff to make simple rcvrs to keep up on the outside world.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Sorry, cannot remember the specifics of the show.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
The razor blade part works. When I was 11 I built a crystal radio
with a razor blade, crystal earphone, a disk capacitor (around 200 pF)
and a coil of enameled wire which I tuned with a slider. The razor
blade used a stub of pencil and a paper clip to turn in to a detector.
It worked, but frankly a good point contact germanium diode would
outperform it.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
The copper penny story is almost certainly true. I used to make some very
respectable detectors when I was a kid by taking two pieces of copper bell
wire and roasting one in a gas pilot light until it turned black. I then
twisted
it until the outer black stuff fell off leaving a reddish oxide. I then took
the other wire and scraped it clean and twisted the two together. It worked
as
good as a regular crystal diode for me. I tried a lot of other stuff but
this was
the easiest and always worked and didn't need adjustment.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Posts to rec.antiques.radio+phono:
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
There's the story about a group of WW2 Allied POWs who built a crystal
receiver using a double edge razor blade (Gillete Blue Blade) and the
graphite material from a wood pencil for the detector.They disassembled the
headphones from an Italian Tank commander's helmet that they had stolen,
saving one phone intact and using the other to both wind their coil and for
an antenna. It apparently worked well enough for them to receive BBC
broadcasts
and publish a "Camp Newsletter" on the backs of toilet paper, cigarette
packages and gum wrappers.
Gene
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Go to your local library or book dealer and get a copy of "Voice of the
Crystal." The book describes making a crystal radio entirely with household
materials - even the headphone and tuning capacitor. Several different
designs are presented.
Doug Moore
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
JUST USE ANY CRYSTAL SET CIRCUIT, SUBSTITUTE A SAFETY PIN FOR THE CAT
WHISKER AND A GILLETTE BLUE BLADE FOR THE GALENA. THATS ALL THERE IS TO
IT.
Bill Turner WA0ABI
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Bruce:
I've written a book on precisely this subject. I invite you to take a look
here:

http://www.mindspring.com/~pfriedr/

To all the members of the group...let me know what you think.

Pete
(I have a copy coming from Lindsay)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
emailed responses:
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
I believe that gun bluing is indeed the same chemical, but I've never tried the appropriate experiment. I look forward to reading your summary.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
IIRC, the razor blade had to be a "blue blade". The bluing process deposits a layer of a selenium compound, and there's half of your diode!
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
You're welcome. The guy was working on making his own transistors, but didn't have a way to evaluate his experiments. I sent him an early Tektronix curve
tracer to help him out. I understand now he is experimenting with making his own vacuum tubes. The guy is really clever, and a heck of a good writer. I found the book fascinating even if I didn't intend to try constructing the stuff. His use of the piezo element out of a cigarette lighter for the headphone was really ingenious.

Years ago, I experimented with different substances for detectors, and had some luck with copper oxide. Never tried the razor blade, but I've heard it works too. My grandfather gave me a large Galena crystal once, and it was enough for a hundred detectors. It's a shame things have gotten so complex these days.

By the way, I'm quite into the old ways, running an all vacuum-tube Amateur Radio HF station. I do have a modern handi talkie, and a modern 10m transceiver in the car, but love the old gear because you have to constantly keep an eye on it, tune it for optimum and such. Oh the joys of adjusting a Pi Network. It's kind of like running a steam locomotive - make a mistake and BOOM!
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
URLs
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

http://www.nostalgiaair.org/NostalgiaAir/MessageBoard/techforum/8346.htm

http://members.aol.com/djadamson7/articles/foxhole.html

http://www.thebest.net/wuggy/links.htm

http://www.mindspring.com/~pfriedr/

http://www.clarion.org.au/crystalset/mystery.html

http://www.purveyor.com/radio.htm

http://www.freeweb.pdq.net/headstrong/foxhole.HTM

http://members.aol.com/djadamson7/articles/foxhole.html
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

4374. Source for synth IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 03:09:30 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B5B956A.CF54AC32@visi.com>
Source record: 51321

Hi gang,
Anyone know of a source for small quantities of the Motorola
MC145151P2 synth chip? Thanks

Bob WB0POQ

4375. Re: Source for synth IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 06:47:27 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jgg9b$17v$1@newstoo.ericsson.se>
Source record: 51322

Yes,

You could try Barendh who have their homepages at
http://www.xs4all.nl/~barendh/ where they have a catalogue on-line. Accept
payment via VISA card. I have always received excellent service there and
they are a good source for those "hard to get" RF chips. Prescalers etc.

You could also mention Harry in Sweden if you contact him.

BR from Harry - SM0VPO

Bob Liesenfeld wrote in message <3B5B956A.CF54AC32@visi.com>...
>Hi gang,
> Anyone know of a source for small quantities of the Motorola
>MC145151P2 synth chip? Thanks
>
>Bob WB0POQ

4376. Re: Wire antenna info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 06:55:27 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jggoc$4vk$1@newstoo.ericsson.se>
Source record: 51323

Interesting! Everyone has their pet antenna, some having "magical" claims. I much prefer the vertical 1/4-wave mounted at ground level and using bits of TV coax as ground radials. Single pole-in-the-ground mount, old 27MHz CB antenna modified, impedance 50-Ohms (as opposed to 75 with the dipole), does not suffer from ground reflections modifying impedance, omni-directional, low profile, mechanically sound and easy to erect. Put a flag on it and no-one know you have an antenna!

To get a horisontal 1/2-wave to perform the same you need it 0.6-wl over the gound, and even then you cannot communicate along the axis of the antenna!

BR from Harry

N9RK wrote in message <20010720195117.19846.00000487@ng-fn1.aol.com>...
>I would like to work 20 m and up and I am still kicking around ideas for an
>antenna. Does anyone have a good idea for some sort of wire antenna that
can be
>strung between 2 chimneys that are approx 75 - 90 feet apart? Dipoles are
out
>of the question as there would be nothing for support in the center. A coax
fed
>antenna would be prefered but any ideas welcome! Please email me at:
>N9RK@aol.com
>73,
>Renee N9RK

4377. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 07:01:58 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jgh4j$8a0$1@newstoo.ericsson.se>
Source record: 51324

Reg Edwards wrote in message <9jc8gb$7ve$1@uranium.btinternet.com>...
>WHAT THE HANDBOOKS DARE NOT PRINT
>
>Blah! blah! blah! blah! blah! blah! blah! blah! blah!

Sorry, I missed the point. Are you trying to sell something? If so then what is it? Everythin that you stated was a rather basic description of how to measure VSWR. Note the inclusion of the V. It is the Voltage Standing Wave Ratio that is measured. All VSWR measure the voltage relationship, not power. If this were not so then meter calibration would be very much different.

H

4378. Re: Tubes to burn-please help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 07:04:10 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jgh8m$9eg$1@newstoo.ericsson.se>
Source record: 51325

Urgently Need,

DF96, DAF96, DK96 and DL96. (91's will do nicely if you have them but the lower current 96s would be the best).

If you have them then drop me e-mail at harryvpo@hotmail.com and you could convert them into something a little more usefull, eg. cash.

BR from Harry

Bob Smith wrote in message <9jb6mn$21t$1@news.chorus.net>...
>I have just come into a large collection of tubes-old radio and TV, many of
>them NOS in the boxes. I have no idea what to do with them (sell, trade,
>what are they worth). Any suggestions gratefully accepted. Please email
>me... Bob
>
>

4379. Re: Source for synth IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 11:38:39 UTC
From: crabtreejr@aol.com
Message-ID: <20010723073839.20201.00000782@ng-bh1.aol.com>
Source record: 51326

Bob Liesenfeld, wb0poq@visi.com, on 07/22/01 wrote:

> Anyone know of a source for small quantities of the Motorola
>MC145151P2 synth chip? Thanks

If you cannot find them stateside, try Dial Electronics in the UK at
www.dialelec.com
Shipping and handling charges are not cheap, ie $10.

73 John KC0GGH

John Crabtree

4380. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 14:16:23 UTC
From: tions@subdimension.com
Message-ID: <9jhbsp$di5$1@neptunium.btinternet.com>
Source record: 51327

Reg is trying to share some knowledge.
Nothing wrong in that is there?

4381. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 14:29:26 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <axW67.180705$v5.16387242@news1.rdc1.ct.home.com>
Source record: 51328

If you know the impedance, if you know the voltage, you
then know the power...

"John Smith" <johnsmith@microsoft.com> wrote in message
news:9jgh4j$8a0$1@newstoo.ericsson.se...
> Reg Edwards wrote in message <9jc8gb$7ve$1@uranium.btinternet.com>...
> >WHAT THE HANDBOOKS DARE NOT PRINT
> >
> >Blah! blah! blah! blah! blah! blah! blah! blah! blah!
>
> Sorry, I missed the point. Are you trying to sell something? If so then
what
> is it? Everythin that you stated was a rather basic description of how to
> measure VSWR. Note the inclusion of the V. It is the Voltage Standing Wave
> Ratio that is measured. All VSWR measure the voltage relationship, not
> power. If this were not so then meter calibration would be very much
> different.
>
> H
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>
>

4382. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 15:28:46 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107230728.5e122860@posting.google.com>
Source record: 51329

"P.K.Chin" <pkchin@pd.jaring.my> wrote in message news:<9jdvm9$e7a$1@news4.jaring.my>...
> Hi everyone,
>
> I am looking for this IC TCM3105 for our student's project. Can someone
> help me to locate where I can purchase two pieces for this project. I know
> that this chip is out of production by now. But I am sure someone may have
> two pieces around. Please help me.

Yeah: consider another project. This part is unavailable. It's
long out of production, so there are no NOS stocks available.
It never really made it to the surplus market, so there are no
surplus parts available either.

There are other modem chips available (e.g. MX614), but
they are not drop-in replacements.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4383. FT: Computer gear for HF Rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 16:19:48 UTC
From: rkasprow@hotmail.com
Message-ID: <d8f49a6c.0107230819.413fba42@posting.google.com>
Source record: 51330

I have the following gear available for trade / sale on a "newer" HF
rig, specifically interested
in the following:

* Kenwood TS-50
* Yeasu FT-100
* ICOM IC-706
* Alinco DX-70 / DX-77
* or other smaller case HF mobile

What I've got.

// Compaq Deskpro Server
400 MHZ, 128 MB Ram, CD-ROM, 8GB HD, 10/100 NIC, AGP Video, Mouse +
Keyboard,
Windows 2000 Professional.
More ram is available.

// Compaq Deskpro Desktop
350MHZ, 128 MB Ram, CD-ROM, 5 GB SCSI-2 HD, 10/100 NIC, Adaptec Ultra
Wide SCSI Card,
AGP Video, Mouse + Keyboard, Windows 2000 Professional.
More ram is available.

// Compaq Deskpro Desktop
350MHZ, 128 MB Ram, CD-ROM, 6 GB HD, 10/100 NIC, AGP Video, Mouse +
Keyboard,
Windows 2000 Professional.
More ram is available.

// Compaq Deskpro Desktop - Small Form Factor
466MHZ, 128 MB Ram, 8 GB HD, 10/100 NIC, AGP Video, Mouse + Keyboard,
Windows 2000 Professional.
More ram is available.

// Sun SparcSERVER 10
50-MHZ RISC processor, 96 MB Ram, 4 GB Hard SCSI Drive, CG 6 Color
frame buffer,
On-board fast SCSI controller, On-board 10-100 base T Ethernet,
On-board sound,
additional fast SCSI controller, additional 10-100 base T Ethernet
controller, Mouse + Keyboard.
Excellent webserver, file server and strong Unix operating system.

// Sun SparcSTATION 5
70-MHZ RISC processor, 64 MB Ram, 2 GB Hard SCSI Drive, CG 6 Color
frame buffer,

On-board fast SCSI controller, On-board 10-100 base T Ethernet,
On-board Sound,
additional fast SCSI controller, additional 10-100 base T Ethernet
controller, Mouse + Keyboard.
Excellent webserver, file server and strong Unix operating system.

// Hewlett Packard Rack Mount Network Hubs
4 available, 2 14 port and 2 15 port hubs. All are in excellent
condition and recently removed
from service. These are rack mount servers.

// Proxima LightBook LB20 DeskTop Projector
SVGA and RCA inputs, 200 ANSI lumens, Serial jack, Computer in jack,
Monitor out jack, Video in jack,
Audio in & out, TV output, Twin Lamp, True SVGA compatibility (800 x
600), International power supply,
LightBoard drawing tool, Remote control, Lightweight (11 pounds - 13.5
x 9.25 x 5 inches),
Custom padded case.

This unit is in excellent condition and includes all
the original equipment (cables + books).

If you see something you like, please let me know. I am open to trades
or sales on any of the
machines. Willing to trade multiple machines for the right gear. Sales
always welcome ...

Thank you!
rkasprow@hotmail.com

4384. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 16:47:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9jhkht$697$1@uranium.btinternet.com>
Source record: 51331

The only place I mentioned SWR is in the incorrect name of the meter. Its purpose can be fully and very simply explained without a mention of SWR. The abused thing has nothing to do with SWR. Although it doesn't measure anything it is, nevertheless, a very important instrument.

The transmission line and SWR associated with the meter exist only in the guru's and John's imagination.
--
PS. You can't have a VoltageSWR without a CurrentSWR. Did you know they both have the same magnitude? So SWR all by itself is a quite adequate description. There's no need to distinguish one from the other. But why do you persist in bringing SWR back into the discussion?

****
Regards, Reg, G4FGQ
Free radio design software
http://www.g4fgq.com
****

John Smith <johnsmith@microsoft.com> wrote in message news:9jgh4j$8a0$1@newstoo.ericsson.se...
> Reg Edwards wrote in message <9jc8gb$7ve$1@uranium.btinternet.com>...
> >WHAT THE HANDBOOKS DARE NOT PRINT
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> >Blah! blah! blah! blah! blah! blah! blah! blah! blah!
>
> Sorry, I missed the point. Are you trying to sell something? If so then what
> is it? Everythin that you stated was a rather basic description of how to
> measure VSWR. Note the inclusion of the V. It is the Voltage Standing Wave
> Ratio that is measured. All VSWR measure the voltage relationship, not
> power. If this were not so then meter calibration would be very much
> different.
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> H
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>
>

4385. Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 17:14:12 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <XQY67.4219$UB6.349114@e3500-atl1.usenetserver.com>
Source record: 51332

I was away all last week at a continuing edu. activity. During this school, I
had a few conversations with a "bigwig" electronics type who advises the *OTHER* bigwigs on communications matters. Seems this man and his USAF counterpart favor using SGC couplers/whip combos on all corporate vehicles for HF as opposed to resonant antennas. For example, he called the Screwdriver antennas "garage" technology. To which, I called tuners "voodoo" technology and argued that most of the good ideas of the past century came from garages--Henry Ford's car, the airplane, and Microsoft Windows to name a few.

I was taught, thru study and 30 years experience, that nothing beats a resonant
antenna. No, I don't have an electronics/engineering degree. I was taught by
hams and books, AND mistakes what works and what doesn't. I can't explain the microscopic reasons why something works, but I *can* do fairly detailed experiments, etc. I know somewhat more than the "basics".

The powers that be in this organization want to equip the vehicles with couplers/tuners/whips to provide touch-of-a-button access to multiple HF bands. I have been saying from the field, "NO, you don't want to do that IF you want maximum performance, flexibility, and cost effectiveness". The couplers cost lotsa $$$$$. The SD's cost almost half that even if you equip the vehicles with permanently installed analyzers or SAMs. Seems to me that the degreed types lose touch with reality and believe that any problem can be
solved by throwing money at it. Typical of government, too! To them, a device must have a "Big Name" on it to be good. IF it said Rockwell Collins on it, they'd be knocking on their doors.

Final qualifier. Yes, I build screwdrivers-good ones, too. But I have bowed
out of the bid/sales thing because I am also a member of the group. Conflict of interest, etc. But I DO believe the SD to be the way to go--especially if you
are able to get a good price ($200 or less). I think the SD is the way for the
org. to go for mobile comms.

SO!! Am I wrong? Do you think a coupler/whip will "beat" a screwdriver in a "shootout"? Especially if the SD has a 2-3" coil at 8 TPI of #14 wire? If it's
ok, I'd like to forward your comments to my friend and see what he thinks. Incidentally, I loaned one of my SD's to the man to test and compare. When

it
comes to buying them on a national level, he'll have to look elsewhere.
Which
one, do you think, will win based on its merits.

Jerry
K4KWH

4386. Re: Tubes to burn-please help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 17:21:13 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <qXY67.4226$UB6.349489@e3500-atl1.usenetserver.com>
Source record: 51333

Bob,

Sounds just like me and *most* other hams around! I did the same thing,
especially back when I had tube rigs. Handy if I happened to burn up my
filaments. After I retired my last tube rig, the tubes accumulated
until-----well,
you know. So, I started taking them to hamfests and selling them for what I
could get. That's basically about the only way I could get shed of them.
Good
luck with your "collection".

73

Jerry
K4KWH

Bob Smith <drbob@pcii.net> wrote in message
news:9jb6mn$21t$1@news.chorus.net...
> I have just come into a large collection of tubes-old radio and TV, many
of
> them NOS in the boxes. I have no idea what to do with them (sell, trade,
> what are they worth). Any suggestions gratefully accepted. Please email
> me... Bob
>
>

4387. Re: Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 17:21:47 UTC
From: Hassu Pupu <hullu@fin.net>
Message-ID: <L2Z67.7703$Px1.910704@newsread2.prod.itd.earthlink.net>
Source record: 51334

There used to be a program for decoding MDT from a scanner with source code. It had all the windows API calls and set up multiple buffers for the sound data, then called a DLL written in C for the DSP part. I think it was called MDTwin.

You might also search for PSK31 source codes. I've seen a few windows programs with source as well.

"W3JDR" <j.r@usa.com> wrote in message
news:i3h47.6493$I%.3472603@typhoon2.gnilink.net...
> Thanks for the links Magne. I found these already, but unfortunately they
> don't fill my needs. SM5BSZ's work is based on DOS and Linux.....I'd like
to
> get something going on Windows (yes, I've heard about the Windows
real-time
> issues, but I've also heard that people have overcome them). The GNU
project
> is just a shell right now...it doesn't look like anything has been
> contributed by anyone yet.
>
> I'll keep looking and watching. Meanwhile, thanks again.
>
> Joe
> W3JDR
>
>
> "Magne M�hre" <magne@clustra.com> wrote in message
> news:m38zhqpcba.fsf@clustra.com...
> > "W3JDR" <j.r@usa.com> writes:
> >
> > > I'm very interested in tinkering with direct conversion DSP software
> radios.
> > > I'm looking for a piece of open-source software for Windows that takes
I
> and
> > > Q audio inputs from a PC sound card and produces an audio output. I
> don't
> > > want to reinvent this part, I just want to work on DSP algorithms
> between
> > > the input and output. I've been told this is readily done using the
> > > DirectSound API in Windows, but I can't figure it out. I'd like to
work
> in
> > > VB as much as possible, but C and/or C++ are also acceptable.

> > > Does anyone know of such a piece of open-source software? Has anyone
> done
> > > anything in this area who might share source code?
> >
> > A couple of links for you:
> >
> > http://www.gnu.org/software/gnuradio/
> > http://ham.te.hik.se/~sm5bsz/pcdsp/pcdroot.htm
> > http://ham.te.hik.se/~sm5bsz/linuxdsp/linroot.htm
> >
> > --Magne / la1bfa
>
>
>

4388. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 18:20:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B5C6AE1.AE62EDEE@eznec.com>
Source record: 51335

I seriously doubt that the SGC/whip combo would beat a well designed screwdriver in a shootout. But the objective of these people isn't to win a shootout -- it's to reliably communicate under all possible conditions. And that's a very different objective. Having a full battery of environmental tests run on your product -- heat, cold, moisture, salt spray, vibration and so forth -- would be the first step in convincing your potential customers that they can count on your antenna when the chips are down. Next would be to install your antennas on a few hundred vehicles that operate at all times of day and night all over the world on a variety of frequencies. After these have been in operation long enough to show that your antenna has a very low failure rate in actual operation when subjected to smog, sand, dirt, and temperature extremes, your potential customers will probably listen. Now, I'll bet you're thinking, that would be awfully expensive, and I'd have to charge a whole lot more for it. And now you're beginning to realize why the unit they do buy is so expensive.

Amateurs who aren't also professional engineers or who work in electronic product development seldom understand the vast difference between building up one or a couple of dozen prototypes, and making a product that will reliably work day in and day out, and can be built repeatably by the thousands. I worked for Tektronix for years. Their development cycle is probably typical of quality electronic equipment manufacturers. It might be a couple of years between the time a prototype is working and the product is ready for sale. A typical product development cycle would involve building a hundred or so complete instruments, subjecting them to elevated temperature testing to accelerate failures, running them through extensive environmental, mechanical, EMI, and performance testing. When all the bugs seemed to be fixed, another hundred or so were built and the whole process repeated. Only after this second process was successfully completed were the instruments offered for sale. The first units produced often got special testing and attention to further identify problems, and were sometimes used only for demos. Often a military contract would require additional reliability and environmental testing. Do you have any idea what all that testing costs? A person building scopes in his garage could produce an instrument for a fraction of the price -- but with the Tek instrument you are getting what you're paying for.

And that's the difference between "garage technology" and a "big name" product.

Roy Lewallen, W7EL

Jerry Oxendine wrote:
>
> I was away all last week at a continuing edu. activity. During this school,
> I
> had a few conversations with a "bigwig" electronics type who advises the
> *OTHER* bigwigs on communications matters. Seems this man and his USAF
> counterpart favor using SGC couplers/whip combos on all corporate
> vehicles for HF as opposed to resonant antennas. For example, he called
> the Screwdriver antennas "garage" technology. To which, I called tuners
> "voodoo" technology and argued that most of the good ideas of the past
> century came from garages--Henry Ford's car, the airplane, and Microsoft
> Windows to name a few.
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> I was taught, thru study and 30 years experience, that nothing beats a
> resonant
> antenna. No, I don't have an electronics/engineering degree. I was taught
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> hams and books, AND mistakes what works and what doesn't. I can't explain
> the microscopic reasons why something works, but I *can* do fairly detailed
> experiments, etc. I know somewhat more than the "basics".
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> The powers that be in this organization want to equip the vehicles with
> couplers/tuners/whips to provide touch-of-a-button access to multiple HF
> bands. I have been saying from the field, "NO, you don't want to do that IF
> you want maximum performance, flexibility, and cost effectiveness". The
> couplers cost lotsa $$$$$. The SD's cost almost half that even if you equip
> the vehicles with permanently installed analyzers or SAMs. Seems to me that
> the degreed types lose touch with reality and believe that any problem can
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> solved by throwing money at it. Typical of government, too! To them, a
> device must have a "Big Name" on it to be good. IF it said Rockwell Collins
> on it, they'd be knocking on their doors.
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> Final qualifier. Yes, I build screwdrivers-good ones, too. But I have
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> out of the bid/sales thing because I am also a member of the group.
> Conflict of interest, etc. But I DO believe the SD to be the way to
> go--especially if you
> are able to get a good price ($200 or less). I think the SD is the way for
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> org. to go for mobile comms.
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> SO!! Am I wrong? Do you think a coupler/whip will "beat" a screwdriver in
> a "shootout"? Especially if the SD has a 2-3" coil at 8 TPI of #14 wire?
> If it's
> ok, I'd like to forward your comments to my friend and see what he thinks.
> Incidentally, I loaned one of my SD's to the man to test and compare. When
> it
> comes to buying them on a national level, he'll have to look elsewhere.
> Which
> one, do you think, will win based on its merits.

>
> Jerry
> K4KWH

4389. Re: Looking for Primitive Homeade Radio Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 18:25:48 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9jhq5l$q21$1@uranium.btinternet.com>
Source record: 51336

> 2.5% copper, the rest zinc. The copper is plated on the outside, so it
> should work ok as long as all the copper isn't corroded away. But who
> knows, maybe Zinc Oxide rectifies too.

British 'copper' coins have been made of steel coated with copper for some
years now.

73, Leon

4390. Re: AD9851 Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 19:13:49 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107231113.a5c8@posting.google.com>
Source record: 51337

John Miles <jmiles@pop.removethistomailme.net> wrote in message
news:<3B5B6DB5.5BDD@pop.removethistomailme.net>...

> Beware of Analog's shipping and handling charges; they're out of
> control. I ordered a half-dozen each AD603s and AD8307s from their site
> a few weeks ago, and the S/H for UPS Ground delivery was almost $25.

Indeed. I got burnt on this - badly - last year. All I
wanted was two AD8307s, but when all was said and done the
shipping (to Canada) was going to be three times the cost
of the parts. Worse, the parcel delivery took longer
than plain old snail mail would have taken.

I refused the UPS parcel and eventually got a refund. This
took a while.

A shame: it could be a really handy service.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4391. Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 19:36:28 UTC
From: "Al Lorona, Jr." <al_lorona@agilent.com>
Message-ID: <3B5C7CBC.296B609F@agilent.com>
Source record: 51338

Hi, Everybody,

I asked this question a long time ago, and the few answers I got seemed really unsatisfactory, probably due to my inability to set up the scenario. I'd like to pose it again:

Pretend you have two absolutely identical crystal filters. They have the same -6 dB bandwidth, insertion loss, ultimate rejection, and shape factor.

You cascade them in an IF strip. They are both terminated properly and well-isolated with a suitable amplifier between them.

Isn't it true that the equivalent BW of the system will be somewhat narrower than either of the original filters? For example, won't the -3 dB points of a single filter become the new -6 dB points of the cascaded pair?

Regards,

Al W6LX

4392. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 20:11:51 UTC
From: Adrian Shephard <jadernyj@podvodnik.cz>
Message-ID: <3b5c8504$0$259$edfadb0f@dspool01.news.tele.dk>
Source record: 51339

"Laura Halliday" <marsgal42@hotmail.com> p&#65533;se v diskusn&#65533;m pr&#65533;spevku news:d42b5a72.0107230728.5e122860@posting.google.com...
> "P.K.Chin" <pkchin@pd.jaring.my> wrote in message news:<9jdvm9$e7a$1@news4.jaring.my>...
> > Hi everyone,
> >
> > I am looking for this IC TCM3105 for our student's project. Can someone
> > help me to locate where I can purchase two pieces for this project. I know
> > that this chip is out of production by now. But I am sure someone may have
> > two pieces around. Please help me.
>
> Yeah: consider another project. This part is unavailable. It's
> long out of production, so there are no NOS stocks available.
> It never really made it to the surplus market, so there are no
> surplus parts available either.
>
> There are other modem chips available (e.g. MX614), but
> they are not drop-in replacements.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89mg pied a terre..."
> ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

If this is a highest priority project, you might try salvaging old telecom equipment. I built my packet modem out of a chip from an old 1200 bd modem, they used to be in very old faxes too. BEWARE: This chip is a piece of s...
It's just the really basic, a properly programmed PIC could do the same job better, if it's for packet itself consider a TNC. I don't know how in Canada, but they appear here from time to time on the Flea Market section of our PR boards ...

4393. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 20:34:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B5C8A50.33A31584@eznec.com>
Source record: 51340

Yes, the -6 dB points of the pair will be the -3 dB points of a single filter, and the combination will always be narrower than a single filter. If the filters have very steep skirts (typical of crystal filters), the bandwidth difference will be small; if the skirts aren't so steep, the difference will be greater.

Roy Lewallen, W7EL

"Al Lorona, Jr." wrote:
>
> Hi, Everybody,
>
> I asked this question a long time ago, and the few answers I got seemed
> really unsatisfactory, probably due to my inability to set up the
> scenario. I'd like to pose it again:
>
> Pretend you have two absolutely identical crystal filters. They have the
> same -6 dB bandwidth, insertion loss, ultimate rejection, and shape
> factor.
>
> You cascade them in an IF strip. They are both terminated properly and
> well-isolated with a suitable amplifier between them.
>
> Isn't it true that the equivalent BW of the system will be somewhat
> narrower than either of the original filters? For example, won't the -3
> dB points of a single filter become the new -6 dB points of the cascaded
> pair?
>
> Regards,
>
> Al W6LX

4394. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 20:47:55 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9ji2enjol1@wanadoo.fr>
Source record: 51341

I have an over-simple judgment on this question :

- if the two filters are absolutely identical,
- if they have the same - 3 dB AND - 6dB bandwidth, same shape factor,
- if they are properly terminated,
- if they are well isolated, with a suitable buffer and without any coupling between them,

..... and if you tune a RF generator on the - 3dB frequency (for the first filter), then the total attenuation will be 3 + 3 = 6 dB
All the points of the resulting attenuation curve will be the result of the sum of the attenuation of each filter, or twice the attenuation of a single filter. The -3 dB points of a single filter will become the -6 dB points of the cascaded pair. The resulting BW will be narrower.

It's for me elementary algebra !

But perhaps on my side, there is something else, something wrong or I don't understand something important !

Thank you for your comments,

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Al Lorona, Jr." <al_lorona@agilent.com> a &#65533;crit dans le message news: 3B5C7CBC.296B609F@agilent.com...

Hi, Everybody,

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Isn't it true that the equivalent BW of the system will be somewhat narrower than either of the original filters? For example, won't the -3 dB points of a single filter become the new -6 dB points of the cascaded pair?

Regards,

Al W6LX

4395. Re: Software Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 22:18:56 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <kp177.24194$O81.9775272@typhoon1.gnilink.net>
Source record: 51342

Hassu,
I did a search on MDTwin, but I didn't get any meaningful returns. What is "MDT" anyway??

I already looked at a couple of PSK 31 open-sources. Most of them take a monaural input, process the PSK, and output text to the computer display. Although useful for academic purposes, they really wouldn't save much work, as one still has to figure out how to decompose the soundcard buffer output into left and right channel information (I and Q), and then figure out how to put this back out as sound while duplexing input and output in a continuous stream.

I did find some useful work by a Brit who has published several examples of duplex input/output using DirectX calls from Visual Basic. His work was for monaural sound....I'm trying to figure how to separate the left and right input components.

The quest continues.

Thanks,
Joe
W3JDR

"Hassu Pupu" <hullu@fin.net> wrote in message
news:L2Z67.7703$Px1.910704@newsread2.prod.itd.earthlink.net...
> There used to be a program for decoding MDT from a scanner with source
code.
> It had all the windows API calls and set up multiple buffers for the sound
> data, then called a DLL written in C for the DSP part. I think it was
called
> MDTwin.
>
> You might also search for PSK31 source codes. I've seen a few windows
> programs with source as well.
>
>
>
>
> "W3JDR" <j.r@usa.com> wrote in message
> news:i3h47.6493$I%.3472603@typhoon2.gnilink.net...
> > Thanks for the links Magne. I found these already, but unfortunately
they
> > don't fill my needs. SM5BSZ's work is based on DOS and Linux.....I'd
like
> to

> > get something going on Windows (yes, I've heard about the Windows
> real-time
> > issues, but I've also heard that people have overcome them). The GNU
> project
> > is just a shell right now...it doesn't look like anything has been
> > contributed by anyone yet.
> >
> > I'll keep looking and watching. Meanwhile, thanks again.
> >
> > Joe
> > W3JDR
> >
> >
> > "Magne M�hre" <magne@clustra.com> wrote in message
> > news:m38zhqpcba.fsf@clustra.com...
> > > "W3JDR" <j.r@usa.com> writes:
> > >
> > > > I'm very interested in tinkering with direct conversion DSP software
> > radios.
> > > > I'm looking for a piece of open-source software for Windows that
takes
> I
> > and
> > > > Q audio inputs from a PC sound card and produces an audio output. I
> > don't
> > > > want to reinvent this part, I just want to work on DSP algorithms
> > between
> > > > the input and output. I've been told this is readily done using the
> > > > DirectSound API in Windows, but I can't figure it out. I'd like to
> work
> > in
> > > > VB as much as possible, but C and/or C++ are also acceptable.
> > > > Does anyone know of such a piece of open-source software? Has anyone
> > done
> > > > anything in this area who might share source code?
> > >
> > > A couple of links for you:
> > >
> > > http://www.gnu.org/software/gnuradio/
> > > http://ham.te.hik.se/~sm5bsz/pcdsp/pcdroot.htm
> > > http://ham.te.hik.se/~sm5bsz/linuxdsp/linroot.htm
> > >
> > > --Magne / la1bfa
> >
> >
> >
> >
>

4396. using Tektronix plug-ins as stand-alones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 22:40:41 UTC
From: lgagnon@sherrittoil.com
Message-ID: <1d3b4598.0107231440.40772226@posting.google.com>
Source record: 51343

I have been offered a Tektronix 1L20 spectrum analyzer plug-in module. It was designed to be used with the Tek 500 series oscilloscopes. I have an HP oscilloscope however. I am assuming that the only other requirement for this plug-in would be to provide it with the right power sources??

Has anyone out there had experience trying to make-do with plug-ins as effectively stand-alone instruments? Any comments would be appreciated.

Larry VE6MK

4397. Can someone identify this component in mystery HF PA?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 23:06:39 UTC
From: Dan Rae <ac6ao@arrl.net>
Message-ID: <9jiampgiv1@slb5.atl.mindspring.net>
Source record: 51344

I bought at last Saturday's Pomona swap meet a very nice commercial or military 2x MRF422 power amplifier board. It is very similar (identical?) to the Motorola EB27A as far as the RF design is concerned, but the bias supply is completely different. Each transistor base is fed from a 4 terminal device that looks like an flange mounted RF transistor, but is not..

The markings are:

ACR
Z0-28F (could be a zero or an o)
1363W

From the top, clockwise, term 1 goes to the supply (presumably28V?)
term 2 is the Output,
3 is fed through a 100 ohm and 1000 ohm variable R in series from the +ve supply
4 is ground.
Liberal chip capacitor bypassing.

Has anyone come across these devices before?

I would like to use this PA with a qrp radio but would like to get some information on these devices before I fire it up :-)

Or has anyone any idea who made this board and what it came from? The quality is good enough to be from Collins or similar. It has relay switched 1/2, 1, 2, and 6 dB attenuators on the front end and a LPF on the output, input and output RF measurement transformers and very nice plastic encapsulated broadband rf transformers, D-sub combo connectors for everything.... Sound familiar to anyone?

Next stop the smoke test I suppose :-)

Dan AC6AO G3NCR

4398. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 23:14:07 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B5CB2D4.2FD@pop.removethistomailme.net>
Source record: 51345

Peter J. Bertini wrote:
>
> If you know the impedance, if you know the voltage, you
> then know the power...

But if you know the impedance, you know the SWR already. :)

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4399. Re: using Tektronix plug-ins as stand-alones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-23 23:56:54 UTC
From: Jeff Anderson <jeffa@ix.netcom.com>
Message-ID: <9jidkf$u6o$1@slb7.atl.mindspring.net>
Source record: 51346

You may find it easier and less of a headache just to locate a used 5000 series mainframe on the internet. If nothing else, check out ebay - there are usually several there for sale at a time.

On the other hand, sounds like a fun thing to try if you've nothing else to do...

- Jeff, WA6AHL

"Larry Gagnon" <lgagnon@sherrittoil.com> wrote in message news:1d3b4598.0107231440.40772226@posting.google.com...
> I have been offered a Tektronix 1L20 spectrum analyzer plug-in module.
> It was designed to be used with the Tek 500 series oscilloscopes. I
> have an HP oscilloscope however. I am assuming that the only other
> requirement for this plug-in would be to provide it with the right
> power sources??
>
> Has anyone out there had experience trying to make-do with plug-ins as
> effectively stand-alone instruments? Any comments would be
> appreciated.
>
> Larry VE6MK

4400. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 00:08:50 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b5cbc92@news.svn.net>
Source record: 51347

Reg Edwards <g4fgq.regp@btinternet.com> wrote:
> The only place I mentioned SWR is in the incorrect name of the
> meter. Its purpose can be fully and very simply explained without a
> mention of SWR. The abused thing has nothing to do with SWR.
> Although it doesn't measure anything it is, nevertheless, a very
> important instrument.

> The transmission line and SWR associated with the meter exist only
> in the guru's and John's imagination.

Hi, Reg & all -

Actually, there is a wide variety of SWR meter circuits, some of which don't involve bridge balancing. Some of which have separate forward and reverse selections versus those with only a self-correcting forward range. And for any reasonably designed unit, if the calibrate / reverse adjust is set, the forward indication *is* a display of SWR.

After all, there *is* a connection from the meter to the tuner. It may be short in physical length, but it's there (the transmit capability really suffers otherwise). And, as you say, the standard impedance design value is 50 ohms resistive. So that's what the meter is reading.

So:
1) What's the complaint? The indication *is* of a real, measured, quantifiable value (as real as volts, amps, watts, or hours spent on Usenet).
2) Even a mismatch magnitude detector still gives you something to tune with. Is that bad?
3) Even phase/magnitude detectors can give automatic tuner units (ATUs) fits - optimizing the tuning is handled by many by just trying all the possibilities and using the best one. Try doing a stability state analysis of them and you'll see why many designers throw up their hands and use such crude methods.
4) SWR has often been given too much emphasis - a lossy antenna can have its SWR lowered giving it the appearance of higher performance that it really has. But that doesn't mean it is meaningless. The amount of mismatch is as important as its presence or absence.

Best to you and 73-

Jim Horn, WB9SYN/6

4401. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 00:55:09 UTC
From: la8ak@online.no
Message-ID: <3b5c95eb.106300591@news.online.no>
Source record: 51380

On Mon, 23 Jul 2001 22:11:51 +0200, "Adrian Shephard"
<jadernyj@podvodnik.cz> wrote:

>
>If this is a highest priority project, you might try salvaging old telecom
>equipment. I built my packet modem out of a chip from an old 1200 bd modem,
>they used to be in very old faxes too. BEWARE: This chip is a piece of s...
>It's just the really basic, a properly programmed PIC could do the same job
>better, if it's for packet itself consider a TNC. I don't know how in
>Canada, but they appear here from time to time on the Flea Market section of
>our PR boards ...
>
>
>
another device to use is AM7910 or 7911, believe they weren't too
difficult to trace, also used TCM3101 - it worked provided you didn't
connect any outer resistors as mentioned in the manual, TCM3101 was a
ceramic device, I use it in some of my TNC's, cannot tell which is the
best, perhaps it is some other close data devices like TCM3102 or
TCM3104?
We didin't want to pay so we used whatever was offered from friends in
the industry, hi. Also made some experiments with AM7911 on a board,
and AM7910 was used in my first KPC-2, worked ufb on 20m provided an
x-y scope was used to tune the frequency and still very critical to
tune the FT-7 or Drake R-4C, believe it was narrower than TCM3105, but
it worked always ufb on 2m

73
Jan-Martin

4402. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 00:55:10 UTC
From: la8ak@online.no
Message-ID: <3b5c9828.106873481@news.online.no>
Source record: 51381

On Mon, 23 Jul 2001 13:34:24 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Yes, the -6 dB points of the pair will be the -3 dB points of a single
>filter, and the combination will always be narrower than a single
>filter. If the filters have very steep skirts (typical of crystal
>filters), the bandwidth difference will be small; if the skirts aren't
>so steep, the difference will be greater.
>
>Roy Lewallen, W7EL
>

not much to add to what Roy says, but one reason for using filters at
two stages is to improve ultimate rejection outside the passband. It
might sometimes be difficult because of spurious leaks, but again, Roy
can explain this better than I

73
jan-martin
LA8AK

>"Al Lorona, Jr." wrote:
>>
>> Hi, Everybody,
>>
>> I asked this question a long time ago, and the few answers I got seemed
>> really unsatisfactory, probably due to my inability to set up the
>> scenario. I'd like to pose it again:
>>
>> Pretend you have two absolutely identical crystal filters. They have the
>> same -6 dB bandwidth, insertion loss, ultimate rejection, and shape
>> factor.
>>
>> You cascade them in an IF strip. They are both terminated properly and
>> well-isolated with a suitable amplifier between them.
>>
>> Isn't it true that the equivalent BW of the system will be somewhat
>> narrower than either of the original filters? For example, won't the -3
>> dB points of a single filter become the new -6 dB points of the cascaded
>> pair?
>>
>> Regards,
>>
>> Al W6LX

4403. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 00:58:38 UTC
From: wb0poz@prodigy.net
Message-ID: <2L377.315$LH2.56403035@newssvr17.news.prodigy.com>
Source record: 51348

Jerry Oxendine wrote in message ...
>The powers that be in this organization want to equip the vehicles with
>couplers/tuners/whips to provide touch-of-a-button access to multiple HF
>bands. I have been saying from the field, "NO, you don't want to do that
IF
>you want maximum performance, flexibility, and cost effectiveness".

Having some experience with the US Gummint communications field, I can tell you that touch-of-a-button access to multiple bands is the key to success if you are expecting the operator to be anything but a guy with a lot of radio training. The people that use them just NEED TO COMMUNICATE RELIABLY - they don't wanna screw around with JS antennas, they don't care about getting a 5X9 report, they don't care about audio quality, and they sure as hell don't want to deal with something that's gonna bust on them when they're out in the boonies.

Believe it or not, radios are just appliances and/or tools to them. Just a means to an end of getting a message from point A to point B - reliably. If it costs 'em an extra grand, it is WELL worth it.

Lord only knows how many final tubes and transistors have been fried by untrained operators prior to the introduction of automatic antenna tuners. "Geez, I can never remember - is it DIP THE GRID AND PEAK THE PLATE or DIP THE PLATE AND PEAK THE GRID??"

73 John

4404. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 01:38:08 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5CD170.E92B46EC@att.net>
Source record: 51349

The response function of the pair will be the product of the response functions of each.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Al Lorona, Jr." wrote:
>
> Hi, Everybody,
>
> I asked this question a long time ago, and the few answers I got seemed
> really unsatisfactory, probably due to my inability to set up the
> scenario. I'd like to pose it again:
>
> Pretend you have two absolutely identical crystal filters. They have the
> same -6 dB bandwidth, insertion loss, ultimate rejection, and shape
> factor.
>
> You cascade them in an IF strip. They are both terminated properly and
> well-isolated with a suitable amplifier between them.
>
> Isn't it true that the equivalent BW of the system will be somewhat
> narrower than either of the original filters? For example, won't the -3
> dB points of a single filter become the new -6 dB points of the cascaded
> pair?

4405. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 01:47:10 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5CD38D.1432AC68@att.net>
Source record: 51350

As I used to point out to my radar classes at Texas Instruments, the only reason we use VSWR instead of ISWR is that we can call it "viz-wahr" which sounds much cooler than "iz-wahr." They have the same values, mean the same thing and can be used interchangeably. The only difference is in how they are measured, and for whatever reasons, historical and otherwise, it has turned out that voltage measurements seem to be preferred to current measurements.

Personally, I liked Reg's posting very much. It reminded me of why, when I tune my MFJ 989C tuner, I never look at anything except the "Reflected Power" meter reading.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Reg Edwards wrote:
>
> The only place I mentioned SWR is in the incorrect name of the
> meter. Its purpose can be fully and very simply explained without a
> mention of SWR. The abused thing has nothing to do with SWR.
> Although it doesn't measure anything it is, nevertheless, a very
> important instrument.
>
> The transmission line and SWR associated with the meter exist only
> in the guru's and John's imagination.
> --
> PS. You can't have a VoltageSWR without a CurrentSWR. Did you know
> they both have the same magnitude? So SWR all by itself is a quite
> adequate description. There's no need to distinguish one from the
> other. But why do you persist in bringing SWR back into the
> discussion?

4406. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 02:06:51 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <f0mplt8odt57gpkojoe5msa278ei093nor@4ax.com>
Source record: 51351

On Tue, 24 Jul 2001 00:58:38 GMT, <wb0poz@prodigy.net> wrote:

>"Geez, I can never remember - is it DIP THE GRID AND PEAK THE PLATE or DIP
>THE PLATE AND PEAK THE GRID??"

I always PLATE THE GRID and DIP THE PEAK. Works for me.

Bill, W7TI

4407. Re: using Tektronix plug-ins as stand-alones?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 02:45:40 UTC
From: caveteursus@aol.com
Message-ID: <20010723224540.10113.00000864@ng-cr1.aol.com>
Source record: 51352

A 5K mainframe will only set the respondent back $30 or $40! They are incredibly inexpensive if you need a low response, low noise scope (I have 3).

I have a 5L4 spectrum analyzer -- if you have the manual you could use it without a 5k mainframe, but time=money. The 5L4 is beautifully built with very nice filters etc., but I think that you can effect much of the same analysis with a decent sound card these days.

4408. MC13142 Projects and Plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 04:34:12 UTC
From: Stephen D Lindner <intelF@mediaFone.net>
Message-ID: <emtpltks3516euctf7hcj7po88itr2qg46@4ax.com>
Source record: 51353

I've been staring at the nearly all-in-one broadband rcvr frontend from Motorola on-a-chip, the MC13142. I'm not a hardware engineer but my extra class studies tempt me to play with this.

Has anyone published some plans using this chip for experimenters in upper UHF? Some of the units apparently go up to 2.4 GHz (even though only 1.8MHz is advertised). So with luck I could get a cheap way to AO-40? And with its built-in LNA, VCO, Mixer, etc. it starts to look like a universal transverter. Just find low parasitic reactance ways to swap out filters and tuning elements.

Am I on the right track here? Is there anything better to do simple microwave experiments?

Steve
KC8MGV
'73

Remove the F's from my email address to respond direct
(for anti-spamming reasons)

4409. ts50 and sm220 question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 04:58:55 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B5D008F.1B528207@inreach.com>
Source record: 51354
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Greetings all, I have a Kenwood TS50 and a Kenwood SM220 monitor with
the panadaptor. I was wondering if anyone has accessed the correct IF in
the TS50 and successfully hooked it up to the SM220.
Thanks in advance
William F. Hagen
kc6ufe

4410. Re: Source for synth IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 07:33:06 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jj7b0$m11$1@newstoo.ericsson.se>
Source record: 51355

Barendh is in the Netherlands.

John Smith wrote in message <9jgg9b$17v$1@newstoo.ericsson.se>...
>Yes,
>
>You could try Barendh who have their homepages at
>http://www.xs4all.nl/~barendh/ where they have a catalogue on-line. Accept
>payment via VISA card. I have always received excellent service there and
>they are a good source for those "hard to get" RF chips. Prescalers etc.
>
>You could also mention Harry in Sweden if you contact him.
>
>BR from Harry - SM0VPO
>
>Bob Liesenfeld wrote in message <3B5B956A.CF54AC32@visi.com>...
>>Hi gang,
>> Anyone know of a source for small quantities of the Motorola
>>MC145151P2 synth chip? Thanks
>>
>>Bob WB0POQ
>
>

4411. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 07:43:18 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jj7u4$n55$1@newstoo.ericsson.se>
Source record: 51356

I think that you will find that N R Bardwell, Sheffield, UK bought a load, hoping to make big bucks on them. Now they cannot get rid of them at £12.5 each.

I cannot remember the postal address, but you can find them on the web at http://www.bardwells.co.uk/ The chip isn't in their on-line cataligue but you can always e-mail them.

BR Harry

P.K.Chin wrote in message <9jdvm9$e7a$1@news4.jaring.my>...
>Hi everyone,
>
>I am looking for this IC TCM3105 for our student's project. Can someone
>help me to locate where I can purchase two pieces for this project. I know
>that this chip is out of production by now. But I am sure someone may have
>two pieces around. Please help me.
>My e-mail address: pkchin@pd.jaring.my. Thank you.
>
>P.K.Chin,
>9M2CW
>
>Address: 30, Persiaran Bandar Baru Tambun 13,
> Desa Tambun Indah,
> 31400 Ipoh,
> Malaysia.
>
>

4412. Re: I need advice on a homebrew antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 08:54:56 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jjc4h$1ma$1@newstoo.ericsson.se>
Source record: 51357

I had a similar problem, except that I was denied permission to erect an antenna on the chimney, or even the balcony! The thoughts were that all radio hams jam all TVs so don't let 'em have anything that could transmit!

I placed a 1/4-wave wooden brush-handle/fibre-glass fishing rod out on the balcony and sure enough I got complaints of interference! "Egg on the face" calmed a lot of people down, then I erected a real antenna:

1. Magnetic loop antenna built using a packing crate. Covered 7MHz - 30MHz and remote tuned using a model servo. The antenna was painted and had a dartboard on it so it was not recognisable as an antenna.

2. Vertical 1/4-wave mounted on the window ledge. A V shaped bit of nylon rope at the top of the window allowed the antenna to lean out at about 25 degrees from vertical. the bottom sat on the window ledge. A loading coil 53 turns, 10cm Dia. allowed a crocodile clip to bring it to resonance on 3.5MHz, 7MHz, 10MHz and 14MHz. Antenna erected in 45 seconds when required and removed just as quick. Even worked Japan on it with only 50 watts! For 10, 12, 15, 17, and 20 the ant would be only 1/2 the length. Ground was a) metal available for the building b) indoor radials.

Don't forget that if you shove up a permanent antenna then everyone will see it. If you have something as described that is temporary, only there when you use it then no-one will notice it. If they do see you using it over the weekend then any complaint will only reveal the antenna has gone by Monday morning!

BR from H

N9RK wrote in message <20010719194402.19079.00000320@ng-fb1.aol.com>...
>Hello all
>I live in an apartment building and have some restrictions on what I can
put
>up.
>I want to build a vertical antenna for 10, 12, 15, 17, and 20. I was
thinking
>of just using some tubing to be cut to be resonant on 20m, add some wire
>radials at the bottom, and use an auto antenna tuner to tune it. Now, the
only
>thing is that the only place I would have to put this antenna is to attach
it
>with arms to our mast running up the side of the chimney. My question(s)
is: 1:
>Would the chimney interfere with the antennas preformance? 2: At the top of
the
>mast are some beams which would be about 5 feet above the vertical antenna.

>Would these interfere with the tuning of the vertical? Any other ideas on a
>vertical antenna to build for the bands I mentioned? The antenna has to be
>under 20 feet tall and no radials, counterpoise, or whatever sticking out
over
>the edge of the roof. Would any commerically made antenna fit these needs??
>Please email me direct at: N9RK@aol.com
>73,
>Renee N9RK

4413. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 09:21:30 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jjdmb$4rd$1@newstoo.ericsson.se>
Source record: 51358

There you have it by general concensus; assuming the filters are exactly identical then the -3dB point will become a -6dB point. But:

No-one has yet mentioned other factors, such as the in-band ripple will also double in depth. This could be particularly objectionable when receiving weak signals. If the two filters were deliberately loaded slightly differently then the ripples could be shifted a little to give an improvement instead of degredation.

Insertion loss will double since the filters are passive and have an insertion loss; typically 3dB.

Filters also tend to "ring" a bit. This effect is not noticeable with wide bandwidth filters, but with narrow BW filters (CW etc.) the effect is quite noticeable. If you have two such filters cascaded then the effect will be ringing upon ringing.

The easiest way to find out is to try it. If it works Ok for you then use it. If Hammcom stops decoding then take it out.

BR H

>Pretend you have two absolutely identical crystal filters. They have the
>same -6 dB bandwidth, insertion loss, ultimate rejection, and shape
>factor.

4414. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 09:28:12 UTC
From: John Smith <johnsmith@microsoft.com>
Message-ID: <9jje2t$5n5$1@newstoo.ericsson.se>
Source record: 51359

>>"Geez, I can never remember - is it DIP THE GRID AND PEAK THE PLATE or DIP
>>THE PLATE AND PEAK THE GRID??"

>I always PLATE THE GRID and DIP THE PEAK. Works for me.

I always peak them both! "Maximum smoke" theorum.

H

4415. Useful Smithchart URL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 11:11:49 UTC
From: kenneth.linney@bt.com
Message-ID: <d56faaa5.0107240311.67d7695e@posting.google.com>
Source record: 51360

A most useful .GIF of a Smithchart can be found at:

http://www.tomco.com.au/images/smith.gif

..... Happy Plotting

... Ken, G3UDA

4416. Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 12:39:04 UTC
From: wa4uso@aol.com
Message-ID: <20010724083904.14757.00000923@ng-fl1.aol.com>
Source record: 51361

The "Louisville Homebrewers" club is sponsoring a "one Tube" transmitter building contest and many members are in need of FT-243 xtal sockets. Any help in finding some sockets would be greatly appreciated. Please email direct to WA4USO@aol.com Thanks 73 WA4USO D Darby

4417. Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 13:07:30 UTC
From: Paul Breed <Paul@Rasdoc.com>
Message-ID: <36rqlt4bbjosslgep8aqs5v8fdr573qbr4@4ax.com>
Source record: 51362

I am working on a Project to try and set the Solar Powered RC altitude record.

I am am thinking about how to establish the control link reliably to 20 Miles line of sight.

I've had a regulatory setback.... I read part 97.215 to be an exception that allowed you to transmit RC without identification. So I had planned to build a 25 or 100W 6M RC Tx, and to provide CW identification every 10Min thus removing me from the restrictions of 97.215, alas when I asked the FCC/ARRL for clarification they did not agree with that interpitation of the rules.

Thus for any RC application on the Ham bands I am limited to 1W TX output power.

I will be using a 900Mhz or 2.4Ghz ATV transmitter with Telemetry on the Audio channel for downlink, and thus I will have a tracking AZ-EL antenna setup that could also hold a TX antenna with some gain.

My Uplink choices:
1)1 W on 6M using standard 6M RC reciever on the aircraft and a homebrew 1W 6M transmitter on the ground with a small 6M antenna like 2 or 3 el 6M beam.. As per the FCC regs RC is prohibited from transmitting more than 1W on the ham bands.
How well would 1W on 6M do for a 20 mile Line of site path?

2)1W on some other Ham band (70cm for instance) This would require both a homebrew TX and a homebrew RX, but it would allow the use of an antenna with some real Gain. (say a Big 70cm Yagi)
Aux Question: How would one go about building a very small lightweight 70cm Rx? I'm willing and able to do a PCB Design using SMT components.

3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C transmitter for operation on 27.255Mhz with a maximum envelope power output of 25W. So this would require a homebrew TX and RX.
(Home brew on 27Mhz is a lot easier than on 70cm)

Additional General Technical notes.
Both the ground station and the Aircraft will have local GPS receivers with 1pps outputs. This would allow a VCXO slaved to the GPS to provide very tight frequency tolerance on both ends.
The aircraft will be quite slow so doppler should not be a problem.

One thought for the Airborne 70cm Homebrew RX would be to use a receiving transverter and a standard 6M RX receiver.
This could allow you to use a normal 6M RC transmitter when the

aircraft is close to the pilot and ground station and to switch to a Higher frequency with more TX Antenna gain as the Aircraft gets farther away.

Any Advice would be welcome.

Paul (Kl7JG)

4418. Re: Useful Smithchart URL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 13:23:40 UTC
From: Dan Richardson <k6mhe@arrl.net>
Message-ID: <lktqlt4ec4dsmamblls8i3euq2slckt37j@4ax.com>
Source record: 51365

You can also find serval file versions at:
http://sss-mag.com/smith.html

73
Danny, K6MHE

On 24 Jul 2001 04:11:49 -0700, kenneth.linney@bt.com (Kenneth Anthony
Linney) wrote:

>A most useful .GIF of a Smithchart can be found at:
>
>http://www.tomco.com.au/images/smith.gif
>
>..... Happy Plotting
>
>... Ken, G3UDA

4419. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 13:31:17 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B5D78A5.99283C59@dialpoint.net>
Source record: 51364

I would think that 1 watt would be plenty for what you want to do. I have talked with the airplanes on 2 meters at distances of over 100 miles and they were using HTs with 5 watts or less output. Have you ran any pathloss calcuations for the distance ? Remember that is line of sight and not over the earth.

Paul Breed wrote:
>
> I am working on a Project to try and set the Solar Powered RC altitude
> record.
>
> I am am thinking about how to establish the control link reliably to
> 20 Miles line of sight.
>
> I've had a regulatory setback.... I read part 97.215 to
> be an exception that allowed you to transmit RC without
> identification. So I had planned to build a 25 or 100W 6M RC Tx,
> and to provide CW identification every 10Min thus removing me from the
> restrictions of 97.215, alas when I asked the FCC/ARRL for
> clarification they did not agree with that interpitation of the rules.
>
> Thus for any RC application on the Ham bands I am limited to 1W TX
> output power.
>

4420. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 13:46:48 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b5d7956.2665966@news.cantech.net.au>
Source record: 51363

On Tue, 24 Jul 2001 09:07:30 -0400, Paul Breed <Paul@Rasdoc.com>
wrote:

>I am working on a Project to try and set the Solar Powered RC altitude
>record.
>
>I am am thinking about how to establish the control link reliably to
>20 Miles line of sight.
>
(snip)
>
>My Uplink choices:
>1)1 W on 6M
(snip)
>How well would 1W on 6M do for a 20 mile Line of site path?
>
>
>2)1W on some other Ham band (70cm for instance) This would require
>both a homebrew TX and a homebrew RX, but it would allow the use of an
>antenna with some real Gain. (say a Big 70cm Yagi)

The old engineering rule of swings and roundabouts applies here. In
path engineering, the term "figure of merit" is used.

The free space pathloss between isotropic radiators is:

a = 32.5 + 20logD(km) + 20logF(MHz) (dB)

As you go up in frequency from say 6m to 70cm, 20logF is about 19dB
more, so (ther considerations aside) you need to extract this much
combined EXTRA gain from the pair of antennae on the circuit.
Assuming that weight is an aircraft consideration, gain and/or
steerability are fairly much precluded up there. To get 19dB more
gain at 70cms than at 6m on the graound is some array, and the
beamwidth will make tracking requirements more stringent.

Review your a/c Rx usable sig level and apply the above FSPL calc to
the 20mi path (note the above form is the metric - km - version).
This will indicate the EIRP required on the ground, after
adding/subtracting the deemed a/c gain over isotropic.

>Aux Question: How would one go about building a very small lightweight
>70cm Rx?

Cannibalise a commercial handheld. You should be able to get low
current and good sensitivity from and oldish (non-synthesised) unit.
Stay focussed on your mission rather than distractions like designing

wheels - er, receivers ;-)

>3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C
>transmitter for operation on 27.255Mhz with a maximum envelope power
>output of 25W. So this would require a homebrew TX and RX.

Cannibalism is surely easier. Stick to the mission's core business.

>Additional General Technical notes.
>Both the ground station and the Aircraft will have local GPS receivers
>with 1pps outputs. This would allow a VCXO slaved to the GPS to
>provide very tight frequency tolerance on both ends.

Not necessary if you are using normal xtal reference in half-decent
gear at both ends of the cct.

>One thought for the Airborne 70cm Homebrew RX would be to use a
>receiving transverter and a standard 6M RX receiver.
>This could allow you to use a normal 6M RC transmitter when the
>aircraft is close to the pilot and ground station and to switch to a
>Higher frequency with more TX Antenna gain as the Aircraft gets
>farther away.

K.I.S.S.

>Any Advice would be welcome.

HTH
Peter

4421. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 15:28:45 UTC
From: Tazanator <NOones@home.com>
Message-ID: <Nug77.50867$JN6.9561880@news1.rdc1.mi.home.com>
Source record: 51366

well that puts you in the middle of the CB stuff and most of the semi's stay at 27.185 but with amp and clipping the audio limiter circut you will have a very big danger from their bleeding into that freq.

> 3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C
> transmitter for operation on 27.255Mhz with a maximum envelope power
> output of 25W. So this would require a homebrew TX and RX.
> (Home brew on 27Mhz is a lot easier than on 70cm)
>
>

4422. Re: Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 16:21:07 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <118rlt47h46pip1kmoe3226tuln0ba6ngc@4ax.com>
Source record: 51367

On 24 Jul 2001 12:39:04 GMT, wa4uso@aol.com (Wa4uso) wrote:

>The "Louisville Homebrewers" club is sponsoring a "one Tube" transmitter
>building contest and many members are in need of FT-243 xtal sockets. Any help
>in finding some sockets would be greatly appreciated. Please email direct to
>WA4USO@aol.com Thanks 73 WA4USO D Darby

If you don't find exactly what you're looking for, you may be
pleased to know that a pair of FT-243's will fit perfectly in an
octal tube socket. An old trick from the '50s.

73, Bill W7TI

4423. FA Cushman CE-5 3 hours to go

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 19:22:45 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <9Wj77.1125$oB4.160500@paloalto-snr1.gtei.net>
Source record: 51368
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1256421998

I have a jpg picture of the Cushman, but it did not show up on the e-bay
add.
I will send the picture to any one that asks for it.

4424. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 20:20:05 UTC
From: Dave <zgsstdhfgj@email.com>
Message-ID: <9jkl9t$ne1ud$1@ID-49477.news.dfncis.de>
Source record: 51369

Budgie- I must truly complement you on one of the most down to earth (pardon the unintentional!) and informative posts I have ever
seen in usenet- well done, without probaly realising it!

budgie <budgie@nowhere.cantech.net.au> wrote in message news:3b5d7956.2665966@news.cantech.net.au...
> On Tue, 24 Jul 2001 09:07:30 -0400, Paul Breed <Paul@Rasdoc.com>
> wrote:
>
> >I am working on a Project to try and set the Solar Powered RC altitude
> >record.
> >
> >I am am thinking about how to establish the control link reliably to
> >20 Miles line of sight.
> >
> (snip)
> >
> >My Uplink choices:
> >1)1 W on 6M
> (snip)
> >How well would 1W on 6M do for a 20 mile Line of site path?
> >
> >
> >2)1W on some other Ham band (70cm for instance) This would require
> >both a homebrew TX and a homebrew RX, but it would allow the use of an
> >antenna with some real Gain. (say a Big 70cm Yagi)
>
> The old engineering rule of swings and roundabouts applies here. In
> path engineering, the term "figure of merit" is used.
>
> The free space pathloss between isotropic radiators is:
>
> a = 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
> As you go up in frequency from say 6m to 70cm, 20logF is about 19dB
> more, so (ther considerations aside) you need to extract this much
> combined EXTRA gain from the pair of antennae on the circuit.
> Assuming that weight is an aircraft consideration, gain and/or
> steerability are fairly much precluded up there. To get 19dB more
> gain at 70cms than at 6m on the graound is some array, and the
> beamwidth will make tracking requirements more stringent.
>
> Review your a/c Rx usable sig level and apply the above FSPL calc to
> the 20mi path (note the above form is the metric - km - version).

> This will indicate the EIRP required on the ground, after
> adding/subtracting the deemed a/c gain over isotropic.
>
> >Aux Question: How would one go about building a very small lightweight
> >70cm Rx?
>
> Cannibalise a commercial handheld. You should be able to get low
> current and good sensitivity from and oldish (non-synthesised) unit.
> Stay focussed on your mission rather than distractions like designing
> wheels - er, receivers ;-)
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>
> >3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C
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> Cannibalism is surely easier. Stick to the mission's core business.
>
>
> >Additional General Technical notes.
> >Both the ground station and the Aircraft will have local GPS receivers
> >with 1pps outputs. This would allow a VCXO slaved to the GPS to
> >provide very tight frequency tolerance on both ends.
>
> Not necessary if you are using normal xtal reference in half-decent
> gear at both ends of the cct.
>
>
> >One thought for the Airborne 70cm Homebrew RX would be to use a
> >receiving transverter and a standard 6M RX receiver.
> >This could allow you to use a normal 6M RC transmitter when the
> >aircraft is close to the pilot and ground station and to switch to a
> >Higher frequency with more TX Antenna gain as the Aircraft gets
> >farther away.
>
> K.I.S.S.
>
> >Any Advice would be welcome.
>
> HTH
> Peter
>

4425. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 20:25:23 UTC
From: la8ak@online.no
Message-ID: <3b5dd9af.189196967@news.online.no>
Source record: 51378

On Mon, 23 Jul 2001 13:34:24 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Yes, the -6 dB points of the pair will be the -3 dB points of a single
>filter, and the combination will always be narrower than a single
>filter. If the filters have very steep skirts (typical of crystal
>filters), the bandwidth difference will be small; if the skirts aren't
>so steep, the difference will be greater.
>
>Roy Lewallen, W7EL
>

not much to add to what Roy says, but one reason for using filters at
two stages is to improve ultimate rejection outside the passband. It
might sometimes be difficult because of spurious leaks, but again, Roy
can explain this better than I

73
jan-martin
LA8AK

>"Al Lorona, Jr." wrote:
>>
>> Hi, Everybody,
>>
>> I asked this question a long time ago, and the few answers I got seemed
>> really unsatisfactory, probably due to my inability to set up the
>> scenario. I'd like to pose it again:
>>
>> Pretend you have two absolutely identical crystal filters. They have the
>> same -6 dB bandwidth, insertion loss, ultimate rejection, and shape
>> factor.
>>
>> You cascade them in an IF strip. They are both terminated properly and
>> well-isolated with a suitable amplifier between them.
>>
>> Isn't it true that the equivalent BW of the system will be somewhat
>> narrower than either of the original filters? For example, won't the -3
>> dB points of a single filter become the new -6 dB points of the cascaded
>> pair?
>>
>> Regards,
>>
>> Al W6LX

4426. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 20:25:30 UTC
From: la8ak@online.no
Message-ID: <3b5dd9b7.189204298@news.online.no>
Source record: 51379

On Mon, 23 Jul 2001 22:11:51 +0200, "Adrian Shephard"
<jadernyj@podvodnik.cz> wrote:

>
>If this is a highest priority project, you might try salvaging old telecom
>equipment. I built my packet modem out of a chip from an old 1200 bd modem,
>they used to be in very old faxes too. BEWARE: This chip is a piece of s...
>It's just the really basic, a properly programmed PIC could do the same job
>better, if it's for packet itself consider a TNC. I don't know how in
>Canada, but they appear here from time to time on the Flea Market section of
>our PR boards ...
>
>
>
another device to use is AM7910 or 7911, believe they weren't too
difficult to trace, also used TCM3101 - it worked provided you didn't
connect any outer resistors as mentioned in the manual, TCM3101 was a
ceramic device, I use it in some of my TNC's, cannot tell which is the
best, perhaps it is some other close data devices like TCM3102 or
TCM3104?
We didin't want to pay so we used whatever was offered from friends in
the industry, hi. Also made some experiments with AM7911 on a board,
and AM7910 was used in my first KPC-2, worked ufb on 20m provided an
x-y scope was used to tune the frequency and still very critical to
tune the FT-7 or Drake R-4C, believe it was narrower than TCM3105, but
it worked always ufb on 2m

73
Jan-Martin

4427. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 20:55:09 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B5DE0AD.CB44B205@dialpoint.net>
Source record: 51371

The swr meter in a transmitter is to aid in making sure that it is transmitting into a load it can handle. It is not a lab instrument. It does not tell if the impedance is higher or lower than the design impedance, only that it is not the same. To have any real meaning other than this , the swr meter will have to be moved to the load end of the line. Then it will still only indicate if the load is not the same as the design impedance.
The people here are trying to make a big deal out of a simple and really dumb instrument.

Reg Edwards wrote:
>
> If the SWR meter really DID measure SWR it would be on the line
> between it and the transmitter. NOT on the line between it and the
> tuner or the antenna - which is where it really matters.
>
> If there IS anything reflected and measured it is on the line
> between the meter and the transmitter. But there is no such line!
> ---
> Reg.

4428. Re: What Does the SWR Meter Do?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 21:02:46 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9jkns0$3fg$1@plutonium.btinternet.com>
Source record: 51370

If the SWR meter really DID measure SWR it would be on the line
between it and the transmitter. NOT on the line between it and the
tuner or the antenna - which is where it really matters.

If there IS anything reflected and measured it is on the line
between the meter and the transmitter. But there is no such line!

Reg.

4429. Re: FT: Computer gear for HF Rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 22:39:31 UTC
From: LostDog88 <LostDog88@ReMoVeMeNetzero.net>
Message-ID: <62urlt4vmbrikagbp7sg2sjae11pl6f311@4ax.com>
Source record: 51372

What are you asking for on the Sun Servers????

On 23 Jul 2001 09:19:48 -0700, rkasprow@hotmail.com (RPK) wrote:

>I have the following gear available for trade / sale on a "newer" HF
>rig, specifically interested
>in the following:
>
> * Kenwood TS-50
> * Yeasu FT-100
> * ICOM IC-706
> * Alinco DX-70 / DX-77
> * or other smaller case HF mobile
>
>What I've got.
>
>// Compaq Deskpro Server
>400 MHZ, 128 MB Ram, CD-ROM, 8GB HD, 10/100 NIC, AGP Video, Mouse +
>Keyboard,
>Windows 2000 Professional.
>More ram is available.
>
>// Compaq Deskpro Desktop
>350MHZ, 128 MB Ram, CD-ROM, 5 GB SCSI-2 HD, 10/100 NIC, Adaptec Ultra
>Wide SCSI Card,
>AGP Video, Mouse + Keyboard, Windows 2000 Professional.
>More ram is available.
>
>// Compaq Deskpro Desktop
>350MHZ, 128 MB Ram, CD-ROM, 6 GB HD, 10/100 NIC, AGP Video, Mouse +
>Keyboard,
>Windows 2000 Professional.
>More ram is available.
>
>// Compaq Deskpro Desktop - Small Form Factor
>466MHZ, 128 MB Ram, 8 GB HD, 10/100 NIC, AGP Video, Mouse + Keyboard,
>Windows 2000 Professional.
>More ram is available.
>
>// Sun SparcSERVER 10
>50-MHZ RISC processor, 96 MB Ram, 4 GB Hard SCSI Drive, CG 6 Color
>frame buffer,
>On-board fast SCSI controller, On-board 10-100 base T Ethernet,
>On-board sound,
>additional fast SCSI controller, additional 10-100 base T Ethernet

>controller, Mouse + Keyboard.
>Excellent webserver, file server and strong Unix operating system.
>
>// Sun SparcSTATION 5
>70-MHZ RISC processor, 64 MB Ram, 2 GB Hard SCSI Drive, CG 6 Color
>frame buffer,
>On-board fast SCSI controller, On-board 10-100 base T Ethernet,
>On-board Sound,
>additional fast SCSI controller, additional 10-100 base T Ethernet
>controller, Mouse + Keyboard.
>Excellent webserver, file server and strong Unix operating system.
>
>// Hewlett Packard Rack Mount Network Hubs
>4 available, 2 14 port and 2 15 port hubs. All are in excellent
>condition and recently removed
>from service. These are rack mount servers.
>
>// Proxima LightBook LB20 DeskTop Projector
>SVGA and RCA inputs, 200 ANSI lumens, Serial jack, Computer in jack,
>Monitor out jack, Video in jack,
>Audio in & out, TV output, Twin Lamp, True SVGA compatibility (800 x
>600), International power supply,
>LightBoard drawing tool, Remote control, Lightweight (11 pounds - 13.5
>x 9.25 x 5 inches),
>Custom padded case.
>
>This unit is in excellent condition and includes all
>the original equipment (cables + books).
>
>If you see something you like, please let me know. I am open to trades
>or sales on any of the
>machines. Willing to trade multiple machines for the right gear. Sales
>always welcome ...
>
>Thank you!
>rkasprow@hotmail.com

Every body should believe in something.....
I believe I'll have another beer!!

4430. Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-24 22:52:34 UTC
From: "M. Heppell" <mheppell@sympatico.ca>
Message-ID: <AWm77.8468$A4.866685@news20.bellglobal.com>
Source record: 51373
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

French au bas :

Hi, I'll explain you my problem. My city's police department crypts now her radio communications with a speech inverter system. For example, all sounds over than 1700Hz are reflexted under this sound frequency and opposite for the sounds under this frequency. I want make a little electronic system to decrypt this transmissions. It's for this reason that I need your help to know what kind of electronic piece I need... Thanks. If you may send me a plan or an exact procedure who to do it. Thanks!

M. Heppell

Please send me your answer to mheppell@sympatico.ca

Bonjour, je vous expose mon probl�me. La police de ma ville crypte maintenant ses communications radio avec un syst�me d'inversion de la voix. C'est � dire que, par exemple, tous les sons plus aigus que 1700Hz sont invers�s vers le dessous de cette fr�quence de son et le contraire pour les sons plus graves. �a donne un genre de charabia au lieu de la parole normale. Je veux d�crypter ou r�inverser pour pouvoir d�chiffrer ces transmissions. C'est l�gal au Canada seulement, il faut trouver comment les d�coder. C'est pourquoi je fais appel � vous pour trouver quel pi�ce �lectronique peut faire ce travail. Comme �a, je pourrais aller l'acheter et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin un appareil qui fait ce travail et qui co�te plus de 150$ (750 francs). Merci d'avance!

M. Heppell

Svp envoyez-moi vos r�ponses au mheppell@sympatico.ca .

4431. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 00:55:17 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5E18E5.50D40184@att.net>
Source record: 51374

This usually is mainly a function of the phase response of the filter,
among other parameters. And phase response is in turn a function of the
design algorithm for the filter.

Narrow filters need not ring . . . the 50-Hz filter bandwidth on my
IC-756PRO does not ring at all - it just narrows the frequency response.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

John Smith wrote:

> Filters also tend to "ring" a bit. This effect is not noticeable with wide
> bandwidth filters, but with narrow BW filters (CW etc.) the effect is quite
> noticeable. If you have two such filters cascaded then the effect will be
> ringing upon ringing.

4432. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 00:58:52 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5E19BB.14EB920B@att.net>
Source record: 51375

Stay completely away from any 27 MHz frequency. It is also a good idea to
avoid the usual RC air and ground control frequencies.

Sounds to me like you would be in a good position to obtain a waiver or
special license from the FCC to cover your radio link needs here.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Paul Breed wrote:
>
> I am working on a Project to try and set the Solar Powered RC altitude
> record.
>
> I am am thinking about how to establish the control link reliably to
> 20 Miles line of sight.
>
> I've had a regulatory setback.... I read part 97.215 to
> be an exception that allowed you to transmit RC without
> identification. So I had planned to build a 25 or 100W 6M RC Tx,
> and to provide CW identification every 10Min thus removing me from the
> restrictions of 97.215, alas when I asked the FCC/ARRL for
> clarification they did not agree with that interpitation of the rules.
>
> Thus for any RC application on the Ham bands I am limited to 1W TX
> output power.
>
> I will be using a 900Mhz or 2.4Ghz ATV transmitter with Telemetry on
> the Audio channel for downlink, and thus I will have a tracking AZ-EL
> antenna setup that could also hold a TX antenna with some gain.
>
> My Uplink choices:
> 1)1 W on 6M using standard 6M RC reciever on the aircraft and a
> homebrew 1W 6M transmitter on the ground with a small 6M antenna like
> 2 or 3 el 6M beam.. As per the FCC regs RC is prohibited from
> transmitting more than 1W on the ham bands.
> How well would 1W on 6M do for a 20 mile Line of site path?
>
> 2)1W on some other Ham band (70cm for instance) This would require
> both a homebrew TX and a homebrew RX, but it would allow the use of an
> antenna with some real Gain. (say a Big 70cm Yagi)
> Aux Question: How would one go about building a very small lightweight
> 70cm Rx? I'm willing and able to do a PCB Design using SMT components.

>
> 3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C
> transmitter for operation on 27.255Mhz with a maximum envelope power
> output of 25W. So this would require a homebrew TX and RX.
> (Home brew on 27Mhz is a lot easier than on 70cm)
>
> Additional General Technical notes.
> Both the ground station and the Aircraft will have local GPS receivers
> with 1pps outputs. This would allow a VCXO slaved to the GPS to
> provide very tight frequency tolerance on both ends.
> The aircraft will be quite slow so doppler should not be a problem.
>
> One thought for the Airborne 70cm Homebrew RX would be to use a
> receiving transverter and a standard 6M RX receiver.
> This could allow you to use a normal 6M RC transmitter when the
> aircraft is close to the pilot and ground station and to switch to a
> Higher frequency with more TX Antenna gain as the Aircraft gets
> farther away.
>
>
>
> Any Advice would be welcome.

4433. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 02:56:36 UTC
From: G8ASO&#65533; <bajones@worcester.demon.co.uk>
Message-ID: <9jlcs9cuu1@news.loxinfo.co.th>
Source record: 51376
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

Greetings from wet Worcester in central England!

What you need is a Ramsay SS70, check it out here
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=SS70
you will have to cut and paste the complete URL if it is clipped OR go here
http://www.ramsayelectronics.com and enter SS70 in the search box.
From the LPWS web site links on Scanners & Scanning
http://www.laughingpoliceman.com [BTW if your scanner is USB, it's the wrong sort of scanner]

G8ASO

"M. Heppell" <mheppell@sympatico.ca> wrote in message
news:AWm77.8468$A4.866685@news20.bellglobal.com...
> French au bas :
> ---
>
> Hi, I'll explain you my problem. My city's police department crypts now her
> radio communications with a speech inverter system. For example, all sounds
> over than 1700Hz are reflexted under this sound frequency and opposite for
> the sounds under this frequency. I want make a little electronic system to
> decrypt this transmissions. It's for this reason that I need your help to
> know what kind of electronic piece I need... Thanks. If you may send me a
> plan or an exact procedure who to do it. Thanks!
>
>
> M. Heppell
>
> Please send me your answer to mheppell@sympatico.ca
> ---
>
> Bonjour, je vous expose mon probl&#65533;me. La police de ma ville crypte
> maintenant ses communications radio avec un syst&#65533;me d'inversion de la voix.
> C'est &#65533; dire que, par exemple, tous les sons plus aigus que 1700Hz sont
> invers&#65533;s vers le dessous de cette fr&#65533;quence de son et le contraire pour les
> sons plus graves. &#65533;a donne un genre de charabia au lieu de la parole
> normale. Je veux d&#65533;crypter ou r&#65533;inverser pour pouvoir d&#65533;chiffrer ces

> transmissions. C'est l�gal au Canada seulement, il faut trouver comment
les
> d�coder. C'est pourquoi je fais appel vous pour trouver quel pi�ce
> lectronique peut faire ce travail. Comme a, je pourrais aller l'acheter
> et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin un
> appareil qui fait ce travail et qui co�te plus de 150$ (750 francs).
Merci
> d'avance!
>
> M. Heppell
>
> Svp envoyez-moi vos r�ponses au mheppell@sympatico.ca .
>
>
>

4434. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 06:44:57 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b5e6ad6.3365981@news.cantech.net.au>
Source record: 51377

On Tue, 24 Jul 2001 21:20:05 +0100, "Dave" <zgsstdhfgj@email.com>
wrote:

>Budgie- I must truly complement you on one of the most down to earth (pardon the
unintentional!) and informative posts I have ever
>seen in usenet- well done, without probaly realising it!
{---blush---}

4435. FS: Yaesu FL2100B Parts Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 11:38:04 UTC
From: John <hydro@fx2.com>
Message-ID: <T9y77.75$hl.213@newsfeed.slurp.net>
Source record: 51382

Hi
I have a 2100B that is missing the power transformer & tubes. This was a working amp before they were removed. Amp is in good shape.

Make offer ....

John KI4NR

4436. Source of Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 13:26:05 UTC
From: brokebob@aol.com
Message-ID: <20010725092605.14914.00001144@ng-fl1.aol.com>
Source record: 51383

Where can I find a source of Air-Dux or B & W air wound coils?
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

4437. Homebrewing an Antenna analyser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 14:09:24 UTC
From: s@9bit.qc.ca
Message-ID: <3b5ec729.4406344@news.9bit.qc.ca>
Source record: 51384

I've gone through my pile of QSTs from 1987 to 2000 to find an article on homebrewing an antenna analyser with no success. Has MFJ got a Patent on this, so no one can publish, or its just that I'm missing that its a fairly complicated project?

I'm not an electronic technician, but I can understand construction articles. I just can't build from theory. (Darn handbooks and schematics.)

I already homebuilt a RF noise bridge which has been useful.
I already own a PACO grid dip meter.
I already own a frequency counter.

I'm looking for a way to hook up my test equipment in an antenna analyser configuration. I know I can hook up my tranceiver to the antenna to make swr measurements. (its not legal to swoosh the band tho)

Anyway, in the ARRL handbook and on the internet I did a search for a "return loss bridge" and came up with schematics for a 50 ohms unit. (HA8ET homebrew page) I think its the base for an antenna analyser.

Now: Am I right to say that My grid dip is some kind of an RF oscillator calibrated on HF? Can I get somekind of an output from my grid-dip into the return-loss bridge ?

Where should I tap the RF from? Its a tube type unit.
Should I add a tap on the grid ? but I don't know how or if it will generate enough RF energy or if it will detune the unit.

For the meter part, I see everywhere you make measurements with a voltmeter and then look at conversion tables from voltmeter readings to return loss and swr. Can I just simply buy a meter movement with a SWR scale and connect it somehow to read SWR directly ? .
How about a switch to short the bridge and calibrate, then flip the switch to read swr ?

Ok, ok if you tell me to build the return loss bridge first and worry later, its just what I might do ...

Stephan, VE2OWL

4438. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 15:10:53 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9jn3siqbj1@plutonium.btinternet.com>
Source record: 51387

George, W5YR wrote
The response function of the pair will be the
product of the response functions of each.
==========

George, I do hope you don't think me a little too nitpicking.

The response function of a network includes the values of its designated terminating impedances Ro. But the input impedance of the second network will inherently differ from Ro and so the response of the first network will change.

Similarly, the source impedance for the second network will inherently differ from Ro and the response of the second network will also change.

So overall response of the cascaded pair of networks may differ significantly from what is expected.

I'm sure you are aware of this but you didn't feel like making a song and dance about it. For amateur purposes and indeed other applications I agree the product of the response functions will be in the right ball park.

Just had a second thought - will the pair of changes tend to cancel each other out?
===
Reg.

4439. Re: Source of Coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 15:14:15 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <bnB77.41322$Ek3.15125879@news1.rdc1.md.home.com>
Source record: 51385

Try:

http://www.bwantennas.com/

"Brokebob" <brokebob@aol.com> wrote in message
> Where can I find a source of Air-Dux or B & W air wound coils?
> brokebob@aol.com (broke=not working, retired=not working, retired=broke)

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.265 / Virus Database: 137 - Release Date: 7/18/01

4440. Re: Frequency Selection Advice.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 17:45:22 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <RAD77.7043$b3.2453979@feed.centurytel.net>
Source record: 51386

27.255 is cb channel 23. That seems odd because most RC toys operate at
27.045 (or is it 27.145, it's one of those odd skips for class C operation).
I would stay away from the CB band all together. The first guy to key up on
AM with 100+ watts and splattery audio (even 200 KHz away from your freq)
would give you a serious QRM issue.

Just a thought, but what if your experiment were considered a beacon?

Tazanator <NOones@home.com> wrote in message
news:Nug77.50867$JN6.9561880@news1.rdc1.mi.home.com...
> well that puts you in the middle of the CB stuff and most of the semi's
stay
> at 27.185 but with amp and clipping the audio limiter circut you will have
a
> very big danger from their bleeding into that freq.

Or, vice-versa. A lot of the truckers run amps and radios with clipped
audio limiters.
>
>
> > 3)25W on 27.255 Mhz FCC part 95 aloows you to build your own R/C
> > transmitter for operation on 27.255Mhz with a maximum envelope power
> > output of 25W. So this would require a homebrew TX and RX.
> > (Home brew on 27Mhz is a lot easier than on 70cm)
> >
> >
>
>

4441. Re: Homebrewing an Antenna analyser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 18:56:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B5F1679.4535E051@eznec.com>
Source record: 51388

Building an analyzer like the MFJ doesn't require any unusual or patented technology, but it's definitely a complicated project. Even a broadband analog bridge like the ones made years ago by GR require a lot of care and knowledge to control the inevitable stray impedances that can reduce the accuracy to the point of uselessness.

I recommend that you take a look at the return loss and resistance bridges in _Solid State Design For the Radio Amateur_ by Doug DeMaw and Wes Hayward, published by the ARRL. I've used variations of the ones in that book for years to measure antenna impedances. They're simple, easy to construct and understand, and are capable of good accuracy when carefully made. They would at least provide an introduction to the issues you've got to deal with when making these sorts of measurements.

Roy Lewallen, W7EL

Stephan wrote:
>
> I've gone through my pile of QSTs from 1987 to 2000 to find an article
> on homebrewing an antenna analyser with no success. Has MFJ got a
> Patent on this, so no one can publish, or its just that I'm missing
> that its a fairly complicated project?
>
> I'm not an electronic technician, but I can understand construction
> articles. I just can't build from theory. (Darn handbooks and
> schematics.)
>
> I already homebuilt a RF noise bridge which has been useful.
> I already own a PACO grid dip meter.
> I already own a frequency counter.
>
> I'm looking for a way to hook up my test equipment in an antenna
> analyser configuration. I know I can hook up my tranceiver to the
> antenna to make swr measurements. (its not legal to swoosh the band
> tho)
>
> Anyway, in the ARRL handbook and on the internet I did a search for a
> "return loss bridge" and came up with schematics for a 50 ohms unit.
> (HA8ET homebrew page) I think its the base for an antenna
> analyser.
>
> Now: Am I right to say that My grid dip is some kind of an RF
> oscillator calibrated on HF? Can I get somekind of an output from my
> grid-dip into the return-loss bridge ?
>

> Where should I tap the RF from? Its a tube type unit.
> Should I add a tap on the grid ? but I don't know how or if it will
> generate enough RF energy or if it will detune the unit.
>
> For the meter part, I see everywhere you make measurements with a
> voltmeter and then look at conversion tables from voltmeter readings
> to return loss and swr. Can I just simply buy a meter movement with
> a SWR scale and connect it somehow to read SWR directly ? .
> How about a switch to short the bridge and calibrate, then flip the
> switch to read swr ?
>
> Ok, ok if you tell me to build the return loss bridge first and worry
> later, its just what I might do ...
>
> Stephan, VE2OWL

4442. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 20:09:40 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B5F2774.27424FA5@att.net>
Source record: 51389

No problem, Reg . . .

I failed to elaborate on the structure I had in mind. First I was appealing to the simple-minded notion of cascading LLFPB networks. Second, I thought that the original question involved isolation of the two filters by intervening amplifiers which would assure fixed source and load terminations whether one or two filters was under consideration.

Your point is well taken in that if the termination of the first filter is the input impedance of the second filter, etc. then things are indeed up for discussion.

To me, a "filter" always includes the termination and source impedances. I assumed in the above that these would be fixed.

Your last point is a puzzler for directly cascaded filters: what effect on the second filter does the first filter have acting as a source with it own impedance? And what effect does the second filter have on the first filter acting as its termination impedance? Would they compensate in some karmaic fashion?

Thanks for the note.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Reg Edwards wrote:
>
> George, W5YR wrote
> The response function of the pair will be the
> product of the response functions of each.
> ======================
>
> George, I do hope you don't think me a little too nitpicking.
>
> The response function of a network includes the values of its
> designated terminating impedances Ro. But the input impedance of
> the second network will inherently differ from Ro and so the
> response of the first network will change.
>
> Similarly, the source impedance for the second network will
> inherently differ from Ro and the response of the second network
> will also change.
>

> So overall response of the cascaded pair of networks may differ
> significantly from what is expected.
>
> I'm sure you are aware of this but you didn't feel like making a
> song and dance about it. For amateur purposes and indeed other
> applications I agree the product of the response functions will be
> in the right ball park.
>
> Just had a second thought - will the pair of changes tend to
> cancel each other out?

4443. NEW AMATEUR RADIO WEB SITE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 21:13:40 UTC
From: Jeff Jenkins <jeffrey.jenkins@ntlworld.com>
Message-ID: <ldcult413nf80neo62pd5cblf5gi3lae9r@4ax.com>
Source record: 51390

THE LLANELLI AMATEUR RADIO SOCIETY IN WEST WALES
HAS A WEB SITE AT
www.llanelli-radio.f2s.com
PAY US A VISIT
Jeff Jenkins
Swansea, Wales.
jeffrey.jenkins@ntlworld.com

4444. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 21:45:13 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B5F3DE9.4FCBF4FC@clifto.com>
Source record: 51391

Roy Lewallen wrote:
> A person building scopes in his garage could produce
> an instrument for a fraction of the price -- but with the Tek instrument
> you are getting what you're paying for.

...an instrument you can't get replacement parts for, three years later.
:)

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

4445. Re: Needed TCM3105 for the project.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 21:56:09 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3B5F4079.64197A62@oda.com.au>
Source record: 51392

J M Noeding wrote:
>
> another device to use is AM7910 or 7911, believe they weren't too

I have a limited supply of used AM7910 at reasonable prices if anyone is looking for them for a project or service work, or just as spares.

--
Owen

4446. AM7910 - AMD Modem Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 21:56:46 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3B5F409E.332D7B1C@oda.com.au>
Source record: 51393

J M Noeding wrote:
>
> another device to use is AM7910 or 7911, believe they weren't too

I have a limited supply of used AM7910 at reasonable prices if anyone is looking for them for a project or service work, or just as spares.

--
Owen

4447. Re: Homebrewing an Antenna analyser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 22:18:18 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B5F48B9.7591@pop.removethistomailme.net>
Source record: 51394

Roy Lewallen wrote:
>
> Building an analyzer like the MFJ doesn't require any unusual or
> patented technology, but it's definitely a complicated project. Even a
> broadband analog bridge like the ones made years ago by GR require a lot
> of care and knowledge to control the inevitable stray impedances that
> can reduce the accuracy to the point of uselessness.
>
> I recommend that you take a look at the return loss and resistance
> bridges in _Solid State Design For the Radio Amateur_ by Doug DeMaw and
> Wes Hayward, published by the ARRL. I've used variations of the ones in
> that book for years to measure antenna impedances. They're simple, easy
> to construct and understand, and are capable of good accuracy when
> carefully made. They would at least provide an introduction to the
> issues you've got to deal with when making these sorts of measurements.
>
> Roy Lewallen, W7EL
>

Also note that Mini-Circuits has a pretty good selection of cheap
($10-$20) directional couplers with reasonable specs.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4448. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 22:23:50 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <WFH77.146689$qs5.23593701@news02.optonline.net>
Source record: 51395

Hi,

The question is :

>
> Just had a second thought - will the pair of changes tend to
> cancel each other out?

And as always the answer is "that depends".

Assuming you keep things simple you have more or less you have two categories of filter. One group like the butterworth is constant impedance in the passband. The other group like the eliptical has a passband impedance that varies. Both types vary impedance as you move out of the passband.

If you cascade two constant impedance filters the passband won't get super weird. If you cascade filters with non-constant impedance you can pretty much be sure that the net ripple will be significantly worse than the product of the responses will predict. Nothing terribly strange here, the constant impedance filters look like 50 ohms in passband and the other's don't. The ones that don't look like 50 ohms affect each other more.

As you go from passband to stop band both types of filter will go through some major changes in impedance. Depending on the prototype they will go from near open to near short or from near short to near open as they do the transition. In either case things will get pretty strange. Normally the filter is trying to reject signals by reflecting them back to the source. When you cascade identical filters the reflection is heading into a more or less matched source (high Z to high Z or low Z to low Z, not a conjugate match) . The net result will be a lump in the transition region because less of the signal is reflected than you would expect. It would be nice if it hit at just the right point to flatten things, but generally it hits at about -6 db or so on the original passband. Again nothing to surprising. Reflection, impedance and passband characteristics are all related to each other.

A simple way to get around all of this if you don't want to use an amplifier is to just put a resistive attenuator between the two filters. It won't help the noise figure, but a 10 db pad in between the two filters will do wonders for keeping the them from messing with each other.

Another thing that can be done is to design an L/C matching network between the filters and at each end. This can improve the net result

from a cascade if the filters are simple enough. The free lunch principle applies though, you will always do better if you design the two filters to be cascaded.

Hope that helps ....

Bob Camp
KB8TQ

4449. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 22:46:33 UTC
From: ritter@io.com
Message-ID: <3b5f4914.1079889@news.io.com>
Source record: 51396

On Wed, 25 Jul 2001 00:55:17 GMT, in <3B5E18E5.50D40184@att.net>, in
rec.radio.amateur.homebrew "George, W5YR" <w5yr@att.net> wrote:

>This usually is mainly a function of the phase response of the filter,
>among other parameters. And phase response is in turn a function of the
>design algorithm for the filter.
>
>Narrow filters need not ring . . . the 50-Hz filter bandwidth on my
>IC-756PRO does not ring at all - it just narrows the frequency response.

OK, I'll bite: how can a filter *not* ring?

I have a mental model of a filter as one or more "flywheels" or
resonant systems. We have to charge up the flywheels over a number of
revolutions to get signal through, and that is both phase delay and
off-frequency rejection (as off-frequencies sometimes help and
sometimes oppose). It seems to me that, once charged up, a flywheel
must run down (that is, "ring"), although that could happen quickly
with low Q. My model of filtering *is* energy storage.

What is wrong with my picture?

>72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
>Fairview, TX 30 mi NE of Dallas in Cllin county EM13qe
>Amateur Radio W5YR, in the 55th year and it just keeps getting better!
>Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
>John Smith wrote:
>
>> Filters also tend to "ring" a bit. This effect is not noticeable with wide
>> bandwidth filters, but with narrow BW filters (CW etc.) the effect is quite
>> noticeable. If you have two such filters cascaded then the effect will be
>> ringing upon ringing.

4450. Re: Homebrewing an Antenna analyser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 23:14:32 UTC
From: s@9bit.qc.ca
Message-ID: <3b5f5278.40073843@news.9bit.qc.ca>
Source record: 51247

I do have that book! I'll look into it, thanks
Stephan, ve2owl

Roy Lewallen <w7el@eznec.com> wrote:

>I recommend that you take a look at the return loss and resistance
>bridges in _Solid State Design For the Radio Amateur_ by Doug DeMaw and
>Wes Hayward, published by the ARRL.

4451. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-25 23:17:13 UTC
From: "R.L. Tannehill, P.E." <rickw7rt@firstinter.net>
Message-ID: <3B5F5379.E206E4DB@firstinter.net>
Source record: 51248
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

It is relatively easy to do. Simply get an audio mixer hybrid device
(pair of coupled transformers). Feed the scrambled audio into one port,
and a 1700 MHz carrier into the other. Amplify recovered, descrambled
audio at the output port. Many years ago, when these were the cheapest
and simplest scrambling means available, we discovered how easy they
were to defeat, and moved on to more complex analog "rolling-code" type
scramblers. Of course nowdays, most voice encryption is digital, and
difficult to decrypt without a very sophistocated computer. But for
police work, only privacy, not true security is needed, so DES mode
encryption works just fine for 99% of applications.

Rick Tannehill - W7RT
Arizona Dept. of Public Safety

"G8ASOï¿½" wrote:
>
> Greetings from wet Worcester in central England!
>
> What you need is a Ramsay SS70, check it out here
> http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=SS70
> you will have to cut and paste the complete URL if it is clipped OR go here
> http://www.ramsayelectronics.com and enter SS70 in the search box.
> From the LPWS web site links on Scanners & Scanning
> http://www.laughingpoliceman.com [BTW if your scanner is USB, it's the wrong
> sort of scanner]
>
> G8ASO
>
> "M. Heppell" <mheppell@sympatico.ca> wrote in message
> news:AWm77.8468$A4.866685@news20.bellglobal.com...
> > French au bas :
> > ---------------
> >
> > Hi, I'll explain you my problem. My city's police department crypts now
> her
> > radio communications with a speech inverter system. For example, all
> sounds
> > over than 1700Hz are reflexted under this sound frequency and opposite for
> > the sounds under this frequency. I want make a little electronic system
> to
> > decrypt this transmissions. It's for this reason that I need your help to
> > know what kind of electronic piece I need... Thanks. If you may send me
> a

> > plan or an exact procedure who to do it. Thanks!
> >
> >
> > M. Heppell
> >
> > Please send me your answer to mheppell@sympatico.ca
> > ------------
> >
> > Bonjour, je vous expose mon problï¿½me. La police de ma ville crypte
> > maintenant ses communications radio avec un systï¿½me d'inversion de la
> voix.
> > C'est ï¿½ dire que, par exemple, tous les sons plus aigus que 1700Hz sont
> > inversï¿½s vers le dessous de cette frï¿½quence de son et le contraire pour
> les
> > sons plus graves. ï¿½a donne un genre de charabia au lieu de la parole
> > normale. Je veux dï¿½crypter ou rï¿½inverser pour pouvoir dï¿½chiffrer ces
> > transmissions. C'est lï¿½gal au Canada seulement, il faut trouver comment
> les
> > dï¿½coder. C'est pourquoi je fais appel ï¿½ vous pour trouver quel piï¿½ce
> > ï¿½lectronique peut faire ce travail. Comme ï¿½a, je pourrais aller l'acheter
> > et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin un
> > appareil qui fait ce travail et qui coï¿½te plus de 150$ (750 francs).
> Merci
> > d'avance!
> >
> > M. Heppell
> >
> > Svp envoyez-moi vos rï¿½ponses au mheppell@sympatico.ca .
> >
> >
> >

4452. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 00:04:59 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <L8J77.148028$qs5.23791307@news02.optonline.net>
Source record: 51249

Hi Terry,

What's missing is that the filter in question is a digital filter rather than an analog filter. That lets you do some things with the delay response that you could not do without a *lot* of effort on an analog filter.

As an analog bandpass filter gets narrower you do get ringing due to a number of causes, one of which is the Q of the components. Another contributor is the tradeoff between a good steep cutoff and an increase in phase error over the passband. If you want to get rid of the effect with analog parts you build a delay equalizer. Think of it as a flywheel that you make run backwards. If the phase response is flat (equal delay) then a pulse will not be stretched extra much by the filter.

With some forms of digital filter you can play with amplitude response and phase response independently of each other. That makes it *much* easier to get things that do not ring a lot.

In either case though you still have the problem that if you hit the filter with a pulse it will block for a period of time that gets longer as the filter gets narrower. Since it only blocks for one cycle it's not technically ringing, but it is a period of time that you don't get a lot of useful stuff out the other end.

Hope this helps ...

Bob Camp
KB8TQ

">
> OK, I'll bite: how can a filter *not* ring?
>
> I have a mental model of a filter as one or more "flywheels" or
> resonant systems. We have to charge up the flywheels over a number
of
> revolutions to get signal through, and that is both phase delay and
> off-frequency rejection (as off-frequencies sometimes help and
> sometimes oppose). It seems to me that, once charged up, a flywheel
> *must* run down (that is, "ring"), although that could happen
quickly
> with low Q. My model of filtering *is* energy storage.
>
> What is wrong with my picture?
>

>

4453. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 00:38:27 UTC
From: Bruce & Judy Barley <lbbarley@iWivchita.com>
Message-ID: <7EJ77.70$9d.26040@newshog.newsread.com>
Source record: 51250

What do you dip the GRID in ?
How did you get a PLATE out of the kitchen, past the XYL?

Bruce KB0PZD
lbbarleyANTISPAM@iwichita.com

"John Smith" <johnsmith@microsoft.com> wrote in message
news:9jje2t$5n5$1@newstoo.ericsson.se...
> >>"Geez, I can never remember - is it DIP THE GRID AND PEAK THE PLATE or
DIP
> >>THE PLATE AND PEAK THE GRID??"
>
>
> >I always PLATE THE GRID and DIP THE PEAK. Works for me.
>
>
> I always peak them both! "Maximum smoke" theorum.
>
> H
>
>

4454. Flyback xfmrs redux

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 02:55:46 UTC
From: caveteursus@aol.com
Message-ID: <20010725225546.05893.00001037@ng-mj1.aol.com>
Source record: 51251

OK, here's how you do it.

Take a busted computer power supply, find the coil and extricate. The coil is going to be useless so unwind it.

Rewind 20 turns of #20 wire on the torroid and measure its inductance. This will allow you to "characterize" the torroid's A! With the Al you can determine the number of turns in the primary which meet the minimum inductance of the primary. (see amidon's website for the equations).

Wind to your heart's content. I now have a nice +/- 24 VDC supply. A PC torroid is quite happy carrying the load. Thanks also to Nat Semi's web bench which allows you to design supplies on the fly, specify the primary inductance, caps with Uf and ESR etc.

4455. Re: Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 09:11:48 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <dmnvlt83tnr1d3209ftvoo5ovl0sdbd7ff@4ax.com>
Source record: 51252

On Tue, 24 Jul 2001 09:21:07 -0700, Bill Turner <w7ti@dslextreme.com>
wrote:
>
>If you don't find exactly what you're looking for, you may be
>pleased to know that a pair of FT-243's will fit perfectly in an
>octal tube socket. An old trick from the '50s.
>
Hey, Bill, I remember doing this way-back-when. Now, the question
becomes, "Where do I find octal tube sockets these days?" <g>

73,

Tom AB9B

4456. DK92 Mixer Instability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 09:49:14 UTC
From: Stuart Chadwick <s.d.chadwick@bton.ac.uk>
Message-ID: <3B5FE799.D3251B16@bton.ac.uk>
Source record: 51253

Hello

I am new to this newsgroup.

I don't know if anyone can help me - I am building a battery valve AM receiver, DF96 RF, DK92 mixer, 2 x DF96 465 kHz IF and push pull audio. I am using the Denco DP coils. It works really well on the broadcast bands but there is a strange from of instability in the mixer on the 10 MHz to 30 MHz band, particularly at the higher frequency end. At certain, very well defined positions of the tuning capacitor the mixer becomes unstable and very microphonic. Tune slightly off and it goes away. It receives very well on this band including CB and amateurs. If anyone has any ideas on the instability and how to cure it I would be most grateful.

TIA

Simon

4457. DK92 Mixer Instability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 09:57:48 UTC
From: Stuart Chadwick <s.d.chadwick@bton.ac.uk>
Message-ID: <3B5FE99C.B00688F@bton.ac.uk>
Source record: 51254

Hello

I am new to this newsgroup.

I don't know if anyone can help me. I am building a battery valve AM receiver, DF96 RF, DK92 mixer, 2 x DF96 465 kHz IF and push pull audio. It works really well on the broadcast bands and lower SW frequencies, but on the 10 MHz to 30 MHz band there is a form of instability in the mixer stage. At certain very well defined position of the tuning capacitor the mixer goes unstable and becomes very microphonic. Tune off slightly at it goes away. In tunes in stations well on this band, apart from the instability at certain positions. I am using the Denco DP coils. If anyone could point me to the cause and possible cure I would be very grateful.

Thanks in advance,

Simon

4458. Re: Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 12:54:52 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <cr30mt0822i196fulmci3m86f9loodrvgm@4ax.com>
Source record: 51255

On Thu, 26 Jul 2001 02:11:48 -0700, Tom2000 <tom2000@mindspring.com>
wrote:

>>If you don't find exactly what you're looking for, you may be
>>pleased to know that a pair of FT-243's will fit perfectly in an
>>octal tube socket. An old trick from the '50s.
>>
> Hey, Bill, I remember doing this way-back-when. Now, the question
>becomes, "Where do I find octal tube sockets these days?" <g>
>
>73,
>
> Tom AB9B

Where to find octal sockets? One good source, especially for
homebrewers, is an electrical supply house. Octal sockets are commonly
used for power relays and come in a "surface mount" style perfectly
suited for one-off construction (no hole punching required). These
sockets were not intended for tubes or FT-243's, but they fit perfectly
and work just fine.

Bill, W7TI

4459. Re: DK92 Mixer Instability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 14:38:10 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9jp9rnqmo1@wanadoo.fr>
Source record: 51256

From my point of view, maybe your mixer is auto-oscillating for certain variable capacitor values. For a good diagnosis and troubleshooting try to connect a scope or better if you have one, a spectrum analyzer on the IF transformer with the higher impedance you can (probe or resistance divider).

The cure could be a simple low value damping resistor (in the dozens to hundreds ohms range) in the grid or/and plate path of the mixer tube.

Let's wait the other comments.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Stuart Chadwick" <s.d.chadwick@bton.ac.uk> a &#65533;crit dans le message news: 3B5FE99C.B00688F@bton.ac.uk...
Hello

I am new to this newsgroup.

I don't know if anyone can help me. I am building a battery valve AM receiver, DF96 RF, DK92 mixer, 2 x DF96 465 kHz IF and push pull audio. It works really well on the broadcast bands and lower SW frequencies, but on the 10 MHz to 30 MHz band there is a form of instability in the mixer stage. At certain very well defined position of the tuning capacitor the mixer goes unstable and becomes very microphonic. Tune off slightly at it goes away. In tunes in stations well on this band, apart from the instability at certain positions. I am using the Denco DP coils. If anyone could point me to the cause and possible cure I would be very grateful.

Thanks in advance,

Simon

4460. Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 15:15:10 UTC
From: Michael Tracy <mtracy@arrl.org>
Message-ID: <zuW77.9$XK5.47008@news.ntplx.net>
Source record: 51258

I bought an optical encoder for an antenna project without realizing what the output would be. There are two TTL outputs with quadrature phasing, with the phase dependent upon the direction. While I could probably come up with a circuit to give a directional indication, I'd rather not reinvent the wheel. A quick web search suggested there are ICs available to do this now. Only trouble is that I can't seem to find a part number. Anyone know of an IC for this, or perhaps a circuit with a couple ICs?

Thanks es 73, Michael, KC1SX

4461. Re: AM7910 - AMD Modem Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 15:26:43 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <TaY77.31281$lz3.6336739@news2-win.server.ntlworld.com>
Source record: 51265

> > another device to use is AM7910 or 7911, believe they weren't too
>
> I have a limited supply of used AM7910 at reasonable prices if anyone is
> looking for them for a project or service work, or just as spares.
==========
I removed both the above 2 ICs from outdated 1200Baud modems.

The AMD7910 I used in the mid 80s I used for a homebrew Packet TNC for the
Apple IIe computer .....Oh those good old days

73 Frank gm0csz.kn6wh@invertain.freeserve.co.uk

4462. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 15:26:46 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B6036B6.13AB5C84@mwci.net>
Source record: 51259

John Reed wrote:

> If digital filters were designed with better
> amplitude spectra they would be great filters.

In analog filters, windowing in the frequency domain reduces the envelope group delay peaks at the band edges. The "transitional to -6 dB" type is a good one.

Another approach is VLF (eg 50 kHz) cascaded double-tuned IF amplifier stages. I have had much success with this approach. A few stages like this approaches the Bessel group delay response, which is excellent for SSB/CW.

Bill W0IYH

4463. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 15:36:39 UTC
From: John Reed <jreed@ponca.net>
Message-ID: <3B603907.2B7A@ponca.net>
Source record: 51257

Bob Camp wrote:
>
> Hi Terry,
>
> What's missing is that the filter in question is a digital filter
> rather than an analog filter. That lets you do some things with the
> delay response that you could not do without a *lot* of effort on an
> analog filter.
>
> As an analog bandpass filter gets narrower you do get ringing due to a
> number of causes, one of which is the Q of the components. Another
> contributor is the tradeoff between a good steep cutoff and an
> increase in phase error over the passband. If you want to get rid of
> the effect with analog parts you build a delay equalizer. Think of it
> as a flywheel that you make run backwards. If the phase response is
> flat (equal delay) then a pulse will not be stretched extra much by
> the filter.
>
> With some forms of digital filter you can play with amplitude response
> and phase response independently of each other. That makes it *much*
> easier to get things that do not ring a lot.

Some of the worst ringing filters I've seen were on a W-J HF-1000 with DSP. These are "brick wall" linear phase filters. The problem here is the brick wall amplitude spectrum. Take the Fourier transform of this kind of boxcar response and what do you get? Sin(omega*t)/(omega*t) where omega is the filter width. That rings like crazy for small omega. I was able to get much better CW reception of low noise signals using the 1 kHz filter on the W-J followed by a Gaussian passband passive LC audio filter in the audio output line. After discovering this I sold the W-J. If digital filters were designed with better amplitude spectra they would be great filters. Ulrich Rohde discusses this in "Communications Receivers".

John Reed, KA5QEP

4464. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 16:14:23 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <9jpfep$4c5$1@bob.news.rcn.net>
Source record: 51260
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

Since this is on the ham newsgroups, I guess I will ask this here. Would it be illegal to use a speech inverter on the ham bands? Does it fall under encrypted transmissions or those that are not allowed under FCC rules? Just a thought.....

thanks!

"R.L. Tannehill, P.E." <rickw7rt@firstinter.net> wrote in message news:3B5F5379.E206E4DB@firstinter.net...
> It is relatively easy to do. Simply get an audio mixer hybrid device
> (pair of coupled transformers). Feed the scrambled audio into one port,
> and a 1700 MHz carrier into the other. Amplify recovered, descrambled
> audio at the output port. Many years ago, when these were the cheapest
> and simplest scrambling means available, we discovered how easy they
> were to defeat, and moved on to more complex analog "rolling-code" type
> scramblers. Of course nowdays, most voice encryption is digital, and
> difficult to decrypt without a very sophistocated computer. But for
> police work, only privacy, not true security is needed, so DES mode
> encryption works just fine for 99% of applications.
>
> Rick Tannehill - W7RT
> Arizona Dept. of Public Safety
>
>
> "G8ASO" wrote:
> >
> > Greetings from wet Worcester in central England!
> >
> > What you need is a Ramsay SS70, check it out here
> >
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=SS70
> > you will have to cut and paste the complete URL if it is clipped OR go
here
> > http://www.ramsayelectronics.com and enter SS70 in the search box.
> > From the LPWS web site links on Scanners & Scanning
> > http://www.laughingpoliceman.com [BTW if your scanner is USB, it's the
wrong
> > sort of scanner]
> >
> > G8ASO
> >
> > "M. Heppell" <mheppell@sympatico.ca> wrote in message

> > news:AWm77.8468$A4.866685@news20.bellglobal.com...
> > > French au bas :
> > > ----------
> > >
> > > Hi, I'll explain you my problem. My city's police department crypts
now
> > her
> > > radio communications with a speech inverter system. For example, all
> > sounds
> > > over than 1700Hz are reflexted under this sound frequency and opposite
for
> > > the sounds under this frequency. I want make a little electronic
system
> > to
> > > decrypt this transmissions. It's for this reason that I need your
help to
> > > know what kind of electronic piece I need... Thanks. If you may send
me
> > a
> > > plan or an exact procedure who to do it. Thanks!
> > >
> > >
> > > M. Heppell
> > >
> > > Please send me your answer to mheppell@sympatico.ca
> > > ----------
> > >
> > > Bonjour, je vous expose mon probl�me. La police de ma ville crypte
> > > maintenant ses communications radio avec un syst�me d'inversion de la
> > voix.
> > > C'est � dire que, par exemple, tous les sons plus aigus que 1700Hz
sont
> > > invers�s vers le dessous de cette fr�quence de son et le contraire
pour
> > les
> > > sons plus graves. �a donne un genre de charabia au lieu de la parole
> > > normale. Je veux d�crypter ou r�inverser pour pouvoir d�chiffrer ces
> > > transmissions. C'est l�gal au Canada seulement, il faut trouver
comment
> > les
> > > d�coder. C'est pourquoi je fais appel � vous pour trouver quel pi�ce
> > > �lectronique peut faire ce travail. Comme �a, je pourrais aller
l'acheter
> > > et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin un
> > > appareil qui fait ce travail et qui co�te plus de 150$ (750 francs).
> > Merci
> > > d'avance!
> > >
> > > M. Heppell

> > >
> > > Svp envoyez-moi vos r&#65533;ponses au mheppell@sympatico.ca .
> > >
> > >
> > >

4465. Soldering SMDs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 16:22:52 UTC
From: Michael Wichmann <wichmann@sas.upenn.edu>
Message-ID: <9jpg82ptt1@netnews.upenn.edu>
Source record: 51261

Hey Everyone,

I was wondering if anyone had experience with soldering SMD chips like 144pin TQFP or similar. Also, how can one possibly solder J leads ??? Are there any other techniques than the usual 'by hand' approach one could do at home. (like solder bath .. how does that work anyway?)

Thanks,
Michael , AA3VM/DB6MG

4466. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 16:25:55 UTC
From: ritter@io.com
Message-ID: <3b603fa3.1306543@news.io.com>
Source record: 51262

Hi Bob, and others!

Presumably my stored-energy conceptual model of filtering is in fact wrong, but I still cannot see why.

On Thu, 26 Jul 2001 00:04:59 GMT, in <L8J77.148028$qs5.23791307@news02.optonline.net>, in rec.radio.amateur.homebrew "Bob Camp" <bob@cq.nu> wrote:

>Hi Terry,
>
>What's missing is that the filter in question is a digital filter
>rather than an analog filter. That lets you do some things with the
>delay response that you could not do without a *lot* of effort on an
>analog filter.

I agree that digital signal processing can do some things more conveniently, can be more easily adjusted to ideal performance and is more stable. Still, there is nothing magic about the math. I think the accumulation of value from multiple cycles seems analogous to the accumulation of "energy" in a resonant physical system.

>As an analog bandpass filter gets narrower you do get ringing due to a
>number of causes, one of which is the Q of the components. Another
>contributor is the tradeoff between a good steep cutoff and an
>increase in phase error over the passband. If you want to get rid of
>the effect with analog parts you build a delay equalizer. Think of it
>as a flywheel that you make run backwards. If the phase response is
>flat (equal delay) then a pulse will not be stretched extra much by
>the filter.

Over time various articles in the Ham literature have sought to eliminate ringing in analog CW filter (both crystal IF filter and opamp audio filter) designs. Delay equalization is not impossibly difficult, yet I am unaware of even one description of that being the road to non-ringing success. So I think the reality is more complex.

It is my understanding that the main advantage of delay equalization lies in the reception of modern digital modulation techniques which are especially sensitive to such delay. (Also, the amount of delay is an issue in AGC loops, but I don't know that one can have a filter without also having delay.)

>With some forms of digital filter you can play with amplitude response
>and phase response independently of each other. That makes it *much*
>easier to get things that do not ring a lot.

I don't at all doubt that a digital filter can be easier to adjust and have more distinct parameters, nor do I discount the advantage of mathematical models which can be far more complex than we might consider for a linear design. I just think that the math models effectively accumulate value similar to the way resonant systems accumulate energy.

>In either case though you still have the problem that if you hit the
>filter with a pulse it will block for a period of time that gets
>longer as the filter gets narrower. Since it only blocks for one cycle
>it's not technically ringing, but it is a period of time that you
>don't get a lot of useful stuff out the other end.

I guess something is unsaid here. In my experience, any filter that is shock excited generally rings for longer than one cycle. The number of ring cycles (at decreasing amplitude) is a function of Q, but the ring time is also a function of frequency (more rings at a high frequency may last as long as a few rings at a low frequency).

I hope for an insight which will give me a clearer model.

Terry KF5MH

>Hope this helps ...
>
> Bob Camp
> KB8TQ
>
>
>
>">
>> OK, I'll bite: how can a filter *not* ring?
>>
>> I have a mental model of a filter as one or more "flywheels" or
>> resonant systems. We have to charge up the flywheels over a number
>of
>> revolutions to get signal through, and that is both phase delay and
>> off-frequency rejection (as off-frequencies sometimes help and
>> sometimes oppose). It seems to me that, once charged up, a flywheel
>> *must* run down (that is, "ring"), although that could happen
>quickly
>> with low Q. My model of filtering *is* energy storage.
>>
>> What is wrong with my picture?
>>

4467. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 16:51:48 UTC
From: "Paul M. Jaeger" <n7pj@ieee.org>
Message-ID: <04ACF4891C9B320E.04D8172AD6250ABC.73BE677074CF69BD@lp.airnews.net>
Source record: 51263

An expensive, but still fairly popular solution is the Agilent
HCTL-2000 family of ICs:

http://literature.agilent.com/litweb/pdf/5965-5894E.pdf

Lower cost parts are available from US Digital (Made by LSI/CSI)
see

http://www.usdigital.com/products/ics.shtml

(I've used the LS7083/4 type parts.)
PJ

Michael Tracy wrote:
>
> I bought an optical encoder for an antenna project without realizing what
> the output would be. There are two TTL outputs with quadrature phasing,
> with the phase dependent upon the direction. While I could probably come up
> with a circuit to give a directional indication, I'd rather not reinvent the
> wheel. A quick web search suggested there are ICs available to do this now.
> Only trouble is that I can't seem to find a part number. Anyone know of an
> IC for this, or perhaps a circuit with a couple ICs?
>
> Thanks es 73, Michael, KC1SX
--
_\\|//_
(` O-O ')
+======================ooO-(_)-Ooo============================+
| Paul M. Jaeger Guided Therapy Systems, Inc.|
| Principal Engineer 33 S. Sycamore |
| Mesa, AZ 85202 |
| FAX: 480-649-1605 |
| p.jaeger@guidedtherapy.com Tel: 480-649-4399 |
+==+
_| | | |_
(___) (___)

4468. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 17:09:51 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <VVX77.15056$a04.54245@newsfeeds.bigpond.com>
Source record: 51264
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

yep

"Frizz" <kg4ivt@hotmail.spamsucks.leaveme.alone.com> wrote in message
news:9jpfep$4c5$1@bob.news.rcn.net...
> Since this is on the ham newsgroups, I guess I will ask this here. Would
it
> be illegal to use a speech inverter on the ham bands? Does it fall under
> encrypted transmissions or those that are not allowed under FCC rules?
Just
> a thought.....
>
> thanks!
>
>
> "R.L. Tannehill, P.E." <rickw7rt@firstinter.net> wrote in message
> news:3B5F5379.E206E4DB@firstinter.net...
> > It is relatively easy to do. Simply get an audio mixer hybrid device
> > (pair of coupled transformers). Feed the scrambled audio into one port,
> > and a 1700 MHz carrier into the other. Amplify recovered, descrambled
> > audio at the output port. Many years ago, when these were the cheapest
> > and simplest scrambling means available, we discovered how easy they
> > were to defeat, and moved on to more complex analog "rolling-code" type
> > scramblers. Of course nowdays, most voice encryption is digital, and
> > difficult to decrypt without a very sophistocated computer. But for
> > police work, only privacy, not true security is needed, so DES mode
> > encryption works just fine for 99% of applications.
> >
> > Rick Tannehill - W7RT
> > Arizona Dept. of Public Safety
> >
> >
> > "G8ASO" wrote:
> > >
> > > Greetings from wet Worcester in central England!
> > >
> > > What you need is a Ramsay SS70, check it out here
> > >
>
http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=SS70
> > > you will have to cut and paste the complete URL if it is clipped OR go
> here
> > > http://www.ramsayelectronics.com and enter SS70 in the search box.

> > > From the LPWS web site links on Scanners & Scanning
> > > http://www.laughingpoliceman.com [BTW if your scanner is USB, it's the
> wrong
> > > sort of scanner]
> > >
> > > G8ASO
> > >
> > > "M. Heppell" <mheppell@sympatico.ca> wrote in message
> > > news:AWm77.8468$A4.866685@news20.bellglobal.com...
> > > > French au bas :
> > > > ----------
> > > >
> > > > Hi, I'll explain you my problem. My city's police department crypts
> now
> > > her
> > > > radio communications with a speech inverter system. For example,
all
> > > sounds
> > > > over than 1700Hz are reflexted under this sound frequency and
opposite
> for
> > > > the sounds under this frequency. I want make a little electronic
> system
> > > to
> > > > decrypt this transmissions. It's for this reason that I need your
> help to
> > > > know what kind of electronic piece I need... Thanks. If you may
send
> me
> > > a
> > > > plan or an exact procedure who to do it. Thanks!
> > > >
> > > >
> > > > M.
Heppell
> > > >
> > > > Please send me your answer to mheppell@sympatico.ca
> > > > ----------
> > > >
> > > > Bonjour, je vous expose mon probl�me. La police de ma ville crypte
> > > > maintenant ses communications radio avec un syst�me d'inversion de
la
> > > voix.
> > > > C'est dire que, par exemple, tous les sons plus aigus que 1700Hz
> sont
> > > > invers�s vers le dessous de cette fr�quence de son et le contraire
> pour
> > > les
> > > > sons plus graves. a donne un genre de charabia au lieu de la

parole
> > > > normale. Je veux d&#65533;crypter ou r&#65533;inverser pour pouvoir d&#65533;chiffrer
ces
> > > > transmissions. C'est l&#65533;gal au Canada seulement, il faut trouver
> comment
> > > les
> > > > d&#65533;coder. C'est pourquoi je fais appel &#65533; vous pour trouver quel
pi&#65533;ce
> > > > &#65533;lectronique peut faire ce travail. Comme &#65533;a, je pourrais aller
> l'acheter
> > > > et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin
un
> > > > appareil qui fait ce travail et qui co&#65533;te plus de 150$ (750 francs).
> > > Merci
> > > > d'avance!
> > > >
> > > > M. Heppell
> > > >
> > > > Svp envoyez-moi vos r&#65533;ponses au mheppell@sympatico.ca .
> > > >
> > > >
> > > >
>
>

4469. Re: Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 17:34:05 UTC
From: mcalhoun@ksu.edu
Message-ID: <9jpkad$o6t@unix1.cc.ksu.edu>
Source record: 51266

<<The "Louisville Homebrewers" club is sponsoring a "one Tube" transmitter
<<building contest and many members are in need of FT-243 xtal sockets. Any help
<<in finding some sockets would be greatly appreciated....

<If you don't find exactly what you're looking for, you may be
<pleased to know that a pair of FT-243's will fit perfectly in an
<octal tube socket....

Also, if you wire the socket correctly (think "connect every OTHER pin"),
it won't matter how you insert one crystal, because it will work in
every orientation!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4470. Re: I need advice on a homebrew antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 18:15:42 UTC
From: Bill Cromwell <bcromwell1@earthlink.net>
Message-ID: <i7Z77.2452$nS1.351180@newsread1.prod.itd.earthlink.net>
Source record: 51267

Lucky Me,

No antenna restrictions here.

I can add some ideas for you.

I met a fellow with restrictions like you have. he was on the ground floor and was allowed to erect a flagpole outside his front door at the far end of the sidewalk. The flagpole was made of heavy PVC pipe, flew the flag, and concealed a wire vertical antenna inside. He buried the feedline from the house at the same time he buried wires for the low-voltage light at the base of the flagpole.

Good luck to you & 73

Bill KU8H

N9RK <n9rk@aol.com> wrote in message
news:20010719194402.19079.00000320@ng-fb1.aol.com...
> Hello all
> I live in an apartment building and have some restrictions on what I can
put
> up.
> I want to build a vertical antenna for 10, 12, 15, 17, and 20. I was
thinking
> of just using some tubing to be cut to be resonant on 20m, add some wire
> radials at the bottom, and use an auto antenna tuner to tune it. Now, the
only
> thing is that the only place I would have to put this antenna is to attach
it
> with arms to our mast running up the side of the chimney. My question(s)
is: 1:
> Would the chimney interfere with the antennas preformance? 2: At the top
of the
> mast are some beams which would be about 5 feet above the vertical
antenna.
> Would these interfere with the tuning of the vertical? Any other ideas on
a
> vertical antenna to build for the bands I mentioned? The antenna has to be
> under 20 feet tall and no radials, counterpoise, or whatever sticking out
over
> the edge of the roof. Would any commerically made antenna fit these
needs??
> Please email me direct at: N9RK@aol.com
> 73,
> Renee N9RK

>

4471. SAA5050 teletext chargen - help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 18:20:05 UTC
From: Philip Pemberton <philpem@bigfoot.com>
Message-ID: <9jpn1h$fn7$1@uranium.btinternet.com>
Source record: 51268
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur,rec.radio.amateur.misc

Hi,
I've just found an old SAA5050 character generator in my junk box and I'd like to put it to some use. I've been told that some amateur radio enthusiasts have been using them? Anyone care to send me some info? I've got the datasheet, but I'd like some form of reference design that I can base my own stuff around. Is it as simple as hooking up a 6MHz and a 1MHz clock, hooking an EPROM's data lines up to the 5050 and wiring a 4040 up to the EPROM and the 5050's 1MHz clock? How about power-on-reset and stuff like that?

Thanks.

--
Phil.
philpem@bigfoot.com
http://www.philpem.f9.co.uk/

4472. Re: Soldering SMDs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 19:12:58 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <hpq0mtc29d26vtnb58c8nipl11t0718tpn@4ax.com>
Source record: 51269

On Thu, 26 Jul 2001 12:22:52 -0400, "Michael Wichmann"
<wichmann@sas.upenn.edu> wrote:

>Hey Everyone,
>
>I was wondering if anyone had experience with soldering SMD chips like
>144pin TQFP or similar. Also, how can one possibly solder J leads ??? Are
>there any other techniques than the usual 'by hand' approach one could do at
>home. (like solder bath .. how does that work anyway?)
>

I used to do this by hand at times in the aircraft industry. It can be
done with a very fine tip soldering iron, but for good, reliable joints
you really should do it under a microscope of about 20-30 power. It's
amazing how much easier it is that way. I've done IC's with upwards of
100 leads with no trouble. Just takes patience.

Bill, W7TI

4473. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 20:18:11 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <3utpj9.vgp.ln@localhost.localdomain>
Source record: 51273
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

Frizz wrote:

> Since this is on the ham newsgroups, I guess I will ask this here. Would
> it
> be illegal to use a speech inverter on the ham bands?

LSB ?

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4474. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 20:51:56 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <Pr7jXEAsLIY7Ew2T@g3ohx.demon.co.uk>
Source record: 51270
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

And maybe Nope!

It depends what mode of transmission.

On SSB, if you used a speech inverter, you would simply transmit on the
'wrong' sideband (not illegal in the UK), and could easily be resolved.
You would also appear to be about 3kHz off frequency.

On FM, you would, of course, sound inverted.

On AM, you would also sound inverted, but could be resolved by taking
the signal as SSB, and tuning to one of the sidebands.

Ian.

In article <VVX77.15056$a04.54245@newsfeeds.bigpond.com>, willy
<willyacht@yahoo.com> writes
>yep
>
>
>
>"Frizz" <kg4ivt@hotmail.spamsucks.leaveme.alone.com> wrote in message
>news:9jpfep$4c5$1@bob.news.rcn.net...
>> Since this is on the ham newsgroups, I guess I will ask this here. Would
>it
>> be illegal to use a speech inverter on the ham bands? Does it fall under
>> encrypted transmissions or those that are not allowed under FCC rules?
>Just
>> a thought.........
>>
>> thanks!
>>
>>
>> "R.L. Tannehill, P.E." <rickw7rt@firstinter.net> wrote in message
>> news:3B5F5379.E206E4DB@firstinter.net...
>> > It is relatively easy to do. Simply get an audio mixer hybrid device
>> > (pair of coupled transformers). Feed the scrambled audio into one port,
>> > and a 1700 MHz carrier into the other. Amplify recovered, descrambled
>> > audio at the output port. Many years ago, when these were the cheapest
>> > and simplest scrambling means available, we discovered how easy they
>> > were to defeat, and moved on to more complex analog "rolling-code" type
>> > scramblers. Of course nowdays, most voice encryption is digital, and
>> > difficult to decrypt without a very sophistocated computer. But for
>> > police work, only privacy, not true security is needed, so DES mode

>> > encryption works just fine for 99% of applications.
>> >
>> > Rick Tannehill - W7RT
>> > Arizona Dept. of Public Safety
>> >
>> >
>> > "G8ASOï¿½" wrote:
>> > >
>> > > Greetings from wet Worcester in central England!
>> > >
>> > > What you need is a Ramsay SS70, check it out here
>> > >
>>
>http://www.ramseyelectronics.com/cgi-bin/commerce.exe?preadd=action&key=SS70
>> > > you will have to cut and paste the complete URL if it is clipped OR go
>> here
>> > > http://www.ramsayelectronics.com and enter SS70 in the search box.
>> > > From the LPWS web site links on Scanners & Scanning
>> > > http://www.laughingpoliceman.com [BTW if your scanner is USB, it's the
>> wrong
>> > > sort of scanner]
>> > >
>> > > G8ASO
>> > >
>> > > "M. Heppell" <mheppell@sympatico.ca> wrote in message
>> > > news:AWm77.8468$A4.866685@news20.bellglobal.com...
>> > > > French au bas :
>> > > > ---------------
>> > > >
>> > > > Hi, I'll explain you my problem. My city's police department crypts
>> now
>> > > her
>> > > > radio communications with a speech inverter system. For example,
>all
>> > > sounds
>> > > > over than 1700Hz are reflexted under this sound frequency and
>opposite
>> for
>> > > > the sounds under this frequency. I want make a little electronic
>> system
>> > > to
>> > > > decrypt this transmissions. It's for this reason that I need your
>> help to
>> > > > know what kind of electronic piece I need... Thanks. If you may
>send
>> me
>> > > a
>> > > > plan or an exact procedure who to do it. Thanks!
>> > > >
>> > > >

>> > > > M.
>Heppell
>> > > >
>> > > > Please send me your answer to mheppell@sympatico.ca
>> > > > ------------
>> > > >
>> > > > Bonjour, je vous expose mon problï¿½me. La police de ma ville crypte
>> > > > maintenant ses communications radio avec un systï¿½me d'inversion de
>la
>> > > voix.
>> > > > C'est ï¿½ dire que, par exemple, tous les sons plus aigus que 1700Hz
>> sont
>> > > > inversï¿½s vers le dessous de cette frï¿½quence de son et le contraire
>> pour
>> > > les
>> > > > sons plus graves. ï¿½a donne un genre de charabia au lieu de la
>parole
>> > > > normale. Je veux dï¿½crypter ou rï¿½inverser pour pouvoir dï¿½chiffrer
>ces
>> > > > transmissions. C'est lï¿½gal au Canada seulement, il faut trouver
>> comment
>> > > les
>> > > > dï¿½coder. C'est pourquoi je fais appel ï¿½ vous pour trouver quel
>piï¿½ce
>> > > > ï¿½lectronique peut faire ce travail. Comme ï¿½a, je pourrais aller
>> l'acheter
>> > > > et la brancher sur mon balayeur d'onde au lieu d'acheter au magasin
>un
>> > > > appareil qui fait ce travail et qui coï¿½te plus de 150$ (750 francs).
>> > > Merci
>> > > > d'avance!
>> > > >
>> > > > M. Heppell
>> > > >
>> > > > Svp envoyez-moi vos rï¿½ponses au mheppell@sympatico.ca .
>> > > >
>> > > >
>> > > >
>>
>>
>
>

4475. FM Multiplex Generation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 21:20:08 UTC
From: antonelron@hotmail.com
Message-ID: <ea82a75b.0107261320.40dccb51@posting.google.com>
Source record: 51271

This has nothing to do with the amateur radio service, but I thought I'd ask here anyway.

Can a FM composite generator giving FM stereo to broadcast standards be built? Without bizarre construction practices. Or, can they be bought and where.

A reference to a construction article would be helpful, if the finished product gives quality results.

4476. Re: Soldering SMDs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 21:52:08 UTC
From: Bill & Suzie Whatley <spud@verinet.com>
Message-ID: <%g087.87$os9.208140288@news.frii.net>
Source record: 51272

Another method that works well is tinning the leads and pads;
then use a hot plate or a heat gun to achieve reflow temperature.

This method requires a bit of practice but is very reliable.

Application of additional flux will be necessary unless you use a
solder paste on the pads.

73
WA5VRL
Willis

4477. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 22:39:28 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107261439.7db47840@posting.google.com>
Source record: 51274

"Michael Tracy" <mtracy@arrl.org> wrote in message
news:<zuW77.9$XK5.47008@news.ntplx.net>...
> I bought an optical encoder for an antenna project without realizing what
> the output would be. There are two TTL outputs with quadrature phasing,
> with the phase dependent upon the direction. While I could probably come up
> with a circuit to give a directional indication, I'd rather not reinvent the
> wheel. A quick web search suggested there are ICs available to do this now.
> Only trouble is that I can't seem to find a part number. Anyone know of an
> IC for this, or perhaps a circuit with a couple ICs?

You could reach for your handy-dandy PIC programmer (or
whatever other microcontroller you like) and solve the
problem with one microcontroller and very few lines of
code. A friend and I did this in about five lines of
code on a Basic Stamp, as a prelude to driving a DDS
chip with a shaft encoder...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4478. Re: Homebrewing an Antenna analyser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-26 23:01:40 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <wj187.6428$5t1.10133@nntpserver.swip.net>
Source record: 51275

>I've gone through my pile of QSTs from 1987 to 2000 to find an article
>on homebrewing an antenna analyser with no success. Has MFJ got a

http://www.njqrp.org/mbrproj/analyzer/analyzer.html

/sm6pxj

4479. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 00:14:33 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <2p287.53675$aW5.709208@dfw-read.news.verio.net>
Source record: 51276

> ... about five lines of code on a Basic Stamp...

Love to see that code. How fast can the Stamp track motion?

Tom Becker
--... ...--
GTBecker@RighTime_com GTBecker@OnRamp_net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

4480. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 00:19:06 UTC
From: Steve <stephen.wilson@cmr.uq.edu.au>
Message-ID: <3B60B37A.1B5EA34@cmr.uq.edu.au>
Source record: 51277

Hi Michael,

How about a D flip flop (4013) with one channel to the clock and the
other to D in. When the clock leads the D, Q(output) goes low (one
direction) when D leads clock, Q goes high (opposite direction).

Cheers,

Steve W

Michael Tracy wrote:
>
> I bought an optical encoder for an antenna project without realizing what
> the output would be. There are two TTL outputs with quadrature phasing,
> with the phase dependent upon the direction. While I could probably come up
> with a circuit to give a directional indication, I'd rather not reinvent the
> wheel. A quick web search suggested there are ICs available to do this now.
> Only trouble is that I can't seem to find a part number. Anyone know of an
> IC for this, or perhaps a circuit with a couple ICs?
>
> Thanks es 73, Michael, KC1SX

4481. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 01:07:59 UTC
From: Michael Tracy <mtracy@arrl.org>
Message-ID: <la387.13$XK5.54130@news.ntplx.net>
Source record: 51278

Now that's just too easy! Ah, it's been too long since I worked with FFs; I should have thought of this...

73, Michael

"Steve" <stephen.wilson@cmr.uq.edu.au> wrote:
>
> How about a D flip flop (4013) with one channel to the clock and the
> other to D in. When the clock leads the D, Q(output) goes low (one
> direction) when D leads clock, Q goes high (opposite direction).

4482. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 01:28:22 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <ku387.53680$aW5.709358@dfw-read.news.verio.net>
Source record: 51279

> How about a D flip flop (4013) with one channel to the clock and the other to D in...

Won't that only count one of four steps, and asymetrically?

4483. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 01:45:45 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <dJ387.4106$UH6.929616@news02.optonline.net>
Source record: 51280

Hi,

So what is ringing anyway ?

One way to look at it is that this is what the filter does when you hit the input with a very narrow pulse of high amplitude. In general you worry about lightning and that sort of stuff making a filter ring.

Oddly enough that pulse excites something called the impulse response of the filter. The best you can do is to have a single "thump" when the pulse hits the filter. Something must come through since you punched the input and the least you can get through is a single pulse out. The width of the pulse will be a function of the bandwidth of the filter.

Since there is a "best case" performance here what you want to do is to get as close to that performance as you can. Anything that delays the energy in one part of the passband more than in another part of the passband will stretch out the pulse. If the delay is long enough you will get a ring.

The other part of the story is that there is an amplitude response that results in a single pulse output. The amplitude response you want transitions gradually from passband to stop band. You need to do both amplitude and phase correctly to get a best case result.

The reason you see all of this in relation to data stuff is that they are willing to make the trade offs involved to get good response in this regard. One major tradeoff is that the shape factor of a filter like this is not very good at all. A second tradeoff is that since you are devoting poles in the filter to equalization rather than filtering the complexity of the filter is much higher for a given bandwidth. The net result is that first you pay for a 16 pole filter and get an 8 pole filter, then your 8 pole filter works about as well as a two pole. At $10 a pole that gets kind of expensive.

In many cases the tradeoff in amplitude performance is simply to much to tolerate. In these cases you go for the amplitude response you must have to make things work and then delay equalize the result. You do not get rid of ringing but you make it as small as you can.

As has been mentioned elsewhere you still may have a lot of ringing if the amplitude response transitions quickly. If you have a JRC-545 handy you can check this out real fast by switching from the "loose" to the "tight" filter characteristic. The "loose" one has a gentle transition and it does not ring as much. Both filters are delay equalized.

Getting back to the Q thing. Think of it this way. What counts is not the Q of a part sitting by it's self on the bench. What counts is the Q of the part after it's in a circuit. You can *always* make a low Q part out of a high Q one if you have enough resistors on hand.

To make it easy assume you have a 10 MHz center frequency and a 100 Hz bandwidth on your filter. You blast the input and the output pulse is going to be some chunk of 100 Hz wide. That works out to roughly 100,000 cycles at 10 MHz. If you are working with fundamental filter crystals their Q probably only starts out around 250,000 at best. All you need to do is run them into a load that is roughly twice their motional resistance and the ring from the Q is taken care of. Since the motional resistance generally will be 10 ohms or so that's not going to be to tough in a 50 ohm filter.

Fun Fun Fun

Bob Camp
KB8TQ

>
> >In either case though you still have the problem that if you hit the
> >filter with a pulse it will block for a period of time that gets
> >longer as the filter gets narrower. Since it only blocks for one cycle
> >it's not technically ringing, but it is a period of time that you
> >don't get a lot of useful stuff out the other end.
>
> I guess something is unsaid here. In my experience, any filter that
> is shock excited generally rings for longer than one cycle. The
> number of ring cycles (at decreasing amplitude) is a function of Q,
> but the ring time is also a function of frequency (more rings at a
> high frequency may last as long as a few rings at a low frequency).
>

4484. Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 02:01:54 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3B60CB92.23C182B2@ix.netcom.com>
Source record: 51281

Using a toriod with a gap filed into it. See
http://www.geocities.com/wa2ise/radios/ham.htm

4485. Re: Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 02:13:52 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B60CE60.2E3FD19D@clifto.com>
Source record: 51282

Robert Casey wrote:
> Using a toriod with a gap filed into it. See
> http://www.geocities.com/wa2ise/radios/ham.htm

Love the t-shirt. :)

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

4486. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 02:17:24 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B60CF34.23A6A980@clifto.com>
Source record: 51283

GTBecker@RighTime.com wrote:
> > How about a D flip flop (4013) with one channel to the clock and the other
> to D in...
>
> Won't that only count one of four steps, and asymetrically?

It doesn't really count. It should detect the direction of even a very
small rotation if the encoder has any decent resolution.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

4487. Re: Tuners, Couplers, Hamsticks, and other things

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 02:21:01 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B60D00D.7B41E77A@clifto.com>
Source record: 51284

Bruce & Judy Barley wrote:
> How did you get a PLATE out of the kitchen, past the XYL?

Dunno, but if she drops one, you've got a new plate transformer.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

4488. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 02:58:15 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <DO487.53688$aW5.710064@dfw-read.news.verio.net>
Source record: 51285

> It doesn't really count. It should detect the direction of even a very small rotation if the encoder has any decent resolution.

I'm missing the intent, then. Wasn't the request for a quadrature detector to determine shaft position?

How can just a D-Flop do that? How can a D input (phase 1) change, without a clock input (phase 2) change (in fact, only a rising one), affect the Q output? Direction is only part of the solution and this solution only determines direction for rising edges of only one phase. That's not enough.

A quadrature detector is a four-state machine that must count bidirectionally at each edge change of both phases. The simplest discrete design required four D-flops, a fast clock and two one-of-four selectors to produce separate up-count and down-count pulses a few years ago. Such a design is now embedded in one chip, but I think the logic remains the same.

Tom Becker
--... ...--
GTBecker@RighTime_com GTBecker@OnRamp_net
The RighTime Clock Company, Inc., Cape Coral, Florida USA
www.RighTime.com

4489. Re: Equiv BW of Xtal Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 04:02:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B60E7E9.727AB9C3@eznec.com>
Source record: 51286

I'm going to step in here very cautiously. Filter analysis and synthesis can get pretty hairy, and it's been a long time since I studied it academically. So if any of what I say isn't quite right, I hope someone will correct it.

The transfer function of a filter can be represented by poles and zeros on the complex plane. From this, you can derive both the time response and the frequency response. Most useful filters have multiple pole pairs, and elliptical and some other filters also have pairs of zeros. I don't know of a good way to assign a value of Q to a filter with more than one pair of poles, although you can find the Q of each pair individually. So it's hard to generalize about a filter's characteristics based on a single value of Q, unless it's a second order filter having a single pair of poles.

If you look at each pair of poles individually, you can see that the Q increases as the poles get closer to the imaginary axis. In the time domain, the imaginary component tells you the frequency the pair of poles will ring at when struck by an impulse, and the real component (the distance away from the imaginary axis) is the inverse of the time constant of the envelope of the damped sine wave impulse response. If the poles are close to the imaginary axis, Q will be high, damping low, and the impulse response of that pair of poles will ring for a relatively long time.

In real filters, poles (and sometimes zeros) are distributed in various ways to get particular characteristics. To get a Butterworth, the poles are distributed around a circle centered on the origin. For a Chebyshev, they're compressed more toward the imaginary axis. Butterworth lowpass filters tend to have roughly 10% overshoot when hit by a step, and don't ring for very long. I've found Butterworths to be satisfactory for CW filters. Chebyshev filters have steeper skirts in the frequency domain, but more overshoot and ringing in the time domain. The higher the ripple in a Chebyshev filter, the steeper the skirts but the worse the time response. The Bessel or Gaussian filter has a maximally flat phase delay, and doesn't overshoot at all when hit with a step. But it has very sloppy skirts in the frequency domain.

I don't know a rigorous way to equate phase response with time response, except to say that in general, the faster the phase varies with frequency, the more ringing you'll see in the time response. And in general, rapid phase variation goes along with steep frequency response skirts.

People who design filters for a living have told me that the most effective way they've found to make filters which are both sharp in the

frequency domain and have reasonable transient time response is to make something like a Chebyshev or elliptical filter, then add allpass sections (which have essentially flat frequency response but phase response that doesn't vary linearly with frequency) to improve the time response to an acceptable level. This approach apparently produces filters with the fewest sections that have acceptable characteristics.

It's been mentioned that the math is the same for digital filters as for conventional ones. Well, yes and no. For example, it's possible to design a non-causal digital filter. That's a filter whose response begins changing before the excitation arrives. You could design a digital filter with a nearly a brick-wall frequency response. This has a sin x/x time response. In the theoretical case, the output begins changing an infinite time before the impulse arrives, producing the first half of the sin x/x response, and is at its peak just when the impulse arrives. In practice, the filter output is zero until the ideal response is at some chosen minimum level, resulting in nearly the same effect. Of course, there's no way you can really get an output before an unknown input arrives. But by accumulating and storing the input data, you can get the same result, just delayed a bit in time. I really don't know what all you can get by making a non-causal filter, but this is one example of a digital filter you can't make with real analog components. There are also a bunch of nonlinear things you can do with digital filters that you can't do with analog ones, and linear digital filters you can't make with analog components simply because of loss, size, and tolerance limitations of real analog components.

I'll part with the thought that the frequency response of anything brings with it the implicit assumption that the excitation has been applied forever -- in practical terms, long enough to reach "steady state". If this time isn't a lot shorter than the duration of the signal you're working with, then frequency response doesn't tell the whole story, and you've got to consider the time response. Most audio filters are in this category when the excitation is CW. I've listened to a lot of narrow audio filters that ring horribly when hit by moderate to high speed CW, and have designed and built ones with equal or better frequency response that don't noticeably ring at all. It's all in where you put those poles.

Roy Lewallen, W7EL

4490. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 08:05:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B6120E1.15DDA7AD@eznec.com>
Source record: 51288

The November 1968 article by Wes Hayward is indeed the piece that launched the DC revolution. It's a classic.

You might take a look at "An Optimized QRP Transceiver", in Aug. 1980 QST. It addresses several common DC receiver problems including AM breakthrough. At least hundreds, and maybe more, copies of this rig have been built and used. Other articles that would interest you are "The 'Ugly Weekender'" by Roger Hayward KA7EXM and Wes Hayward W7ZOI in Aug. 1981, and "High Performance Direct Conversion Receivers" by Rick Campbell KK7B in August 1992 QST. Rick has written several excellent articles since, in QST and I believe QEX. Any you can find would be worthwhile reading.

> . . .

> The receiver is stable and sensitive. Of course it is very broad and
> I
> hear "both sides." But I'm very satisfied. There is, of course,
> still
> room for improvement.

Take a look at "High Performance Single Signal Direct Conversion Receivers" by Rick Campbell KK7B in Jan 1993 QST.

> . . .

> One deficiency I can hear involves very strong SSB signals. Even if
> they
> are completely out of my tuning range, I can hear the "monkey
> chatter."
> Tuning the RX does not affect the sound. Same chatter no matter where
> I
> tune. Anyone have any thoughts on how to cure this? I don't know if
> the
> stations involved are splattering or not. I'm thinking that a low
> pass
> filter between the detector and the audio amp might help. I'd be
> looking
> at a simple, passive filter -- I don't want to put in any complex
> active
> filter circuits. Thoughts?

You can use either a passive or active filter. The "Optimized" receiver uses an active filter, Rick's receivers use passive filters. One caution is that if you use a passive filter, use small inductors, preferably shielded, and/or take care to keep them well away from transformers and

other sources of strong 60 Hz fields.

> I used some ordinary switching diodes in the mixer. Does anyone think
> that
> the RX would work significantly better if I replaced them with the
> recommended Schottky diodes?

I ran experiments to see what the difference would be, and couldn't find any. Schottkies might give a little better noise figure, but not enough to make a difference in an HF receiver. The higher threshold of silicons probably increases the AM breakthrough threshold, and they seem to be inherently better matched. I use silicon diodes exclusively.

> I'd been thinking that I'd need a lot of shielding around the RX board
> to
> make this thing work properly, but so far it is working fine with no
> shielding. The VXO is in a box, so I suppose that helps with some of
> the
> problems often seen in DC RXs. Anyone think I should put in some more
> shielding?

The main problem with VFO radiation was pointed out by W7ZOI years ago in a Technical Correspondence piece -- "peakable hum". VFO radiation can get into a power supply, where the diodes mix it with 60 or 120 Hz, creating an RF signal offset from the VFO by this amount. It sounds like hum, but if you have a tuned front end, you can peak it up with the signals (since it's really RF). It's often conducted to the power supply by the DC receiver power supply leads (when running from an AC supply), and a cure is to run the leads in a bifilar fashion several turns around a ferrite core. 70 series is best for this, with type 43 being ok also. More problems are usually caused by common mode currents in the ground plane or board traces than by radiation. Shielding won't help the ground currents.

Roy Lewallen, W7EL

4491. Re: Need FT-243 sockets, Club Proj.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 08:06:45 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <o182mtgne80boj33r3rklk80obgb2od188@4ax.com>
Source record: 51289

On Thu, 26 Jul 2001 05:54:52 -0700, Bill Turner <w7ti@dslextreme.com>
wrote:

>
>Where to find octal sockets? One good source, especially for
>homebrewers, is an electrical supply house. Octal sockets are commonly
>used for power relays and come in a "surface mount" style perfectly
>suited for one-off construction (no hole punching required). These
>sockets were not intended for tubes or FT-243's, but they fit perfectly
>and work just fine.
>

Bill,

I was actually joking. But thanks for the information. Knowing
where to find no-punch sockets is handy information to have at hand.
(I lost track of my Greenlee punches *years* ago.)

73,

Tom

>Bill, W7TI

4492. Opto coupled sound card interface ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 09:38:05 UTC
From: OZ1BV <oz1bv@vind.gl_AntiSpam>
Message-ID: <3b6135d1$0$51713$edfadb0f@dspool01.news.tele.dk>
Source record: 51290

Dr. OM's

Anybody got experience using opto couplers instead of trafos in a interface for sound card <-> transceiver (for packet PSK ect.). If so, do you have any links to schematics?

Vy 73 de OZ1BV / OX3IO, Brian

4493. Re: Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 10:00:22 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <5oe2mt4c3j94mk48b0678iql96en1ig4cd@4ax.com>
Source record: 51291

On Thu, 26 Jul 2001 21:01:54 -0500, Robert Casey <wa2ise@ix.netcom.com>
wrote:

>Using a toriod with a gap filed into it. See
>http://www.geocities.com/wa2ise/radios/ham.htm

On your web page it says:

"It takes a long time to file the gap into the toroid; your needle files
will get dull. Don't push too hard, as ferrite is fragile. You want a
narrow gap on the outside part of the ring, so file from the inside. A
gap about the thickness of a fingernail is good. Depending on the
ferrite material, this sniffer should be good for HF and VHF."

Might I suggest a Dremel tool with a cut-off wheel instead of a file? I
haven't actually used one on a ferrite, but those cut-off wheels will
cut the hardest steel, so ferrite should be a cinch. Worth a try
anyway.

Bill, W7TI

4494. 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 10:44:59 UTC
From: n2cqr@clix.pt
Message-ID: <3b61460b.2440976@news.clix.pt>
Source record: 51287

I'm having a lot of fun with the DC receiver that I built as part of my
evolving 17 meter DSB transceiver. (I've posted pictures and a schematic
at http://planeta.clix.pt/n2cqr Just click on the 17 meter DSB link.)

Right after I built the receiver, I was browsing through some old QSTs and
came across the November 1968 issue. Wes Hayward, W7ZOI, and Dick Bingham,
W7WKR, had an article entitled "Direct Conversion - A Neglected Technque."
This must have been the piece that launched the DC revolution. Neglected
no more! I knew I'd been on the right track when I discovered that the RX
described in the article was very similar to the one I'd just built. Same
product detector and AF AMP. (This came as no surprise as I'd taken the
circuitry out of SSD.)

My previous experiences with DC RXs were pretty bad -- lot's of AM
breakthrough, common mode hum, etc. I think I avoided many of these
problems with this RX by staying away from the standard NE602-LM386
neophyte designs. And I've been helped by the fact that earlier rigs were
built for 10 an 7 Mhz, where SW broadcast interference is much more intense
than at 18 Mhz. The AC hum problem was cured with one toroid between the PS
and the rig.

I have had some problems with AM breakthrough. On Sunday morning at 0800
UTC, Radio Exterior de Espana fired up, apparently with its antennas aimed
in my direction. I consulted their schedule and I think I was hearing
either their 17.77 or 17.88 Mhz broadcast. Too close for comfort. Pretty
much wiped out the ham signals I was listening to. I went back and very
carefully re tuned the two tuned circuits in the RF amp (front end). I
found that I could peak the both of them in such a way as to eliminate most

of the AM breakthrough problem. I know many people advise against RF amps
ahead of the mixers in DC receivers, but I wanted to get the two tuned
circuits in there. I'm glad I did.

The RF amp can, however, give me too much gain and make things very noisy.
I've seen people use 10K pot as an attenuator at the antenna port, but I
came up with what I think is a more elegant solution: I put a 2k pot on
the 12V line going to the MPF-102 in the front end. So I can control the
voltage going to the the drain of the grounded gate amp. This serves as a
very smooth RF gain control. I use it a lot.

The receiver is stable and sensitive. Of course it is very broad and I
hear "both sides." But I'm very satisfied. There is, of course, still
room for improvement.

I'm still using the headphones. The rx is working so nicely that I'm
reluctant to add the extra stages needed for speaker ops. But I suppose
I'll eventually give it a try. I don't even have an audio gain control.
(The RX in the Nov. '68 article didn't have one either. The authors
suggested detuning the caps in the front end if you needed to reduce
gain.)

One deficiency I can hear involves very strong SSB signals. Even if they
are completely out of my tuning range, I can hear the "monkey chatter."
Tuning the RX does not affect the sound. Same chatter no matter where I
tune. Anyone have any thoughts on how to cure this? I don't know if the
stations involved are splattering or not. I'm thinking that a low pass
filter between the detector and the audio amp might help. I'd be looking
at a simple, passive filter -- I don't want to put in any complex active
filter circuits. Thoughts?

I used some ordinary switching diodes in the mixer. Does anyone think that
the RX would work significantly better if I replaced them with the
recommended Schottky diodes?

I'd been thinking that I'd need a lot of shielding around the RX board
to
make this thing work properly, but so far it is working fine with no
shielding. The VXO is in a box, so I suppose that helps with some of
the
problems often seen in DC RXs. Anyone think I should put in some more
shielding?

4495. Re: Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 11:55:25 UTC
From: amdx <amdx@att.net>
Message-ID: <NEc87.54367$C81.4706907@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51292

> Might I suggest a Dremel tool with a cut-off wheel instead of a file? I
> haven't actually used one on a ferrite, but those cut-off wheels will
> cut the hardest steel, so ferrite should be a cinch. Worth a try
> anyway.
>
> Bill, W7TI
>

Be careful where the ferrite dust goes.
I used an off brand Dremel type tool that had a DC motor, While cutting
some ferrites the tool quit working. Upon disassembly I found the permanent
magnets were covered with metal powder that interfered with rotation.
I never did get it working again.
Mike

4496. Re: Soldering SMDs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 14:58:38 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B61819E.248E9A3B@midwestmicro-tek.com>
Source record: 51293

We've been doing this at MMT for about 10 years now. A macro scope helps but what you need to do is center the part as good as you can and hold it down with one hand. Then coat the leads with liquid flux then get a drop of solder on the end of your soldering iron and run a "bead" along one edge. After the first edge is down the rest are easy. Over the last 10 years we have placed literally hundreds of thousands of parts this way. We developed this technique after a fab house wanted to charge us $55 a board to place 3 PLCC parts. We finally got a pick and place 2 year ago but we still have to do a few older boards by hand.

Rick KC0GIX
Chief Design Engineer
Midwest Micro-Tek

Michael Wichmann wrote:

> Hey Everyone,
>
> I was wondering if anyone had experience with soldering SMD chips like
> 144pin TQFP or similar. Also, how can one possibly solder J leads ??? Are
> there any other techniques than the usual 'by hand' approach one could do at
> home. (like solder bath .. how does that work anyway?)
>
> Thanks,
> Michael , AA3VM/DB6MG

4497. Re: FM Multiplex Generation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 16:09:06 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9js3n2$nk3$3@woodrow.ucdavis.edu>
Source record: 51294

: Anton Elron <antonelron@hotmail.com> wrote:
: This has nothing to do with the amateur radio service, but I thought
: I'd ask here anyway.

Hi Anton,
No problem..

: Can a FM composite generator giving FM stereo to broadcast standards
: be built? Without bizarre construction practices. Or, can they be
: bought and where.

Yes to both questions and some information. I've seen a number of articles on the web dealing with home built fm broad radio transmitters and their associated stereo generators. A web search via www.altavista.com or similar might be in order for that.

There are a number of kits around... Panaxis which is in Paradise, California sells many related kits. You can buy their stereo generator in kit or complete. You can also buy many other radio item kits there, they have a web page that a net search should find.

: A reference to a construction article would be helpful, if the
: finished product gives quality results.

I have one of their stereo generators in line now to my Sparta transmitter and it really works well.

Hope that helps
cheers
skipp

http://sonic.ucdavis.edu

4498. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 17:53:58 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B61AAB6.55340F7@clifto.com>
Source record: 51198

GTBecker@RighTime.com wrote:
> clifto wrote:
> > It doesn't really count. It should detect the direction of even a very
> small rotation if the encoder has any decent resolution.
>
> I'm missing the intent, then. Wasn't the request for a quadrature detector
> to determine shaft position?

Nope. From the original, <zuW77.9$XK5.47008@news.ntplx.net>:

> While I could probably come up
> with a circuit to give a directional indication, I'd rather not reinvent the
> wheel.

I presume you can see how two D-flops connected as suggested can show the
direction of spin, given input from the encoder he specified.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+

4499. Re: Soldering SMDs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 19:11:50 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <W8j87.37873$lz3.7454050@news2-win.server.ntlworld.com>
Source record: 51295

Hi All

I regularly (10+ per day) solder 208 pin QFP chips and many other SMD parts. Easy to do with a regular iron. I use a Weller TCP, standard fine tip. All it takes is practice. Clean the area to be soldered with solder wick and reflow flux. The sticky flux residue (I use multicore "Red Jelly") allows for accurate positioning f the new chip. Tack two opposite corners and then solder along each side - it doesn't matter if you join the pins. When all sides are done, paint around with reflow flux and remove the excess solder until all pins are seperated.

A 208 pin QFP takes about 30 mins total the first time, but with practice 10 mins is reasonable. This method also puts less heat into the chip that the "tin the pins and remelt" technique.

Not as good as a proper SMT reflow machine but good enough.

Alec Wood M1BNK

"Michael Wichmann" <wichmann@sas.upenn.edu> wrote in message news:9jpg82ptt1@netnews.upenn.edu...
> Hey Everyone,
>
> I was wondering if anyone had experience with soldering SMD chips like
> 144pin TQFP or similar. Also, how can one possibly solder J leads ??? Are
> there any other techniques than the usual 'by hand' approach one could do
at
> home. (like solder bath .. how does that work anyway?)
>
> Thanks,
> Michael , AA3VM/DB6MG
>
>
>

4500. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 19:45:32 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <scgsj9.9qp.ln@localhost.localdomain>
Source record: 51296

The G3XJP 'PIC n' MIX' DDS uses a
HLC2705 IR detector and a home made
shaft encoder.

IIRC the G3XJP project is on the
Microchip web site.

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4501. Free downloadable IOTA List - UPDATE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 21:23:31 UTC
From: -- AB7SL -- <ctj92@hotmail.com>
Message-ID: <nZk87.1641$0w3.226098@newsread2.prod.itd.earthlink.net>
Source record: 51197
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The always popular free and downloadable IOTA list has received an update as
per RSGB data on 27-July-2001
at 21:19 UTC. Located on the IOTA List Page of the web site listed
below......15k zip file

--

73 / DX

Charles T Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
http://www.ab7sl.com

4502. FA 20 Amp 0-140 Volt Variac, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 22:21:44 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <YPI87.2473$hQ.295999@paloalto-snr1.gtei.net>
Source record: 51199
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621279639

4503. FA 5 Amp Variac, 0-140 Volt, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-27 22:24:30 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <ySI87.2475$hQ.297370@paloalto-snr1.gtei.net>
Source record: 51200
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621273138

4504. FA 32 Ft. Military Fiberglass 8 Section Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 00:46:08 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <jXn87.2853$hQ.363516@paloalto-snr1.gtei.net>
Source record: 51201
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1259535726

4505. FA DC to DC Converter, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 00:50:47 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <H%n87.2869$hQ.366177@paloalto-snr1.gtei.net>
Source record: 51202
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621297113

4506. Re: Speech Inverter (Inverseur de voix)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 02:58:03 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10107261613050.24622-100000@gloria.cam.org>
Source record: 51203
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,sci.astro.amateur,tnn.radio.amateur,tw.bbs.rec.radio.amateur,uk.radio.amateur

On Thu, 26 Jul 2001, Ian Jackson wrote:

> And maybe Nope!
>
> It depends what mode of transmission.
>
> On SSB, if you used a speech inverter, you would simply transmit on the
> 'wrong' sideband (not illegal in the UK), and could easily be resolved.
> You would also appear to be about 3kHz off frequency.
>
> On FM, you would, of course, sound inverted.
>
> On AM, you would also sound inverted, but could be resolved by taking
> the signal as SSB, and tuning to one of the sidebands.
>
> Ian.
>
>

Back in the mid-sixties, CQ magazine ran a couple of articles on "speech inverters". That was a time when you'd often see DSB transmitters or converters (DSB of course being specifically double sideband with a suppressed carrier). Since virtually no one was using a synchronous detector, the common means of receiving DSB was to use an SSB receiver and use it's filter to hack off the unwanted sideband. But older receivers were still common, and their IF filters left a lot to be desired when receiving SSB.

So CQ ran an article (and then a followup showing a way of doing the same thing with a different circuit) that was nothing more than a balanced modulator and an audio oscillator. It inverted the audio, and then you fed that into the DSB transmitter. The result put the lowest audio frequencies at the far points from the suppressed carrier, rather than right at that point. So you didn't need such a sharp IF filter to get rid of the unneeeded sideband.

Normal DSBsc

highest LSB USB highest
audio----------|-----------audio
|
Suppressed
carrier

inverted audio DSBsc:

```
lowest LSB USB lowest
audio----------|-----------audio
|
suppressed
carrier
```

In the first case, the resinserted carrier has to be exactly where the suppressed carrier is or else the two sidebands will translate to audio at different frequencies. Filtering out the unneeded sideband in the receiver allows for some variation of the beat frequency (the same way one can mistune an SSB signal with the only result being an odd sounding voice).

But if your filter isn't really great, as was the case in those old receivers, you couldn't knock out the unneeded sideband right at the carrier point.

With the inverted audio, you'd place the bfo at the "lowest audio" point, and the flaky filter would just let some other signal through (which could be annoying, but could be mentally tuned out unlike the sidebands beating together). Any of the unwanted sideband that did pass through the filter would translate to audio at a higher frequency, where it would be well away from the frequencies of the wanted sideband.

An interesting concept, and one that never got much coverage because the assumption was that you'd use a good SSB receiver to knock out the unwanted sideband.

Michael VE2BVW

4507. Call for Papers and Invitation for Participation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 05:49:06 UTC
From: forward@ayna.com
Message-ID: <1e26e419.0107272149.1afb47f5@posting.google.com>
Source record: 51204

July 21, 2001

I am pleased to enclose for your kind attention the “Announcement and Call for Papers” for Symposium on Maritime Disaster Management. The Symposium is being organized by the Frontier Guard General Directorate, Ministry of Interior, Saudi Arabia in collaboration with Saudi Aramco and King Fahd University of Petroleum and Minerals. It will be held at KFUPM in Dhahran, Saudi Arabia from 19-23 January 2002.

The Symposium provides a forum for dissemination and exchange of information encompassing a broad spectrum of topics related to management of maritime disaster. Special technical session, workshops, exercises and exhibitions and are being planned. It will encourage and facilitate the interdisciplinary communication amongst experts, researchers, scientist, government and academia, local, regional, and international agencies and industry.

Abstract are invited on the topics outlined in the enclosed brochure, and others which fall within the scope of the symposium .to register your interest as a participant or to submit an abstract for consideration, please complete the relevant forms(s) and return your submission without delay .we strongly encourage abstract submission without delay .we strongly encourage abstract submission by E-mail (please see the symposium broacher for further details).

Looking forward to hearing form you soon.

With best regards.

Dr.Abdulaziz M.Al-Suwailem

Chairman, organization committee

4508. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 07:14:03 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B62663B.72344418@clifto.com>
Source record: 51205

Clifton T. Sharp Jr. wrote:
> I presume you can see how two D-flops connected as suggested can show the
> direction of spin, given input from the encoder he specified.

Somehow that sounds snotty. I didn't mean it to sound that way.

--
+-+
| Cliff Sharp | "Speech isn't free when it comes postage-due." |
| WA9PDM | -- Jim Nitchals, founder, FREE |
+-+-+-+-+-+-+-+-+-+- http://www.spamfree.org/ +-+

4509. Re: I need advice on a homebrew antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 07:59:15 UTC
From: jerko@mac.com
Message-ID: <1ex87ow.p3zcqy1yn0ygwN%jerko@mac.com>
Source record: 51207

Bill Cromwell <bcromwell1@earthlink.net> wrote:

> Lucky Me,
>
> No antenna restrictions here.
>
> I can add some ideas for you.
>
> I met a fellow with restrictions like you have. he was on the ground floor
> and was allowed to erect a flagpole outside his front door at the far end of
> the sidewalk. The flagpole was made of heavy PVC pipe, flew the flag, and
> concealed a wire vertical antenna inside. He buried the feedline from the
> house at the same time he buried wires for the low-voltage light at the base
> of the flagpole.

They have no ways of prohibiting antennas here but they do annoy you
sometimes. There are severas treatments:

1. Buy them and mount decent antenna instead of their indoor type with
amplifier

2. Build astable multivibrator running on 1 MHz (should produce
squares), hook it on 10W broadband amplifier and go on vacation.
One guy did it here but made mistake: powered from wall outlet - when
they did not found source (he transmitted into power lines) they started
disconnecting buildings and found device (when they unpluged power,
interferences disappeared, when they put back, they went back on).
Power it from car battery.

3. One of my chiefs was Duch and was HAM too. He had 2kW HF transmitter
at home. So he pointed antenna in his neighboor kitchen and waited. As
soon as neighbour's wife took glass pot in her hands he pressed key
causing neon lamps to glow for a moment. She scared off and broke the
thing dropping it on the floor.

4. I had constant problems with CB transmitter I used to talk with
friends. Solved by hooking wirewound resistor in series with modulating
transformer. Output power was not measurable *at least not with
available instruments) but radio was still usable within town.

I heard of such stories and to be honest I cannot believe that such
things exist.

73 de 9A6JGJ!

4510. Re: Opto coupled sound card interface ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 07:59:15 UTC
From: jerko@mac.com
Message-ID: <1ex87ho.liubl61xi5i9sN%jerko@mac.com>
Source record: 51208

OZ1BV <oz1bv@vind.gl_AntiSpam> wrote:

> Dr. OM's
>
> Anybody got experience using opto couplers instead of trafos in a interface
> for sound card <-> transceiver (for packet PSK ect.). If so, do you have
> any links to schematics?
>
> Vy 73 de OZ1BV / OX3IO, Brian

Opto couplers are non-linear. But you can make them linear by taking two
of them and two OPAMPS. Put another optocoupler in feedback and you will
linearize it.

73 de 9A6JGJ!

4511. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 07:59:16 UTC
From: jerko@mac.com
Message-ID: <1ex88fy.172ybi410sj97gN%jerko@mac.com>
Source record: 51209

KG4NEL <tek_guy@hotmail.com> wrote:

> Hello.
>
> I'd like to set up my own local coverage repeater for some hams in my
> area...preferably something cheap (under $500) and try to use as much
> of my own stuff as possible. I currently have a Yaesu VX-5R and dual
> band 144/440 gain antenna and feedline that I could use, along with
> power supplies. I'd like to set up the repeater on UHF, in-band.
>
> What do I need?
> Is it that expensive to set up a local coverage UHF repeater?

Take two 432 handheld radios, tune one on RX frequency and from it's
speaker output, and through external VOX device and attenuator in
MIC/PTT input on TX one. Use two antennas.

Here we have local repeater that works in that way for more than 15
years and very interesting is that nobody touches that thing at all we
had even trouble finding who knows where repeater was installed.

73 de 9A6JGJ!

4512. Re: FM Multiplex Generation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 08:05:17 UTC
From: J-R Roy <jean-roger.roy@wanadoo.fr>
Message-ID: <9jtrjkmbf1@wanadoo.fr>
Source record: 51210

Dedar Anton,

You will find an interesting diagram on the following URL :
http://wd.wz.cz/radio-en/#amreceiv (end of page, "others constructions")

Jean-Roger - F6EGK

"Anton Elron" <antonelron@hotmail.com> a crit dans le message news:
ea82a75b.0107261320.40dccb51@posting.google.com...
> This has nothing to do with the amateur radio service, but I thought
> I'd ask here anyway.
>
> Can a FM composite generator giving FM stereo to broadcast standards
> be built? Without bizarre construction practices. Or, can they be
> bought and where.
>
> A reference to a construction article would be helpful, if the
> finished product gives quality results.

4513. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 08:48:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B627C61.46396B04@eznec.com>
Source record: 51211

It's always a good idea to have as much selectivity ahead of the mixer as possible -- although I've gotten away with nothing but the transmitter's LPF. It's also good to have as little gain ahead of the mixer as possible to minimize AM demodulation from strong signals. If I interpret your question correctly, you're proposing leaving the common gate FET in place but without Vdd. I don't think this would be a good idea -- it's unlikely to provide the optimum coupling between your tuned circuits.

Putting all the gain at AF has its problems, too. You sometimes have to work hard to prevent audio feedback. But it can be done. And using an external AF output stage makes it a lot easier. But no matter what the results, you'll learn a lot in the course of experimenting.

Roy Lewallen, W7EL

Bill Meara wrote:
>
> On Fri, 27 Jul 2001 01:05:53 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >The November 1968 article by Wes Hayward is indeed the piece that
> >launched the DC revolution. It's a classic.
>
> Thanks for the great advice Roy. Experiments with the RX continue.
> I'm starting to thnk that the RF amp ahead of the mixer might not have
> been such a great idea. I put an amplified speaker (from a CD player)
> after the 100 db amp and discovered that with all the additional audio
> gain, I had to significantly reduce the RF gain. And the RX seemed to
> work a lot better this way. My problems with the strong SSB signals
> seemed to be reduced.
>
> I like having the two tuned circuuits that came along with the
> grounded gate amp in the front end, so I'm thinking of just building
> in some more AF gain and taking the 12V completely off the drain of
> the grounded gate RF amp at the front end. What do you think?
>
> 73 de Bill CU2JL N2CQR
> http://planeta.clix.pt/n2cqr

4514. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 11:31:44 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <Upx87.53899$aW5.714252@dfw-read.news.verio.net>
Source record: 51212

> ... didn't mean it to sound that way...

No offense, OM. 73.

4515. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 11:49:07 UTC
From: n2cqr@clix.pt
Message-ID: <3b62a362.1786270@news.clix.pt>
Source record: 51206

On Fri, 27 Jul 2001 01:05:53 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>The November 1968 article by Wes Hayward is indeed the piece that
>launched the DC revolution. It's a classic.

Thanks for the great advice Roy. Experiments with the RX continue.
I'm starting to thnk that the RF amp ahead of the mixer might not have
been such a great idea. I put an amplified speaker (from a CD player)
after the 100 db amp and discovered that with all the additional audio
gain, I had to significantly reduce the RF gain. And the RX seemed to
work a lot better this way. My problems with the strong SSB signals
seemed to be reduced.

I like having the two tuned circuuits that came along with the
grounded gate amp in the front end, so I'm thinking of just building
in some more AF gain and taking the 12V completely off the drain of
the grounded gate RF amp at the front end. What do you think?

73 de Bill CU2JL N2CQR
http://planeta.clix.pt/n2cqr

4516. FS: Tower, TA-33, Rotor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 14:28:17 UTC
From: nfn04028@naples.net
Message-ID: <90EC6B77Fmarty1225earthlinkne@207.217.77.25>
Source record: 51213
Cross-posted to: alt.ham-radio.marketplace,rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

54ft Tristao (United) crankup, Mosely TA-33 Tribander, CDE Ham II Rotor;
with cables, hardware and approx. 200ft new RG-8.

All in good working condition and currently in use.

All for only $400! The catch? Buyer must take down; located near New
Haven, CT.

Please e-mail any questions.

Marty, K1FHR.

4517. FS: Homebrewed amp w/pair 4-400C's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 15:29:59 UTC
From: nfn04028@naples.net
Message-ID: <90EC712E4marty1225earthlinkne@207.217.77.26>
Source record: 51214
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,alt.ham-radio.marketplace

Homebrewed GG linear amp deck consists of the tubes, coils, band switch, meters, filament xformers, variable caps. With case but no HVPS. Uses external blower.

Was in use for several years, then several years idle. Not set up to check it in operation at this time but it worked great before it was shut down. 1kw+ out. Tubes just checked showing no inter-electrode shorts and filaments ok. Common GG circuit.

$175. Will split packing and shipping charges. Prefer pickup, location near New Haven, CT. If interested, can email photos.

73, Marty K1FHR

4518. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 16:31:08 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9jupgirmk1@nntp9.atl.mindspring.net>
Source record: 51215

Bill Meara wrote:
>
> I like having the two tuned circuuits that came
> along with the grounded gate amp in the front end,
> so I'm thinking of just building in some more AF
> gain and taking the 12V completely off the drain of
> the grounded gate RF amp at the front end.
> What do you think?
>
> 73 de Bill CU2JL N2CQR

Bill, I am a fan of RF attenuators before any active stages. You may want to consider adding some switched attenuators before the RF amp. I find cheap toggle switches work well enough.

The ARRL handbook shows the method. I'd make it maybe a 10 and two 20 dB switches.

Anyway, by kicking in 10 or 20 dB of resistive attenuation you reduce a host of sins.. Nearby signals are attenuated and so are out of band AM stations and such.

With passive resistors as the first attenuators you don't have to worry about overload.

Many electronic gain control methods have the bad tenancy of reducing their dynamic range as you are reducing the gain. This is bad since that is the time they are getting hit with strong signals !!!

Yeah, manual RF attenuator toggle switches can be a pain in some ways, you need to change them as the band conditions change, but I think the benefits outweigh the hassle.

Jim Pennell
N6BIU

4519. Re: Opto coupled sound card interface ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 16:52:39 UTC
From: Rob <Pse@NoEmail.Com>
Message-ID: <27C87.49330$TW.243657@tor-nn1.netcom.ca>
Source record: 51216

Yes, G3VFP has designed one and even sells them now. He even has a design
using opto isolators for the CAT interface for the rig for TRUE isolation.

see www.qsl.net/g3vfp and follow the links.

Rob

"OZ1BV" <oz1bv@vind.gl_AntiSpam> wrote in message
news:3b6135d1$0$51713$edfadb0f@dspool01.news.tele.dk...
> Dr. OM's
>
> Anybody got experience using opto couplers instead of trafos in a
interface
> for sound card <-> transceiver (for packet PSK ect.). If so, do you have
> any links to schematics?
>
> Vy 73 de OZ1BV / OX3IO, Brian
>
>
>
>
>
>

4520. Full set of RCA Vacuum Tube Databooks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 17:39:45 UTC
From: Paul <nakwakto@hotmail.com>
Message-ID: <9jutbn$3n2$1@slb2.atl.mindspring.net>
Source record: 51217
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello,

I was given a full set of the RCA vacuum tube databooks that date back to 1940. I really have no need for them and I am considering selling them. The only problem is I don't know what they are worth.

Does anyone have an idea of their value??

Paul

4521. FS: Homebrewed amp w/ pair of 4-400C's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 17:50:19 UTC
From: nfn04028@naples.net
Message-ID: <90EC8FA81marty1225earthlinkne@207.217.77.23>
Source record: 51218

Homebrewed GG linear amp deck consists of the tubes, coils, band switch, meters, filament xformers, variable caps. With case but no HVPS. Uses external blower.

Was in use for several years, then several years idle. Not set up to check it in operation at this time but it worked great before it was shut down. 1kw+ out. Tubes just checked showing no inter-electrode shorts and filaments ok. Common GG circuit.

$175. Will split packing and shipping charges. Prefer pickup, location near New Haven, CT. If interested, can email photos.

4522. Re: Full set of RCA Vacuum Tube Databooks

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 17:54:43 UTC
From: Bill M <"take out the NO in the reply address"@*.*>
Message-ID: <3b62f929$1_4@Newsfeeds.com>
Source record: 51219
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Paul wrote:
>
> Hello,
>
> I was given a full set of the RCA vacuum tube databooks that date back to
> 1940. I really have no need for them and I am considering selling them.
> The only problem is I don't know what they are worth.
>
> Does anyone have an idea of their value??
>
> Paul

They seem to get $3-8 on ebay individually. I'm sure somebody might be
particularly interested in a full set.
--
Bill WX4A
Vieques, PR

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4523. WTB: Andrew L46Z

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 19:34:29 UTC
From: FMS <South.River@verizon.net>
Message-ID: <9tE87.173374$pH2.2193556@typhoon1.gnilink.net>
Source record: 51220

Im looking for a splice connector for Andrew LDF6-50 cable, the splice model L46Z could use two of them used or new.

4524. ADV: Killer tits and sweet ass She can be my LOVER YUM-YUM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 19:39:52 UTC
From: wmgrhy@axxdcoyj.edu
Message-ID: <3zhduy.yIF.4@rrvrmaq.net>
Source record: 51223

http://www.califgirls.com

Zersfpui nsnvnlawean enhn reoihi ptcdna ser taduiw olyhdof aemo cedl
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lten osgstre y dy nancsot nalrpu uefortrai intlira icnf saror artelav nmi!

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fimc luc veds sdeatc oses orte ued at y etxgty?

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orctu nispn nrarhwasmi sheg osaer drt slri icewtlyr peovrnepsq lsdoalmtn hds
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mrlsedeyvo o etverdlu tld oaeiemtntp i roietrn gdatvs fietn aryhit.

4525. Re: FS: Homebrewed amp w/pair 4-400C's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 20:43:36 UTC
From: fletch <fletch@pulse.net>
Message-ID: <3B6323F8.C1455FF2@pulse.net>
Source record: 51222
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,alt.ham-radio.marketplace

Hi Marty,

I would like to see some pictures of the construction and tank circuit
work if possible.

Tnx & 73,

Steve

AB5MM

marty wrote:
>
> Homebrewed GG linear amp deck consists of the tubes, coils, band
> switch, meters, filament xformers, variable caps. With case but no HVPS.
> Uses external blower.
>
> Was in use for several years, then several years idle. Not set up to check
> it in operation at this time but it worked great before it was shut down.
> 1kw+ out. Tubes just checked showing no inter-electrode shorts and
> filaments ok. Common GG circuit.
>
> $175. Will split packing and shipping charges. Prefer pickup, location
> near New Haven, CT. If interested, can email photos.
>
> 73, Marty K1FHR

4526. hughes diodes ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 21:18:55 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tm6b2a5btkcfa6@corp.supernews.com>
Source record: 51221

i have what appear to be matched diodes made by Hughes Diodes, type MP3016,
2 each per pack..
they're banded with color code brown, white, gray with 2 yellow letter H as
last band...
i can't find a spec..
can anyone please help me or point me ..
tnx
hank wd5jfr

4527. FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 22:58:30 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <psH87.4296$0r4.404831@paloalto-snr1.gtei.net>
Source record: 51224
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138

4528. FA Cushman CE-5 Service Monitor, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 22:59:17 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <9tH87.4301$0r4.405597@paloalto-snr1.gtei.net>
Source record: 51225
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621571407

4529. FA 600 to 1850 MHz Watt Meter/Load, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 23:00:03 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <TtH87.4305$0r4.406172@paloalto-snr1.gtei.net>
Source record: 51226
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621564800

4530. FA Midland 99 Channel VHF Trunkmount, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 23:10:36 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <MDH87.4367$0r4.412629@paloalto-snr1.gtei.net>
Source record: 51227
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1259758661

4531. FA URM-120 Watt Meter, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-28 23:10:36 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <MDH87.4366$0r4.412795@paloalto-snr1.gtei.net>
Source record: 51228
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621566886

4532. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 01:49:54 UTC
From: Jim <jim_d69@yahoo.com>
Message-ID: <6ZJ87.65788$w5.7487214@news1.rdc1.ga.home.com>
Source record: 51229
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Our local pawn shops sees a lot of these... they come after the local power and phone companies replace the ones used by their linemen.. I pick up two for $6.00 each at the local pawn shop..

"Brian" <brian999999@hotmail.com> wrote in message news:psH87.4296$0r4.404831@paloalto-snr1.gtei.net...
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138
>
>

4533. FA: Collins S-Line Equipment Knobs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 02:52:58 UTC
From: BH <nbc_red@mailcity.com>
Message-ID: <3B636CE5.840F1B44@mailcity.com>
Source record: 51230
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1259787393

4534. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 03:02:32 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <c1L87.10654$LP2.1050969@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51231

You could also use a PIN diode attenuator ahead of the front end. You would vary the attenuation by the amount of current that you run through the PIN diodes. Also, if you need any hot carrier diodes for you experiments, I could send you a matched set of 4. I don't have too many sets, so I don't generally send them out, but since you are experimenting.....
Anyway, give me a shout at my e-mail address, and I will be glad to help you! If you would like to go the route with a complete mixer instead, I have some Mini-Circuits mixers on hand.

Pete Gianakopoulos KE9OA
Chicago, Il. USA

Jim Pennell <me-nobody@killspam.com> wrote in message
news:9jupgirmk1@nntp9.atl.mindspring.net...
> Bill Meara wrote:
> >
> > I like having the two tuned circuuits that came
> > along with the grounded gate amp in the front end,
> > so I'm thinking of just building in some more AF
> > gain and taking the 12V completely off the drain of
> > the grounded gate RF amp at the front end.
> > What do you think?
> >
> > 73 de Bill CU2JL N2CQR
>
>
> Bill, I am a fan of RF attenuators before any active stages. You may
> want to consider adding some switched attenuators before the RF amp. I
> find cheap toggle switches work well enough.
>
> The ARRL handbook shows the method. I'd make it maybe a 10 and two
20
> dB switches.
>
> Anyway, by kicking in 10 or 20 dB of resistive attenuation you reduce a
> host of sins.. Nearby signals are attenuated and so are out of band AM
> stations and such.
>
> With passive resistors as the first attenuators you don't have to worry
> about overload.
>
> Many electronic gain control methods have the bad tenancy of reducing
> their dynamic range as you are reducing the gain. This is bad since
that
> is the time they are getting hit with strong signals !!!

>
> Yeah, manual RF attenuator toggle switches can be a pain in some ways,
> you need to change them as the band conditions change, but I think the
> benefits outweigh the hassle.
>
>
> Jim Pennell
> N6BIU
>
>
>

4535. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 03:12:27 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <vaL87.10664$LP2.1051722@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51232

I have taken this approach, using a 7474 flip-flop, with a 74123 one-shot, along with 74191s for tuning parallel programmable synthesizers. Gary Pershin came up with a good idea, using an XOR gate to eliminate the error when changing direction. Right now, I am using a PIC (16F84) to control the AD9851 DDS chip. If anybody wants the code, along with the schematic of the DDS, feel free to give me a shout. As for the code, I have to give credit to Mr. Jeff Woods on this one!

Pete Gianakopoulos KE9OA
Chicago, Il.

Steve <stephen.wilson@cmr.uq.edu.au> wrote in message news:3B60B37A.1B5EA34@cmr.uq.edu.au...
> Hi Michael,
>
> How about a D flip flop (4013) with one channel to the clock and the
> other to D in. When the clock leads the D, Q(output) goes low (one
> direction) when D leads clock, Q goes high (opposite direction).
>
>
> Cheers,
>
> Steve W
>
> Michael Tracy wrote:
> >
> > I bought an optical encoder for an antenna project without realizing what
> > the output would be. There are two TTL outputs with quadrature phasing,
> > with the phase dependent upon the direction. While I could probably come up
> > with a circuit to give a directional indication, I'd rather not reinvent the
> > wheel. A quick web search suggested there are ICs available to do this now.
> > Only trouble is that I can't seem to find a part number. Anyone know of an
> > IC for this, or perhaps a circuit with a couple ICs?
> >
> > Thanks es 73, Michael, KC1SX

4536. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 04:11:07 UTC
From: Jim Pennell <me-nobody@killspam.com>
Message-ID: <9k02jtrb1@nntp9.atl.mindspring.net>
Source record: 51233

Pete Gianakopoulos KE9OA Wrote:

>You could also use a PIN diode attenuator ahead of the
>front end. You would vary the attenuation by the amount
>of current that you run through the PIN diodes

True, PIN diodes make good attenuators in general. They have some limits though. They can be overloaded and cause intermod in themselves particularly at partial attenuation levels.

Although they are likely to be pretty good in general. They make great hard on-off switches.

==========

And, due to carrier lifetime limits, the PIN diodes turn a lot closer to regular rectifier diodes below a certain frequency and that is usually quite a few MHz. So, AM broadcast may easily become rectified and add to the troubles.

The actual frequency where they start to turn into rectifiers depends on the specs for the particular pin diode, but all of them do it at some frequency....

Which is part of why I like passive resistor attenuators. They reduce interfering signals at ALL frequencies and you can put them in front of any tuned circuits.

PIN diodes are handy, but they ought to be used after some frequency selective tuned circuits to keep them honest. And only at frequencies above their carrier lifetimes limit....

Jim Pennell
N6BIU

4537. Re: Need Help with MFJ 1278 & Packet Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 13:02:19 UTC
From: Alan Jones <oajones@bright.net>
Message-ID: <%OT87.17558$ga2.548484@cletus.bright.net>
Source record: 51234

You can use the MFJ-1278 with practically any packet BBS software. I have personally used it with MSYS software in the past (KISS protocal). I'm sure there are other hams who could testify to this fact. Good luck to your packet operations. I am running MSYS 1.20 beta on my MFJ-1274. I also used to run MSYS on our MARS packet station when I was in the Navy on our MFJ-1278.

73's de Alan/AA4ZI
Sysop of W8BAP Packet BBS in Chillicothe, Ohio 145.63 mhz
Sysop of AA4ZI Packet BBS in Piketon, Ohio 145.63 mhz.

Brenchef3 <brenchef3@aol.com> wrote in message
news:20010729001540.16971.00000256@ng-xa1.aol.com...
> Greetings!
>
> Can anyone tell me if there is a way to use the MFJ-1278 multimode TNC in
a
> packet BBS configuration?
>
> Also, does anyone have something like the MFJ-1289WD Multi-Comm software
for
> Windows that they could sell me?
>
> Many thanks in advance.
> Bren
> Brenchef3@aol.com

4538. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 15:02:58 UTC
From: "G.p.G. (DS1)" <Furbish@aamerican.com>
Message-ID: <3B6425A1.53E29610@aamerican.com>
Source record: 51235
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

I got one at a Garage Sale two weeks ago
for $1.00.

Jim wrote:

> Our local pawn shops sees a lot of these... they come after the local power
> and phone companies replace the ones used by their linemen.. I pick up two
> for $6.00 each at the local pawn shop..
>
> "Brian" <brian999999@hotmail.com> wrote in message
> news:psH87.4296$0r4.404831@paloalto-snr1.gtei.net...
> > http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138
> >
> >

4539. Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 16:42:40 UTC
From: davecomjkt@yahoo.com
Message-ID: <tm8f80jn4div6c@news.supernews.com>
Source record: 51236

Subject: Help please, JFET Const. Current Design

Fig.-1 below shows a circuit for a JFET Constant
current sink. I have found several sources for the
design equations shown below. But no derivations
for these equations.

I would like to know how to derive the design
equations (eq.1-3 below) for this circuit.
I am familiar with basic circuit analysis and
the low frequency small signal model for JFETS.
(I apologize for the poor ASCII drawing.)

Direct replys with in-group replies (so others
may benefit) are appreciated (my NNTP access
in Jakarta is spotty with poor retention).

Thanks in advance,
Dave in Jakarta, YB0ART/WB4ONA
davecomjkt@yahoo.com

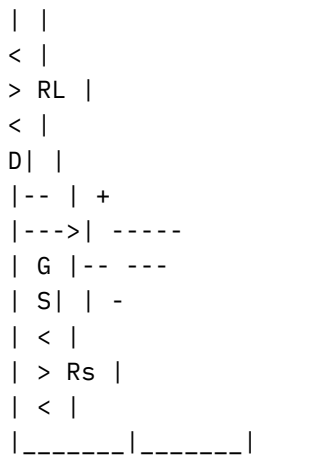

Fig.-1, JFET Constant Current Sink

Design Equations:

Vgs = Vgs(off)*(1-(Id/Idss)^1/2) (eq.1)

Rs = Vgs/Id (eq.2)

Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2) (eq.3)

Notes:

1. "(f)^1/2" denotes "square root of (f)".

4540. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 17:47:40 UTC
From: "Gary M. Belcaster" <gbelcas@pressenter.com>
Message-ID: <gbelcas-C3FF0F.12474029072001@news.charter.net>
Source record: 51237

> >
> > Michael Tracy wrote:
> > >
> > > I bought an optical encoder for an antenna project without realizing
> what
> > > the output would be. There are two TTL outputs with quadrature
> > > phasing,
> > > with the phase dependent upon the direction. While I could probably
> come up
> > > with a circuit to give a directional indication, I'd rather not
> > > reinvent
> the
> > > wheel. A quick web search suggested there are ICs available to do
> > > this
> now.
> > > Only trouble is that I can't seem to find a part number. Anyone know
> > > of
> an
> > > IC for this, or perhaps a circuit with a couple ICs?
> > >
> > > Thanks es 73, Michael, KC1SX

Mike,

US Digital (www.usdigital.com) makes a couple of them. Check out their LS7083 and LS7084. Simple 8-pin DIP solutions (inexpensive as well).

Gary

4541. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 21:46:53 UTC
From: Steve <w3srl@bellatlantic.net>
Message-ID: <3B645A1B.FFE3074C@bellatlantic.net>
Source record: 51238
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Sorry, but my hide is worth a whole lot more than $6.00

I won't climb with a belt that I haven't owned since it was new. I'm pretty
fussy
that way.......

de W3SRL

Jim wrote:

> Our local pawn shops sees a lot of these... they come after the local power
> and phone companies replace the ones used by their linemen.. I pick up two
> for $6.00 each at the local pawn shop..
>
> "Brian" <brian999999@hotmail.com> wrote in message
> news:psH87.4296$0r4.404831@paloalto-snr1.gtei.net...
> > http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138
> >
> >

4542. Re: Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-29 22:32:35 UTC
From: James <jamesf@xxxnec.com.au>
Message-ID: <996446730.99171@busy.neca.nec.com.au>
Source record: 51239

Hi,
may I suggest a video recoreder head. Just the head part not the whole drum,
this was used in a magazine project a while ago. You automatically get a
fine gap and coil already made up.
James.
"Bill Turner" <w7ti@dslextreme.com> wrote in message
news:5oe2mt4c3j94mk48b0678iql96en1ig4cd@4ax.com...
> On Thu, 26 Jul 2001 21:01:54 -0500, Robert Casey <wa2ise@ix.netcom.com>
> wrote:
>
> >Using a toriod with a gap filed into it. See
> >http://www.geocities.com/wa2ise/radios/ham.htm
>
> ----------
>
> On your web page it says:
>
> "It takes a long time to file the gap into the toroid; your needle files
> will get dull. Don't push too hard, as ferrite is fragile. You want a
> narrow gap on the outside part of the ring, so file from the inside. A
> gap about the thickness of a fingernail is good. Depending on the
> ferrite material, this sniffer should be good for HF and VHF."
>
> Might I suggest a Dremel tool with a cut-off wheel instead of a file? I
> haven't actually used one on a ferrite, but those cut-off wheels will
> cut the hardest steel, so ferrite should be a cinch. Worth a try
> anyway.
>
> Bill, W7TI
>
>

4543. Binaural I-Q Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 00:05:47 UTC
From: "Robert S. Bartel" <bobb@ulster.net>
Message-ID: <3B64A500.3B6B997@ulster.net>
Source record: 51240

The March 1999 issue of QST has a Binaural I-Q Receiver. Has anyone built this receiver? What is a source for the "Mini-Circuits" TUF-1, or SBL-1 mixer. Dan seems to be out of them. Also looking for a source of small steel plated chassis as this is Direct-Conversion Receiver.

4544. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 00:15:42 UTC
From: Dan <n7slc@my-deja.com>
Message-ID: <9k2954$962$1@news.xmission.com>
Source record: 51241
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

"Jim" <jim_d69@yahoo.com> wrote in message
news:6ZJ87.65788$w5.7487214@news1.rdc1.ga.home.com...
> Our local pawn shops sees a lot of these... they come after the local
power
> and phone companies replace the ones used by their linemen.. I pick up
two
> for $6.00 each at the local pawn shop..

You know why they replace them? I can think of several reasons. The biggest is that the manufacturer along with MSHA require the harness to be replaced after ANY fall. Thanks, but I'll trust my life to only a NEW harness. You don't know what a used one has been through.

Anyone for Russian Roulette?

Dan
N7SLC

4545. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 00:48:39 UTC
From: rcnixon@mindspring.com
Message-ID: <3b64ae50.3443716@news.mindspring.com>
Source record: 51242
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Nah, they replace them on a timetable. I think that even a cursory
inspection will show worn or broken stitching or worn straps. Use
common sense. Besides, where is your "last chance" belay?

Russ

"Dan" <n7slc@my-deja.com> wrote:

>"Jim" <jim_d69@yahoo.com> wrote in message
>news:6ZJ87.65788$w5.7487214@news1.rdc1.ga.home.com...
>> Our local pawn shops sees a lot of these... they come after the local
>power
>> and phone companies replace the ones used by their linemen.. I pick up
>two
>> for $6.00 each at the local pawn shop..
>
>You know why they replace them? I can think of several reasons. The biggest
>is that the manufacturer along with MSHA require the harness to be replaced
>after ANY fall. Thanks, but I'll trust my life to only a NEW harness. You
>don't know what a used one has been through.
>
>Anyone for Russian Roulette?
>
>Dan
>N7SLC
>
>

4546. Re: 17mtr DSB: receiver refinements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 00:59:00 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <oj297.25847$gj1.2447655@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51243

You are correct on that one, Jim. I should have been more specific, and mentioned to use a diode that has at least a 1.5uS minority carrier lifetime, such as the 1N5767. I know that in the past few years, Unitrode came up with a better device for the .2 to 30MHz range. One of the fellows back at Rockwell-Collins was doing some upgrades to the KWM380s, using the Unitrode device. I need to find out what the part number is, and try it out myself. I have been using the 5767s as steering diodes in my own receivers, but not as AGC devices yet. There was a real neat circuit that was being used in some of the Collins equipment using PIN diodes, and the receivers were able to handle several volts of RF, with no problems. When I left Rockwell-Collins, I left that circuit behind. You know, intellectual property and all!

Jim Pennell <me-nobody@killspam.com> wrote in message news:9k02jtrb1@nntp9.atl.mindspring.net...
> Pete Gianakopoulos KE9OA Wrote:
>
> >You could also use a PIN diode attenuator ahead of the
> >front end. You would vary the attenuation by the amount
> >of current that you run through the PIN diodes
>
> True, PIN diodes make good attenuators in general. They have some
> limits though. They can be overloaded and cause intermod in themselves
> particularly at partial attenuation levels.
>
> Although they are likely to be pretty good in general. They make
great
> hard on-off switches.
>
> ==========
>
> And, due to carrier lifetime limits, the PIN diodes turn a lot closer
to
> regular rectifier diodes below a certain frequency and that is usually
quite
> a few MHz. So, AM broadcast may easily become rectified and add to the
> troubles.
>
> The actual frequency where they start to turn into rectifiers depends
on
> the specs for the particular pin diode, but all of them do it at some
> frequency....
>
> Which is part of why I like passive resistor attenuators. They reduce

> interfering signals at ALL frequencies and you can put them in front of
any
> tuned circuits.
>
> PIN diodes are handy, but they ought to be used after some frequency
> selective tuned circuits to keep them honest. And only at frequencies
> above their carrier lifetimes limit....
>
>
> Jim Pennell
> N6BIU
>
>
>
>
>

4547. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 01:08:21 UTC
From: Jim <jim_d69@yahoo.com>
Message-ID: <9s297.66155$w5.7665245@news1.rdc1.ga.home.com>
Source record: 51244
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

And I won't climb in one that I haven't checked and rechecked to make sure
they are safe.. The six dollar ones work just fine for me but they will be
tossed at the first sign of trouble..

"Steve" <w3srl@bellatlantic.net> wrote in message
news:3B645A1B.FFE3074C@bellatlantic.net...
> Sorry, but my hide is worth a whole lot more than $6.00
>
> I won't climb with a belt that I haven't owned since it was new. I'm
pretty
> fussy
> that way.......
>
> de W3SRL
>
> Jim wrote:
>
> > Our local pawn shops sees a lot of these... they come after the local
power
> > and phone companies replace the ones used by their linemen.. I pick up
two
> > for $6.00 each at the local pawn shop..
> >
> > "Brian" <brian999999@hotmail.com> wrote in message
> > news:psH87.4296$0r4.404831@paloalto-snr1.gtei.net...
> > > http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138
> > >
> > >
>

4548. Re: Binaural I-Q Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 01:38:54 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <OU297.25906$gj1.2451775@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51245

You can buy these mixer directly from Mini-Circuits. Give them a call at
800 654-7949. They should be around 4 or 5 dollars in small quantities.

Pete Gianakopoulos KE9OA

Robert S. Bartel <bobb@ulster.net> wrote in message
news:3B64A500.3B6B997@ulster.net...
> The March 1999 issue of QST has a Binaural I-Q Receiver. Has anyone
> built this receiver? What is a source for the "Mini-Circuits" TUF-1, or
> SBL-1 mixer. Dan seems to be out of them. Also looking for a source of
> small steel plated chassis as this is Direct-Conversion Receiver.
>
>
>

4549. WTD: ICOM 735 service manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 02:02:23 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3b64c018.1497814@news.sprint.ca>
Source record: 51246

if you have a service manual for the ICOM 735 and wish to sell it, or know of how I can get a used copy please contact me. Thanks...

Larry VE6MK
****
to send direct email remove "fake" from address

4550. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 04:20:02 UTC
From: Louis Bybee <louisb@datacomm.com>
Message-ID: <3B64E072.11D01732@datacomm.com>
Source record: 51097
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

How true, but the "tossing" may come by a loved one after "the first
sign of trouble" is a failure where the wearer hit the ground!

Louis

Jim wrote:
>
> And I won't climb in one that I haven't checked and rechecked to make sure
> they are safe.. The six dollar ones work just fine for me but they will be
> tossed at the first sign of trouble..
>
> "Steve" <w3srl@bellatlantic.net> wrote in message
> news:3B645A1B.FFE3074C@bellatlantic.net...
> > Sorry, but my hide is worth a whole lot more than $6.00
> >
> > I won't climb with a belt that I haven't owned since it was new. I'm
> pretty
> > fussy
> > that way.......
> >
> > de W3SRL
> >
> > Jim wrote:
> >
> > > Our local pawn shops sees a lot of these... they come after the local
> power
> > > and phone companies replace the ones used by their linemen.. I pick up
> two
> > > for $6.00 each at the local pawn shop..
> > >
> > > "Brian" <brian999999@hotmail.com> wrote in message
> > > news:psH87.4296$0r4.404831@paloalto-snr1.gtei.net...
> > > > http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1621574138
> > > >
> > > >
> >

4551. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 11:13:19 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3B65414F.D2691C1E@oda.com.au>
Source record: 51098

Jim wrote:
>
> Our local pawn shops sees a lot of these... they come after the local power
> and phone companies replace the ones used by their linemen.. I pick up two
> for $6.00 each at the local pawn shop..

Gee, I haven't seen such narrow belts in use for over 20 years... if you climbed for work with that thing on here in Oz, it would cost thousands in fines for employer and worker.

There is little doubt that a careful visual inspection (for wear, abrasion, damaged fibres, damaged stitching, sun damage, rot, chemical damage, water damage, strained fibres, deformed attachment loops / hooks, proper safety hook function, etc) will indicate whether it is might be suitable to use as a pole belt to lean back on (with the addition of a suitable pole strap)... but the supplied lanyard implies that it is intended as a fall restraint (even if the belt is so narrow as to risk injury in a fall), and that is a whole 'nother kettle of fish.

Ant then there is its heritage. Of course the user of a harness (if I use the term loosely) should condemned it (by cutting it up) if it sustains any fall, it is a bit hard to be certain isn't it?

Owen

BTW, Do you guys still use climbing spikes on your boots for climbing timber poles?

4552. Re: Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 13:44:13 UTC
From: Mike Allenson <mike@allenson.fsnet.co.uk>
Message-ID: <9k3oi9$qa5$1@newsg1.svr.pol.co.uk>
Source record: 51099

I had a go at deriving the equations.

Equation 1 represents the FET as a simple square law device where the drain current is proportional to the square of the gate -source voltage increment above pinch off, eg

Id = K1*(Vgs-Vgs(off))^2 (1a) where K1 is an arbitrary scaling constant.

K1 can be found because Id = Idss at Vgs = 0. Hence:

Idss = K1*(-Vgs(off))^2 (1b)

hence K1 = -Idss/(-Vgs(off)^2 (1c)

and 1a becomes
Id = (Idss/(-Vgs(off)^2)*(Vgs-Vgs(off))^2 (1d)

rearranging to give Vgs as the dependent variable, gives:

Vgs = Vgs(off)*(1 - (Id/Idss)^1/2) (1e)

Which is Eq 1

Equation 2 simply represents the fact that in the circuit Vgs equals the voltage drop across the source resistor.

Equation 3 substitutes for Vgs in eq 1 from equation 2 to give the design equation for the Rs for a required Id.

Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2)

(N.B holding on to the -ve sign for Vgs(off) in eq 1b and onward may seem strange given the term is squared. This makes sure that the Vgs range over which the model is valid ie only for Vgs between Vgs(off) and 0 is maintained.)
I hope this is helpful.

Mike G3TGD
mike@allenson.fsnetnospam.co.uk

"DaveCom - Jakarta" <davecomjkt@yahoo.com> wrote in message
news:tm8f80jn4div6c@news.supernews.com...
>
> Subject: Help please, JFET Const. Current Design
>
> Fig.-1 below shows a circuit for a JFET Constant
> current sink. I have found several sources for the
> design equations shown below. But no derivations

> for these equations.
>
> I would like to know how to derive the design
> equations (eq.1-3 below) for this circuit.
> I am familiar with basic circuit analysis and
> the low frequency small signal model for JFETS.
> (I apologize for the poor ASCII drawing.)
>
> Direct replys with in-group replies (so others
> may benefit) are appreciated (my NNTP access
> in Jakarta is spotty with poor retention).
>
> Thanks in advance,
> Dave in Jakarta, YB0ART/WB4ONA
> davecomjkt@yahoo.com
>
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>
> Fig.-1, JFET Constant Current Sink
>
>
> Design Equations:
>
> Vgs = Vgs(off)*(1-(Id/Idss)^1/2) (eq.1)
>
> Rs = Vgs/Id (eq.2)
>
> Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2) (eq.3)
>
>
> Notes:
>
> 1. "(f)^1/2" denotes "square root of (f)".
>
>
>

4553. Re: Easy to build RFI sniffer, web page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 14:09:40 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <9k3pkkgnf1@bob.news.rcn.net>
Source record: 51100

When you modify those walkie talkies, what do you do with the antennas to them? I am assuming you replace them with other ones or antenna connectors. Any suggestions? That looks like a neat project.....

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message news:3B60CB92.23C182B2@ix.netcom.com...
> Using a toriod with a gap filed into it. See
> http://www.geocities.com/wa2ise/radios/ham.htm
>

4554. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 14:33:12 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <brramt8lk7d6a4fmtpsgk7fg515g8m4iq8@4ax.com>
Source record: 51101
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

On Sun, 29 Jul 2001 21:20:02 -0700, Louis Bybee <louisb@datacomm.com>
wrote:

>How true, but the "tossing" may come by a loved one after "the first
>sign of trouble" is a failure where the wearer hit the ground!

If the "first sign of trouble" is an accident, then someone has not been
looking for trouble like they should; i.e. inspecting the safety belt
and lanyard before each use. This kind of equipment is designed so that
defects are readily apparent, but you do have to take a moment and look
for them.

Bill, W7TI

4555. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 15:43:46 UTC
From: jerko@mac.com
Message-ID: <1exa5zx.m78eoietlsldN%jerko@mac.com>
Source record: 51102

Glenn C. Lasher Jr. <glasher@nycap.rr.com> wrote:

> WARNING: This project can be dangerous. Please work carefully, and fully
> understand the entire thing before you begin. If you blow yourself up
> from ignorance, I take no responsibility. I am willing to answer
> questions, so if you have them, ask.
... snip ....

There may be a lot of Darwin Award nominees.
This really sounds dangerous to me.

> - Do not use a nonpolar electrolytic cap for this task--it doesn't have
> enough heat-dissipation capability. Get an older-style oil-filled cap.
> It is a lot larger, but it isn't going to blow up on you.

Main thing about cap - it should be AC motor work capacitor (NOT START,
START CAPACITOR ***WILL BLOW*** in your face).
Such capacitor can stand a bit of everything such as asynchronuos
generator reactive excitation and substituting phase when running
3-phase motor on single phase network (approx. 10uF per 100W of power),
Power factor correction capacitors are also good.
Any X2 (Across Network) type is good (it can stand its own reactive
current, with battery it will be smaller) provided that you can build
sufficent capacitance (they are smaller).

Using variac is definitely safer, also using ballast inductors may help.

But anyway, this is QUITE dangerous as I can see. If capacitor melts in
short circuit and you are not properly fused you may get "little"
incident with battery.

From what I can see switching reactance produces delta pulses which
cause battery to ring on its own frequency (as described in desulfator
mentioned earlier) just feeding more energy into it. I prefer slower
process done by desulfator. This may cause overload and overheat of
desulfated part of plate.

But anyway I have spare badly sulphated battery available. As soon as
somebody stays with me (SAFETY SAYS:do not do such things alone) I will
try it.

4556. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 16:22:47 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107300822.59057ffe@posting.google.com>
Source record: 51103

"GTBecker@RighTime.com" <gtbecker@rightime.com> wrote in message
news:<2p287.53675$aW5.709208@dfw-read.news.verio.net>...
> > ... about five lines of code on a Basic Stamp...
>
> Love to see that code. How fast can the Stamp track motion?

Here's the main loop, plus supporting definitions:

```
Symbol EncoderI = Bit0
Symbol EncoderQ = Bit1
Symbol TurnTest = Bit2
Symbol InputI = Pin1
Symbol InputQ = Pin2

StartHere:
gosub DDSInit

MainLoop:
EncoderI = InputI
EncoderQ = InputQ

BusyWait:
if EncoderI = InputI and EncoderQ = InputQ then BusyWait

TurnTest = InputQ ^ EncoderI
if TurnTest = 0 then LoopUp
goto LoopDown

LoopUp:
gosub DDSUp
goto MainLoop

LoopDown:
gosub DDSDown
goto MainLoop
```

As for speed, it was more than fast enough driving a
Q2220 DDS chip (parallel input) through an interface
wire-wrapped from TTL logic chips (long gone, so please
don't ask for schematics). An earlier version didn't
read the encoder at the top of the loop and sometimes
got confused when it missed transitions.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4557. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 18:04:39 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <nc8bmt41vg5f6uql3uhelcadtretdrfftr@4ax.com>
Source record: 51104

On Mon, 30 Jul 2001 17:43:46 +0200, jerko@mac.com (Jerko Golubovic)
wrote:

>can stand a bit of everything such as asynchronuos
>generator reactive excitation

Reminds me of an ex-girlfriend....

W7TI

4558. FS: Tower, TA-33, Rotor $400

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 18:12:20 UTC
From: nfn04028@naples.net
Message-ID: <90EE9DA28marty1225earthlinkne@207.217.77.26>
Source record: 51105
Cross-posted to: alt.ham-radio.marketplace,rec.radio.swap,rec.radio.amateur.homebrew

54ft Tristao (United) crankup, Mosely TA-33 Tribander, CDE Ham II Rotor;
with cables, hardware and approx. 200ft new RG-8.

All in good working condition and currently in use.

ALL FOR ONLY $400!

The catch? Buyer must take down; located near New
Haven, CT.

Please e-mail any questions.

Marty, K1FHR.

4559. Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 18:38:56 UTC
From: Dale Rice <rice@starband.net>
Message-ID: <4Rh97.257$Yi1.117866609@twister1.starband.net>
Source record: 51106

No wonder she's an "ex".
"Hi honey.Glad you could come over, let's go de-sulfate some old car batteries"

Dale
KC7YKU

"Bill Turner" <w7ti@dslextreme.com> wrote in message
news:nc8bmt41vg5f6uql3uhelcadtretdrfftr@4ax.com...
> On Mon, 30 Jul 2001 17:43:46 +0200, jerko@mac.com (Jerko Golubovic)
> wrote:
>
> >can stand a bit of everything such as asynchronuos
> >generator reactive excitation
>
> --
>
> Reminds me of an ex-girlfriend....
>
> W7TI

4560. Testing a 205-D on a TV-7D/U tester

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-30 20:18:36 UTC
From: azkb7ryu@aztec.asu.edu
Message-ID: <9k4fes$t41$1@news.asu.edu>
Source record: 51107

Hello,

I am looking for information on how to test a
Western Electric 205-D in a TV-7D/U tube tester.

I have data for how to test a 205-F tube but don't
know the differences, if any, between to two tubes.

Any help is greatly appreciated.

Thanks.

Joel
--

4561. Re: Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 10:29:57 UTC
From: davecomjkt@yahoo.com
Message-ID: <tmd2556pto7cd4@news.supernews.com>
Source record: 51108

Thanks Mike for your reply. I took a look at this a bit closer. I derived the equation for Rs directly from the equation for the FET Vgs vs. Id transfer function:

Write the equation that defines the FET
Vgs vs. Id transfer function:

Id = Idss[1-Vgs/Vgs(off)]^2 (1)

Solving eq. (1) for Vgs:

Vgs = Vgs(off)[1-(Id/Idss)^1/2] (2)

Now, Vgs = IdRs (3)

Solving eq. (3) for Rs yields:

Rs = Vgs/Id (4)

Combining eq.'s (2) & (4) we obtain an
expression for Rs in terms of Id:

Rs = (Vgs(off)/Id)[1-(Id/Idss)^1/2] (5)

Best Regards, Dave

==========

"Mike Allenson" <mike@allenson.fsnet.co.uk> wrote:
>I had a go at deriving the equations.
>
>Equation 1 represents the FET as a simple square law device where the drain
>current is proportional to the square of the gate -source voltage increment
>above pinch off, eg
>
>Id = K1*(Vgs-Vgs(off))^2 (1a) where K1 is an arbitrary
>scaling constant.
>
>K1 can be found because Id = Idss at Vgs = 0. Hence:
>
>Idss = K1*(-Vgs(off))^2 (1b)
>
>hence K1 = -Idss/(-Vgs(off)^2 (1c)
>
>and 1a becomes
>Id = (Idss/(-Vgs(off)^2)*(Vgs-Vgs(off))^2 (1d)
>
>rearranging to give Vgs as the dependent variable, gives:

>
>Vgs = Vgs(off)*(1 - (Id/Idss)^1/2) (1e)
>
>Which is Eq 1
>
>Equation 2 simply represents the fact that in the circuit Vgs equals the
>voltage drop across the source resistor.
>
>Equation 3 substitutes for Vgs in eq 1 from equation 2 to give the design
>equation for the Rs for a required Id.
>
>Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2)
>
>(N.B holding on to the -ve sign for Vgs(off) in eq 1b and onward may seem
>strange given the term is squared. This makes sure that the Vgs range over
>which the model is valid ie only for Vgs between Vgs(off) and 0 is
>maintained.)
>I hope this is helpful.
>
>Mike G3TGD
>mike@allenson.fsnetnospam.co.uk
>
>"DaveCom - Jakarta" <davecomjkt@yahoo.com> wrote in message
>news:tm8f80jn4div6c@news.supernews.com...
>>
>> Subject: Help please, JFET Const. Current Design
>>
>> Fig.-1 below shows a circuit for a JFET Constant
>> current sink. I have found several sources for the
>> design equations shown below. But no derivations
>> for these equations.
>>
>> I would like to know how to derive the design
>> equations (eq.1-3 below) for this circuit.
>> I am familiar with basic circuit analysis and
>> the low frequency small signal model for JFETS.
>> (I apologize for the poor ASCII drawing.)
>>
>> Direct replys with in-group replies (so others
>> may benefit) are appreciated (my NNTP access
>> in Jakarta is spotty with poor retention).
>>
>> Thanks in advance,
>> Dave in Jakarta, YB0ART/WB4ONA
>> davecomjkt@yahoo.com
>>
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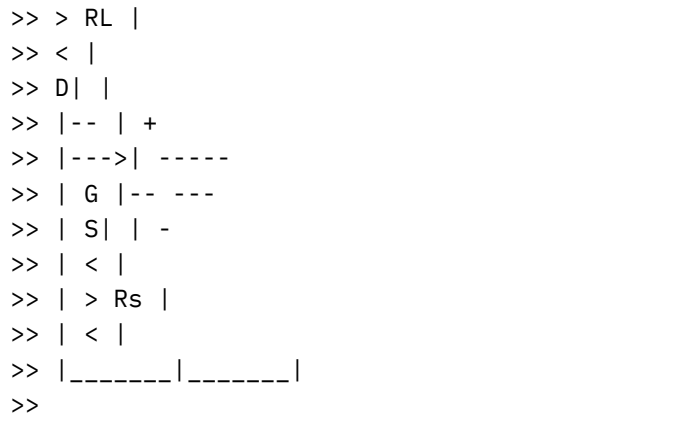

Fig.-1, JFET Constant Current Sink

Design Equations:

Vgs = Vgs(off)*(1-(Id/Idss)^1/2) (eq.1)

Rs = Vgs/Id (eq.2)

Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2) (eq.3)

Notes:

1. "(f)^1/2" denotes "square root of (f)".

4562. Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 11:15:36 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B669358.33DC412C@nf.sympatico.ca>
Source record: 51109

J M Noeding wrote:
> you only needed half amount of cells for a British car......

Terry says: PRESUMING YOU MEAN 6 VOLT?
Not the British cars we had!
Many have always been 12 volt. Until about 1958 my family had a couple of 1930s Lanchesters that were 12.
Six volt may have been used in the small British Fords and maybe some Vauxhalls? Both these companies being US subsidiaries?
Also I do have a vague memory of some twelve volt vehicles with positive to ground (as opposed to today's normal negative to ground/chassis) system. This meant some auto radios had options for either polarity IIRC. Anyone remember this?
The reverse in fact; when I arrived in Canada in the mid 1950s all older US/Canadian vehicles were six volt. Today most vehicles are twelve, or in some cases twenty four. Rarely but still see the occasional six volt old car radio at junk sales.
BTW twelve volt CBs in twenty four volt transport trucks eh? Then they wonder why they don't last!
The only six volt car we ever had was one which had been retrofitted with a 1938 Bedford straight six engine. Bedford was the equivalent of GMC (General Motors). The six volt system of course meant that the current was twice what it was with the original twelve volt system and the wiring was inadequate! So I rewired the whole vehicle, which was incidentally a 1926 Daimler hearse we used for camping, using war surplus items. The cabling to a rear terminal block had a braided cover and was from a British armoured vehicle; the headlight switch was from a US transmitter tuning unit etc.etc. Great fun!
Incidentally I borrowed a much used GMC pickup, a straight six with column shift, during the 1970s and opening the hood to disentangle the shift linkage found that the valve cover of the engine looked identical to that of the 1938 Bedford that I had worked on 20 years earlier!

4563. Info CI-V or DB25 Interface for IC271H

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 12:52:21 UTC
From: Wilfried Philippi <wph@gmx.net>
Message-ID: <3B66AA05.12F686A0@gmx.net>
Source record: 51110

Hello,
i get an used Transceiver IC271H with no Interface. Has anyone Infos
about the CI-V Interface or the V24 Interface
for this Transceiver? I'm an electronic technican an can build the
Interface itself but i don't have schematics.
Thank you
Wilfried DB8FE

4564. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 12:59:24 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <bkadmt43nugqvmleb556tepojld1dbgdrd@4ax.com>
Source record: 51111

On Tue, 31 Jul 2001 08:45:36 -0230, Terry S <tsanford@nf.sympatico.ca>
wrote:

>Also I do have a vague memory of some twelve volt vehicles with positive
>to ground (as opposed to today's normal negative to ground/chassis)
>system. This meant some auto radios had options for either polarity
>IIRC. Anyone remember this?

My very first job, back in 1959, was repairing car radios. I do recall
cars with six volt, positive ground systems, but can't recall 12 volt,
at least not in the USA.

It was not unusual for someone to bring their car in because the radio
wasn't working and I'd find they had just replaced the battery and put
it in backwards. Oddly, everything in the car worked ok with the
reversed polarity - gauges, starter, other motors, etc, - but not the
radio. I'd reverse the battery, replace the fuse and off they went.

Hadn't thought about that in years, but there you are.

73, Bill W7TI

4565. Tayloe Detector / Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 13:01:41 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9k6a89$2n6qe$1@ID-61331.news.dfncis.de>
Source record: 51112

I'm interested in views on the following questions.

Considering a receiver consisting of input tuned circuit, Tayloe detector, polyphase audio phasing network, and audio filterting/amplification:

1. Is an RF amp necessary/desirable ahead of the Tayloe detector? Or am I right in thinking that you want to minimise IMD products by doing all amplification after the detector?

2. Sometimes people use 2x clocking, sometimes 4x clocking. Presumably if you use 2x it is important to get an exact mark/space ration of 1, which could be difficult, particularly in a multiband receiver. Is the 4x clocked version therefore always superior to any 2x clock design?

3. I have seen a few circuits using the Tayloe detector followed by a phasing network. In some cases, people subtract the Tayloe 0 and 180 outputs, and the 90 and 270 outputs ahead of the phasing network. E.g. "QRP2001 Receiver" in Sprat #101. Why? Why not simply feed each of the 4 Tayloe outputs directly into the polyphase network as in G3OGW's 4-path Polyphase D-C receiver (Tech Topics, RadCom May2001). The 4-path method is said to give big improvements over 2-path by cancelling the unwanted sideband inside the polyphase network, this reducing errors / component tolerance sensitivity.

4. Is amplification needed between the Tayloe detector and the phasing network? I understand the input to the phasing network should be low impedance, and the phasing network likes to drive a high impedance load at its other end. So can one just put 4 unity-gain low noise op-amps before and again after the phasing network? In that case all the gain in the receiver would be in the subsequent AF stages.

5. On the subject of the phasing network itself, all phasing networks I've seen use a fixed value of resistor in every stage, with different capacitance values in each stage. Since close-tolerance resistors are a lot more easily obtainable than close-tolerance capacitors, doesn't it make more sense to use identical value capacitors throughout the network? Then you can buy a large number of the same capacitors, and select close matching sets of 4 for each stage.

73's

Hans Summers, G0UPL G-QRP #7802

4566. Rig Builders GE Ham News (1-48) is now on K4XL's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 13:18:22 UTC
From: John Dilks <oldradio@worldnet.att.net>
Message-ID: <3B66AF3A.69B6@worldnet.att.net>
Source record: 51113

To all,

Rig Builders GE Ham News (1-48) is now on K4XL's
-=Boat Anchor Manual Archive=- (BAMA).

http://bama.sbc.edu/

This 1948 issue of GE Ham News has great charts for comparing various
tubes
and circuits for Drivers, RF Amps and Modulators. This is needed if you
are considering building a new-old rig, or working on an old homebrew.
I
found it in an old estate and thought the information was needed. I
scanned it at 300 dpi for good resolution in printing. It's 565kb, for
all
8 pages. It prints and looks good at 8-1/2 x 11".

(Note the directory at BAMA might change. ???? Right now it's on:

ftp://bama.sbc.edu/downloads/ge/hamnews/ Click on 1-48.pdf

exact link is ftp://bama.sbc.edu/downloads/ge/hamnews/1-48.pdf

73' John Dilks, K2TQN

4567. Future Supply of Motorola RF Transistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 13:29:24 UTC
From: chris@kessell.com
Message-ID: <c83ba15.0107310529.7b66724e@posting.google.com>
Source record: 51114

Motorola recently sold a chunk of their RF transistor portfolio to M/A-COM, including the very useful MRF141G/MRF151G 300W power transistors, and no longer provide any support for them (all datasheets etc. have been erased from their website). It is also unclear whether M/A-COM are going to bother to continue making these parts.

Can anyone shed any more light on the situation, or knows of any good alternatives to the MRF141G/MRF151G devices?

Chris

4568. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 13:55:48 UTC
From: JoeBramblett.nospam@drunkenbard.com
Message-ID: <28927D76B954A6AF.B0D3D255923E6C3F.5A8D7482BB867E9A@lp.airnews.net>
Source record: 51115

Terry S <tsanford@nf.sympatico.ca> wrote in
<3B669358.33DC412C@nf.sympatico.ca>:

>Also I do have a vague memory of some twelve volt vehicles with positive
>to ground (as opposed to today's normal negative to ground/chassis)
>system. This meant some auto radios had options for either polarity
>IIRC. Anyone remember this?

The old Johnson Messenger CB I used for a while had a lug for 12V positive
ground.

4569. Re: Future Supply of Motorola RF Transistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 15:37:57 UTC
From: Rick Karlquist <richard@karlquistqrm.com>
Message-ID: <phA97.18114$Kd7.10725781@news1.rdc1.sfba.home.com>
Source record: 51116

Microsemi, ST Micro, PolyFET, Advanced Semiconductor, Philips, Advanced Power Technology.

Is that enough alternatives?

Chris Kessell <chris@kessell.com> wrote in message news:c83ba15.0107310529.7b66724e@posting.google.com...
> Motorola recently sold a chunk of their RF transistor portfolio to
> M/A-COM, including the very useful MRF141G/MRF151G 300W power
> transistors, and no longer provide any support for them (all
> datasheets etc. have been erased from their website). It is also
> unclear whether M/A-COM are going to bother to continue making these
> parts.
>
> Can anyone shed any more light on the situation, or knows of any good
> alternatives to the MRF141G/MRF151G devices?
>
> Chris

4570. Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 18:09:45 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <XP4WQEApRvZ7EwPa@langwang.demon.co.uk>
Source record: 51118

Does any member of the newsgroup know of a (preferably uk) supplier of
fine (22swg or thinner) nicrome wire ?
--
Dick
GM0MNL

4571. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 18:50:09 UTC
From: Znospam+noZs_0107@hpb13799Z.Zboi.hpZ.com.invalid
Message-ID: <slrn9mdrm5.1ls.Znospam+noZs_0107@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 51117

On Tue, 31 Jul 2001 08:45:36 -0230, Terry S <tsanford@nf.sympatico.ca> wrote:
> The only six volt car we ever had was one which had been retrofitted
> with a 1938 Bedford straight six engine. Bedford was the equivalent of
> GMC (General Motors). The six volt system of course meant that the
> current was twice what it was with the original twelve volt system and
> the wiring was inadequate! So I rewired the whole vehicle, which was

Wow... Seems like it would have been far easier to convert to a 12v
system. Usually those conversions aren't too involved. Of course,
the more electronics the more interesting the conversion. :)

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
"Don't Tread On Me!"

4572. Re: Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 18:50:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B66FDF1.A7189AE4@eznec.com>
Source record: 51119

The only problem with using this circuit and this approach is that you have to know the Vgs(off) and Idss for the particular transistor being used. Both these parameters typically have a wide tolerance (sometimes a 10:1 ratio for Idss) for a given part number. If you're going to build a single unit, you might as well just tweak on the resistor value since it's easier than measuring Vgs(off) and Idss. If you're going to make a lot of units, you'll have to measure each individual transistor, and use a different resistor for each one, or start with a big pile of transistors and select devices for a narrow range of the important parameters. When designing circuits for mass produced products, I've never used a FET for a current source because of this problem, but a bipolar transistor circuit instead.

Roy Lewallen, W7EL

DaveCom wrote:
>
> Thanks Mike for your reply. I took a look at this a bit closer. I derived the
> equation for Rs directly from the equation for the FET Vgs vs. Id transfer
> function:
>
> Write the equation that defines the FET
> Vgs vs. Id transfer function:
>
> Id = Idss[1-Vgs/Vgs(off)]^2 (1)
>
> Solving eq. (1) for Vgs:
>
> Vgs = Vgs(off)[1-(Id/Idss)^1/2] (2)
>
> Now, Vgs = IdRs (3)
>
> Solving eq. (3) for Rs yields:
>
> Rs = Vgs/Id (4)
>
> Combining eq.'s (2) & (4) we obtain an
> expression for Rs in terms of Id:
>
> Rs = (Vgs(off)/Id)[1-(Id/Idss)^1/2] (5)
>
> Best Regards, Dave
>
> ==========
>

> "Mike Allenson" <mike@allenson.fsnet.co.uk> wrote:
> >I had a go at deriving the equations.
> >
> >Equation 1 represents the FET as a simple square law device where the drain
> >current is proportional to the square of the gate -source voltage increment
> >above pinch off, eg
> >
> >Id = K1*(Vgs-Vgs(off))^2 (1a) where K1 is an arbitrary
> >scaling constant.
> >
> >K1 can be found because Id = Idss at Vgs = 0. Hence:
> >
> >Idss = K1*(-Vgs(off))^2 (1b)
> >
> >hence K1 = -Idss/(-Vgs(off)^2 (1c)
> >
> >and 1a becomes
> >Id = (Idss/(-Vgs(off)^2)*(Vgs-Vgs(off))^2 (1d)
> >
> >rearranging to give Vgs as the dependent variable, gives:
> >
> >Vgs = Vgs(off)*(1 - (Id/Idss)^1/2) (1e)
> >
> >Which is Eq 1
> >
> >Equation 2 simply represents the fact that in the circuit Vgs equals the
> >voltage drop across the source resistor.
> >
> >Equation 3 substitutes for Vgs in eq 1 from equation 2 to give the design
> >equation for the Rs for a required Id.
> >
> >Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2)
> >
> >(N.B holding on to the -ve sign for Vgs(off) in eq 1b and onward may seem
> >strange given the term is squared. This makes sure that the Vgs range over
> >which the model is valid ie only for Vgs between Vgs(off) and 0 is
> >maintained.)
> >I hope this is helpful.
> >
> >Mike G3TGD
> >mike@allenson.fsnetnospam.co.uk
> >
> >"DaveCom - Jakarta" <davecomjkt@yahoo.com> wrote in message
> >news:tm8f80jn4div6c@news.supernews.com...
> >>
> >> Subject: Help please, JFET Const. Current Design
> >>
> >> Fig.-1 below shows a circuit for a JFET Constant
> >> current sink. I have found several sources for the
> >> design equations shown below. But no derivations

> >> for these equations.
> >>
> >> I would like to know how to derive the design
> >> equations (eq.1-3 below) for this circuit.
> >> I am familiar with basic circuit analysis and
> >> the low frequency small signal model for JFETS.
> >> (I apologize for the poor ASCII drawing.)
> >>
> >> Direct replys with in-group replies (so others
> >> may benefit) are appreciated (my NNTP access
> >> in Jakarta is spotty with poor retention).
> >>
> >> Thanks in advance,
> >> Dave in Jakarta, YB0ART/WB4ONA
> >> davecomjkt@yahoo.com
> >>
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> >> Fig.-1, JFET Constant Current Sink
> >>
> >>
> >> Design Equations:
> >>
> >> Vgs = Vgs(off)*(1-(Id/Idss)^1/2) (eq.1)
> >>
> >> Rs = Vgs/Id (eq.2)
> >>
> >> Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2) (eq.3)
> >>
> >>
> >> Notes:
> >>
> >> 1. "(f)^1/2" denotes "square root of (f)".
> >>
> >>
> >>
> >>

4573. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 18:56:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B66FF6F.BD8EADAB@eznec.com>
Source record: 51120

Chrysler products had a positive ground up at least into the '50s. I know GM cars were always negative ground, and I believe Fords were too. I vaguely recall that some British Leyland cars of the '60s -- MG, Austin, and so forth, had positve ground, but I might be wrong about that. And I had exactly the same experience as Bill -- a radio that didn't work, and which had a blown Ge PNP output transistor. It was in a Chevy Corvair which had a recently replaced, reversed, battery. Most of the gauges didn't work (I don't think it had many), but it started and ran.

Roy Lewallen, W7EL

Bill Turner wrote:
>
> On Tue, 31 Jul 2001 08:45:36 -0230, Terry S <tsanford@nf.sympatico.ca>
> wrote:
>
> >Also I do have a vague memory of some twelve volt vehicles with positive
> >to ground (as opposed to today's normal negative to ground/chassis)
> >system. This meant some auto radios had options for either polarity
> >IIRC. Anyone remember this?
>
> --
>
> My very first job, back in 1959, was repairing car radios. I do recall
> cars with six volt, positive ground systems, but can't recall 12 volt,
> at least not in the USA.
>
> It was not unusual for someone to bring their car in because the radio
> wasn't working and I'd find they had just replaced the battery and put
> it in backwards. Oddly, everything in the car worked ok with the
> reversed polarity - gauges, starter, other motors, etc, - but not the
> radio. I'd reverse the battery, replace the fuse and off they went.
>
> Hadn't thought about that in years, but there you are.
>
> 73, Bill W7TI

4574. Coax coil?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 19:57:45 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B670DB9.8237A30B@nf.sympatico.ca>
Source record: 51121

I recall a magazine article about oscillator circuits which used
specific lengths of coax as the frequency determining item. Instead of
coil-capacitor resonant circuit.
The article mentioned the formula e.g. a quarter wave open circuit or a
quarter wave short circuited at 'far end' etc.
A trimming capacitor was mentioned too which could vary the frequency
slightly, IIRC.
Any one recall this or be able to give a source of info?
Terry.

4575. Re: Binaural I-Q Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 20:05:48 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107311205.316e12e4@posting.google.com>
Source record: 51122

"Pete Gianakopoulos" <n.gianakopoulos@worldnet.att.net> wrote in message
news:<OU297.25906$gj1.2451775@bgtnsc05-news.ops.worldnet.att.net>...
> You can buy these mixer directly from Mini-Circuits. Give them a call at
> 800 654-7949. They should be around 4 or 5 dollars in small quantities.

The last SBL-1s I bought came from RF Parts.

Lots of places carry these things.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4576. Re: Future Supply of Motorola RF Transistors?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 20:18:12 UTC
From: la8ak@online.no
Message-ID: <3b66f8b6.164859064@news.online.no>
Source record: 51123

while it was usually easy to obtain devices from Motorola
representative, this is not the case for Philips, at least not for
amateur radio applications, and prices would therefore often be
substantially higher

73
jm
LA8AK

On Tue, 31 Jul 2001 15:37:57 GMT, "Rick Karlquist"
<richard@karlquistqrm.com> wrote:

>Microsemi, ST Micro, PolyFET, Advanced Semiconductor, Philips, Advanced
>Power Technology.
>
>Is that enough alternatives?
>
>
>Chris Kessell <chris@kessell.com> wrote in message
>news:c83ba15.0107310529.7b66724e@posting.google.com...
>> Motorola recently sold a chunk of their RF transistor portfolio to
>> M/A-COM, including the very useful MRF141G/MRF151G 300W power
>> transistors, and no longer provide any support for them (all
>> datasheets etc. have been erased from their website). It is also
>> unclear whether M/A-COM are going to bother to continue making these
>> parts.
>>
>> Can anyone shed any more light on the situation, or knows of any good
>> alternatives to the MRF141G/MRF151G devices?
>>
>> Chris
>
>

4577. Re: Six/Twelve? Was Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 20:27:55 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B6714CB.B327DB58@nf.sympatico.ca>
Source record: 51124

Sylvan Butler wrote:
> Wow... Seems like it would have been far easier to convert to a 12v
> system.
Sylvan:
These days yes it would be. But back in the late 1940s with a vehicle that had had it's original sleeve valve engine removed and a 1938 Bedford straight six stuck in, so it could be kept going as an ambulance and hearse during the blitz (air raids), no!
Back then most North American vehicles were still six volt; at least those we saw in the UK. And you have no idea of the shortages and the rationing that we had to endure even years after W.W.II.
God Bless Uncle Sam for the 'Marshall Plan' though.
BTW we used to hand crank the Bedford because the one an only six volt battery we had was flaky! Happy times!
Terry.

4578. Re: Coax coil?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 21:55:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B672941.521B763C@eznec.com>
Source record: 51125

An open circuited quarter wave line or shorted half wavelength line looks like a series resonant circuit, and a short circuited quarter wave or open circuited half wavelength line like a parallel resonant circuit. You can replace part of an open line with a variable C to make it adjustable. There are two down sides to this approach. One is that the lines are "re-entrant" -- unlike lumped constant resonant circuits, they become resonant again at odd harmonics. So there's a possibility that an oscillator will oscillate at one or more of those other resonant frequencies. The other down side is that the Q of transmission line resonators is mediocre at best. This means you won't be able to make an oscillator with good phase noise characteristics, and probably not with good frequency stability, using transmission line resonators. Still, it's a useful technique under some conditions. I've used transmission line resonators for a 6 GHz power oscillator in a low power motion detecting radar. Phase noise and stability weren't a problem, microstrip transmission lines are small and cheap, and alternative approaches were a lot more expensive.

Roy Lewallen, W7EL

Terry S wrote:
>
> I recall a magazine article about oscillator circuits which used
> specific lengths of coax as the frequency determining item. Instead of
> coil-capacitor resonant circuit.
> The article mentioned the formula e.g. a quarter wave open circuit or a
> quarter wave short circuited at 'far end' etc.
> A trimming capacitor was mentioned too which could vary the frequency
> slightly, IIRC.
> Any one recall this or be able to give a source of info?
> Terry.

4579. Re: Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 22:11:34 UTC
From: Mike Allenson <mike@allenson.fsnet.co.uk>
Message-ID: <9k7almuub1@newsg4.svr.pol.co.uk>
Source record: 51126

I agree. It's also possible to use an adjustable voltage regulator eg LM317 to
provide a constant current supply. Only one resistor R is needed in addition to the LM317 and the design equation is simple and reasonably accurate: R=1.2/I where I is the required current. (See for example the Texas Instruments Linear circuits data book v3 -1989 or no doubt other application notes for this and similar regulators). The regulators are available with max current ratings from I think 100 mA to at least an Amp or more and the cost is low.

Supply +ve to the regulator input (node 1), regulator output to the resistor R (node 2), regulator adjust terminal to the other terminal of R (node 3) with the load connected from node 3 to the power supply ground.

Mike G3TGD

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:3B66FDF1.A7189AE4@eznec.com...
> The only problem with using this circuit and this approach is that you
> have to know the Vgs(off) and Idss for the particular transistor being
> used. Both these parameters typically have a wide tolerance (sometimes a
> 10:1 ratio for Idss) for a given part number. If you're going to build a
> single unit, you might as well just tweak on the resistor value since
> it's easier than measuring Vgs(off) and Idss. If you're going to make a
> lot of units, you'll have to measure each individual transistor, and use
> a different resistor for each one, or start with a big pile of
> transistors and select devices for a narrow range of the important
> parameters. When designing circuits for mass produced products, I've
> never used a FET for a current source because of this problem, but a
> bipolar transistor circuit instead.
>
> Roy Lewallen, W7EL
>
> DaveCom wrote:
> >
> > Thanks Mike for your reply. I took a look at this a bit closer. I
derived the
> > equation for Rs directly from the equation for the FET Vgs vs. Id
transfer
> > function:
> >
> > Write the equation that defines the FET
> > Vgs vs. Id transfer function:
> >
> > Id = Idss[1-Vgs/Vgs(off)]^2 (1)

> >
> > Solving eq. (1) for Vgs:
> >
> > Vgs = Vgs(off)[1-(Id/Idss)^1/2] (2)
> >
> > Now, Vgs = IdRs (3)
> >
> > Solving eq. (3) for Rs yields:
> >
> > Rs = Vgs/Id (4)
> >
> > Combining eq.'s (2) & (4) we obtain an
> > expression for Rs in terms of Id:
> >
> > Rs = (Vgs(off)/Id)[1-(Id/Idss)^1/2] (5)
> >
> > Best Regards, Dave
> >
> > ==========
> >
> > "Mike Allenson" <mike@allenson.fsnet.co.uk> wrote:
> > >I had a go at deriving the equations.
> > >
> > >Equation 1 represents the FET as a simple square law device where the
drain
> > >current is proportional to the square of the gate -source voltage
increment
> > >above pinch off, eg
> > >
> > >Id = K1*(Vgs-Vgs(off))^2 (1a) where K1 is an arbitrary
> > >scaling constant.
> > >
> > >K1 can be found because Id = Idss at Vgs = 0. Hence:
> > >
> > >Idss = K1*(-Vgs(off))^2 (1b)
> > >
> > >hence K1 = -Idss/(-Vgs(off)^2 (1c)
> > >
> > >and 1a becomes
> > >Id = (Idss/(-Vgs(off)^2)*(Vgs-Vgs(off))^2 (1d)
> > >
> > >rearranging to give Vgs as the dependent variable, gives:
> > >
> > >Vgs = Vgs(off)*(1 - (Id/Idss)^1/2) (1e)
> > >
> > >Which is Eq 1
> > >
> > >Equation 2 simply represents the fact that in the circuit Vgs equals
the
> > >voltage drop across the source resistor.

> > >
> > >Equation 3 substitutes for Vgs in eq 1 from equation 2 to give the
design
> > >equation for the Rs for a required Id.
> > >
> > >Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2)
> > >
> > >(N.B holding on to the -ve sign for Vgs(off) in eq 1b and onward may
seem
> > >strange given the term is squared. This makes sure that the Vgs range
over
> > >which the model is valid ie only for Vgs between Vgs(off) and 0 is
> > >maintained.)
> > >I hope this is helpful.
> > >
> > >Mike G3TGD
> > >mike@allenson.fsnetnospam.co.uk
> > >
> > >"DaveCom - Jakarta" <davecomjkt@yahoo.com> wrote in message
> > >news:tm8f80jn4div6c@news.supernews.com...
> > >>
> > >> Subject: Help please, JFET Const. Current Design
> > >>
> > >> Fig.-1 below shows a circuit for a JFET Constant
> > >> current sink. I have found several sources for the
> > >> design equations shown below. But no derivations
> > >> for these equations.
> > >>
> > >> I would like to know how to derive the design
> > >> equations (eq.1-3 below) for this circuit.
> > >> I am familiar with basic circuit analysis and
> > >> the low frequency small signal model for JFETS.
> > >> (I apologize for the poor ASCII drawing.)
> > >>
> > >> Direct replys with in-group replies (so others
> > >> may benefit) are appreciated (my NNTP access
> > >> in Jakarta is spotty with poor retention).
> > >>
> > >> Thanks in advance,
> > >> Dave in Jakarta, YB0ART/WB4ONA
> > >> davecomjkt@yahoo.com
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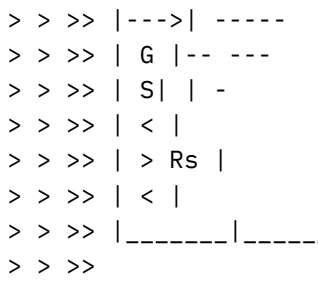

Fig.-1, JFET Constant Current Sink

Design Equations:

Vgs = Vgs(off)*(1-(Id/Idss)^1/2) (eq.1)

Rs = Vgs/Id (eq.2)

Rs = (Vgs(off)/Id)*(1-(Id/Idss)^1/2) (eq.3)

Notes:

1. "(f)^1/2" denotes "square root of (f)".

4580. Re: Help please, JFET Const. Current Design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 23:02:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B6738FE.C32A9F31@eznec.com>
Source record: 51127

That's a good approach for some applications, but watch out for the noise. The band gap voltage references in those regulator chips are really noisy. In a voltage regulator, a 10 uF or so bypass at the output is usually enough to kill the noise enough for most applications. But you might not want to put a large capacitor at the output of a current source. I've only used a regulator as a current source a few times, for things like battery chargers where noise doesn't matter, so don't know for sure how bad they might be when hooked up this way. But I do recommend watching out for it if your application can't tolerate a high level of broadband noise.

Roy Lewallen, W7EL

Mike Allenson wrote:
>
> I agree. It's also possible to use an adjustable voltage regulator eg LM317
> to
> provide a constant current supply. Only one resistor R is needed in addition
> to the LM317 and the design equation is simple and reasonably accurate:
> R=1.2/I where I is the required current. (See for example the Texas
> Instruments Linear circuits data book v3 -1989 or no doubt other application
> notes for this and similar regulators). The regulators are available with
> max current ratings from I think 100 mA to at least an Amp or more and the
> cost is low.
>
> Supply +ve to the regulator input (node 1), regulator output to the resistor
> R (node 2), regulator adjust terminal to the other terminal of R (node 3)
> with the load connected from node 3 to the power supply ground.
>
> Mike G3TGD

4581. Re: Six/Twelve? Was Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 23:30:05 UTC
From: la8ak@online.no
Message-ID: <3b672f54.178844028@news.online.no>
Source record: 51128

On Tue, 31 Jul 2001 17:57:55 -0230, Terry S <tsanford@nf.sympatico.ca>
wrote:

>
>
>Sylvan Butler wrote:
>> Wow... Seems like it would have been far easier to convert to a 12v
>> system.
>Sylvan:
>These days yes it would be. But back in the late 1940s with a vehicle
>that had had it's original sleeve valve engine removed and a 1938
>Bedford straight six stuck in, so it could be kept going as an ambulance
>and hearse during the blitz (air raids), no!
>Back then most North American vehicles were still six volt; at least
>those we saw in the UK. And you have no idea of the shortages and the
>rationing that we had to endure even years after W.W.II.

but suppose you didn't completely lack petrol and have to use an oven
in the back of the car to burn wood and use the gas to drive the car,
as they did here?

>God Bless Uncle Sam for the 'Marshall Plan' though.
>BTW we used to hand crank the Bedford because the one an only six volt
>battery we had was flaky! Happy times!
>Terry.

Believe it was easy to convert English positive grounded battery
circuit to negative ground, just changing the connection to battery -
provided it was dynamo - not alternator, and radio must be right way,
of course

73
Jan-Martin
LA8AK

4582. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 23:50:36 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0107311550.7d6c2391@posting.google.com>
Source record: 51129

Roy Lewallen <w7el@eznec.com> wrote in message news:<3B66FF6F.BD8EADAB@eznec.com>...
> Chrysler products had a positive ground up at least into the '50s. I
> know GM cars were always negative ground, and I believe Fords were too.
> I vaguely recall that some British Leyland cars of the '60s -- MG,
> Austin, and so forth, had positve ground,...

One datum: 1966 Vauxhall Viva HA, a car I drove off and
on in high school. 12 volts, positive ground. A pain to
put anything electronic in it.

We tried converting it to negative ground (no black boxes
to blow up), but it never ran right (persistent misfiring),
so we put it changed it back to positive ground.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89mg pied a terre..."
ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

4583. B&W 5100 Screen Voltage??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-07-31 23:53:13 UTC
From: Tony Angerame <tangeram@lucent.com>
Message-ID: <3B6744E9.F8D0C1D9@lucent.com>
Source record: 51130

With the screen current at specified 17 ma what should the screen voltage be?
This is the adjustment of a wirewound resistor.

TIA Tony WA6LZH

4584. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 00:41:48 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <jijemtsgqoho1hi3pavhc31ncv3buv5msm@4ax.com>
Source record: 51132

On 31 Jul 2001 16:50:36 -0700, marsgal42@hotmail.com (Laura Halliday) wrote:

<snip>

>Laura Halliday VE7LDH "Que les nuages soient notre
>Grid: CN89mg pied a terre..."
>ICBM: 49 15.042 N 122 59.053 W - Hospital/Shafte

_____

Curious about the above quotation, I ran it through Alta Vista's translation service:

"That the clouds are our foot has ground"

Apparently a Canadian method of lightning protection using a personal appendage.

Thanks, Laura!

73, Bill W7TI

4585. FA: Motorola amplifier schematics on CD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 00:51:18 UTC
From: Airplanemech <airplanemech@hotmail.com>
Message-ID: <%qI97.2962$kg.203957@e3500-atl2.usenetserver.com>
Source record: 51131

If this one is sold click "View seller's other auctions", I have 5 listed.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1260745823

I sell direct also for those who don't deal through eBay.

4586. 6 Meter to 70 CMS transverter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 00:55:51 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9k7kbb$77l$1@plutonium.btinternet.com>
Source record: 51133

Does any one know where I might buy a 6 Meter to 70 CMS transverter kit?
Or know of any schematics / ideas/ projects???
Thanks all, my 70 CMS rig died a noisy death a few days ago,
well it got noisy and I think I might have killed it by meddling!
Now I would like to build something to get me back on 70cms.
Bob

4587. Re: Tayloe Detector / Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 02:35:58 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B676B0D.3FCC49E6@home.com>
Source record: 51134

I guess the answer to your question depends on what you are trying to accomplish. Do you want best possible IP3 performance? Do you want best possible sensitivity? Do you want best possible opposite sideband rejection? Do you want minimum power consumption? Are you looking at a simple, medium performance radio?

Hans Summers wrote:
>
> I'm interested in views on the following questions.
>
> Considering a receiver consisting of input tuned circuit, Tayloe detector,
> polyphase audio phasing network, and audio filterting/amplification:

I personally have not used a polyphase audio because my understanding is that they are rather lossy. 40 db? If it is indeed that high, there are engineer consequences to be paid depending on your design goal. In addition, it uses series resistors. Resistors are noise sources that can further degrade the sensitivity of the receiver.

>
> 1. Is an RF amp necessary/desirable ahead of the Tayloe detector? Or am I
> right in thinking that you want to minimise IMD products by doing all
> amplification after the detector?

RF preamplification can improve the receiver sensitivity. I have heard that 40m never has less than -116 dbm of noise. Since 50 ohm noise is about -148 dbm (500 Hz), that means your receiver could be -120 dbm sensitive (28 db noise figure) and still hear all there is to hear on the band. I know that on 20m, one of my -143 dbm receivers (3 db S+N/N MDS) could hear weak but readable cw signals that a -139 dbm receiver could not hear at all. So on some bands, particularly 20m and higher, additional sensitivity is useful.

Think of IM not as a function of just the detector, but rather as the signal saturation of the rf preamp, followed by the detector, followed by the first audio pre-amplifier. The detector can take 4 volts pk-pk if a 5v device is used. As such the first audio pre-amplifier will likely run out of voltage headroom (assuming it has reasonable gain) before the detector will. Thus the audio preamp will be the stage that sets the IP3, not the detector.

You can make a very good estimate of the IM point of the receiver by simply taking maximum possible pk-pk voltage output of the audio preamplifier and factoring out the gain of the rf preamp (if any), the audio preamp gain, and the 1 db loss of the detector, and calculating what input signal level will saturate the audio preamp output. As a

first order estimate, subtract about 23 db from this and you will have a fair estimate of the IP3 of the front end.

More RF gain can give better sensitivity, as long as 4v pk-pk is not exceeded at the detector input, but any gain either in the RF preamp or in the audio preamp will reduce IP3. Without a rf preamp or a rf step up transformer, I figure that -143 dbm sensitivity (5 db NF) is achievable with almost +40 dbm IP3. Playing with the numbers, I think -146.5 dbm (1.5 db NF) is achievable with about +20 dbm IP3.

I have a transceiver that emphasizes low current consumption above all else, and at 11 ma at 12v achieves -137 dbm MDS (350 Hz, 3db S+N/N) and +20 dbm IP3. It is all a big bunch of tradeoffs.

>
> 2. Sometimes people use 2x clocking, sometimes 4x clocking. Presumably if
> you use 2x it is important to get an exact mark/space ration of 1, which
> could be difficult, particularly in a multiband receiver. Is the 4x clocked
> version therefore always superior to any 2x clock design?

I use 4x because it is simple. I don't think there is really any difference in using a 4x frequency source or a 2x frequency source. The stability of both should be about the same. The neat thing is that once you have a frequency source for 4x of 28 MHz, divide by 2 and you have 14 MHz, divide by 2 again and get 7 MHz, etc. However, each "divide by two" also halves the available frequency range.

I have also used dual 1x sources, i.e., a pair of DDSs (AD9851s) initialized to be 90 degrees apart to get the two bits to drive the detector.

> 3. I have seen a few circuits using the Tayloe detector followed by a
> phasing network. In some cases, people subtract the Tayloe 0 and 180
> outputs, and the 90 and 270 outputs ahead of the phasing network. E.g.
> "QRP2001 Receiver" in Sprat #101. Why? Why not simply feed each of the 4
> Tayloe outputs directly into the polyphase network as in G3OGW's 4-path
> Polyphase D-C receiver (Tech Topics, RadCom May2001). The 4-path method is
> said to give big improvements over 2-path by cancelling the unwanted
> sideband inside the polyphase network, this reducing errors / component
> tolerance sensitivity.

The R2 type phasing strip has unity gain which is attractive when the goal is high sensitivity or high IP3. I get a minimum of 45 db of opposite side band rejection, which is pretty good. I understand that the polyphase can do 60 db of rejection, but you have to design around the associated high loss. It is difficult to use a polyphase network and still have a receiver with both good sensitivity and IP3.

> 4. Is amplification needed between the Tayloe detector and the phasing
> network? I understand the input to the phasing network should be low
> impedance, and the phasing network likes to drive a high impedance load at
> its other end. So can one just put 4 unity-gain low noise op-amps before and
> again after the phasing network? In that case all the gain in the receiver

> would be in the subsequent AF stages.

You will need an audio pre-amp with gain if you want to keep the sensitivity intact. For a really noisy band like 80 or 160m, you might not care as long as you are not trying to use a high loss receive antenna such as a beverage. for the same sensitivity, the polyphase network needs more gain (much more?) to overcome the polyphase loss, which will negatively impact the IP3, but on the other hand, the opposite sideband rejection might be 15 db better.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4588. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 03:23:29 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B677631.43C78A7F@nettally.com>
Source record: 51000

My 1967 MG 1100 had positive ground 12V, and I think some heavy construction equipment and "Mack trucks" had positive ground 12V system. (Supposedly for corrosion prevention? Didn't keep the MG from rusting out!) DC to DC convertors were needed for low tier land mobile 2-way radios, while more expensive models (Motorola MICOR) had positive ground cable options.

Bill Turner wrote:

> On Tue, 31 Jul 2001 08:45:36 -0230, Terry S <tsanford@nf.sympatico.ca>
> wrote:
>
> >Also I do have a vague memory of some twelve volt vehicles with positive
> >to ground (as opposed to today's normal negative to ground/chassis)
> >system. This meant some auto radios had options for either polarity
> >IIRC. Anyone remember this?
>
> ----------
>
> My very first job, back in 1959, was repairing car radios. I do recall
> cars with six volt, positive ground systems, but can't recall 12 volt,
> at least not in the USA.
>
> It was not unusual for someone to bring their car in because the radio
> wasn't working and I'd find they had just replaced the battery and put
> it in backwards. Oddly, everything in the car worked ok with the
> reversed polarity - gauges, starter, other motors, etc, - but not the
> radio. I'd reverse the battery, replace the fuse and off they went.
>
> Hadn't thought about that in years, but there you are.
>
> 73, Bill W7TI

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

4589. Re: Six/Twelve? Was Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 05:09:33 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B678F0D.C960C4BC@nf.sympatico.ca>
Source record: 51135

J M Noeding wrote:

> but suppose you didn't completely lack petrol and have to use an oven
> in the back of the car to burn wood and use the gas to drive the car,
> as they did here?

We didn't acquire the vehicle until around 1951, some six years after W.W.II when petrol (gasoline) was again available to civilians. Because it was such an unusual vehicle we got to know some of it's history and how and why the engine was changed.
But I know exactly the gas generating systems you are referring to; some local British buses, for example, during W.W.II towed a two wheel trailer behind with such a device on it with a hose going to the engine!
Terry.

J M also said:
> Believe it was easy to convert English positive grounded battery
> circuit to negative ground, just changing the connection to battery -
> provided it was dynamo - not alternator, and radio must be right way,
> of course
>
I believe you are right. No transistors or solid state diodes in them days! Did this inadvertently once, in Canada. My 1962 VW beetle; battery was flat, friendly passer by gave me a boost. Car started, drove home. Next day flat again realized that his boost had been with leads reversed. Boosted again right way this time car ran OK for months! No radio in that car.

One poster mentioned that all the gauges worked OK on a car that had been boost started or battery replaced with the polarity reversed. I think I know why!

We took some gauges out of a scrapped Skoda. Noticed that those that were of the electric indicating type didn't have permanent magnets to provide the magnetic field in them in the manner we are familiar with for galvanometer indicators. Rather the magnetic field was created by a coil. So the indicating circuit (lets say it was the fuel tank level indicator) gave a certain input which was in magnetic opposition to the 'field' coil; but since the field coil was also reversed the indicator worked OK! If the instruments were/had been permanent magnet type the indicators would probably have been hard down at the negative end of the scale! Sound logical?

I miss that old monster hearse; but a wheel came off going past Loch Ness around summer 1953) probably gave the monster a surprise) and although we got it home it was never the same again. And gosh that was

almost 50 years ago and the vehicle was then 27 years old! Wish I had it now though!

I note from your call sign that you were probably one of the 'invaded territories'. And now we got the E.C. (European Community) set to be the biggest trading block in the world by one account? Someone, President George W., I think has already suggested that NAFTA (North American Free Trade Area) and the EC eventually join together to make one huge trading bloc.

Regards Terry.

4590. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 08:58:58 UTC
From: Mike Allenson <mike@allenson.fsnet.co.uk>
Message-ID: <9k8gfj$pa6$1@newsg4.svr.pol.co.uk>
Source record: 51136

try www.wires.co.uk they are a division of the Scientific Wire Company & seem to stock nickel-chromium from 0.2 mm down to 0.1 mm. I havent bought anything from them but the site looks promising with 50gm quantities on offer.

Mike G3TGD

"Dick" <dick@langwang.demon.co.uk> wrote in message news:XP4WQEApRvZ7EwPa@langwang.demon.co.uk...
> Does any member of the newsgroup know of a (preferably uk) supplier of
> fine (22swg or thinner) nicrome wire ?
> --
> Dick
> GM0MNL

4591. Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 09:17:10 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <msnqoXAWk8Z7EwbX@langwang.demon.co.uk>
Source record: 51137

Ooops, sorry for getting my original query mixed up in an unrelated thread !
Does any member of the newsgroup know of a (preferably uk) supplier of
fine (22swg/awg or thinner) nicrome wire I need for a project ?
--
Dick
GM0MNL

4592. SWR Bridge/Detector circuit question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 12:34:59 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B67F7FD.BFCEC177@earthlink.net>
Source record: 51138

Folks---

I am looking at the schematic of the metering circuit of an MFJ Versa Tuner V. TX power runs through a step-up transformer, the secondary of which is center-tapped. The center tap is sent to ground via a 150pf cap on one side, and a 150pf cap from tap to ground and 15pf variable cap in series with it from the tx line. A 3.3K resistor also shunts to ground. The two legs of the secondary are tied together with a 68 ohm resistor, and two IN34's serve as (I beleive) detectors/rectifiers to drive the fwd/ref metering, which is calibrated on three scales (200WF/R, 2KWF/R, and SWR SET/SWR). On either the forward or reflected side, the cathode of the diodes are shunted to ground with a .01uF cap, obviously for filtering.

My question: How in the heck does this work? My experience with center-tapped transformers has been in the realm of LF AC power, where you use them to get both positive and negative voltages. Could someone explain the theory behind it? Would there be any graphical representations that could help me visualize the current/voltage distributions/flow?

Thanks,

Henry C. Gernhardt, III
KE4PIB

4593. Re: SWR Bridge/Detector circuit question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 14:36:56 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <HzU97.4475$jL6.528828@e3500-atl1.usenetserver.com>
Source record: 51139

Buy an ARRL Handbook (any vintage since 1970) and read all about it.

73
N7CR

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message
news:3B67F7FD.BFCEC177@earthlink.net...
> Folks---
>
> I am looking at the schematic of the metering circuit of an MFJ Versa
> Tuner V. TX power runs through a step-up transformer, the secondary of
> which is center-tapped. The center tap is sent to ground via a 150pf
> cap on one side, and a 150pf cap from tap to ground and 15pf variable
> cap in series with it from the tx line. A 3.3K resistor also shunts to
> ground. The two legs of the secondary are tied together with a 68 ohm
> resistor, and two IN34's serve as (I beleive) detectors/rectifiers to
> drive the fwd/ref metering, which is calibrated on three scales
> (200WF/R, 2KWF/R, and SWR SET/SWR). On either the forward or reflected
> side, the cathode of the diodes are shunted to ground with a .01uF cap,
> obviously for filtering.
>
> My question: How in the heck does this work? My experience with
> center-tapped transformers has been in the realm of LF AC power, where
> you use them to get both positive and negative voltages. Could someone
> explain the theory behind it? Would there be any graphical
> representations that could help me visualize the current/voltage
> distributions/flow?
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

4594. Re: SWR Bridge/Detector circuit question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 16:01:04 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B6827B0.DD638495@att.net>
Source record: 51140

Consult the ARRL Handbook and read up on reflectometer-type SWR or power meters. What you describe sounds like a very conventional metering circuit.

Perhaps it will help to recall that this circuit is working in a r-f environment with voltage/current waves present in the line in both directions. The intent of the circuitry is to obtain a sample of line current and samples of line voltage. Phase comparisons, etc. are made in the analog circuitry and voltages are developed by the diodes to drive a metering circuit.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Henry Gernhardt/Andrea Winship wrote:
>
> Folks---
>
> I am looking at the schematic of the metering circuit of an MFJ Versa
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> which is center-tapped. The center tap is sent to ground via a 150pf
> cap on one side, and a 150pf cap from tap to ground and 15pf variable
> cap in series with it from the tx line. A 3.3K resistor also shunts to
> ground. The two legs of the secondary are tied together with a 68 ohm
> resistor, and two IN34's serve as (I beleive) detectors/rectifiers to
> drive the fwd/ref metering, which is calibrated on three scales
> (200WF/R, 2KWF/R, and SWR SET/SWR). On either the forward or reflected
> side, the cathode of the diodes are shunted to ground with a .01uF cap,
> obviously for filtering.
>
> My question: How in the heck does this work? My experience with
> center-tapped transformers has been in the realm of LF AC power, where
> you use them to get both positive and negative voltages. Could someone
> explain the theory behind it? Would there be any graphical
> representations that could help me visualize the current/voltage
> distributions/flow?

4595. Re: Tayloe Detector / Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 16:06:49 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9k99gg$37uba$1@ID-61331.news.dfncis.de>
Source record: 51141

Thanks for the detailed answer to my questions.

"Dan Tayloe" <dtayloe@home.com> wrote in message
news:3B676B0D.3FCC49E6@home.com...
> I guess the answer to your question depends on what you are trying to
> accomplish. Do you want best possible IP3 performance? Do you want
> best possible sensitivity? Do you want best possible opposite sideband
> rejection? Do you want minimum power consumption? Are you looking at a
> simple, medium performance radio?

My priorities are
1. Simplicity and ease of setting up. This is why I am considering DC rather
than a superhet. This is also why I like the Tayloe detector.
2. Good sideband rejection. For this reason I am interested in 4-path
polyphase as opposed to 2-path audio phasing. I am not worried about the
cost of precision resistors and capacitors for the phasing network, or the
number of stages (6 or even 8).
3. Good IP3
4. Sensitivity (last because I am thinking only of 14MHz max)
I don't care at all about power consumption!

> >
> > I'm interested in views on the following questions.
> >
> > Considering a receiver consisting of input tuned circuit, Tayloe
detector,
> > polyphase audio phasing network, and audio filterting/amplification:
>
> I personally have not used a polyphase audio because my understanding is
> that they are rather lossy. 40 db? If it is indeed that high, there
> are engineer consequences to be paid depending on your design goal. In
> addition, it uses series resistors. Resistors are noise sources that
> can further degrade the sensitivity of the receiver.

That is interesting. Does anyone know of any references where the losses in
a polyphase network are mentioned? I was not aware that they were considered
lossy. There is a diagram on page 15 of June 1995's QEX in an article titled
"Polyphase Netowrk Calculation using a Vector Analysis Method", which shows
an attenuation of <0.5db in the optimised network, and <6db in a constant
resistance network. Since I am as yet unable to understand the maths in this
article I may be mistaken.

I too worry about the noise introduced by the resistors but I have no feel
for how significant this would be at HF.

>
> >
> > 1. Is an RF amp necessary/desirable ahead of the Tayloe detector? Or am
I
> > right in thinking that you want to minimise IMD products by doing all
> > amplification after the detector?
>
> RF preamplification can improve the receiver sensitivity. I have heard
> that 40m never has less than -116 dbm of noise. Since 50 ohm noise is
> about -148 dbm (500 Hz), that means your receiver could be -120 dbm
> sensitive (28 db noise figure) and still hear all there is to hear on
> the band. I know that on 20m, one of my -143 dbm receivers (3 db S+N/N
> MDS) could hear weak but readable cw signals that a -139 dbm receiver
> could not hear at all. So on some bands, particularly 20m and higher,
> additional sensitivity is useful.
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> Think of IM not as a function of just the detector, but rather as the
> signal saturation of the rf preamp, followed by the detector, followed
> by the first audio pre-amplifier. The detector can take 4 volts pk-pk
> if a 5v device is used. As such the first audio pre-amplifier will
> likely run out of voltage headroom (assuming it has reasonable gain)
> before the detector will. Thus the audio preamp will be the stage that
> sets the IP3, not the detector.
>
> You can make a very good estimate of the IM point of the receiver by
> simply taking maximum possible pk-pk voltage output of the audio
> preamplifier and factoring out the gain of the rf preamp (if any), the
> audio preamp gain, and the 1 db loss of the detector, and calculating
> what input signal level will saturate the audio preamp output. As a
> first order estimate, subtract about 23 db from this and you will have a
> fair estimate of the IP3 of the front end.
>
> More RF gain can give better sensitivity, as long as 4v pk-pk is not
> exceeded at the detector input, but any gain either in the RF preamp or
> in the audio preamp will reduce IP3. Without a rf preamp or a rf step
> up transformer, I figure that -143 dbm sensitivity (5 db NF) is
> achievable with almost +40 dbm IP3. Playing with the numbers, I think
> -146.5 dbm (1.5 db NF) is achievable with about +20 dbm IP3.
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> else, and at 11 ma at 12v achieves -137 dbm MDS (350 Hz, 3db S+N/N) and
> +20 dbm IP3. It is all a big bunch of tradeoffs.
>
> >
> > 2. Sometimes people use 2x clocking, sometimes 4x clocking. Presumably
if
> > you use 2x it is important to get an exact mark/space ration of 1, which
> > could be difficult, particularly in a multiband receiver. Is the 4x
clocked
> > version therefore always superior to any 2x clock design?
>

> I use 4x because it is simple. I don't think there is really any
> difference in using a 4x frequency source or a 2x frequency source. The
> stability of both should be about the same. The neat thing
> is that once you have a frequency source for 4x of 28 MHz, divide by 2
> and you have 14 MHz, divide by 2 again and get 7 MHz, etc. However,
> each "divide by two" also halves the available frequency range.
>
> I have also used dual 1x sources, i.e., a pair of DDSs (AD9851s)
> initialized to be 90 degrees apart to get the two bits to drive the
> detector.

I was thinking of a simple Huff & Puff stabilised VFO as per G3DXZ's design,
see the Tech Topics column of RadCom, Sep 2000 (reproduced on my site, see
http://www.hanssummers.com/radio/huffpuff/contents.htm). At 56MHz I would be
able to divide to have a 4x clock for bands 14MHz, 7MHz, 3.5MHz and 1.8MHz.

>
> > 3. I have seen a few circuits using the Tayloe detector followed by a
> > phasing network. In some cases, people subtract the Tayloe 0 and 180
> > outputs, and the 90 and 270 outputs ahead of the phasing network. E.g.
> > "QRP2001 Receiver" in Sprat #101. Why? Why not simply feed each of the 4
> > Tayloe outputs directly into the polyphase network as in G3OGW's 4-path
> > Polyphase D-C receiver (Tech Topics, RadCom May2001). The 4-path method
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> > said to give big improvements over 2-path by cancelling the unwanted
> > sideband inside the polyphase network, this reducing errors / component
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> > its other end. So can one just put 4 unity-gain low noise op-amps before
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receiver
> > would be in the subsequent AF stages.
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> You will need an audio pre-amp with gain if you want to keep the
> sensitivity intact. For a really noisy band like 80 or 160m, you might
> not care as long as you are not trying to use a high loss receive
> antenna such as a beverage. for the same sensitivity, the polyphase
> network needs more gain (much more?) to overcome the polyphase loss,
> which will negatively impact the IP3, but on the other hand, the

> opposite sideband rejection might be 15 db better.

A lot seems to hinge on the losses of the polyphase network. If I have understood the QEX June 1995 article correctly, these losses can be made very small. I was interested in the 4-path rather than 2-path for the extra sideband suppression, I guess as long as the losses are small this is still valid. Since I am interested in 1.8 - 14MHz only, from what you have said I think I could get away with having no RF preamp, at least at first.

Thanks again for the discussion

Hans G0UPL

4596. Re: SWR Bridge/Detector circuit question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 17:18:29 UTC
From: troglodite@aol.com
Message-ID: <20010801131829.17836.00001076@mb-md.aol.com>
Source record: 51142

I recall in an old ARRL handbook, they had an SWR meter for use with 300 ohm lines, that was made from a section of 300 ohm line and two small light bulbs. You simply taped it to your feedline. One light read forward current, and the other read reverse. Truly ingenious.

I tried a similar approach with RG8 coax, by removing the outer insulation for several feet, and feeding some wires underneath the shield braid. It was based on the ARRL 300 ohm design, and though crude, it did work. Neither of these is suitable for QRP however.

Doug Moore KB9TMY (Formerly K6HWY)

4597. Re: Six/Twelve? Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 18:05:27 UTC
From: "Gary Tait, Very Real" <tat@primeline.net>
Message-ID: <3B6844E7.348356F9@primeline.net>
Source record: 51143

Terry S wrote:
>
> J M Noeding wrote:
> > you only needed half amount of cells for a British car......
>
> Terry says: PRESUMING YOU MEAN 6 VOLT?
> Not the British cars we had!
> Many have always been 12 volt. Until about 1958 my family had a couple
> of 1930s Lanchesters that were 12.
> Six volt may have been used in the small British Fords and maybe some
> Vauxhalls? Both these companies being US subsidiaries?
> Also I do have a vague memory of some twelve volt vehicles with positive
> to ground (as opposed to today's normal negative to ground/chassis)
> system. This meant some auto radios had options for either polarity
> IIRC. Anyone remember this?

I have a couple of radios (with built in speaker), that have one or both
6/12
and +/- ground switches. AFAIK, all CB radios are/were isolated chassis.

> The reverse in fact; when I arrived in Canada in the mid 1950s all older
> US/Canadian vehicles were six volt. Today most vehicles are twelve, or
> in some cases twenty four. Rarely but still see the occasional six volt
> old car radio at junk sales.
> BTW twelve volt CBs in twenty four volt transport trucks eh? Then they
> wonder why they don't last!

I don't want to stereo type truckers, but some tend to modify them
to exceed design (and legal) specs. The trucks may start with 24V, in
which
case the entire electrical system would be 12V, except for the starter
motor,
which would be 24V, and it would ge that by a unique relay arrangement
that
would connect the batteries in series to start, paralell otherwise.

> The only six volt car we ever had was one which had been retrofitted
> with a 1938 Bedford straight six engine. Bedford was the equivalent of
> GMC (General Motors). The six volt system of course meant that the
> current was twice what it was with the original twelve volt system and
> the wiring was inadequate! So I rewired the whole vehicle, which was
> incidentally a 1926 Daimler hearse we used for camping, using war
> surplus items. The cabling to a rear terminal block had a braided cover
> and was from a British armoured vehicle; the headlight switch was from a
> US transmitter tuning unit etc.etc. Great fun!

> Incidentally I borrowed a much used GMC pickup, a straight six with
> column shift, during the 1970s and opening the hood to disentangle the
> shift linkage found that the valve cover of the engine looked identical
> to that of the 1938 Bedford that I had worked on 20 years earlier!

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

4598. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 19:37:48 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9kc653rod1@plutonium.btinternet.com>
Source record: 51163

> Does any member of the newsgroup know of a (preferably uk) supplier of
> fine (22swg/awg or thinner) nicrome wire I need for a project ?

Scientific Wire Co. stocks this sort of thing. They are somewhere in London.

Leon

4599. Re: SWR Bridge/Detector circuit question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 20:11:46 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9k9o2aoam1@neptunium.btinternet.com>
Source record: 51144

Henry, download program SWRMETER from website below. It describes how the forward OR reverse power halves of the meter work. I think the centre tapped transformer in your meter allows simple switching between forward and reversed directions. Program also shows how to calculate component values.

In some meters the voltage divider across line is capacitors. In other meters it is resistors. They both work the same way but the capacitors are used in the higher power meters and don't don't get hot.

Download in a few seconds. Not zipped up. Run immediately. Vary components and watch meter reading change.

****
Regards, Reg, G4FGQ
Free radio design software
http://www.g4fgq.com
****

Henry Gernhardt wrote
>
> I am looking at the schematic of the metering circuit of an MFJ Versa
> Tuner V. TX power runs through a step-up transformer, the secondary of
> which is center-tapped. The center tap is sent to ground via a 150pf
> cap on one side, and a 150pf cap from tap to ground and 15pf variable
> cap in series with it from the tx line. A 3.3K resistor also shunts to
> ground. The two legs of the secondary are tied together with a 68 ohm
> resistor, and two IN34's serve as (I beleive) detectors/rectifiers to
> drive the fwd/ref metering, which is calibrated on three scales
> (200WF/R, 2KWF/R, and SWR SET/SWR). On either the forward or reflected
> side, the cathode of the diodes are shunted to ground with a .01uF cap,
> obviously for filtering.
>
> My question: How in the heck does this work? My experience with
> center-tapped transformers has been in the realm of LF AC power,

where
> you use them to get both positive and negative voltages. Could
someone
> explain the theory behind it? Would there be any graphical
> representations that could help me visualize the current/voltage
> distributions/flow?

4600. WTS: 2500V 1.7Amp transformer, filter caps, etc...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-01 21:11:11 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9k9r2o$3hb$1@iac5.navix.net>
Source record: 51145

NOT an auction!!!

http://199.184.215.33/catalog/admin/view_item.php?id=51

-bob
wb4mnf

4601. Old Radio Gear - Don't know if anyone would be interested in it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 00:15:30 UTC
From: Bruce Torelli <nospamnospambtorelli@ieee.org>
Message-ID: <CY0a7.14431$0w3.2078459@newsread2.prod.itd.earthlink.net>
Source record: 51146
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Happy People,

One of the "Radio" departments at work (I think, the group that provides air to ground on company frequencies.) was hauling big box of stuff to the dumpster. I intercepted it, took it home and picked out what I could recognize.

There were a few things in the box that I have no use for, but may be useful to someone. Packaged in sealed cans with older octal socket.
- Motorola Relay 280k1003 24 VDC
- I Think a Low Pass Filter Type 5709-27HPx Made by Price Electric Corp
- Stancor Output Transformer A-8101 Line to Voice Coil

I also got these big heavy, rack mounted Collins radios and something the shop foreman called an "exciter." The exciter is Collins RF Unit 242F-501. It is obviously missing tubes. It does have this kind of interesting 20" long brass box with a slider that's marked in a way that suggests it's used to adjust frequency.

There are also two radios, one obviously incomplete, one with no noticeable missing parts.
The Collins data plate on one says 129.55, the other is blank. The radios each have some small tubes and two big tubes RCA 75-43, 3B28 D with X-ray warnings on the bases.

I'm not interested in messing with this gear. I grabbed the boxes to have a lifetime supply of small piece parts in my hobby shop.

I doubt this is the secret lost Marconi treasure. I am happy to forward some of this stuff to an interested party as long as it doesn't wind up costing me anything.

Email me if you are interested.

Regards
Bruce

--
Bruce Torelli
Jonesboro, GA

4602. Re: Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 00:51:15 UTC
From: rice@ironbark.bendigo.latrobe.edu.au
Message-ID: <rice-ya02408000R0208011051150001@news.latrobe.edu.au>
Source record: 51147

In a recent article Hans Summers wrote:

> A lot seems to hinge on the losses of the polyphase network. If I have
> understood the QEX June 1995 article correctly, these losses can be made
> very small.

Many years ago I simulated a 6 stage polyphase network using PSpice. The losses in "mid-band" were around 15 to 18dB.

(See http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html
The polyphase network is figure 4.)

73 de Phil VK3BHR

4603. Re: Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 02:37:12 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b68bc67$1_2@newsa.ev1.net>
Source record: 51149

McMaster-Carr carries that, in many types.

Douglas Snowden <snowden@peoplepc.com> wrote in message
news:tmherk1dt1cbf9@corp.supernews.com...
> I am looking for a small amount of silicone (or similar)
> rubber sheeting to use to wrap around a 4CX800 tube
> and form a chimney.....
>
> Doug N4IJ
>
>
>

4604. Rejuvinating an old cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 03:26:36 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B68C86C.7648A738@visi.com>
Source record: 51150

Hi gang,
I have an old 3 section 250V electrolytic cap that checks 'ok' with an ohmmeter, but in a bridge rectifier ckt, seems to be loading the secondary voltage way down. I'm thinking under HV, the cap is becoming leaky. Is there a prefered way to 'reform' these guys?

Thanks!

Bob WB0POQ

4605. Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 03:45:33 UTC
From: Mark Mohr <themohrs@fuse.net>
Message-ID: <tmhjc85knc9ja4@corp.supernews.com>
Source record: 51151

Hello All;

I'm trying to come up with plans / schematics for a transceiver for 10m and maybe 15 and 20m (later). I've been all over the web looking, and it seems homebrewing is a dying art. The local club is no help - all the engineer types are gone. So far, I've found some interesting circuits, but there's always a problem: no toroid data (what core did he use?) or the parts are no longer made (examples like Motorola MC1350P/1590, MC1496, etc.) It's getting very frustrating. Maybe somebody out there can help.

Whatever I end up building, it has to meet these criteria:

1) Cheap - I'm on fixed income and don't have much money, let alone any to spend on " experiments ";

2) Simple - " Keep It Simple Stupid " holds much truth, and improves odds of success;

3) Obtainable - Parts must currently be in production and available in the states in small quantities (what's the sense of building something you can't get replacement parts for ?)

4) Effective - Decent sensitivity and selectivity (to take advantage of this sunspot cycle we're in) in the receiver, and a clean - read >55 dB carrier and opposite sideband suppression, with very low spurious emissions - transmitter that makes 15 - 20 watts PEP output.

5) NO SMD - I have bananas for fingers and have a hard enough time soldering a conventional DIP, let alone a fleaspeck with 20 pins

Have any of you seen such an animal lately? If so please email me. I'm not interested in bells and whistles (good basic performance is more important than flash to me)

In my search, I have found out a few things. Philips Semiconductors Europe) still makes the SA602AN (remember the NE602?) and Ocean State Electronics carries them.

Analog Devices makes a very interesting mixer chip, the AD831AP. Only problem is it's SMD - PQFP 20 pin. Those of you with microscopes for eyes and a knack for microsurgery might want to look at it - amplifiers at in / out, 50 ohm inputs and outputs, etc - a killer chip, if only it came in a DIP. Plus, it's 17 dollars apiece at Newark.

Dan's is still around, and he has Mini - Circuits SBL-1's dirt cheap. I would prefer to work with active devices, for conversion gain (better noise figure, too - the '602 has a 4 dB noise figure [so says Philips])

Problem is, as I said, I can't find a complete circuit, with all repeat all) necessary data for duplication. Anyone care to lend a hand? I could even send you the schematics I've developed - to check my work, perhaps, or tell me if it has a 75% or better chance of working. I can do the math (I think) and I can build it if the math is right, but I can't afford a 200 dollar failure. Please, somebody say they'll take a look.

No, I don't have my license yet. Next local VE session is September sometime. Would like to get at least the receiver up before then for some live morse practice (you can use all the programs and recordings you like, there's no substitute for the real thing). Any old timers or retired RF engineers out there that would like to collaborate on a project?

Please feel free to email me at themohrs@fuse.net. I'll scan my schematics and put them together in a package of JPG's for attachments.

Help me,
Mr. Wizard

Thanks

Mark
Mohr

Cincinnati, Ohio

4606. Re: Rejuvinating an old cap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 04:14:51 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B68D3BB.35655F9C@eznec.com>
Source record: 51152

You apply a variable DC voltage through a current limiting resistor. Adjust the voltage so that the capacitor draws a few mA of current. (What you want to avoid is excessive heating of the capacitor.) As the dielectric layer thickens, the current will slowly drop. When it does, increase the voltage again to get the current back up to a few mA. Continue this until you've applied the full rated voltage and the current at that voltage has dropped to a very low level. Or you can use a fixed voltage source equal to the rated capacitor voltage, and vary the resistance to maintain the desired current.

Roy Lewallen, W7EL

Bob Liesenfeld wrote:
>
> Hi gang,
> I have an old 3 section 250V electrolytic cap that checks 'ok' with
> an ohmmeter, but in a bridge rectifier ckt, seems to be loading the
> secondary voltage way down. I'm thinking under HV, the cap is becoming
> leaky. Is there a prefered way to 'reform' these guys?
>
> Thanks!
>
> Bob WB0POQ

4607. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 04:22:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B68D5A1.E50125A@eznec.com>
Source record: 51153

You'll probably find a lot of "dying arts" if the only source of information you're willing to consult is the web. There are a number of QRP clubs that publish excellent magazines containing loads of homebrew projects. Most of them can easily be adapted to higher power levels. Do a web search for G-QRP Club, NorCal (North California QRP Club), and QRP-ARCI, and see what's required to get their journals. I believe all sell back copies.

Although it's getting a bit long in the tooth, the principles and circuits in _Solid State Design for the Radio Amateur_ by DeMaw and Hayward are still relevant. You can get this from the ARRL.

I don't recommend starting with a complete $200 project. Start with simple rigs and work your way up. You'll find lots in the above references.

Roy Lewallen, W7EL

Mark Mohr wrote:
>
> Hello All;
>
> I'm trying to come up with plans / schematics for a transceiver for 10m
> and maybe 15 and 20m (later). I've been all over the web looking, and it
> seems homebrewing is a dying art. The local club is no help - all the
> engineer types are gone. So far, I've found some interesting circuits, but
> there's always a problem: no toroid data (what core did he use?) or the
> parts are no longer made (examples like Motorola MC1350P/1590, MC1496,
> etc.) It's getting very frustrating. Maybe somebody out there can help.
>
> Whatever I end up building, it has to meet these criteria:
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> 1) Cheap - I'm on fixed income and don't have much money, let alone any
> to spend on " experiments ";
>
> 2) Simple - " Keep It Simple Stupid " holds much truth, and improves
> odds of success;
>
> 3) Obtainable - Parts must currently be in production and available in
> the states in small quantities (what's the sense of building something you
> can't get replacement parts for ?)
>
> 4) Effective - Decent sensitivity and selectivity (to take advantage of
> this sunspot cycle we're in) in the receiver, and a clean - read >55 dB
> carrier and opposite sideband suppression, with very low spurious

> emissions - transmitter that makes 15 - 20 watts PEP output.
>
> 5) NO SMD - I have bananas for fingers and have a hard enough time
> soldering a conventional DIP, let alone a fleaspeck with 20 pins
>
> Have any of you seen such an animal lately? If so please email me. I'm
> not interested in bells and whistles (good basic performance is more
> important than flash to me)
>
> In my search, I have found out a few things. Philips Semiconductors
> Europe) still makes the SA602AN (remember the NE602?) and Ocean State
> Electronics carries them.
>
> Analog Devices makes a very interesting mixer chip, the AD831AP. Only
> problem is it's SMD - PQFP 20 pin. Those of you with microscopes for eyes
> and a knack for microsurgery might want to look at it - amplifiers at in /
> out, 50 ohm inputs and outputs, etc - a killer chip, if only it came in a
> DIP. Plus, it's 17 dollars apiece at Newark.
>
> Dan's is still around, and he has Mini - Circuits SBL-1's dirt cheap. I
> would prefer to work with active devices, for conversion gain (better noise
> figure, too - the '602 has a 4 dB noise figure [so says Philips])
>
> Problem is, as I said, I can't find a complete circuit, with all
> repeat all) necessary data for duplication. Anyone care to lend a hand? I
> could even send you the schematics I've developed - to check my work,
> perhaps, or tell me if it has a 75% or better chance of working. I can do
> the math (I think) and I can build it if the math is right, but I can't
> afford a 200 dollar failure. Please, somebody say they'll take a look.
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> No, I don't have my license yet. Next local VE session is September
> sometime. Would like to get at least the receiver up before then for some
> live morse practice (you can use all the programs and recordings you like,
> there's no substitute for the real thing). Any old timers or retired RF
> engineers out there that would like to collaborate on a project?
>
> Please feel free to email me at themohrs@fuse.net. I'll scan my
> schematics and put them together in a package of JPG's for attachments.
>
> Help me,
> Mr. Wizard
>
> Thanks
>
> Mark
> Mohr
>
> Cincinnati, Ohio

4608. Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 05:36:00 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tmherk1dt1cbf9@corp.supernews.com>
Source record: 51148

I am looking for a small amount of silicone (or similar)
rubber sheeting to use to wrap around a 4CX800 tube
and form a chimney.....

Doug N4IJ

4609. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 11:01:57 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tmicpdsv0vroaa@corp.supernews.com>
Source record: 51154

Try a search on "QRP" on one of the search engines.

4610. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 11:56:15 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9kbf5c02ibt@enews1.newsguy.com>
Source record: 51156

Mark

First, subscribe to the QRP-L (http://qrp.lehigh.edu/lists/qrp-l/). It's a mailing list of folks who mostly like to build. Hardly a month goes by that some kit doesn't catch the interest of the group, and many folks simply homebrew the kit. About every 6 months or so a new completely homebrew rig shows up. This is a VERY active mailing list and does cover a lot of turf, so you really need to be willing to spend some time with your inbox assistant rules or else a lot of time reading. The traffic is typically >100 messages per day, and although there is some noise, it's not bad.

You've hit on a lot of the common approaches, in fact, if one compares the simple kits, it seems like there are a few common themes throughout.

And the toroid data isn't as much of a problem as you might think. Toroids used in tuned circuits are generally -2's below 10MHz, -6's above, with the exception that -7's are frequently used in VFOs. For transformers, it's generally -43's with an occasional -61. Most times the specs on the transformers are very loose. In the tuned circuits, it's pretty easy to calculate the number of turns if it isn't given.

The MiniCircuits mixers generally aren't used except if the purpose is contesting. 602's work great and don't usually require an RF amplifier. They are, however, subject to pretty bad IM when the band is crowded, so where that's an issue, either a DBM is made up of diodes, or an SBL-1 or similar is used. Plus, the 602 designs generally result in lower power consumption. QRPers (who seem to do most of the building) often also backpack, so low power consumption is a high priority. It's only when receiver performance outweighs power consumption that something other than the 602 is used.

Generally there is a varactor tuned VFO with a single buffer stage. Variable capacitors are large and expensive and hard to find, and require large and expensive reduction drives to make them useable. The varactor solves all these problems and are easily gotten from Dan's or RadioShack.com.

Generally there are IF amps before and/or after the crystal filter. Frequently the crystal filter is designed too sharp and then the Q mucked up with some varactors, giving a degree of control over selectivity.

The product detector is almost always a 602 with a crystal LO, and the audio amp is a 386 or 380 or both. Sometimes there will be an audio filter made of an op amp or two.

An exception to a lot of this is the very popular 2N2/40 (http://www.qsl.net/k8iqy). Jim was constrained to use only 2N2222 active

devices. This makes this particular rig one for which it is unusually easy to get parts. Although the block diagram is pretty standard, the 2N2222 only rule meant that 602's, 380's and the like weren't an option.

The transmitter is pretty much the reverse. The only hard parts tend to be in the output PI network. Even at QRP power levels, voltages can get quite high and often silver mica caps are needed in the output. These can be a little tough to come by, tho RF Parts does have a good selection.

Take a look at the QRP kit makers. Most have schematics on the web and if you compare them, you will find a lot of similarities, and a few different design choices.

Interesting stuff...

didleydadidah

"Mark Mohr" <themohrs@fuse.net> wrote in message
news:tmhjc85knc9ja4@corp.supernews.com...
> Hello All;
>
> I'm trying to come up with plans / schematics for a transceiver for
10m
> and maybe 15 and 20m (later). I've been all over the web

4611. WTB: Looking for FL56 (14M22C) crystal filter for IC505

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 12:33:11 UTC
From: Jaros&#65533;aw Misiak <jmis@po.opole.pl>
Message-ID: <9kbhcrpgo1@news.tpi.pl>
Source record: 51155

hello
I am looking for FL56 (14M22C) crystal filter for IC505. I am qrt on 6m
because my filter is destroyed. I wtb this one or similar filter to my rig.

73! Jarek SP6OJK
jmis@po.opole.pl

4612. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 13:24:28 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B695484.D0140F89@home.com>
Source record: 51157

The ARRL handbook has had the Norcal Serria in it for the last few
years. The MC1350 AGC amp is obsolete, but I think it can still be
found.

This is a nice rig of medium complexity. This is how I first started
when I began building hombrew rigs.

All the values are there. Just build and test everything one stage at a
time.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Mark Mohr wrote:
>
> Hello All;
>
> I'm trying to come up with plans / schematics for a transceiver for 10m
> and maybe 15 and 20m (later). I've been all over the web looking, and it
> seems homebrewing is a dying art. The local club is no help - all the
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>
> 3) Obtainable - Parts must currently be in production and available in
> the states in small quantities (what's the sense of building something you
> can't get replacement parts for ?)
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> 4) Effective - Decent sensitivity and selectivity (to take advantage of
> this sunspot cycle we're in) in the receiver, and a clean - read >55 dB
> carrier and opposite sideband suppression, with very low spurious
> emissions - transmitter that makes 15 - 20 watts PEP output.
>
> 5) NO SMD - I have bananas for fingers and have a hard enough time
> soldering a conventional DIP, let alone a fleaspeck with 20 pins
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> Have any of you seen such an animal lately? If so please email me. I'm

> not interested in bells and whistles (good basic performance is more
> important than flash to me)
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> Europe) still makes the SA602AN (remember the NE602?) and Ocean State
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>
> Analog Devices makes a very interesting mixer chip, the AD831AP. Only
> problem is it's SMD - PQFP 20 pin. Those of you with microscopes for eyes
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> there's no substitute for the real thing). Any old timers or retired RF
> engineers out there that would like to collaborate on a project?
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> schematics and put them together in a package of JPG's for attachments.
>
> Help me,
> Mr. Wizard
>
> Thanks
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> Mark
> Mohr
>
> Cincinnati, Ohio

4613. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 15:37:30 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108020737.1401418b@posting.google.com>
Source record: 51158

Roy Lewallen <w7el@eznec.com> wrote in message news:<3B68D5A1.E50125A@eznec.com>...

> You'll probably find a lot of "dying arts" if the only source of
> information you're willing to consult is the web. There are a number of
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> projects. Most of them can easily be adapted to higher power levels. Do
> a web search for G-QRP Club, NorCal (North California QRP Club), and
> QRP-ARCI, and see what's required to get their journals. I believe all
> sell back copies.
>
> Although it's getting a bit long in the tooth, the principles and
> circuits in _Solid State Design for the Radio Amateur_ by DeMaw and
> Hayward are still relevant. You can get this from the ARRL...

Indeed. It is a common fallacy that all information is on
the web. 'taint so!

Other useful references: ARRL and RSGB Handbooks. The
various ARRL collections (QRP Classics, QRP Power, W1FB's
books, etc.). Just about every ham radio book published
in the last 40 years should be helpful. If you're going
to buy just one book, make it _Solid State Design_ - still
a fab book!

If you can't afford to purchase these books (but if not,
how can you afford to be in the Internet?), local public
or university libraries should have at least some of them.

<editorial rant>
I have no patience with those who refuse to work with SMD.
It's 2001, and that's how parts are packaged. Deal with it.
</editorial rant>

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4614. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 16:24:12 UTC
From: Don Putnick <dputnick@alumni.caltech.edu>
Message-ID: <3B697EAC.4AB87E5D@alumni.caltech.edu>
Source record: 51159

Laura Halliday wrote:

> <editorial rant>
> I have no patience with those who refuse to work with SMD.
> It's 2001, and that's how parts are packaged. Deal with it.
> </editorial rant>

<tongue in cheek>
Can anyone tell me how I can replace a couple 6LQ6's with SMD?
My Swan 350C is hungry.
<tongue returned to normal position>

4615. Re: CW in your car?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 16:48:39 UTC
From: jerryk@best.com
Message-ID: <Hvfa7.12813$Up.368767@sea-read.news.verio.net>
Source record: 51160

In article <3AC93BFF.3C62E81C@telocity.com>,
Kenneth Scharf <kajfre@telocity.com> wrote:
>Reminds me of a computer controller I was programming at Gould. This was an
>8 port serial controller that could do EVERYTHING (async, bisync, sdlc, etc).
>The hw designers put a single led on it to indicate status. But someone
>wanted to know if the unit passed the self test, and if not what went wrong.
>Guess how I multiplexed all that info on one led? (Why is that led blinking
>in a crazy way?)

*** I once did firmware for a CPU that had NO direct I/O. None. My CPU
communicated with another CPU and got to use the other CPU's serial port
through a shared-memory interface. Well, that shared memory interface
involved serious software that needed to be debugged. It worked fine with
the ICE, but when I plugged in a real CPU, it sat like a lump and did
NOTHING.

After banging my head against the wall for a couple of weeks, I
remembered that I did have one bit of real I/O - there was a reset line that
my CPU could output to an optional piggyback module. So I hooked a small
speaker up to that line through a resistor. I wrote a quickie character
driver to output morse code. I redirected printf() to that driver. I stuck
debug printfs in the code - print "A" ifyou get here, "B" if you get there,
"C" if you get there...etc.

Plugged in the real CPU, turned on the prototype, it started beeping.
Found the problem in about an hour.

- Jerry Kaidor (jerry@tr2.com)

4616. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 17:32:53 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <5s2ck9.8lf.ln@localhost.localdomain>
Source record: 51161

Mark Mohr wrote:

> Hello All;
>
> I'm trying to come up with plans / schematics for a transceiver for
> 10m
> and maybe 15 and 20m (later).

http://homepage.eircom.net/~ei9gq My rig gives 10PEP on
80,40,20,17,10. It can be easily modified to cover other
bands. Be warned! it is not a detailed description
of how to build it, just a pile of schematics and a few
pictures. The source code for the PIC frequency
display/stabiliser (optional) is also on the web site.

73, Happy Homebrewing.

Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4617. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 17:46:05 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B6991DD.88FC1DB4@buttery.org>
Source record: 51162

Dan Tayloe wrote:
>
> The ARRL handbook has had the Norcal Serria in it for the last few
> years. The MC1350 AGC amp is obsolete, but I think it can still be
> found.

The MC1350 is indeed still available; a number of parts sellers still have them. But best get them now if you want them; they will probably be a lot harder to find in a year. Motorola has transferred the rights to Lansdale Semiconductor (http://www.lansdale.com), but there is no telling when Lansdale will actually produce any parts, or what they will cost.

Once the supply of 1350s dries up, it will force changes to a lot of designs. Lots of radios use them, including the Sierra, the K1, and the K2. I don't know of any simple drop-in replacement; the 1350 has a number of nice characteristics, including high gain and wide-range AGC response. It is a bit noisy, though.

Let's hope Philips doesn't stop making the SA602 (formerly the Signetics NE602); nearly all our current QRP designs will be gone if that happens! Falling back on the previous generation of designs won't help; they mostly used dual-gate MOSFET mixers, which are already extinct. Guess we'd have to move on to the future: switching mixers using VMOS FETs or analog switch ICs, such as Dan Tayloe's design.

As for myself, I'm planning to try out a design based on the AD607 (http://www.analog.com). It's a bit pricey, but it is one of the only receiver subsystem chips that is suitable for a CW or SSB design. (Most of those subsystem chips have limiting IF amps intended for FM use.) And it works at low voltages, so I'm envisioning an ultra-portable rig that runs on a single LiIon cell. I'm hoping that careful design can yield performance in the same neighborhood as a 602-based design, which will be good enough for the class of radio I'm talking about. Surface-mount phobes won't be interested, though - this will probably be an all-SMD design.

By the way, does anyone out there know of distributors who sell LiIon cells? I haven't seen them in any of my catalogs, and web searches haven't yielded any sellers that sell them off the shelf. Buying something packaged, such as a cellphone battery, seems wasteful when I just want the cell inside.

4618. DC0DA 1152MHz osc / VHF-comm 1/78

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 18:48:34 UTC
From: magne@clustra.com
Message-ID: <m3elqu70xp.fsf@clustra.com>
Source record: 51164

I wonder if anyone has the article by DC0DA in VHF Communications
1/78 (that particular issue is missing from the club library).

I think it describes an 1152 MHz local oscillator, with a
circuit board titled "DC0DA 005". I'm repairing a unit that
has been retrimmed and used as a beacon on 1296MHz.

Schematics, or a facsimile of the article would be great..

--Magne / la1bfa

4619. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 19:06:32 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B69A4B8.7C94B590@clifto.com>
Source record: 51165

Laura Halliday wrote:
> <editorial rant>
> I have no patience with those who refuse to work with SMD.
> It's 2001, and that's how parts are packaged. Deal with it.
> </editorial rant>

It's still an expensive pain in the butt, especially for those of us who are starting to need magnifying glasses to work with the tiny stuff. It's impossible to do a project without using circuit boards. And frankly, even if I were rich I couldn't see spending the money on the tools (you'll call them luxuries, I say they're necessary) like the multi-hundred-dollar hot-air soldering/unsoldering tools and vacuum picks.

SMD can be nice for those really big circuits. Anyone who has ever held a 10"x12" circuit board full of TTL knows that. But I can have an NE602 receiver put together and working by the time you're starting to pour developer in a tray.

I'm also convinced that nine out of ten whose first kit or project is SMD will end up deciding they're not cut out for homebrew after all.

Now go on, tell us how much you like unbridging those quad packs with the 0.00001 nanometer centers and three billion pins on a side.

There's an honored place for all the different kinds of construction. It's a real pity to see the parts arena becoming SMD-or-nothing.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4620. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 19:19:45 UTC
From: Bill M <"take out the NO in the Reply To Address"@coqui.net>
Message-ID: <3B69A7D1.5EF64C64@coqui.net>
Source record: 51166

Don Putnick wrote:
>
> Laura Halliday wrote:
>
> > <editorial rant>
> > I have no patience with those who refuse to work with SMD.
> > It's 2001, and that's how parts are packaged. Deal with it.
> > </editorial rant>
>
> <tongue in cheek>
> Can anyone tell me how I can replace a couple 6LQ6's with SMD?
> My Swan 350C is hungry.
> <tongue returned to normal position>

<need to toss in two cents worth>
I just checked my latest Mouser catalog and 'do tell', they have
components other than SMD for us half-blind old-timers and guys with big
fingers and other has beens from the last century. Those SMD components
are hard as hell to mount on a terminal strip because they keep slipping
thru the holes. Probably just a fad.
-Bill
</need to toss in two cents worth>

4621. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 20:39:34 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B69BA86.A59EA537@mwci.net>
Source record: 51167

Clifton T. Sharp Jr. wrote:

> Laura Halliday wrote:
> > <editorial rant>
> > I have no patience with those who refuse to work with SMD.
> > It's 2001, and that's how parts are packaged. Deal with it.
> > </editorial rant>
>
> There's an honored place for all the different kinds of construction. It's
> a real pity to see the parts arena becoming SMD-or-nothing.

For an experimental project that is to be perfected in a breadboard envirinment, the SMD approach is not cost-wise or time-wise effective. After all the bugs are resolved, a semi-final version, followed by a final version, in SMD, is a better approach.Bill W0IYH

4622. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 21:15:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B69C2E9.8B5567F1@eznec.com>
Source record: 51168

I agree absolutely with Bill. Unfortunately, though, this approach is
getting harder and harder to do as leaded components disappear from the
market. When I first went to work at Tektronix, there were acres of

"William E. Sabin" wrote:
>
> Clifton T. Sharp Jr. wrote:
>
> > Laura Halliday wrote:
> > > <editorial rant>
> > > I have no patience with those who refuse to work with SMD.
> > > It's 2001, and that's how parts are packaged. Deal with it.
> > > </editorial rant>
> >
> > There's an honored place for all the different kinds of construction. It's
> > a real pity to see the parts arena becoming SMD-or-nothing.
>
> For an experimental project that is to be perfected in a breadboard
> envirinment, the SMD approach is not cost-wise or time-wise effective. After
> all the bugs are resolved, a semi-final version, followed by a final version,
> in SMD, is a better approach.Bill W0IYH

4623. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 21:36:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B69C7E1.69D5DD8A@eznec.com>
Source record: 51169

I agree absolutely with Bill. Unfortunately, though, this approach is getting harder and harder to do as leaded components disappear from the market. When I first went to work at Tektronix in 1974, there were literally acres of people stuffing leaded components into PC boards. Not long before that, the acres of people were soldering components onto terminal strips. At the same times, home hobbyists were using pretty much the same techniques with the same components. When I left in 1995, the people were long gone, having been replaced by machines plopping SMD components onto boards. A good deal of design was done by modeling -- for that matter, a lot of the circuitry was being put into integrated circuits which were only modeled and not breadboarded at all. As the need for leaded compoments has decreased, manufacturers have cut back production, and a lot of modern components are now available only in SMD or fine-pitch versions. The fundamental problem is that the approach Bill and I prefer is no longer the way it's being done in the commercial world, so as time goes on we can expect it to get harder and harder to find the components and tools we need for this approach. At the moment, we can still follow the old approach by and large, but it keeps getting tougher and tougher. It seems to me the only way we'll be able to keep homebrewing in the future is to adapt ourselves as well as we can to the methods being used in industry. This includes modeling, using SMD components, and even integration. We lack the resources to develop ASICs for individual projects, but things like PIC processors are viable options. We'll have to evolve or die out.

Roy Lewallen, W7EL

"William E. Sabin" wrote:
>
> Clifton T. Sharp Jr. wrote:
>
> > Laura Halliday wrote:
> > > <editorial rant>
> > > I have no patience with those who refuse to work with SMD.
> > > It's 2001, and that's how parts are packaged. Deal with it.
> > > </editorial rant>
> >
> > There's an honored place for all the different kinds of construction. It's
> > a real pity to see the parts arena becoming SMD-or-nothing.
>
> For an experimental project that is to be perfected in a breadboard
> envirinment, the SMD approach is not cost-wise or time-wise effective. After
> all the bugs are resolved, a semi-final version, followed by a final version,
> in SMD, is a better approach.Bill W0IYH

4624. Re: Six/Twelve? Was Re: Restoring car batteries

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 22:15:51 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <AOHweHAXEda7EwUe@g3ohx.demon.co.uk>
Source record: 51170

In article <3b672f54.178844028@news.online.no>, J M Noeding
<la8ak@online.no> writes

>
>Believe it was easy to convert English positive grounded battery
>circuit to negative ground, just changing the connection to battery -
>provided it was dynamo - not alternator, and radio must be right way,
>of course
>
>73
>Jan-Martin
>LA8AK

Yes. I did this a couple of times. Reverse battery, and 'splash' +ve on dynamo field (to reverse the residual magnetism which is needed to get the volts rising). Temperature gauge meters were hot wire, ammeters moving iron, starters series wound - all insensitive to polarity. The only slight drawback was the ignition coil EHT volts. With the correct polarity, the back emf of the primary (about 600V) added to the secondary. With the reversed battery, I understand that it subtracts, and this might be noticeable if ignition is marginal.

Ian.

4625. Announcement: new AD9850 DDS system

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-02 22:34:58 UTC
From: Leon_Heller@hotmail.com
Message-ID: <6e111008.0108021434.3dbea577@posting.google.com>
Source record: 51171

I''ve just designed a PCB for a little AD9850-based DDS system. Details here:

http://www.leonheller.com

I hope to have some PCBs in a couple of weeks.

73, Leon G1HSM

4626. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 00:38:10 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B69F26F.1800B0A7@home.com>
Source record: 51172

Laura Halliday wrote:

> <editorial rant>
> I have no patience with those who refuse to work with SMD.
> It's 2001, and that's how parts are packaged. Deal with it.
> </editorial rant>

I agree. Some SMDs are easier to work with than others though. SOIC style cases have a lead spacing that are half that of DIPs, and I find them quite attractive to build dead-bug style using # 32 gauge enamel wire for hook up wire. They are still easy to work with, and take up much less space. No need to use a special PC board to work with these sized parts.

I have also switched over from using 1/4w to 1/8w resistors because they are a better SOIC size match. At 100/$1 at RadioShack.com, 1/8w resistors are easy to afford. Spend $100 and get all the common values for building.

I have a problem building with the TSSOP which are half again the size of the SOIC or 1/4 the lead spacing of DIPs. I about went blind trying to hook up a pair of AD9851 DDS chips, but succeeded, again deadbug style using # 32 gauge enamel wire for hookup. The AD9851s are not available in anything larger than TSSOP.

Someone on QRPL who evidently did this for a living claims it is easy to work with TSSOP deadbug style when using a fine tip soldering iron and a 20 to 30 power binocular microscope. Anyone know where I can get one cheap? I like to homebrew, and I think I will need it!

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4627. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 01:39:06 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3b6a00ba@news.svn.net>
Source record: 51174

Mark J. Dulcey <mark@buttery.org> wrote:
> By the way, does anyone out there know of distributors who sell LiIon
> cells? I haven't seen them in any of my catalogs, and web searches
> haven't yielded any sellers that sell them off the shelf. Buying
> something packaged, such as a cellphone battery, seems wasteful when I
> just want the cell inside.

Generally, no - since a LiIon cell can explode with flames if shorted or overly charged, most manufacturers will only allow their distributers to sell them to established OEMs, not small shops or individuals. Liability laws, you know. That's why we can only buy them in packs which then provide all sorts of protection circuitry.

Sure makes it hard for those of us with LiIon powered goodies when the cells expire - a battery pack for my 1995 NEC portable has perhaps $30 of Panasonic 16550 cells in it but you can only buy it for $175 or more. Sigh.

Of course, the Ham / enthusiast approach is to get a cheap (eBay) portable battery pack and strip its cells out. Of course, be careful. We don't read about you in the Silent Keys column!

Jim Horn, WB9SYN/6

4628. Info re: "LMW 1296PRM", anyone?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 02:17:02 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3B6A099E.B17E1F7E@valley.net>
Source record: 51176

Hello--
I have a partially-assembled printed-circuit board labeled, "LMW
1296PRM"
here before me. It appears to be a 1296 MHz mixer, but my usual sources
don't
list any commercial versions of this board.

Can anyone tell me...
--Who manufactured the circuit board;
--What's its function
--Where I might find a schematic?

The only active-device outlines are for a pair of diodes and a couple of
78L05 regulator chips.

TIA, and 73--
Brad AA1IP

4629. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 02:19:12 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <i2mhmtk2602kdbji9ho225kgkb5gpkdn22@4ax.com>
Source record: 51173

"Mike Allenson" <mike@allenson.fsnet.co.uk> wrote:

>try www.wires.co.uk they are a division of the Scientific Wire Company &
>seem to stock nickel-chromium from 0.2 mm down to 0.1 mm. I havent bought
>anything from them but the site looks promising with 50gm quantities on
>offer.
>
>Mike G3TGD
>
>"Dick" <dick@langwang.demon.co.uk> wrote in message
>news:XP4WQEApRvZ7EwPa@langwang.demon.co.uk...
>> Does any member of the newsgroup know of a (preferably uk) supplier of
>> fine (22swg or thinner) nicrome wire ?

How about a distributor of small quantities in the US?

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

4630. Re: Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 03:11:19 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B6A161F.1BB385E5@home.com>
Source record: 51177

You might check with the upper scale cooking stores in your area. My wife has two of these she has bought from specialty cooking stores for baking cookies on. That is most likely the most expensive route, but it is available.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Jim Adney wrote:
>
> "Douglas Snowden" <snowden@peoplepc.com> wrote:
>
> >I am looking for a small amount of silicone (or similar)
> >rubber sheeting to use to wrap around a 4CX800 tube
> >and form a chimney.....
>
> As long as there is air flow thru it, would this really have to be a
> high temp material? I know that the usual chimneys are all glass or
> ceramic, but....
>
> Just wondering.
>
> -
> ---
> Jim Adney jadney@vwtype3.org
> Madison,Wisconsin USA
> ---

4631. Re: Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 03:41:44 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <pg6kmto4gb418eff7jjiaob3qqm7q32gug@4ax.com>
Source record: 51175

"Douglas Snowden" <snowden@peoplepc.com> wrote:

>I am looking for a small amount of silicone (or similar)
>rubber sheeting to use to wrap around a 4CX800 tube
>and form a chimney.....

As long as there is air flow thru it, would this really have to be a
high temp material? I know that the usual chimneys are all glass or
ceramic, but....

Just wondering.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

4632. PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 04:53:55 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <d89HUWAj5ia7EwFf@invest.fsbusiness.co.uk>
Source record: 51182

Is there any Shareware or freely available Windows based PCB design
software that anyone can recommend on the web?

I have a circuit of an HF synth that I would like to make a board for.

Many thanks.

Phil G4ZOW

4633. Re: CW in your car?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 06:14:44 UTC
From: Leon_Heller@hotmail.com
Message-ID: <6e111008.0108022214.cbe5fe@posting.google.com>
Source record: 51178

>
> After banging my head against the wall for a couple of weeks, I
> remembered that I did have one bit of real I/O - there was a reset line that
> my CPU could output to an optional piggyback module.

I had a similar problem with a design in my previous job. I needed to
indicate that the FPGA had been configured correctly by the DSP. We
had a couple of relays so I simply pulsed one of them three times if
the FPGA was OK, otherwise it stuck in a loop pulsing the relay
continuously. We did have a couple of LEDs, but they were driven by
the FPGA.

73, Leon

4634. Re: Bought optical encoder; quadrature decoder needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 06:21:17 UTC
From: Leon_Heller@hotmail.com
Message-ID: <6e111008.0108022221.45f8c103@posting.google.com>
Source record: 51179

>
> IIRC the G3XJP project is on the
> Microchip web site.

It's also been transmogrified into an app. note on the ADI web site.

73, Leon

4635. Re: Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 07:16:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B6A4FDB.91BC4F9A@eznec.com>
Source record: 51180

You might try an auto parts store. I think silicone rubber is sometimes used for gaskets, and they sell material to make your own gaskets with. Certainly some automotive gaskets have to put up with some pretty high temperatures, so they should have something in sheet form that would take it.

Roy Lewallen, W7EL

Jim Adney wrote:
>
> "Douglas Snowden" <snowden@peoplepc.com> wrote:
>
> >I am looking for a small amount of silicone (or similar)
> >rubber sheeting to use to wrap around a 4CX800 tube
> >and form a chimney.....
>
> As long as there is air flow thru it, would this really have to be a
> high temp material? I know that the usual chimneys are all glass or
> ceramic, but....
>
> Just wondering.
>
> -
> ---
> Jim Adney jadney@vwtype3.org
> Madison,Wisconsin USA
> ---

4636. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 08:09:43 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <ttmkmtc5ksd5n07rlkndrafn094qjj2u4i@4ax.com>
Source record: 51181

On Thu, 02 Aug 2001 14:36:33 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>This includes modeling, using SMD
>components, and even integration. We lack the resources to develop ASICs
>for individual projects, but things like PIC processors are viable
>options. We'll have to evolve or die out.
>
>Roy Lewallen, W7EL

I've often thought its ironic that as my eyes are getting middle
aged and losing acuity the parts and pitches are becoming miniscule.
A few years ago I may have been able to cope easier. Now I spend a
large amount of time looking through a binocular microscope.

Hmmm. How many components can dance on the head of a pin?

-Rex Allers, KK6MK

4637. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 12:25:59 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b6a97b2.2372371@news.cantech.net.au>
Source record: 51183

On Fri, 3 Aug 2001 05:53:55 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>Is there any Shareware or freely available Windows based PCB design
>software that anyone can recommend on the web?
>
>I have a circuit of an HF synth that I would like to make a board for.

Phil

Why must it be Windoze? For example, I run Protel AutoTrax (not
free) in a 98SE DOS box without any hitches, and their freebie
EasyTrax aka Easyfree is equally tame. The only significant
difference is that AutoTrax is capable of autorouting, something which
I NEVER would let it do anyway under the 95/5 rule ....

YMMV

Peter
VK6ZEG

4638. Re: Silicone Rubber Sheet Source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 14:40:20 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <oJya7.1454$xY6.174485@newsread2.prod.itd.earthlink.net>
Source record: 51184

Silicon sheeting is manufactured by St Gobain at a facility in New Haven, CT. You should be able to get information at 800-962-2666 regarding retail sources.

Ideas: (royalty free!) A couple of layers of glass cloth impregnated with Silicone RTV ? Same sort of construction made from muffler patching material, i.e., glass cloth and sodium silicate.

Roy Lewallen <w7el@eznec.com> wrote in message
news:3B6A4FDB.91BC4F9A@eznec.com...
> You might try an auto parts store. I think silicone rubber is sometimes
> used for gaskets, and they sell material to make your own gaskets with.
> Certainly some automotive gaskets have to put up with some pretty high
> temperatures, so they should have something in sheet form that would
> take it.
>
> Roy Lewallen, W7EL
>
> Jim Adney wrote:
> >
> > "Douglas Snowden" <snowden@peoplepc.com> wrote:
> >
> > >I am looking for a small amount of silicone (or similar)
> > >rubber sheeting to use to wrap around a 4CX800 tube
> > >and form a chimney.....
> >
> > As long as there is air flow thru it, would this really have to be a
> > high temp material? I know that the usual chimneys are all glass or
> > ceramic, but....
> >
> > Just wondering.
> >
> > -
> > --
> > Jim Adney jadney@vwtype3.org
> > Madison,Wisconsin USA
> > --
>

4639. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 15:00:19 UTC
From: deyoreo@re.ray.com
Message-ID: <3b6abc65.11863588@proxy.res.ray.com>
Source record: 51185

WinBoard by Ivex works very nice. Search for it.
On Fri, 3 Aug 2001 05:53:55 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>Is there any Shareware or freely available Windows based PCB design
>software that anyone can recommend on the web?
>
>I have a circuit of an HF synth that I would like to make a board for.
>
>Many thanks.
>
>Phil G4ZOW
>

4640. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 16:18:19 UTC
From: Stephen D Lindner <intelF@mediaFone.net>
Message-ID: <c9jlmts1la8e9fhmfttll8ua1ctemn3jng@4ax.com>
Source record: 51186

I'm just getting ready to try my very first SMD project...just a
little MAR-6 box. I've done a lot of homebrew in the past but this is
new to me. What wattage iron do you use? Do you prefer any particular
solder guage/formulation?

I've been using one of those common magnified lamps...circular tube
fluorescent. Will that be ok?

Steve Lindner KC8MGV; Ann Arbor, MI

On Fri, 03 Aug 2001 00:38:10 GMT, Dan Tayloe <dtayloe@home.com> wrote:

>I agree. Some SMDs are easier to work with than others though. SOIC
>style cases have a lead spacing that are half that of DIPs, and I find
>them quite attractive to build dead-bug style using # 32 gauge enamel
>wire for hook up wire. They are still easy to work with, and take up
>much less space. No need to use a special PC board to work with these
>sized parts.
>
...
>I have a problem building with the TSSOP which are half again the size
>of the SOIC or 1/4 the lead spacing of DIPs. I about went blind trying
>to hook up a pair of AD9851 DDS chips, but succeeded, again deadbug
>style using # 32 gauge enamel wire for hookup. The AD9851s are not
>available in anything larger than TSSOP.
>
>Someone on QRPL who evidently did this for a living claims it is easy to
>work with TSSOP deadbug style when using a fine tip soldering iron and a
>20 to 30 power binocular microscope. Anyone know where I can get one
>cheap? I like to homebrew, and I think I will need it!
>
>- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Remove the F's from my email address if you wish to respond direct
(for anti-spamming reasons)

4641. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 17:20:13 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B6ADD4C.11F4C442@ay.com.au>
Source record: 51187

Leon Heller wrote:
>
> > Does any member of the newsgroup know of a (preferably uk) supplier of
> > fine (22swg/awg or thinner) nicrome wire I need for a project ?
>
> Scientific Wire Co. stocks this sort of thing. They are somewhere in London.

Worst comes to worst, he could always attack an old toaster. They tend
to be a fragile ribbon of nicrome though. Over here in Oz the local
electronics shop (Dick Smith) sells 22 gauge nicrome in a pack of about
5 metres for a few dollars.

I've used bathroom heaters, the ones where the radiating elements are
made from ceramic tube with nicrome wound on the outside in a nice
spiral groove (not the quartz tubes with the wire coiled inside), for
dummy loads in high powered audio projects.

--
Alan Yates
http://www.alanyates.com/
The Moon is Full

4642. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 17:24:25 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108030924.4b9d9768@posting.google.com>
Source record: 51188

Dan Tayloe <dtayloe@home.com> wrote in message news:<3B69F26F.1800B0A7@home.com>...
> Laura Halliday wrote:
>
> > <editorial rant>
> > I have no patience with those who refuse to work with SMD.
> > It's 2001, and that's how parts are packaged. Deal with it.
> > </editorial rant>
>
>
> I agree. Some SMDs are easier to work with than others though. SOIC
> style cases have a lead spacing that are half that of DIPs, and I find
> them quite attractive to build dead-bug style using # 32 gauge enamel
> wire for hook up wire. They are still easy to work with, and take up
> much less space. No need to use a special PC board to work with these
> sized parts...

Good points, all.

If all people want to do is build yet another radio
based on outmoded 1970s technology, they can do so as
long as NOS leaded parts are available. But if they
want to try anything new, they will have to work with
SMD, whether they like it or not. AD9851 is a good
example of a useful chip that is only available in
SMD, and is not likely - *ever* - to be available any
other way.

If people feel that such components are incompatible
with experiementation, they have two options: whine
about it, or find new ways to experiment. I choose the
latter.

Similarly, if people feel that such components are
incompatible with their eyes or hands, they can whine
about it, or get the equipment they need. Again,
I choose the latter.

I think I see a pattern forming here.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4643. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 17:24:43 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9kemor$s7r$2@woodrow.ucdavis.edu>
Source record: 51189

Hi Dick,

Hate to throw you off the track, but if your winding parasitic
suppressors with that nichrome wire, you need to buy the right type of
Nichrome wire.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: Dick <dick@langwang.demon.co.uk> wrote:
: Ooops, sorry for getting my original query mixed up in an unrelated thread !
: Does any member of the newsgroup know of a (preferably uk) supplier of
: fine (22swg/awg or thinner) nicrome wire I need for a project ?
: --
: Dick
: GM0MNL

4644. Yaesu FT757GXII and FT747 for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 17:34:23 UTC
From: ko4qc@mindspring.com
Message-ID: <3b6adef7.1659623@news.mindspring.com>
Source record: 51190

I have one of each,bought both new from HRO..non smoker,757
never mobile..747 mobile on temporary occasions...757 has cold solder
joint in power connector..acts like not getting correct amperage but
works after applying pressure to connector...747 works fine in RX but
I get reports of off freq/distorted audio on TX......reasonable offer
gets one or both...757 had MD1 mic and 747 has hand mic.....manuals
included.......e-mail me direct at
ko4qc@mindspring.com

PS:I pay for shipping via UPS ground to 'lower 48'....you pay for
premium shipping...

4645. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 18:00:44 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B6AE668.E794085E@home.com>
Source record: 51191

Stephen D Lindner wrote:
>
> I'm just getting ready to try my very first SMD project...just a
> little MAR-6 box. I've done a lot of homebrew in the past but this is
> new to me. What wattage iron do you use? Do you prefer any particular
> solder guage/formulation?
>
> I've been using one of those common magnified lamps...circular tube
> fluorescent. Will that be ok?

Good lighting is a must, and your lamp may be useful for that purpose. However, I have found the common magnified lamps unsuitable for magnification purposes. I almost need to press the magnifier right up to the circuit, leaving no room for soldering. Even then, the circuit is a bit distorted.

I use a pair of magnifying glasses like the kind used by jewelers. There are many types on the market, and most don't work well for me. Try them on before you buy one! The kind I have found works best for me is call "MagEyes". My wife recently bought me a back up pair from a hobby chain called "Hobby Lobby". It looks like part number 77 0500, normal price $25.99. I believe Hobby Lobby has an email address.

The lenses are 1.6x and 2x. It may be that the main benefit I get out of them is not so much the magnification, but rather the close up vision. I am 44 and since 41 have lost my ability to focus close up on these itty bitty parts. The doctor tells me it is a 40s thing. The use of lots of light helps a bunch.

I use a Weller WCC 100 soldering iron (~$100), which is temperature controlled iron. I normally solder at 700 degrees, going only to 800 degrees for things like soldering double sided PC board boxes (inexpensive custom project chassis!) and for burning enamel off of larger gauge wire such as # 24.

I have several rolls of 0.01" solder that I have picked up for $1 to $2 a one pound roll at hamfests, with either 60/40 or 63/37 mix. My larger 0.031" solder is not as nice, but works OK as well.

Hope this helps.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4646. Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 18:24:40 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3B6AEC7D.47FE28A3@norpak.ca>
Source record: 51192

Anyone know of any good construction manuals
or schematics for a 50 ohm return loss bridge?
TIA
Regards
Frank

4647. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 18:40:23 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <o6rek9.vhg.ln@localhost.localdomain>
Source record: 51195

Philip de Cadanet wrote:

> Is there any Shareware or freely available Windows based PCB design
> software that anyone can recommend on the web?

Eagle CAD from: http://www.cadsoftusa.com for Windows and Linux.
It has all the usual stuff, schematic capture, autorouting, Gerber output,
etc...

The freeware version is quite functional.

From the Eagle CAD doc's.
****
The Light edition has the following limitations:

board area limited to 100x80mm (4x3.2inch), which corresponds to half of a
Eurocard

only two routing layers (Top and Bottom)

a schematic can consist of only one single sheet

****

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4648. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 18:41:04 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <63QWdvAABva7EwQ$@invest.fsbusiness.co.uk>
Source record: 51193

Hi Peter,

>Why must it be Windoze? For example, I run Protel AutoTrax (not
>free) in a 98SE DOS box without any hitches, and their freebie
>EasyTrax aka Easyfree is equally tame. The only significant
>difference is that AutoTrax is capable of autorouting, something which
>I NEVER would let it do anyway under the 95/5 rule ....
It was the autorouting aspect that I was thinking about though I am
limited in experience in laying out boards.

I'll heed your advice.

Once again thanks.

Phil G4ZOW

4649. Re: Nichrome wire

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 19:19:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <t1PhCUABIva7EAio@ifwtech.com>
Source record: 51049

Skipp wrote:
>Hi Dick,
>
>Hate to throw you off the track, but if your winding parasitic
>suppressors with that nichrome wire, you need to buy the right type of
>Nichrome wire.
>
Out of 22 gauge? No, I think he's safe.
(Sorry, AMPS reflector in-joke. You had to be there...)

>
>: Dick <dick@langwang.demon.co.uk> wrote:
>: Ooops, sorry for getting my original query mixed up in an unrelated thread !
>: Does any member of the newsgroup know of a (preferably uk) supplier of
>: fine (22swg/awg or thinner) nicrome wire I need for a project ?
>: --
>: Dick
>: GM0MNL

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

4650. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 19:32:03 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <T_Ca7.1183$1p1.85281@bgtnsc04-news.ops.worldnet.att.net>
Source record: 51194

There is a program available from www.waldherr.com. This program is a Windows based (95 or greater). He does have a demo version on his website. The name of the program is PIA. It is the best program that I have seen for the money. If you buy the 150 dollar version, you can have up to 8000 pads and 12000 connections. You can create library symbols, and you can autoroute (although who would!). Operation is pretty similar to the 25 thousand dollar route editor that I was using when I worked for Rockwell-Collins (Visula). For any of you that I have sent any of my radio and synthesizer design information to, these designs were done on this program. I know that some of the DOS based programs are pretty good; I used to use one called Layout, written by a Dutch fellow, but this new program.....well, you be the judge, folks!

Pete Gianakopoulos KE9OA
Chicago, Il.

<deyoreo@re.ray.com> wrote in message
news:3b6abc65.11863588@proxy.res.ray.com...
> WinBoard by Ivex works very nice. Search for it.
> On Fri, 3 Aug 2001 05:53:55 +0100, Philip de Cadanet
> <phil@invest.fsbusiness.co.uk> wrote:
>
> >Is there any Shareware or freely available Windows based PCB design
> >software that anyone can recommend on the web?
> >
> >I have a circuit of an HF synth that I would like to make a board for.
> >
> >Many thanks.
> >
> >Phil G4ZOW
> >
>

4651. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 19:34:26 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <PXAbVzACzva7EwUE@invest.fsbusiness.co.uk>
Source record: 51047

Hello,

>WinBoard by Ivex works very nice. Search for it.
>On Fri, 3 Aug 2001 05:53:55 +0100, Philip de Cadanet
><phil@invest.fsbusiness.co.uk> wrote:
I'll add this to my list to check out.

Many thanks for your input.

(((73)))

Phil G4ZOW

4652. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 19:40:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B6AFE38.D9C9F68A@eznec.com>
Source record: 51196

You'll find good information in _Solid State Design for the Radio Amateur_, by DeMaw & Hayward, available from the ARRL.

Roy Lewallen, W7EL

Frank Worm wrote:
>
> Anyone know of any good construction manuals
> or schematics for a 50 ohm return loss bridge?
> TIA
> Regards
> Frank

4653. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 20:12:32 UTC
From: mcalhoun@ksu.edu
Message-ID: <9kf0jg$ind@unix1.cc.ksu.edu>
Source record: 51048

>>This includes modeling, using SMD components, and even integration....
>I've often thought its ironic that as my eyes are getting middle
>aged and losing acuity the parts and pitches are becoming miniscule.
>A few years ago I may have been able to cope easier. Now I spend a
>large amount of time looking through a binocular microscope.

As a certified "old Fart", I agree with you, but perhaps we should try
to think more positively: as modeling gets better and better, soon we
won't have to build anything at all; we can just MODEL the interaction
of the transceiver we would have built with the interaction of the
transceiver someone else would have built, then turn our computer off
and call it a long day!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4654. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-03 22:41:05 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9kf9ncfkc1@plutonium.btinternet.com>
Source record: 51050

Mark, you are making too much of a simple job.

Just get a 1496. Get some resistors and capacitors in the right
ball park and stop worrying about it.

Toroid sizes: low power 1/2", high power 1.5 or 2.0 inch diameter.

If you can't manage from hereon then you are not a person qualified
to undertake the design/build task. Pay somebody else to do it for
you.

Don't expect it to work first time. Mine never did. But you will
have great enjoyment with you failures.

****
Regards, Reg, G4FGQ
Free radio design software
http://www.g4fgq.com
****

Mark Mohr <themohrs@fuse.net> wrote in message
news:tmhjc85knc9ja4@corp.supernews.com...
> Hello All;
>
> I'm trying to come up with plans / schematics for a
transceiver for 10m
> and maybe 15 and 20m (later). I've been all over the web
looking, and it
> seems homebrewing is a dying art. The local club is no help - all
the
> engineer types are gone. So far, I've found some interesting
circuits, but
> there's always a problem: no toroid data (what core did he
use?) or the
> parts are no longer made (examples like Motorola MC1350P/1590,
MC1496,
> etc.) It's getting very frustrating. Maybe somebody out there can
help.
>
> Whatever I end up building, it has to meet these criteria:
>
> 1) Cheap - I'm on fixed income and don't have much money, let
alone any
> to spend on " experiments ";
>
> 2) Simple - " Keep It Simple Stupid " holds much truth, and

improves
> odds of success;
>
> 3) Obtainable - Parts must currently be in production and
available in
> the states in small quantities (what's the sense of building
something you
> can't get replacement parts for ?)
>
> 4) Effective - Decent sensitivity and selectivity (to take
advantage of
> this sunspot cycle we're in) in the receiver, and a clean - read
>55 dB
> carrier and opposite sideband suppression, with very low spurious
> emissions - transmitter that makes 15 - 20 watts PEP output.
>
> 5) NO SMD - I have bananas for fingers and have a hard enough
time
> soldering a conventional DIP, let alone a fleaspeck with 20 pins
>
>
> Have any of you seen such an animal lately? If so please
email me. I'm
> not interested in bells and whistles (good basic performance is
more
> important than flash to me)
>
> In my search, I have found out a few things. Philips
Semiconductors
> Europe) still makes the SA602AN (remember the NE602?) and
Ocean State
> Electronics carries them.
>
> Analog Devices makes a very interesting mixer chip, the
AD831AP. Only
> problem is it's SMD - PQFP 20 pin. Those of you with microscopes
for eyes
> and a knack for microsurgery might want to look at it -
amplifiers at in /
> out, 50 ohm inputs and outputs, etc - a killer chip, if only it
came in a
> DIP. Plus, it's 17 dollars apiece at Newark.
>
> Dan's is still around, and he has Mini - Circuits SBL-1's
dirt cheap. I
> would prefer to work with active devices, for conversion gain
better noise
> figure, too - the '602 has a 4 dB noise figure [so says
Philips])
>

> Problem is, as I said, I can't find a complete circuit, with
all
> repeat all) necessary data for duplication. Anyone care to lend
a hand? I
> could even send you the schematics I've developed - to check my
work,
> perhaps, or tell me if it has a 75% or better chance of working.
I can do
> the math (I think) and I can build it if the math is right, but
I can't
> afford a 200 dollar failure. Please, somebody say they'll take a
look.
>
> No, I don't have my license yet. Next local VE session is
September
> sometime. Would like to get at least the receiver up before then
for some
> live morse practice (you can use all the programs and recordings
you like,
> there's no substitute for the real thing). Any old timers or
retired RF
> engineers out there that would like to collaborate on a project?
>
> Please feel free to email me at themohrs@fuse.net. I'll scan
my
> schematics and put them together in a package of JPG's for
attachments.
>
>
>
Help me,
> Mr. Wizard
>
>
>
Thanks
>
>
>
Mark
> Mohr
>
> Cincinnati, Ohio
>
>

4655. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 00:50:14 UTC
From: FMS <South.River@verizon.net>
Message-ID: <aFHa7.921$sN1.173711@typhoon1.gnilink.net>
Source record: 51051

I have a brand new one by IFR for sale for 250.00 shipped.

Fred
"Frank Worm" <fworm@norpak.ca> wrote in message
news:3B6AEC7D.47FE28A3@norpak.ca...
> Anyone know of any good construction manuals
> or schematics for a 50 ohm return loss bridge?
> TIA
> Regards
> Frank
>
>
>

4656. Manual and programming for Unident FMH-350D

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 03:42:04 UTC
From: TLNixon@home.com
Message-ID: <3b6b6ecf.111997188@news.moline1.il.home.com>
Source record: 51052

Looking for manual or copy for the above, looking to reprogram, retune this thing on the 2 meter band.

Thanks
Terry-WB0VQP

4657. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 03:43:59 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <3cKa7.35077$LP2.1791325@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51053

There are many folks who don't have the eyes or the hands to work with SMD components. Does this mean that they should get out of the homebrewing hobby? I don't think so! Most of the component geometry that I am working with is the 0402 size; we will be moving the 0201 size shortly. This doesn't mean that everybody has to do it!

Pete Gianakopoulos KE9OA
Chicago, Il.

Bill M <"take out the NO in the Reply To Address"@coqui.net> wrote in message news:3B69A7D1.5EF64C64@coqui.net...
> Don Putnick wrote:
> >
> > Laura Halliday wrote:
> >
> > > <editorial rant>
> > > I have no patience with those who refuse to work with SMD.
> > > It's 2001, and that's how parts are packaged. Deal with it.
> > > </editorial rant>
> >
> > <tongue in cheek>
> > Can anyone tell me how I can replace a couple 6LQ6's with SMD?
> > My Swan 350C is hungry.
> > <tongue returned to normal position>
>
> <need to toss in two cents worth>
> I just checked my latest Mouser catalog and 'do tell', they have
> components other than SMD for us half-blind old-timers and guys with big
> fingers and other has beens from the last century. Those SMD components
> are hard as hell to mount on a terminal strip because they keep slipping
> thru the holes. Probably just a fad.
> -Bill
> </need to toss in two cents worth>
>

4658. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 03:49:07 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <TgKa7.35635$LP2.1792741@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51054

There are some cheapies made overseas, that are going for around 150
dollars. Not too bad, for a 30 power stereo microscope.

Pete Gianakopoulos KE9OA
Chicago, Il.

Dan Tayloe <dtayloe@home.com> wrote in message
news:3B69F26F.1800B0A7@home.com...
>
>
> Laura Halliday wrote:
>
> > <editorial rant>
> > I have no patience with those who refuse to work with SMD.
> > It's 2001, and that's how parts are packaged. Deal with it.
> > </editorial rant>
>
>
> I agree. Some SMDs are easier to work with than others though. SOIC
> style cases have a lead spacing that are half that of DIPs, and I find
> them quite attractive to build dead-bug style using # 32 gauge enamel
> wire for hook up wire. They are still easy to work with, and take up
> much less space. No need to use a special PC board to work with these
> sized parts.
>
> I have also switched over from using 1/4w to 1/8w resistors because they
> are a better SOIC size match. At 100/$1 at RadioShack.com, 1/8w
> resistors are easy to afford. Spend $100 and get all the common values
> for building.
>
> I have a problem building with the TSSOP which are half again the size
> of the SOIC or 1/4 the lead spacing of DIPs. I about went blind trying
> to hook up a pair of AD9851 DDS chips, but succeeded, again deadbug
> style using # 32 gauge enamel wire for hookup. The AD9851s are not
> available in anything larger than TSSOP.
>
> Someone on QRPL who evidently did this for a living claims it is easy to
> work with TSSOP deadbug style when using a fine tip soldering iron and a
> 20 to 30 power binocular microscope. Anyone know where I can get one
> cheap? I like to homebrew, and I think I will need it!
>
> - Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4659. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 04:00:01 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <5rKa7.36859$LP2.1793562@bgtnsc06-news.ops.worldnet.att.net>
Source record: 51055

A really good IF amp that is currently available is the Phillips TDA1572. This not only had demod and AGC built in, but it has a buffered, 50 Ohm IF output, for feeding SSB or FM detectors. It has an AGC output that can be adapted to also provide an RF AGC loop. Cost in small quantities is around $2.75. This is the same chip that the AOR7030 uses in its IF strip. It is available in SOIC or DIP form.

Pete Gianakopoulos KE9OA
Chicago, Il.

Mark J. Dulcey <mark@buttery.org> wrote in message
news:3B6991DD.88FC1DB4@buttery.org...
> Dan Tayloe wrote:
> >
> > The ARRL handbook has had the Norcal Serria in it for the last few
> > years. The MC1350 AGC amp is obsolete, but I think it can still be
> > found.
>
> The MC1350 is indeed still available; a number of parts sellers still
> have them. But best get them now if you want them; they will probably be
> a lot harder to find in a year. Motorola has transferred the rights to
> Lansdale Semiconductor (http://www.lansdale.com), but there is no
> telling when Lansdale will actually produce any parts, or what they will
> cost.
>
> Once the supply of 1350s dries up, it will force changes to a lot of
> designs. Lots of radios use them, including the Sierra, the K1, and the
> K2. I don't know of any simple drop-in replacement; the 1350 has a
> number of nice characteristics, including high gain and wide-range AGC
> response. It is a bit noisy, though.
>
> Let's hope Philips doesn't stop making the SA602 (formerly the Signetics
> NE602); nearly all our current QRP designs will be gone if that happens!
> Falling back on the previous generation of designs won't help; they
> mostly used dual-gate MOSFET mixers, which are already extinct. Guess
> we'd have to move on to the future: switching mixers using VMOS FETs or
> analog switch ICs, such as Dan Tayloe's design.
>
> As for myself, I'm planning to try out a design based on the AD607
> (http://www.analog.com). It's a bit pricey, but it is one of the only
> receiver subsystem chips that is suitable for a CW or SSB design. (Most
> of those subsystem chips have limiting IF amps intended for FM use.) And
> it works at low voltages, so I'm envisioning an ultra-portable rig that
> runs on a single LiIon cell. I'm hoping that careful design can yield
> performance in the same neighborhood as a 602-based design, which will

> be good enough for the class of radio I'm talking about. Surface-mount
> phobes won't be interested, though - this will probably be an all-SMD
> design.
>
> By the way, does anyone out there know of distributors who sell LiIon
> cells? I haven't seen them in any of my catalogs, and web searches
> haven't yielded any sellers that sell them off the shelf. Buying
> something packaged, such as a cellphone battery, seems wasteful when I
> just want the cell inside.

4660. Home Brew a 2m receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 04:14:18 UTC
From: Ghost <bester@optushome.com.au>
Message-ID: <3B6B756C.1BC28C49@optushome.com.au>
Source record: 51056

Ok This would have to be a newbie question but would any1 know where I can find (on the internet) a site that shows me how to build a 2m fm receiver (with PCP artwork)

Thanks in advance

-Ghost

4661. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 06:08:44 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3b6b86bd$0$32164@echo-01.iinet.net.au>
Source record: 51057

You could build one using a toroid and a few resistors so I wouldnt pay for it.
Look in the ARRL handbook for a circuit. I used 100 ohm surface mount resistors in parallel to get 50 ohms and it is good to 100 MHz or so. Use a small piece of PCB stock and a knife to cut pads for the components. The surrounding PCB can act as a ground plane. I used a metal boot polish tin to mount the bridge with the 3 connectors (BNC) mounted on the lid and holding the PCB stock. (drill holes in the stock for the connectors). I can get 35dB return loss at 30 MHz which means it is reasonably accurate.
The expensive bits are the signal source and the detector/receiver to estimate loss. (Maybe thats what you are getting for $250) I use a spectrum analyser as the receiver and a sig gen as he source but it would be possible to use a general coverage receiver with an accurate attenuator to calibrate it. I have an attenuator which came out of an ex Telecom piece of gear.

Richard

"FMS" <South.River@verizon.net> wrote in message
news:aFHa7.921$sN1.173711@typhoon1.gnilink.net...
>
> I have a brand new one by IFR for sale for 250.00 shipped.
>
> Fred
> "Frank Worm" <fworm@norpak.ca> wrote in message
> news:3B6AEC7D.47FE28A3@norpak.ca...
> > Anyone know of any good construction manuals
> > or schematics for a 50 ohm return loss bridge?
> > TIA
> > Regards
> > Frank
> >
> >
> >
>
>

4662. Re: Tayloe Detector / Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 06:46:26 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3b6b8f95$0$32156@echo-01.iinet.net.au>
Source record: 51058

Hans
I did some work on the polyphase network a few years ago (see Elelctronics and Wireless world March 1994 and Jan 1996)
I found the the 8 pole audio network had about 20 dB loss if it was followed by voltage followers.(high impedance) More importantly perhaps, the out of band losses were much less than in band meaning that the follwoing stages could be overloaded by out of band signals. These factors may limit the receiver dynamic range if you did not carefully design for them. You could reduce losses by summing all ouputs. Sideband suppression was very good at up to 60 dB and you could get an wide effective audio range of 200Hz to10 KHz

I used a single capacitance value and varied the resistors for a RF version of the network which was OK to about 30 MHz. At this frequency strays and circuit tolerances become a problem with only about 20 dB of sideband suppression. Performance was quite good to 10 MHz however. I think I used 10 nF caps with resistors in the range 33-150 ohms, all surface mount to reduce size.
I would be interested to hear of your results
Incidentally I have a VFO stabilizer board based on Eamon Skelton's design at my website

see http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

"Hans Summers" <Hans.Summers@Tudor.Com> wrote in message news:9k99gg$37uba$1@ID-61331.news.dfncis.de...
>
> Thanks for the detailed answer to my questions.
>
> "Dan Tayloe" <dtayloe@home.com> wrote in message
> news:3B676B0D.3FCC49E6@home.com...
> > I guess the answer to your question depends on what you are trying to
> > accomplish. Do you want best possible IP3 performance? Do you want
> > best possible sensitivity? Do you want best possible opposite sideband
> > rejection? Do you want minimum power consumption? Are you looking at a
> > simple, medium performance radio?
>
> My priorities are
> 1. Simplicity and ease of setting up. This is why I am considering DC rather
> than a superhet. This is also why I like the Tayloe detector.
> 2. Good sideband rejection. For this reason I am interested in 4-path
> polyphase as opposed to 2-path audio phasing. I am not worried about the

> cost of precision resistors and capacitors for the phasing network, or the
> number of stages (6 or even 8).
> 3. Good IP3
> 4. Sensitivity (last because I am thinking only of 14MHz max)
> I don't care at all about power consumption!
>
> > >
> > > I'm interested in views on the following questions.
> > >
> > > Considering a receiver consisting of input tuned circuit, Tayloe
> detector,
> > > polyphase audio phasing network, and audio filterting/amplification:
> >
> > I personally have not used a polyphase audio because my understanding is
> > that they are rather lossy. 40 db? If it is indeed that high, there
> > are engineer consequences to be paid depending on your design goal. In
> > addition, it uses series resistors. Resistors are noise sources that
> > can further degrade the sensitivity of the receiver.
>
> That is interesting. Does anyone know of any references where the losses
in
> a polyphase network are mentioned? I was not aware that they were
considered
> lossy. There is a diagram on page 15 of June 1995's QEX in an article
titled
> "Polyphase Netowrk Calculation using a Vector Analysis Method", which
shows
> an attenuation of <0.5db in the optimised network, and <6db in a constant
> resistance network. Since I am as yet unable to understand the maths in
this
> article I may be mistaken.
>
> I too worry about the noise introduced by the resistors but I have no feel
> for how significant this would be at HF.
>
> >
> > >
> > > 1. Is an RF amp necessary/desirable ahead of the Tayloe detector? Or
am
> I
> > > right in thinking that you want to minimise IMD products by doing all
> > > amplification after the detector?
> >
> > RF preamplification can improve the receiver sensitivity. I have heard
> > that 40m never has less than -116 dbm of noise. Since 50 ohm noise is
> > about -148 dbm (500 Hz), that means your receiver could be -120 dbm
> > sensitive (28 db noise figure) and still hear all there is to hear on
> > the band. I know that on 20m, one of my -143 dbm receivers (3 db S+N/N
> > MDS) could hear weak but readable cw signals that a -139 dbm receiver
> > could not hear at all. So on some bands, particularly 20m and higher,

> > additional sensitivity is useful.
> >
> > Think of IM not as a function of just the detector, but rather as the
> > signal saturation of the rf preamp, followed by the detector, followed
> > by the first audio pre-amplifier. The detector can take 4 volts pk-pk
> > if a 5v device is used. As such the first audio pre-amplifier will
> > likely run out of voltage headroom (assuming it has reasonable gain)
> > before the detector will. Thus the audio preamp will be the stage that
> > sets the IP3, not the detector.
> >
> > You can make a very good estimate of the IM point of the receiver by
> > simply taking maximum possible pk-pk voltage output of the audio
> > preamplifier and factoring out the gain of the rf preamp (if any), the
> > audio preamp gain, and the 1 db loss of the detector, and calculating
> > what input signal level will saturate the audio preamp output. As a
> > first order estimate, subtract about 23 db from this and you will have a
> > fair estimate of the IP3 of the front end.
> >
> > More RF gain can give better sensitivity, as long as 4v pk-pk is not
> > exceeded at the detector input, but any gain either in the RF preamp or
> > in the audio preamp will reduce IP3. Without a rf preamp or a rf step
> > up transformer, I figure that -143 dbm sensitivity (5 db NF) is
> > achievable with almost +40 dbm IP3. Playing with the numbers, I think
> > -146.5 dbm (1.5 db NF) is achievable with about +20 dbm IP3.
> >
> > I have a transceiver that emphasizes low current consumption above all
> > else, and at 11 ma at 12v achieves -137 dbm MDS (350 Hz, 3db S+N/N) and
> > +20 dbm IP3. It is all a big bunch of tradeoffs.
> >
> > >
> > > 2. Sometimes people use 2x clocking, sometimes 4x clocking. Presumably
> if
> > > you use 2x it is important to get an exact mark/space ration of 1,
which
> > > could be difficult, particularly in a multiband receiver. Is the 4x
> clocked
> > > version therefore always superior to any 2x clock design?
> >
> > I use 4x because it is simple. I don't think there is really any
> > difference in using a 4x frequency source or a 2x frequency source. The
> > stability of both should be about the same. The neat thing
> > is that once you have a frequency source for 4x of 28 MHz, divide by 2
> > and you have 14 MHz, divide by 2 again and get 7 MHz, etc. However,
> > each "divide by two" also halves the available frequency range.
> >
> > I have also used dual 1x sources, i.e., a pair of DDSs (AD9851s)
> > initialized to be 90 degrees apart to get the two bits to drive the
> > detector.
>
> I was thinking of a simple Huff & Puff stabilised VFO as per G3DXZ's

design,
> see the Tech Topics column of RadCom, Sep 2000 (reproduced on my site, see
> http://www.hanssummers.com/radio/huffpuff/contents.htm). At 56MHz I would
be
> able to divide to have a 4x clock for bands 14MHz, 7MHz, 3.5MHz and
1.8MHz.
>
> >
> > > 3. I have seen a few circuits using the Tayloe detector followed by a
> > > phasing network. In some cases, people subtract the Tayloe 0 and 180
> > > outputs, and the 90 and 270 outputs ahead of the phasing network. E.g.
> > > "QRP2001 Receiver" in Sprat #101. Why? Why not simply feed each of the
4
> > > Tayloe outputs directly into the polyphase network as in G3OGW's
4-path
> > > Polyphase D-C receiver (Tech Topics, RadCom May2001). The 4-path
method
> is
> > > said to give big improvements over 2-path by cancelling the unwanted
> > > sideband inside the polyphase network, this reducing errors /
component
> > > tolerance sensitivity.
> >
> > The R2 type phasing strip has unity gain which is attractive when the
> > goal is high sensitivity or high IP3. I get a minimum of 45 db of
> > opposite side band rejection, which is pretty good. I understand that
> > the polyphase can do 60 db of rejection, but you have to design around
> > the associated high loss. It is difficult to use a polyphase network
> > and still have a receiver with both good sensitivity and IP3.
> >
> > > 4. Is amplification needed between the Tayloe detector and the phasing
> > > network? I understand the input to the phasing network should be low
> > > impedance, and the phasing network likes to drive a high impedance
load
> at
> > > its other end. So can one just put 4 unity-gain low noise op-amps
before
> and
> > > again after the phasing network? In that case all the gain in the
> receiver
> > > would be in the subsequent AF stages.
> >
> > You will need an audio pre-amp with gain if you want to keep the
> > sensitivity intact. For a really noisy band like 80 or 160m, you might
> > not care as long as you are not trying to use a high loss receive
> > antenna such as a beverage. for the same sensitivity, the polyphase
> > network needs more gain (much more?) to overcome the polyphase loss,
> > which will negatively impact the IP3, but on the other hand, the
> > opposite sideband rejection might be 15 db better.
>

> A lot seems to hinge on the losses of the polyphase network. If I have
> understood the QEX June 1995 article correctly, these losses can be made
> very small. I was interested in the 4-path rather than 2-path for the
extra
> sideband suppression, I guess as long as the losses are small this is
still
> valid. Since I am interested in 1.8 - 14MHz only, from what you have said
I
> think I could get away with having no RF preamp, at least at first.
>
> Thanks again for the discussion
>
> Hans G0UPL
>
>
>

4663. Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 12:47:06 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <e9Sa7.8512$K6.3346961@news2>
Source record: 51059

Last week on QRP-L, someone was asking about a program for drawing homebrew dial faces. I decided to hack something together, and it's been surprisingly popular. As this is a homebrew reflector, it seems like there may be some other folks who want something simpler than playing with a drawing program.

The program is very bare-bones ... there is no ability to save a dial design, no installation program, no manual, no nothing, not even a link on my web page. Just unzip the exe (win32 only), double click, and you will see a dial. Click on the settings menu to change it. You can download it from:

http://hfradio.org/wb8rcr/downloads/Dial.zip

Later, after the typical folks had asked for a Linux version, it occurred to me that a more or less platform-independent version might be possible. The archive below:

http://www.hfradio.org/wb8rcr/downloads/Dial.tar.gz

contains the source and RedHat executable for a similar program that reads a script describing the dial and outputs PostScript. If you have a PostScript printer or GhostScript you're in business on Linux. For other platforms, you will need to compile the source, but I've tried to avoid any platform-specific quirks.

Enjoy

didleydadidah

4664. Re: Home Brew a 2m receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 14:20:59 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9kh0kn$ff8$1@neptunium.btinternet.com>
Source record: 51060

Harry will sort you out!

http://hem.passagen.se/sm0vpo/

4665. Old Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 16:46:55 UTC
From: "Arthur K. Andersen" <aa0blaka@interlinklc.net>
Message-ID: <PFVa7.160$iK.139496@newsfeed.slurp.net>
Source record: 51061

Does anyone have a schematic of an 80-15 meter amp using a pair of 813 tubes
in grounded grid configuration?
I have a pair of 813's and would like to build an amp around them.

Art Andersen, AA0BL

4666. Re: Old Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 16:49:16 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <gIVa7.29579$k7.6713793@news1.rdc1.tn.home.com>
Source record: 51062

Look in older ARRL handbooks 1960s 1970s and you should find several. It was a very common amp during that era.

jim K4KAE

"Arthur K. Andersen" <aa0blaka@interlinklc.net> wrote in message news:PFVa7.160$iK.139496@newsfeed.slurp.net...
> Does anyone have a schematic of an 80-15 meter amp using a pair of 813 tubes
> in grounded grid configuration?
> I have a pair of 813's and would like to build an amp around them.
>
> Art Andersen, AA0BL
>
>

4667. Boatanchors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 17:10:52 UTC
From: w4pqwhs@aol.com
Message-ID: <20010804131052.17862.00002314@ng-bg1.aol.com>
Source record: 51063

I can no longer bring up(rec.radio amateurs.boatanchors,) What happened?Harold W4PQW

4668. Re: Boatanchors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 17:39:07 UTC
From: Bill M <"take out the NO in the Reply To Address"@coqui.net>
Message-ID: <3B6C333B.29DB1757@coqui.net>
Source record: 51064

W4pqw HS wrote:
>
> I can no longer bring up(rec.radio amateurs.boatanchors,) What happened?Harold
> W4PQW

try rec.radio.amateur.boatanchors one less s.

--
Bill M
Vieques, PR

4669. Re: Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 17:45:24 UTC
From: Bill M <"take out the NO in the Reply To Address"@coqui.net>
Message-ID: <3B6C34B4.AE83145@coqui.net>
Source record: 51065

xpyttl wrote:
>
> Last week on QRP-L, someone was asking about a program for drawing homebrew
> dial faces. I decided to hack something together, and it's been
> surprisingly popular. As this is a homebrew reflector, it seems like there
> may be some other folks who want something simpler than playing with a
> drawing program.
>
> The program is very bare-bones ... there is no ability to save a dial
> design, no installation program, no manual, no nothing, not even a link on
> my web page. Just unzip the exe (win32 only), double click, and you will
> see a dial. Click on the settings menu to change it. You can download it
> from:
>
> http://hfradio.org/wb8rcr/downloads/Dial.zip

Looks like a great idea, but I'm not seeing a sample dial to start with
or a way to create one from scratch? Pse explain.

73,
WX4A

4670. Re: Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 17:46:39 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <3yWa7.8619$K6.3570386@news2>
Source record: 51066

That's come up before.

The image on the screen is roughly 3 times the size of the one on your printer, depending on the printer. On some screens, it is initially way off to the right (and possibly down) from the display area of the window. Simply scroll around in the window and it will be there. Alternatively, make the radius larger so it takes more space.

didleydadidah

"Bill M" <"take out the NO in the Reply To Address"@coqui.net> wrote in message news:3B6C34B4.AE83145@coqui.net...
> xpyttl wrote:
> >
> > Last week on QRP-L, someone was asking about a program for drawing homebrew
> > dial faces. I decided to hack something together, and it's been
> > surprisingly popular. As this is a homebrew reflector, it seems like there
> > may be some other folks who want something simpler than playing with a
> > drawing program.
> >
> > The program is very bare-bones ... there is no ability to save a dial
> > design, no installation program, no manual, no nothing, not even a link on
> > my web page. Just unzip the exe (win32 only), double click, and you will
> > see a dial. Click on the settings menu to change it. You can download it
> > from:
> >
> > http://hfradio.org/wb8rcr/downloads/Dial.zip
>
> Looks like a great idea, but I'm not seeing a sample dial to start with
> or a way to create one from scratch? Pse explain.
>
> 73,
> WX4A
>

4671. Re: Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 18:05:45 UTC
From: Bill M <"take out the NO in the Reply To Address"@coqui.net>
Message-ID: <3B6C3979.A3AE4013@coqui.net>
Source record: 51067

xpyttl wrote:
>
> That's come up before.
>
> The image on the screen is roughly 3 times the size of the one on your
> printer, depending on the printer. On some screens, it is initially way off
> to the right (and possibly down) from the display area of the window.
> Simply scroll around in the window and it will be there. Alternatively,
> make the radius larger so it takes more space.
>
> didleydadidah
>
> "Bill M" <"take out the NO in the Reply To Address"@coqui.net> wrote in
> message news:3B6C34B4.AE83145@coqui.net...
> > xpyttl wrote:
> > >
> > > Last week on QRP-L, someone was asking about a program for drawing
> homebrew
> > > dial faces. I decided to hack something together, and it's been
> > > surprisingly popular. As this is a homebrew reflector, it seems like
> there
> > > may be some other folks who want something simpler than playing with a
> > > drawing program.
> > >
> > > The program is very bare-bones ... there is no ability to save a dial
> > > design, no installation program, no manual, no nothing, not even a link
> on
> > > my web page. Just unzip the exe (win32 only), double click, and you
> will
> > > see a dial. Click on the settings menu to change it. You can download
> it
> > > from:
> > >
> > > http://hfradio.org/wb8rcr/downloads/Dial.zip
> >
> > Looks like a great idea, but I'm not seeing a sample dial to start with
> > or a way to create one from scratch? Pse explain.
> >
> > 73,
> > WX4A
> >
Found it...tnx.

--
Bill M
Vieques, PR

4672. NHRC2 help? I've lost your emails!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 18:10:43 UTC
From: Ken Page <vk4akp@yahoo.com>
Message-ID: <3b6c3e46@dnews.tpgi.com.au>
Source record: 51068

Hi! I recently had a computer crash and lost all email.

If you are the excellent VK who has contacted me recently about the NHRC2
repeater controler, please re-email me again with the info.

Thanks,
Ken.

email: vk4akp@yahoo.com

4673. Re: Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 18:55:08 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9khgav$1gf$1@plutonium.btinternet.com>
Source record: 51069

> Later, after the typical folks had asked for a Linux version, it occurred
to
> me that a more or less platform-independent version might be possible.
The
> archive below:
>
> http://www.hfradio.org/wb8rcr/downloads/Dial.tar.gz
>

This works fine under Windows/DOS when compiled with the DJGPP DOS port of
gcc.

73, Leon

4674. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 19:50:29 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <edkomt0quostdkfuoiq0hjqdremt8hlgk8@4ax.com>
Source record: 51070

On 3 Aug 2001 15:12:32 -0500, mcalhoun@ksu.edu (Myron A Calhoun) wrote:

>as modeling gets better and better, soon we
>won't have to build anything at all; we can just MODEL the interaction
>of the transceiver we would have built with the interaction of the
>transceiver someone else would have built, then turn our computer off
>and call it a long day!

It's kind of like money: Money used to be things like gold and silver,
then it became paper, then just ones and zeroes in a computer. And we
don't even know where the computer is!

A virtual world.

Bill, W7TI

4675. Re: Homebrew Dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 22:10:20 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9khrvoetj1@plutonium.btinternet.com>
Source record: 51071

xpyttl wrote

> I decided to hack something together, and it's been
> surprisingly popular.
==========
Dear xpyttl, its no surprise to me its so popular. Few minutes back I downloaded it. A lovely little program. 5 minutes practice is enough to become an expert. Print it and cut it out with scissors.

One suggestion - do an outer circle for cutting round. Doesn't matter much because a pencil and compass around the centre marker is easy enough.

Got any more like that ?

****
Regards, Reg, G4FGQ
Free radio design software
http://www.g4fgq.com
****

4676. DF Receiver A.D.F. TD-A13 with goniometer?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-04 23:11:28 UTC
From: la8ak@online.no
Message-ID: <3b6c8053.103486701@news.online.no>
Source record: 51072

Hi

Have been interested in obtaining a goniometer for some time, but it seems that I started the search over 10 years too late. However, tonight I visited a friend and got a goniometer which seems to be integrated into a receiver.

Does somebody have any info on this receiver? It looks rather English, but it is made in Japan, covers 200kHz to 13.5MHz in 5 bands. Scales for frequency and compass direction. It operates on A1, A2, A3 and SSB, and has some xtal positions - possibly for some IF function. It is operated from 24VDC

73, Jan_Martin
N4623-Kristiansand
tel.: +47-380-87178, QRL: 380-52660, 90777126
Batterie Vara (38cm heavy gun) http://home.no.net/bttvara/enter.html

4677. New Ham Search engine

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 04:09:35 UTC
From: mmurdock
Message-ID: <3b6cc6ff$1@quazar.starphire.com>
Source record: 51073

Looking for additional HomeBrew related sites for http://www.hamfinder.com
- If you have a site to recommend please submit it for inclusion.

Note: To reply to this sender, remove NOJUNK from the email address.

_____
HamFinder.com - Your complete ham resource

_____
NewsPuppy.com News Service
Get your own FREE newsgroup engine for your web site!
http://www.newspuppy.com

4678. Re: Home Brew a 2m receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 04:58:45 UTC
From: Ghost <bester@optushome.com.au>
Message-ID: <3B6CD155.C666FFC2@optushome.com.au>
Source record: 51074

thanxs a lot (I rember his site but I lost my links some time ago)

swampthing wrote:

> Harry will sort you out!
>
> http://hem.passagen.se/sm0vpo/

4679. Responses to first posting

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 05:04:29 UTC
From: Mark Mohr <themohrs@fuse.net>
Message-ID: <tmpkqoqknk8l55@corp.supernews.com>
Source record: 51075

I want to thank all those who responded so soon after my first posting, requesting help with homebrewing an HF SSB / CW rig. In particular, Brad and John come to mind. I'd have to close this window and open another to find the rest, but you know who you are.

The project is coming along - I've pretty much settled on a universal SSB/CW transceiver module using diode ring mixers and discrete transistors in bidirectional amplifiers. Only switching is 12 volts to go from TX to RX and back. All broadbanded, uses stock filters from Hayward/DeMaw tables. Just need the heterodyne VFO chain to get from 5 - 5.5 mhz VFO to 20 - 20.5 mhz
injection (using 8 mhz IF, ladder filter built with surplus cpu clock crystals.)
I hope to have the design finished, maybe even a prototype, by Xmas.

Someone said Dan Tayloe responded to my first message, and that he is sort of the " king " of homebrewing ? Didn't get an email from him, nor do I see a post here. Did I miss something somewhere ?

Again, thank you for the advice and encouragement ; I'll keep you all posted.
The Japanese can keep their $ 3000 radios, thank you.

TNX / 73

Mark Mohr

4680. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 05:50:03 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b6cde4b.2512838@news.cantech.net.au>
Source record: 51076

On Sat, 4 Aug 2001 10:53:11 +0200, francine@multiweb.nl (francine)
wrote:

>budgie <budgie@nowhere.cantech.net.au> wrote:
>
>> Why must it be Windoze?
>
>Well, if someone replies with a link for mac os software, this would not
>be of any valid to the poster. imho, it's always a good idea to mention
>the operating system what you have/want in questions like this.

I couldn't agree more. The point is that much DOS software runs quite
happily under MOST flavours of Windoze, so DOS software should meet
the requirement unless there is something more to the request.

4681. for ATV enthusiasts only

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 08:14:34 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9kiv46$k03$1@wanadoo.fr>
Source record: 51077

A simplified video control box :

http://perso.wanadoo.fr/jf.fourcadier/television/regie/regie_e.htm

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

4682. Re: Old Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-05 18:49:22 UTC
From: n7kn <n7kn@hotmail.com>
Message-ID: <Qygb7.600$tE2.170988@feed.centurytel.net>
Source record: 51078

If you're a league memeber you should be able to view the following PDF file
from the ARRL.

http://www.arrl.org/members-only/tis/info/pdf/59hb199.pdf

This is an "all purpose" 813 amp.

Arthur K. Andersen <aa0blaka@interlinklc.net> wrote in message
news:PFVa7.160$iK.139496@newsfeed.slurp.net...
> Does anyone have a schematic of an 80-15 meter amp using a pair of 813
tubes
> in grounded grid configuration?
> I have a pair of 813's and would like to build an amp around them.
>
> Art Andersen, AA0BL
>
>

4683. Re: Responses to first posting

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 00:09:29 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B6DE038.A99A2746@home.com>
Source record: 51079

Mark Mohr wrote:
>
> I want to thank all those who responded so soon after my first posting,
> requesting help with homebrewing an HF SSB / CW rig. In particular, Brad and
> John come to mind. I'd have to close this window and open another to find
> the rest, but you know who you are.
>
> The project is coming along - I've pretty much settled on a universal
> SSB/CW transceiver module using diode ring mixers and discrete transistors
> in bidirectional amplifiers. Only switching is 12 volts to go from TX to RX
> and back. All broadbanded, uses stock filters from Hayward/DeMaw tables.
> Just need the heterodyne VFO chain to get from 5 - 5.5 mhz VFO to 20 - 20.5
> mhz
> injection (using 8 mhz IF, ladder filter built with surplus cpu clock
> crystals.)
> I hope to have the design finished, maybe even a prototype, by Xmas.
>

Mark:

It sounds like a very ambitious project, and quite a bit of fun. I
first started doing a lot of homebrew stuff when I moved from Chicago to
Phoenix eight years ago and found that my Kenwood TS820 was no longer
functional. Long story. It was a very bad moving experience.

As a result, I decided to build my own rigs rather than fix or replace
what I had.

My first radio was simply too complex. I gave up after several months
as it was taking too long. Projects are kind of like that. If it is
too much all at once, you may simply decide to bag it all before you get
done. Part of this is that you may get a good ways into the project,
and discover that you made a really bad design decision along the way
(like I did). At this point, it can be too difficult to go back and
modify all that you have done.

It is often better to do a series of projects that are of increasing
complexity, so you get a chance to learn from what you have done, and do
better the next time around.

If you really want to do the SSB project. I suggest simply working on
getting the cw transmitter going first and having some fun with it.
Later, you can modify it to do cw and SSB both. Next, you can build a
companion receiver making use of the common 20 MHz LO chain. However, to
keep things simple, I would suggest using separate crystal filters for
transmit and receive. Filters are very cheap when you match crystals

and build your own.

The receiver will be the most complex part of your transceiver, so if you build in a modular form, you can start simple and gradually make your receiver more complex as needed. I once built the IF section of a complex "hanging" AGC receiver from a older ARRL handbook for a 30m receiver. It seemed to work really well, but it also took a very long time to complete. This was my second project after giving up on my first project, an all band transceiver. I almost gave up on this second project also. I suggest starting with a simple superhet design and work on improving it section by section.

One other little note: Mixing harmonics can cause a lot of problems. It sounds like you are going to mix a 5 MHz VFO with a 15 MHz crystal to get 20 MHz, then beat with a 8 MHz IF to get 28 MHz. 15 MHz is the third harmonic of 5 MHz, so those two will not mix well together. You will end up with some 20 MHz that is 1x VFO + 15 MHz (crystal) = 20 MHz and some that is 1x VFO + 3x VFO = 20 MHz. Not good. You will be tuning the receiver (or transmitter) on two different frequencies at the same time, one at a 1x tuning rate (5 MHz VFO + 15 MHz crystal), and one at a 4x rate (4x 5 MHz VFO).

A good mix is a crystal that is 2.5x the VFO. In this case, 14.318 MHz (a stock crystal frequency) and a VFO starting at 5.618 MHz may work better. The fifth harmonic of the VFO will be in the 28 MHz range, but will be at least 80 KHz higher than where the receiver is tuned. You will end up with a receiver birdie at 2x 14.318 MHz (28.636 MHz), but I think that is outside your intended tuning range.

Also, a transceiver with 500 KHz of tuning range will be a bit twitchy to tune. You may want to do a 500 KHz band set dial, with 10:1 drive reduction (5 turns total for most tuning capacitors), and a small 10 KHz band spread knob for fine tuning adjustments. I have found that 10-20 KHz per revolution is a good rate for a nice receiver, and you will not get that with a 10:1 vernier and 500 KHz of tuning bandwidth. That will be especially true as the tuning rate changes over the 500 KHz range. Maybe you might simply start with a smaller tuning range.

Good Luck! Home brewing can be a lot of fun!

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

4684. FS: Tower,tribander,rotor, more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 00:35:22 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <eDlb7.1134$jD2.115322@newsread2.prod.itd.earthlink.net>
Source record: 51080
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

54ft Tristao (United) crankup, Mosley TA-33 Tribander, CDE Ham II Rotor;
2M Ringo Ranger. With cables, hardware and approx. 200ft new RG-8.
10ft mast. Plus a beautiful navy issue leather climbing belt.

All in good working condition and currently in use.

All for only $400.

The catch? Buyer must take it down; located near New Haven, CT.

Marty K1FHR

4685. thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 02:30:13 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3b6dfe27.71929@news.sprint.ca>
Source record: 51081
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

I have completed building a 13volt, 25 amp power supply. I have included an overvoltage protection circuit (design from the Art of Electronics). This is basically a 15 volt zener diode, to the gate of a 25 amp thyristor (SCR). The diode goes to ground through a 150 ohm resistor and there is a 0.1uF bypass cap to try to limit transients from firing the thyristor. There is a 25 amp fuse in front of the SCR.

The supply works great without the protection circuit. However, with the protection circuit inline the SCR often fires and the fuse (fast blow) thus blows when certain, even small loads are placed on the supply. One of the loads is a DSP filter, drawing less than 1 amp. but this load has a voltage spike (as seen on a scope) the moment it is turned on. I have attempted to limit any RF spikes by putting clamp-on ferrites onto the power cords, but with limited success.

Without major modification (due to heat sink placement) I am unable to get the 0.1uF bypass capacitor closer than 4 inches to the SCR gate and I wonder whether it would help to get one closer? Any other ideas to help limit the transients from firing the SCR would be gratefully appreciated.

Larry Gagnon
****
to send direct email remove "fake" from address

4686. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 03:15:01 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <3B6E0BB5.ACF7E759@rica.net>
Source record: 51082
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Larry Gagnon wrote:
>
> I have completed building a 13volt, 25 amp power supply. I have
> included an overvoltage protection circuit (design from the Art of
> Electronics). This is basically a 15 volt zener diode, to the gate of
> a 25 amp thyristor (SCR). The diode goes to ground through a 150 ohm
> resistor and there is a 0.1uF bypass cap to try to limit transients
> from firing the thyristor. There is a 25 amp fuse in front of the SCR.
>
> The supply works great without the protection circuit. However, with
> the protection circuit inline the SCR often fires and the fuse (fast
> blow) thus blows when certain, even small loads are placed on the
> supply. One of the loads is a DSP filter, drawing less than 1 amp. but
> this load has a voltage spike (as seen on a scope) the moment it is
> turned on. I have attempted to limit any RF spikes by putting clamp-on
> ferrites onto the power cords, but with limited success.
>
> Without major modification (due to heat sink placement) I am unable to
> get the 0.1uF bypass capacitor closer than 4 inches to the SCR gate
> and I wonder whether it would help to get one closer? Any other ideas
> to help limit the transients from firing the SCR would be gratefully
> appreciated.
>
> Larry Gagnon
> **********
> to send direct email remove "fake" from address

There are all sorts of things you can do to delay the firing of the
SCR (the first of which is to put the filter cap directly on the leads
of the SCR). But if it is worth having, then it should be pretty
fast, or it will only close the barn door after the horse has escaped,
so to speak.

I would like to see the schematic of your regulator circuit (including
the crowbar) to help you figure out why it is producing voltage
transients with small load swings. You are fighting the symptom, not
the disease.
Okay, I have used up all my lame metaphors for now. :)

--
John Popelish

4687. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 03:24:36 UTC
From: Bill M <"take out the NO in the Reply To Address"@coqui.net>
Message-ID: <3B6E0DF4.70C120D2@coqui.net>
Source record: 51083
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

In cable tv amplifiers, we often have similar spikes in the line equipment. One cure that has been very effective is using what the vendor calls a 'transzorb'. I always thought it was simply a zener, but they tell me there's more to it than that. I've heard it referred to as a 'surge-clamping diode'.
I have one in my hand here and its a Motorola 1N6281A which I believe is a 27 volt one. It would be connected across the output of the 24v DC power supply. Since I'm not well-versed enough to explain anything about it, maybe you can look up the number and see if that series might offer an easy fix. It certainly works in our amplifiers by bringing input fuse blowing down to almost nil.
Good luck,
Bill

4688. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 03:26:22 UTC
From: k9sqg@aol.com
Message-ID: <20010805232622.03065.00001209@mb-mg.aol.com>
Source record: 51084

Missed the anti-spam tip below the originator's name (Larry Gagnon). Just don't have time to retype 5 paragraphs...

4689. Re: Responses to first posting

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 03:43:42 UTC
From: Jim Pennell <No-Spam@killspam.com>
Message-ID: <9kl8n9$nj1$1@slb2.atl.mindspring.net>
Source record: 51085

Dan Tayloe's comments about mixing spurs being possible problems is worth thinking about. I built a homebrew 40 meter CW that was great and I planned to make it into a transciever until I finished the Rx and found a spur right in the middle of 40 meters !!

It was a harmonic of my vfo mixing with a harmonic of my bfo... And really hard to chase out of the rig.

So, I wrote an analysis program and turned it loose on calculating If freqs/VFO and so on and the number of BAD choices was astonishing.

I am going to build a new single band radio that won't have this spur. I do learn, eventually.

==========

However, all this convinced me that a multiband radio was going to wait until after I get a single band up and running properly. Multiband adds 'way too much to think about as a first project.

Not impossible by any means, but very complex with one heck of a lot of possible gotcha's that would make it more likely to have design troubles....

Jim Pennell
N6BIU

4690. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 08:20:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B6E5352.D4DFD759@eznec.com>
Source record: 51086
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

Be very careful where you connect the 150 ohm resistor and capacitor. If you can't put them right at the SCR, don't connect them to ground where they're placed. Instead, run a wire from them to the SCR and connect their ground sides directly to the SCR anode terminal. Otherwise, they could be aggravating the problem.

You should also take a look at where your output voltage sensing is done. The sense inputs should connect directly to the output. Failure to do this could be the cause of the voltage jump when you turn on the DSP filter. Or there might be something else about your regulator circuit that's causing it to respond to a current increase by producing a voltage spike. This indicates some instability in the regulator circuit.

You probably should find and cure whatever's causing the voltage spike rather than try to prevent your overvoltage circuit from firing when it happens.

Roy Lewallen, W7EL

Larry Gagnon wrote:
>
> I have completed building a 13volt, 25 amp power supply. I have
> included an overvoltage protection circuit (design from the Art of
> Electronics). This is basically a 15 volt zener diode, to the gate of
> a 25 amp thyristor (SCR). The diode goes to ground through a 150 ohm
> resistor and there is a 0.1uF bypass cap to try to limit transients
> from firing the thyristor. There is a 25 amp fuse in front of the SCR.
>
> The supply works great without the protection circuit. However, with
> the protection circuit inline the SCR often fires and the fuse (fast
> blow) thus blows when certain, even small loads are placed on the
> supply. One of the loads is a DSP filter, drawing less than 1 amp. but
> this load has a voltage spike (as seen on a scope) the moment it is
> turned on. I have attempted to limit any RF spikes by putting clamp-on
> ferrites onto the power cords, but with limited success.
>
> Without major modification (due to heat sink placement) I am unable to
> get the 0.1uF bypass capacitor closer than 4 inches to the SCR gate
> and I wonder whether it would help to get one closer? Any other ideas
> to help limit the transients from firing the SCR would be gratefully
> appreciated.
>
> Larry Gagnon
> **********

> to send direct email remove "fake" from address

4691. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 12:27:51 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tmt3akgtjg6h4f@corp.supernews.com>
Source record: 51087
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

A diode in series with the DSP unit (between it and the supply)
might help. This would prevent the voltage spike generated by the
DSP (probably by a choke in its input filter) from getting back into
the power supply.

4692. am receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 14:31:38 UTC
From: dushman <den@mbox.com.au>
Message-ID: <3b6eab30$1@news.iprimus.com.au>
Source record: 51088

hey guys,
i need some info on building an am superhet receiver tuned in for 774KHz for
a design project.
know any good sites where i can start?

4693. Re: Trying to homebrew a rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 19:13:46 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B6EEC6A.8BB08D5F@midwestmicro-tek.com>
Source record: 51089

I avoid the whole mess, my designs are strictly Hollowstate.

Rick KC0GIX

Laura Halliday wrote:

> Roy Lewallen <w7el@eznec.com> wrote in message news:<3B68D5A1.E50125A@eznec.com>...
>
> > You'll probably find a lot of "dying arts" if the only source of
> > information you're willing to consult is the web. There are a number of
> > QRP clubs that publish excellent magazines containing loads of homebrew
> > projects. Most of them can easily be adapted to higher power levels. Do
> > a web search for G-QRP Club, NorCal (North California QRP Club), and
> > QRP-ARCI, and see what's required to get their journals. I believe all
> > sell back copies.
> >
> > Although it's getting a bit long in the tooth, the principles and
> > circuits in _Solid State Design for the Radio Amateur_ by DeMaw and
> > Hayward are still relevant. You can get this from the ARRL...
>
> Indeed. It is a common fallacy that all information is on
> the web. 'taint so!
>
> Other useful references: ARRL and RSGB Handbooks. The
> various ARRL collections (QRP Classics, QRP Power, W1FB's
> books, etc.). Just about every ham radio book published
> in the last 40 years should be helpful. If you're going
> to buy just one book, make it _Solid State Design_ - still
> a fab book!
>
> If you can't afford to purchase these books (but if not,
> how can you afford to be in the Internet?), local public
> or university libraries should have at least some of them.
>
> <editorial rant>
> I have no patience with those who refuse to work with SMD.
> It's 2001, and that's how parts are packaged. Deal with it.
> </editorial rant>
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4694. Re: Manual and programming for Unident FMH-350D

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-06 22:23:17 UTC
From: Andy Brinkley <andy@brinkleyelectronics.com>
Message-ID: <3B6F1875.BC5FD6D1@brinkleyelectronics.com>
Source record: 51090

Terry Nixon wrote:

> Looking for manual or copy for the above, looking to reprogram, retune
> this thing on the 2 meter band.
>
> Thanks
> Terry-WB0VQP

Terry -

As far as programming, it requires an AMX-500 standalone programmer. We
can reprogram your eproms if needed.

Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

4695. Heath HG-10 VFO output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 00:42:52 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B6F398C.D265BAA@visi.com>
Source record: 51091

Hi gang,
I have an old Hetah HG-10 VFO. I need more output from it to drive my
old Knight T-50 tx. Before I go tearing into the ckt, I thought I'd ask
if anyone has had any experience with increasing the output.

Tnx es 72

Bob WB0POQ

4696. Re: Old Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 01:01:15 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <tmuffp2rnehj0b@corp.supernews.com>
Source record: 51092

How do you find such things on the ARRL web site?
Bob
kb8tl@yahoo.com

"n7kn" <n7kn@hotmail.com> wrote in message
news:Qygb7.600$tE2.170988@feed.centurytel.net...
> If you're a league memeber you should be able to view the following PDF
file
> from the ARRL.
>
> http://www.arrl.org/members-only/tis/info/pdf/59hb199.pdf
>
> This is an "all purpose" 813 amp.
>
>
> Arthur K. Andersen <aa0blaka@interlinklc.net> wrote in message
> news:PFVa7.160$iK.139496@newsfeed.slurp.net...
> > Does anyone have a schematic of an 80-15 meter amp using a pair of 813
> tubes
> > in grounded grid configuration?
> > I have a pair of 813's and would like to build an amp around them.
> >
> > Art Andersen, AA0BL
> >
> >
>
>

4697. Still more homebrew dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 01:07:54 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9knf290g7@enews1.newsguy.com>
Source record: 51093

Guys, I would like some Linux hack out there to take a look at the latest mutation of the Dial program - this one does panels.

If some brave soul would take a look at:

http://hfradio.org/wb8rcr/downloads/Panel-1.6.tar.gz

and let me know if he can make it work. This business of doing an entire panel is quite a bit more involved than just a dial, so I'm not so convinced that the script model will work. Well, it will work for me <g>

Anyway, this is a big step up (IMO) in utility. At this point, only the platform-independent version is out there. If there's some interest, I'll at least recompile this one for Win32, but a full GUI version like the Windows version of Dial is at least a month away, if ever.

By the way, I was surprised to see >400 downloads of the Dial program in the past week. Still nothing like the rate QSLMaker continues to get downloaded, but for something with such a narrow audience...

didileydadidah

4698. Re: Still more homebrew dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 02:32:53 UTC
From: larry33414@aol.com
Message-ID: <20010806223253.11283.00002620@ng-fv1.aol.com>
Source record: 51094

Hi...

I am one of those 400 downloaders and will certainly use your barebones version.

Thank you for your creativeness...
Larry KS4NB
Wellington FL

4699. Re: Heath HG-10 VFO output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 02:57:18 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10108062254120.14614-100000@gloria.cam.org>
Source record: 51096

On Mon, 6 Aug 2001, Steve Bauder wrote:

> Bob:
>
> I used an HG10B to drive a T50 for many years. I don't recall having to make
> any changes to either. Are you sure both are working ok? Have you tried
> inverting the VFO plug that you're plugging into the front of the T50? Does
> the T50 work OK with a crystal?
>
> Steve, nx9z
> Boyceville, WI
>

A similar question came up some years back, and shortly after I was going through old QSTs and someone had a "Hints & Kinks" about increasing the drive f4rom an HG-10. I can't remember the solution, or the reasoing, but it would have been 25 or more years ago.

One solution you would see is sort of a step up transformer at the crystal socket end. The coax would be the low impedance point, and the high impedance would feed the rig. They tended to use tuned circuits for this. Details should be found in old ARRL Handbooks.

Michael VE2BVW

> Bob Liesenfeld wrote:
>
> > Hi gang,
> > I have an old Hetah HG-10 VFO. I need more output from it to drive my
> > old Knight T-50 tx. Before I go tearing into the ckt, I thought I'd ask
> > if anyone has had any experience with increasing the output.
> >
> > Tnx es 72
> >
> > Bob WB0POQ
>
>
>

4700. Re: Heath HG-10 VFO output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 03:46:14 UTC
From: Steve Bauder <sbauder@wwt.net>
Message-ID: <3B6F6486.346728F4@wwt.net>
Source record: 51095

Bob:

I used an HG10B to drive a T50 for many years. I don't recall having to make any changes to either. Are you sure both are working ok? Have you tried inverting the VFO plug that you're plugging into the front of the T50? Does the T50 work OK with a crystal?

Steve, nx9z
Boyceville, WI

Bob Liesenfeld wrote:

> Hi gang,
> I have an old Hetah HG-10 VFO. I need more output from it to drive my
> old Knight T-50 tx. Before I go tearing into the ckt, I thought I'd ask
> if anyone has had any experience with increasing the output.
>
> Tnx es 72
>
> Bob WB0POQ

4701. Re: thyristor firing on transients in power supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 04:22:09 UTC
From: Bullwinkle Jones <bullwinkle_01_01@hotmail.com>
Message-ID: <R1Kb7.32086$2J4.10974284@news2.rdc1.bc.home.com>
Source record: 50997
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

"John Popelish" <jpopelish@rica.net> wrote in message
news:3B6E0BB5.ACF7E759@rica.net...

<...snip...>
> You are fighting the symptom, not
> the disease.
> Okay, I have used up all my lame metaphors for now. :)

Hey, I liked yer lame metaphor! :)

>
> --
> John Popelish

4702. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 05:08:09 UTC
From: joeryahoocom@yahoo.com
Message-ID: <e08922c6.0108062108.6af0085b@posting.google.com>
Source record: 50998

marsgal42@hotmail.com (Laura Halliday) wrote in message
news:<d42b5a72.0108030924.4b9d9768@posting.google.com>...
> Dan Tayloe <dtayloe@home.com> wrote in message news:<3B69F26F.1800B0A7@home.com>...
> > Laura Halliday wrote:
<snip>

> Similarly, if people feel that such components are
> incompatible with their eyes or hands, they can whine
> about it, or get the equipment they need. Again,
> I choose the latter.
>
> I think I see a pattern forming here.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

Humph. Attitudes such as that do little to serve the cause of
experimentation, in my humble opinion. Sounds like the wingnuts that
used to tell me that if I weren't on 1215 MHz, I wasn't really using
Amateur Radio.

I've developed a more tolerant attitude toward those who have problems
with components being "incompatible with their eyes or hands" since I
passed 40 and my vision isn't quite what it used to be. It's a
different story when you bend over that radio and it's not as clear as
it was a few years ago.

There should be room for all experimenters, folks. I still do most of
mine with tubes!

Joe W9TXU

4703. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 07:58:32 UTC
From: c.moss_stopspam@blueyonder.co.uk
Message-ID: <fi7vmts41lfeptd69sdlnom1n3vbbqdn6o@4ax.com>
Source record: 50999

>> Similarly, if people feel that such components are
>> incompatible with their eyes or hands, they can whine
>> about it, or get the equipment they need. Again,
>> I choose the latter.
>>
>> I think I see a pattern forming here.
>>
>> Laura Halliday VE7LDH "Que les nuages soient notre
>> Grid: CN89lg pied a terre..."
>> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

ay up, what an ass-hole (squooz my french) you must be, obviously not much of a life your having at present, else why else put people down like that ?

Go see someone about your own problems i should, you need too !

Clive

4704. Re: Heath HG-10 VFO output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 12:24:19 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3B6FDDF3.62A34CBB@neicoltech.org>
Source record: 51001

Bob Liesenfeld wrote:

> Hi gang,
> I have an old Hetah HG-10 VFO. I need more output from it to drive my
> old Knight T-50 tx. Before I go tearing into the ckt, I thought I'd ask
> if anyone has had any experience with increasing the output.

Hi guys,
Thanks for the replies. I belive that both the T-50 and the HG-10 are operating ok. The manual for the T-50 states a required drive level that is higher than the speced output of the HG-10.

Another person posted that replacing the 560uH choke in the plate ckt of the osc with a 1mH, increased the output. He also mentioned that this mod appeared in an old "Hints & Kinks". I'm going to give this a try.

Thanks again!

Bob WB0POQ

4705. Re: Heath HG-10 VFO output

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 18:39:48 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9kpclkong2@woodrow.ucdavis.edu>
Source record: 51012

You probably need more output voltage and a higher impedance. Try winding a toroid balun with a step up ratio. Maybe 2.25 to 1 or 4 to 1 as a starter.

cheers
skipp

: Bob Liesenfeld <wb0poq@visi.com> wrote:
: Hi gang,
: I have an old Hetah HG-10 VFO. I need more output from it to drive my
: old Knight T-50 tx. Before I go tearing into the ckt, I thought I'd ask
: if anyone has had any experience with increasing the output.

: Tnx es 72

: Bob WB0POQ

4706. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-07 23:43:31 UTC
From: donrm@soco.agilent.com
Message-ID: <997227766.437476@cswreg.cos.agilent.com>
Source record: 51002

Jerko Golubovic <jerko@mac.com> wrote:

{ leading text deleted }
> Here we have local repeater that works in that way for more than 15
> years and very interesting is that nobody touches that thing at all we
> had even trouble finding who knows where repeater was installed.

There must be something wrong with your repeater. It's supposed to
break at least once a month so you and the guys can go to the hill
to "fix" it and drink beer.

Don K6LTS
donrm@soco.agilent.com

4707. Re: Still more homebrew dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 00:31:15 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9kq1ai027p8@enews3.newsguy.com>
Source record: 51006

Hey gang, a couple of things I overlooked on the 1.6 Linux version of Panel:

- I forgot to handle color for text
- I included a lame example file, thinking I had used a better one

So these are fixed in the 1.9 archive, and while I was at it, I beefed up
the README a little.

http://hfradio.org/wb8rcr/downloads/Panel-1.9.tar.gz

Some folks have asked for the Win32 build, so that will probably be next.
Sorry I don't have DJGPP installed for the DOS folks.

Oh yes, if you make up some neat looking panels, pass them along.

didileydadidah

4708. hdr

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 00:34:43 UTC
From: scruffy <scruffy@rabbit.com.au>
Message-ID: <3b708918@news.internex.net.au>
Source record: 51003

ok update,,
open at 4.65
low 4.60
last at 4.80
high 4.80
volume 1,634,404
first half hour of trade,,,

all looking good so far
back in another half hour
to check price,,
yeah right half hour more like 5min.

vk3auu puts up some good posts on the reflector,

Paul

4709. Transmission line Xformer info wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 00:37:37 UTC
From: amdx <amdx@att.net>
Message-ID: <IR%b7.37952$gj1.3509472@bgtnsc05-news.ops.worldnet.att.net>
Source record: 51004

I'm looking for information on the web about transmission line
transformers.
Specifically I want to transform about 150 ohms to about 10 ohms using
a TLT.
Thanks
Mike

4710. reflex transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 01:09:31 UTC
From: leeann tweeden <leeanntweeden@MailAndNews.com>
Message-ID: <3B73E0FF@MailAndNews.com>
Source record: 51005

What exactly is the purpose of a reflex transformer. I have 2 such transformers in an old junk radio chassis and would like to know just what they are used for are are good for. The two I have are ERLA , one is a reflex
1 type and the other is a duo reflex 2 type.

Thank you

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POP3 mailbox from anywhere with just a web browser.

4711. Re: reflex transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 01:20:01 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B7093C1.C0907695@dialpoint.net>
Source record: 51007

Not sure without more info about those transformers. However a reflex
radio circuit is one the uses one stage to amplify the radio frequency
then the audio frequency is fed back and amplified using the same tube
or transistor.

leeann tweeden wrote:
>
> What exactly is the purpose of a reflex transformer. I have 2 such
> transformers in an old junk radio chassis and would like to know just what
> they are used for are are good for. The two I have are ERLA , one is a
> reflex
> 1 type and the other is a duo reflex 2 type.
>

4712. Re: How to build a basic repeater?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 02:17:35 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B70A13F.A9EE21B@clifto.com>
Source record: 51008

Jerko Golubovic wrote:
> Take two 432 handheld radios, tune one on RX frequency and from it's
> speaker output, and through external VOX device and attenuator in
> MIC/PTT input on TX one. Use two antennas.

I once rigged a 555 circuit as a retriggerable monostable, triggered it with the audio of one radio and used it as the PTT for a second on another band to rig an emergency crossband repeater. Took ten minutes, worked fine. Natch, we had to ID manually.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4713. A couple new switcher chips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 02:58:05 UTC
From: caveteursus@aol.com
Message-ID: <20010807225805.22434.00001983@mb-mj.aol.com>
Source record: 51010

I got a note from Nat Semi today on two chips just introduced -- the LM3477 and LM3478. These are high speed (100kHz to 1MHz) smt devices designed for all the usual smps applications with the possibility of really high current control.

4714. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 03:52:59 UTC
From: Jim Glover <psykey@okcforum.org>
Message-ID: <tn1dsr1q0irk06@corp.supernews.com>
Source record: 51011

Laura Halliday <marsgal42@hotmail.com> wrote:
:> > <editorial rant>
:> > I have no patience with those who refuse to work with SMD.
:> > It's 2001, and that's how parts are packaged. Deal with it.
:> > </editorial rant>

...and in a subsequent post went on to say:

: If all people want to do is build yet another radio
: based on outmoded 1970s technology, they can do so as
: long as NOS leaded parts are available. But if they
: want to try anything new, they will have to work with
: SMD, whether they like it or not. AD9851 is a good
: example of a useful chip that is only available in
: SMD, and is not likely - *ever* - to be available any
: other way.

This certainly isn't absolutely true. During the reigns of various now "outmoded" technologies, people didn't think of every possible circuit or variation. Experimenters who continue to dabble with old technologies continue to include among their numbers some who manage from time to time to come up with something innovative. Only those who share their interests take notice, 'tis true...but they manage to have very fascinating experiences as experimenters, even without being on the leading edge. They may not work with things which are new, but that doesn't keep some of them from trying something new, and sometimes, succeeding brilliantly.

Of course, few of us are truly innovators, or are innovative in only some narrow way. Most of us copy circuits that have already been designed, tried, and published (if perhaps only informally) by someone else. I fail to see anything more noble in the copying of a circuit which someone else designed six months ago than in copying one designed six decades ago. For those who truly are innovative, I fail to see anything less noble about polishing older technologies than polishing newer ones.

Things become "outmoded" because they are no longer the best choice--for commercial concerns. The commercial focus does dominate where "what's new" is concerned, but the focus of those who are in the game to market to the masses and make a quick profit need not determine the constraints under which all of us pursue our own fancies as amateurs. As amateurs (who, by definition, are in it for the love of it, rather than to make a profit) we have the freedom to weigh a wide variety of factors in choosing what to pursue personally. We're free to

value non-economic factors as highly as economic factors. We're free to consider even our economic context in a broad sense, weighing factors such as our time invested and our ability to scrounge for parts in addition to more purely financial concerns, and perhaps weighing those factors very differently from how someone else might. With our unique goals (almost as varied as the personalities of the cross-section of our society we hams represent), unique opportunities and unique talents, we're able as individuals to pursue whatever each of us will find most satisfying. We may easily do so without compromising our duty to society, for it is this very diversity which allows us to meet our obligations like no one else can. An amateur community which, collectively, has mastered a broad foundation of technologies, philosophies and approaches can certainly contribute more richly than if we all focused in the same direction--in whatever direction industry might happen to lead us.

: If people feel that such components are incompatible
: with experiementation, they have two options: whine
: about it, or find new ways to experiment. I choose the
: latter.

Another option would be to choose to experiment with whatever they can find our scrounge which better suits their individual preferences. Many choose to do just that.

: Similarly, if people feel that such components are
: incompatible with their eyes or hands, they can whine
: about it, or get the equipment they need. Again,
: I choose the latter.

Another option would be to choose to experiment with materials which they do not find to be such a strain. Many choose to do just that.

Amateur radio is well served by those who strive to help define the leading edge, and by those who strive to master it as it develops. Amateur radio is also well served by those who strive to master older technologies, and by a population skilled in the use of equipment and techniques from as wide a base as possible. Amateur radio is well served by those who go where no one has gone before, whether they are designing leading edge technologies out of thin air, or improving technologies we've been comfortable with for a long time.

Amateur radio is perhaps not so well served by expressions of impatience with those who choose another path, and is certainly not well served by our characterizing each other's expressions of preferences as "whining". It's good to work hard to master whatever approach one chooses,

and to keep abreast of associated developments, however rapidly they may evolve, and even to promote the advantages of one's chosen approach at every opportunity--but it's quite another thing altogether to take every opportunity to criticize anyone who's chosen to focus on some other approach instead.

73,
Jim WB5UDE

4715. Thordarson T 19 P70 transformer specs ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 05:46:57 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tn19nn3d09m33e@corp.supernews.com>
Source record: 51009

I have what appears to be a new Thordarson T 19 P70 transformer.
Anyone got the specs on this? Especially current rating.

Doug N4IJ

4716. 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 09:56:26 UTC
From: n2cqr@clix.pt
Message-ID: <3b710c6f.1860694@news.clix.pt>
Source record: 51013

I've been trying to add more AF gain to my direct conversion RX for 17. I have a 100db, three transistor (2n2222a) direct coupled amp similar to the one from SSD. (See my web page for the schematic -- URL in the sig below.) This amp works very well -- it is very quiet and does not take off on me. I have a grounded gate RF amp (about 10 db) ahead of the mixer. I think there is about 8 db of loss in the mixer.

I know the RX would work better with more AF gain. When I plug a little amplified computer speaker in the AF out from the 100 deb amp, I can turn the RF gain very low and the whole system seems to work better.

I tried adding an MPF102 amp stage ahead of the 100 db amp. It added far too much noise. Then I tried an additional 2n2222a stage AFTER the 100 db amp. Again, way too noisy. Today I built a 40 db amp out of the ARRL data book. Again, too much noise.

What am I doing wrong here? Am I proving that there is wisdom in the decision to go with LM386s and other ICs as AF amps? Is it really this difficult to get sufficient AF gain in a DC RX using discrete transistors and simple circuits? Why is it that the 100 db amp is so quiet and works so well, while the others add so much noise?

BTW: I had some AM detection problems with a RADIO EXTERIOR de ESPANA SW broadcast on 17.7 Mhz. I put a series tuned circuit between the RF and ground. A bit of tweaking knocked the SW signal down nicely while leaving 17 meters intact.

Don't get me wrong -- the RX is working nicely already. When I talk to Amadeus, CT2HGL, I can hear his parakeets in the background. And I can hear the seagulls outside G3IUE's window! Recent DX: 4Z4, 9K2, Shettland Islands....

73 de CU2JL (aka N2CQR)
Bill Meara
Sao Miguel Island,
The Azores, Portugal
http://planeta.clix.pt/n2cqr

4717. Re: 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 14:06:18 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B714757.79336EA3@ay.com.au>
Source record: 51014

Bill Meara wrote:

> What am I doing wrong here? Am I proving that there is wisdom in the
> decision to go with LM386s and other ICs as AF amps? Is it really
> this difficult to get sufficient AF gain in a DC RX using discrete
> transistors and simple circuits? Why is it that the 100 db amp is so
> quiet and works so well, while the others add so much noise?

I _hate_ the LM386, it is a noisy and overpriced device IMO. I prefer to replace it with a LF353 and two transistors, using one of the op-amps and the transistor pair as a unity-gain current amplifier, and the other op-amp as a moderate voltage amp (often a gentle LPF too).

Your 100dB amp is quiet probably because of the distributed gain, each device is basied at quite low current (well the first one is) which helps keep the noise down.

You could try boosting the performance of the transistor amps by using current mirror collector loads instead of just plain old resistors. With BC550 devices a very nice low noise AF preamp can be built. I've even seen people parallel them to reduce the noise figure.

There is nothing wrong with using those "old black things with three legs", while it results in a much larger footprint, you can make higher performance circuits cheaper and with a wider range of voltage and current options than are available with IC op-amps.

Besides it is more fun :)

--
Alan Yates
http://www.alanyates.com/
The Moon is Waning Gibbous (84% of Full)

4718. Re: 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 14:58:57 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B7153B1.DB9F0EB7@buttery.org>
Source record: 51015

Alan Yates wrote:
>
> I _hate_ the LM386, it is a noisy and overpriced device IMO. I prefer
> to replace it with a LF353 and two transistors, using one of the op-amps
> and the transistor pair as a unity-gain current amplifier, and the other
> op-amp as a moderate voltage amp (often a gentle LPF too).

Calling a device that sells for under $1 "overpriced" seems to be overstating your case a bit. On the Digi-Key web site, the lowest output version of the LM386 is about the same price as the LF353, and you don't need the transistors and as many other components. The higher output LM386 versions are a bit more, but still under $1.

The LM386 is an inexpensive, simple to use amplifier that is good enough for many applications; that's why it's popular. If you want something better (lower noise, flatter frequency response, whatever), by all means use something else.

4719. Re: 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 15:17:03 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B7157EC.1B61BAA@ay.com.au>
Source record: 51016

"Mark J. Dulcey" wrote:
>
> Alan Yates wrote:
> >
> > I _hate_ the LM386, it is a noisy and overpriced device IMO. I prefer
> > to replace it with a LF353 and two transistors, using one of the op-amps
> > and the transistor pair as a unity-gain current amplifier, and the other
> > op-amp as a moderate voltage amp (often a gentle LPF too).
>
> Calling a device that sells for under $1 "overpriced" seems to be
> overstating your case a bit. On the Digi-Key web site, the lowest output
> version of the LM386 is about the same price as the LF353, and you don't
> need the transistors and as many other components. The higher output
> LM386 versions are a bit more, but still under $1.

Indeed, I just checked, it has come down in price since I last
purchased it.

In Australian prices it is about the same as you quote ($2 or so), and
at Jaycar the LF353 is actually slightly more than the 1 watt version of
the LM386. In the past it has been up to $5 for the 1 watt version, so
it has come down some this year.

> The LM386 is an inexpensive, simple to use amplifier that is good enough
> for many applications; that's why it's popular. If you want something
> better (lower noise, flatter frequency response, whatever), by all means
> use something else.

The biggest problem I have with it is the noise.

I can't argue that it isn't simple and easy to get going though.

--
Alan Yates
http://www.alanyates.com/
The Moon is Waning Gibbous (84% of Full)

4720. Re: Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 16:05:53 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9kro1h$607k2$1@ID-61331.news.dfncis.de>
Source record: 51017

"Phil Rice" <rice@ironbark.bendigo.latrobe.edu.au> wrote in message
news:rice-ya02408000R0208011051150001@news.latrobe.edu.au...
> In a recent article Hans Summers wrote:
>
> > A lot seems to hinge on the losses of the polyphase network. If I have
> > understood the QEX June 1995 article correctly, these losses can be made
> > very small.
>
> Many years ago I simulated a 6 stage polyphase network using PSpice. The
> losses in "mid-band" were around 15 to 18dB.
>
> (See http://ironbark.bendigo.latrobe.edu.au/~rice/ssb/ssb.html
> The polyphase network is figure 4.)

Thanks for the link. I'm going to try simulate a polyphase network myself,
trying the geometric progression of resistor values as shown in the QEX
article, to see if it really does reduce the losses. I'll let you know what
I find.

Hans, G0UPL

4721. Re: Tayloe Detector / Polyphase SSB questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 16:10:44 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9kroaj$66fko$1@ID-61331.news.dfncis.de>
Source record: 51018

Hi

"Richard Hosking" <zaprichardh@iinet.net.au(remove the zap)> wrote in
message news:3b6b8f95$0$32156@echo-01.iinet.net.au...
> Hans
> I did some work on the polyphase network a few years ago (see Elelctronics
> and Wireless world March 1994 and Jan 1996)
> I found the the 8 pole audio network had about 20 dB loss if it was
followed
> by voltage followers.(high impedance) More importantly perhaps, the out of
> band losses were much less than in band meaning that the follwoing stages
> could be overloaded by out of band signals. These factors may limit the
> receiver dynamic range if you did not carefully design for them. You could
> reduce losses by summing all ouputs. Sideband suppression was very good at
> up to 60 dB and you could get an wide effective audio range of 200Hz to10
> KHz
>
> I used a single capacitance value and varied the resistors for a RF
version
> of the network which was OK to about 30 MHz. At this frequency strays and
> circuit tolerances become a problem with only about 20 dB of sideband
> suppression. Performance was quite good to 10 MHz however. I think I used
10
> nF caps with resistors in the range 33-150 ohms, all surface mount to
reduce
> size.

I was interested in the single capacitance value, because resistors are
available more accurately than capacitors, so I thought of purchasing a
whole load of same-value capacitors and matching them in 4's. But then I
read the QEX article which recommends that to minimise losses in the
network, one should use a geometric progression of resistance values from
stage to stage. This implies varying capacitances too.

> I would be interested to hear of your results
> Incidentally I have a VFO stabilizer board based on Eamon Skelton's design
> at my website
>
> see http://www.iinet.net.au/~richardh/VK6BRO.htm

I've seen your stabiliser before. Nice work! I linked to it from my
Stabiliser page: http://www.hanssummers.com/radio/huffpuff/contents.htm
>
> Richard
>

Thanks for the discussion, I'll definitely let you know of any results.

Hans G0UPL

4722. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 17:06:40 UTC
From: mcalhoun@ksu.edu
Message-ID: <9krrj0$eoc@unix2.cc.ksu.edu>
Source record: 51019

>:>Someone posted an editorial rant.

>....[snip]....

>Amateur radio is well served by those who strive to help define the
>leading edge, and by those who strive to master it as it develops.
>Amateur radio is also well served by those who strive to master older
>technologies, and by a population skilled in the use of equipment and
>techniques from as wide a base as possible....

How sadly true. When I went to a local "truck farmer" to buy a 60#
bucket of honey (the trachea mites got all my hives!), the farmer saw
my ham-radio license plate and he asked if I could repair a beloved old
Zenith TUBE radio that had been in his family for many, many years. He
said "I've taken it to all of the 'electronic repair' shops in town, and
no one would even touch it!"

I haven't looked at it yet, but I will. Fortunately, I still have a
tube tester, signal generator, and signal tracer, and, even MORE
fortunately, my eyes are still good enough to see the parts!

--Myron
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

4723. Re: Trying to homebrew a rig / Working with SMD

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 18:21:04 UTC
From: la8ak@online.no
Message-ID: <3b7075a1.97969162@news.online.no>
Source record: 51020

On 6 Aug 2001 22:08:09 -0700, joeryahoocom@yahoo.com (Joer) wrote:

>
>I've developed a more tolerant attitude toward those who have problems
>with components being "incompatible with their eyes or hands" since I
>passed 40 and my vision isn't quite what it used to be. It's a
>different story when you bend over that radio and it's not as clear as
>it was a few years ago.
>
>There should be room for all experimenters, folks. I still do most of
>mine with tubes!
>
>Joe W9TXU

even tube technology has improved during the last 40 years, but
reading posters on some audio and boatanchor groups indicate
applications of simple 12AX7 amplifiers I wouldn't care for in 1960

One interesting thing is to judge some old receiver designs, compare
different articles from 1950-1970 and see if you agree with the
modifications proposed, often they are doubtful, wrong application
causing more changes than really neccessary. Often simpler approaches
would be just as efficient

73
Jan-Martin
LA8AK

4724. Re: 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 19:16:28 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B7191FB.2B35@pop.removethistomailme.net>
Source record: 51021

Mark J. Dulcey wrote:
>
> Calling a device that sells for under $1 "overpriced" seems to be
> overstating your case a bit.

IMHO, junk is still junk regardless of the price. I've never understood
the LM386's popularity.

The LM380 is a much better choice for low-power AF power
amplification... easier to use, too.

For low-noise opamps, try something like an OP27.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4725. Re: 17mtr DSB: AF amp cramps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 22:09:20 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B71B890.1DAFE3F@clifto.com>
Source record: 51025

Bill Meara wrote:
> What am I doing wrong here? Am I proving that there is wisdom in the
> decision to go with LM386s and other ICs as AF amps?

It's not really a bad thing to do. There are several low-noise audio preamp type ICs, from what I'm told (I bought a fistful but haven't had a chance to test them). The NE5534A is rated 4.5 nV per root Hertz input noise at 1 KHz, so output noise would be 142 nV times whatever gain you use for the op amp stage.

> Why is it that the 100 db amp is so
> quiet and works so well, while the others add so much noise?

You DO realize that nearly anything you put in front of OR after a 100 dB amp will further enhance the noise that's already coming out of the mixer, *and* the noise generated by the first stage, right? (I'm sure you do, but one has to ask.)

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4726. WWV/WWVH survey

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 23:08:39 UTC
From: Jeffrey Herman <jeffreyh@hawaii.edu>
Message-ID: <Pine.GSO.4.33.0108081307190.27648-100000@uhunix5>
Source record: 51023
Cross-posted to: rec.radio.amateur.digital-misc,rec.radio.amateur.homebrew

For those of you who are users of WWV and/or WWVH, please take
a few minutes to fill out the NIST time survey (see URL below);
you have until 9/30/01.

http://timesurvey.nist.gov/survey_form.htm

73, Jeff KH6O

4727. Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 23:16:20 UTC
From: Paul Breed <Paul@Rasdoc.com>
Message-ID: <bih3nt8urbrlnh86vf47ql22je311hoq94@4ax.com>
Source record: 51022

The line of sight path loss equation I've been given (and found) is

a= 32.5 + 20logD(km) + 20logF(MHz) (dB)

I understand the 20logD term, it is proportional to the area of the wave front as the distabnce expands.,but what is the physucal explanation of the 20lofF term?

If I have 1 W isotropically radiated power why is the 10 Mhz signal stronger than a 1W 1 Ghz signal?

It can't be just atmospheric absorbtion as that would have both frequency and Distance terms, and the I believe that the distance term is fully spoken for for by the spherical wave front area/distance calculation.

Paul Trying to understand.

Kl7JG

4728. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-08 23:37:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B71CD1C.56E78151@eznec.com>
Source record: 51024

The second term is a consequence of the fraction of the wave front
intercepted at different frequencies by antennas having the same gain.

Consider a parbolic reflector antenna with a cross sectional area of 10
square wavelengths at one frequency f1, and another with a cross
sectional area of 10 square wavelengths at twice that frequency, or 2f1.
Both antennas will have the same gain at their respective frequencies.
Yet the first (low frequency) antenna will have four times the cross
sectional area, in square meters, as the second one. Consequently, the
first antenna will intercept four times as much power from the incoming
wave as the second one does. This assumes that the incoming power is
distributed evenly over an area at least equal to that of the larger
antenna.

Roy Lewallen, W7EL

Paul Breed wrote:
>
> The line of sight path loss equation I've been given (and found) is
>
> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
> I understand the 20logD term, it is proportional to the area of the
> wave front as the distabnce expands.,but what is the physucal
> explanation of the 20lofF term?
>
> If I have 1 W isotropically radiated power why is the 10 Mhz signal
> stronger than a 1W 1 Ghz signal?
>
> It can't be just atmospheric absorbtion as that would have both
> frequency and Distance terms, and the I believe that the distance term
> is fully spoken for for by the spherical wave front area/distance
> calculation.
>
> Paul Trying to understand.
>
> Kl7JG

4729. Re: Still more homebrew dials

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 00:21:17 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9ksl3706ev@enews2.newsguy.com>
Source record: 51026

You asked for it, you got it. A Win32 compile of the command-line Panel program is available at:

http://hfradio.org/wb8rcr/downloads/Panel-1.9.W32.zip

didleydadidah

4730. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 02:07:08 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b71ec50.2543376@news.cantech.net.au>
Source record: 51027

On Wed, 08 Aug 2001 16:37:00 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>The second term is a consequence of the fraction of the wave front
>intercepted at different frequencies by antennas having the same gain.
>
>Consider a parbolic reflector antenna with a cross sectional area of 10
>square wavelengths at one frequency f1, and another with a cross
>sectional area of 10 square wavelengths at twice that frequency, or 2f1.
>Both antennas will have the same gain at their respective frequencies.
>Yet the first (low frequency) antenna will have four times the cross
>sectional area, in square meters, as the second one. Consequently, the
>first antenna will intercept four times as much power from the incoming
>wave as the second one does. This assumes that the incoming power is
>distributed evenly over an area at least equal to that of the larger
>antenna.
>
>Roy Lewallen, W7EL
>
>Paul Breed wrote:
>>
>> The line of sight path loss equation I've been given (and found) is
>>
>> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>>
>> I understand the 20logD term, it is proportional to the area of the
>> wave front as the distabnce expands.,but what is the physucal
>> explanation of the 20lofF term?
>>
>> If I have 1 W isotropically radiated power why is the 10 Mhz signal
>> stronger than a 1W 1 Ghz signal?
>>
>> It can't be just atmospheric absorbtion as that would have both
>> frequency and Distance terms, and the I believe that the distance term
>> is fully spoken for for by the spherical wave front area/distance
>> calculation.

Paul Trying to understand.

Looks like my recent post in this ng ...

As an adjunct to understanding this equation, I often group the F and
D terms:

a= 32.5 + 20logFD (km,MHz) (dB)

What is FD? Barring scaling factors (like c), the number of WAVELENGTHS between isotropic source/detector. Maybe it becomes more intuitive that way - loss proportional to the number of wavelengths travelled. Maybe that doesn't work for you.

As an aside, I have always had the greatest respect for Roy's work, but I found his post a little obfuscating. OTOH, the thing you WILL observe from his analogy/expansion is that the "pathloss" between (say) parabolic dishes of a certain capture area is independent of frequency because their capture (and hence gain) goes up as the area in "square wavelengths" i.e. -20logF. See the next para.

If you want attenuation between non-isotropic antennae (i.e. real/achievable ones) the equation becomes

a = 32.5 + 20logD(km) + 20logF(MHz) - G1(dBi) -G2(dBi) (dB)

where the G terms are the gain over isotropic of the antennae at each end of the circuit.

The pathloss equation can be expanded to incorporate more terms depending on what you are trying to achieve/measure. We often used it in a composite form to measure system figure of merit, which really is a pthloss equation with all other factors incorporated eg gain of antennae, feeder losses, filter attenuation, Tx power and Rx usable sensitivity or required siglevel etc.

I hope this has helped in some small way.

Peter

4731. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 03:33:51 UTC
From: rice@ironbark.bendigo.latrobe.edu.au
Message-ID: <rice-ya02408000R0908011333510001@news.latrobe.edu.au>
Source record: 51028

In a recent article , Paul Breed <Paul@Rasdoc.com> wrote:

> The line of sight path loss equation I've been given (and found) is
>
> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
>...but what is the physucal
> explanation of the 20lofF term?

It's solely to account for the size (capture area) of the receiver antenna.
For a given gain, higher frequency antennae are smaller (and there's no
such thing as a free lunch ;-).

The transmit antenna (ideally) radiates 100% of its input no matter what
the frequency or its size. (The energy has to come out somewhere ;-)
Just apply "control volume" theory, popular in fluid mechanics, and
conservation of energy.

73 de Phil VK3BHR

4732. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 06:00:01 UTC
From: nielsen@remove_this.oz.net
Message-ID: <9kt8t1$7ud$0@216.39.171.5>
Source record: 51029

On Thu, 09 Aug 2001 02:07:08 GMT, budgie wrote:
>
> As an aside, I have always had the greatest respect for Roy's work,
> but I found his post a little obfuscating. OTOH, the thing you WILL
> observe from his analogy/expansion is that the "pathloss" between
> (say) parabolic dishes of a certain capture area is independent of
> frequency because their capture (and hence gain) goes up as the area
> in "square wavelengths" i.e. -20logF. See the next para.

No, if it were independent of frequency, there would be no F term. The pathloss depends on the gain of the transmitting antenna, the effective area of the receiving antenna and the distance between them. However, the gain of a parabolic dish is dependent on frequency (4*pi*A/wavelength squared), which gives the -20logF term.

Pathloss = Gt*Ar/(4*pi*R^2) = Gt*Gr*lambda^2(16*pi^2*R^2)

Bob, N7XY

4733. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 07:42:16 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b723e5c.2250060@news.cantech.net.au>
Source record: 51030

On 9 Aug 2001 06:00:01 GMT, nielsen@remove_this.oz.net (Bob Nielsen) wrote:

>On Thu, 09 Aug 2001 02:07:08 GMT, budgie wrote:
>>
>> As an aside, I have always had the greatest respect for Roy's work,
>> but I found his post a little obfuscating. OTOH, the thing you WILL
>> observe from his analogy/expansion is that the "pathloss" between
>> (say) parabolic dishes of a certain capture area is independent of
>> frequency because their capture (and hence gain) goes up as the area
>> in "square wavelengths" i.e. -20logF. See the next para.
>
>
>No, if it were independent of frequency, there would be no F term. The
>pathloss depends on the gain of the transmitting antenna, the
>effective area of the receiving antenna and the distance between them.
>However, the gain of a parabolic dish is dependent on frequency
>(4*pi*A/wavelength squared), which gives the -20logF term.
>
>Pathloss = Gt*Ar/(4*pi*R^2) = Gt*Gr*lambda^2(16*pi^2*R^2)

Thanks, Bob, I am aware of the relationships. Maybe I expressed it poorly. The increase in gain of the constant area antenna offsets the logF term from the naked (isotropic) case.

4734. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-09 09:06:25 UTC
From: Jeroen Belleman <Jeroen.Belleman@cern.ch>
Message-ID: <3B725291.FBE629A7@cern.ch>
Source record: 51031

Paul Breed wrote:
>
> The line of sight path loss equation I've been given (and found) is
>
> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
> I understand the 20logD term, it is proportional to the area of the
> wave front as the distabnce expands.,but what is the physucal
> explanation of the 20lofF term?

Simply put, it's because the receiving antenna's size has been
defined in terms of wavelengths, rather than in feet or meters.

Jeroen Belleman

4735. AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 00:28:06 UTC
From: Bill Starks <wstarks@citynet.net>
Message-ID: <3b73285d$1_4@corp.newsgroups.com>
Source record: 51032

I need help identifying a meter shunt resistor on an AEA LA-30 amplifier. I picked it up unworking and immediately found that the plate current meter shunt is blown. If anyone has or knows someone with one of these amps I need to know the value of this resistor. It is R39 on the schematic but no value is given. It is located on the top circuit board in front of the transformer. It is the resistor in front of and parallel to the 12 pin edge connector.

Bill
K8WOS

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4736. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 02:05:16 UTC
From: nielsen@remove_this.oz.net
Message-ID: <9kvfgsnrt0@216.39.171.5>
Source record: 51033

On Thu, 09 Aug 2001 07:42:16 GMT, budgie wrote:
> On 9 Aug 2001 06:00:01 GMT, nielsen@remove_this.oz.net (Bob Nielsen)
> wrote:
>
>>On Thu, 09 Aug 2001 02:07:08 GMT, budgie wrote:
>>>
>>> As an aside, I have always had the greatest respect for Roy's work,
>>> but I found his post a little obfuscating. OTOH, the thing you WILL
>>> observe from his analogy/expansion is that the "pathloss" between
>>> (say) parabolic dishes of a certain capture area is independent of
>>> frequency because their capture (and hence gain) goes up as the area
>>> in "square wavelengths" i.e. -20logF. See the next para.
>>
>>
>>No, if it were independent of frequency, there would be no F term. The
>>pathloss depends on the gain of the transmitting antenna, the
>>effective area of the receiving antenna and the distance between them.
>>However, the gain of a parabolic dish is dependent on frequency
>>(4*pi*A/wavelength squared), which gives the -20logF term.
>>
>>Pathloss = Gt*Ar/(4*pi*R^2) = Gt*Gr*lambda^2(16*pi^2*R^2)
>
> Thanks, Bob, I am aware of the relationships. Maybe I expressed it
> poorly. The increase in gain of the constant area antenna offsets the
> logF term from the naked (isotropic) case.

We are both thinking the same thing, but no, I was the one who
expressed it poorly (one should never do math late at night). In
reality the term "pathloss" is not applicable in the equation I wrote
above. It should only be used where the power transfer is expressed as
a logarithm, not when showing it by a power ratio and is really a
convenient grouping of several of the terms of the equation. I guess
it has been too many years since I have thought about such things.
Anyway, further thinking on the subject has cleared away some of the
cobwebs in my mind (I didn't think I had been retired **THAT** long!)

Increasing antenna gain will (obviously) increase the signal, not
decrease it. What I expressed above is not "pathloss" but the ratio of
Pr/Pt. Expressing both antennas as effective area interestingly gives
the result Pr/Pt = At*Ar/(lambda^2*R^2), which shows that the amount of
power received actually increases with frequency for this case. The
gain goes up as frequency squared, but so does the effective area (in
"square wavelengths" of the receiving antenna.

If you transmit from an isotropic antenna (or any antenna whose gain is frequency-independent) and receive on an aperture of fixed area, the Pr/Pt ratio is independent of frequency (in a vacuum, at least).

73, Bob

--
Bob Nielsen, N7XY nielsen@oz.net
Bainbridge Island, WA http://www.oz.net/~nielsen
IOTA NA-065, USI WA-028S

4737. New calibration Lab

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 02:06:31 UTC
From: qualcal@midsouth.rr.com
Message-ID: <9164803b.0108091806.6ef462ed@posting.google.com>
Source record: 51034

QualityCal, located in Memphis, TN is now open. We feature a guaranteed 5 day turn on all calibration. Please call (901)795-0509 to schedule your calibration service.

QualityCal
6166 E. Shelby Dr.
Memphis, TN 38141

4738. FS: Panel Mount BNC connectors SP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 02:55:40 UTC
From: John Grow <jgrow@sympatico.ca>
Message-ID: <nSHc7.44364$5c.3290040@news20.bellglobal.com>
Source record: 51035

I have a large number of Silver Plated Panel Mounted BNC connectors. They are 5 pieces for $ 5.00 dollars, plus $ 2.75 shipping CONUS

Thanks, John

4739. FS: Binding Posts Spring type

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 02:58:43 UTC
From: John Grow <jgrow@sympatico.ca>
Message-ID: <eVHc7.44415$5c.3292403@news20.bellglobal.com>
Source record: 51036

New Stock of push type binding posts. The Posts are red, and you have to push on the top cap, so your wire can be secured. These are heavy duty units.
6 Binding Posts for $ 5.00

4740. FS: Heavy Duty Test Posts, Spring held

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 03:02:42 UTC
From: John Grow <jgrow@sympatico.ca>
Message-ID: <ZYHc7.44490$5c.3295725@news20.bellglobal.com>
Source record: 51037

These heavy duty test posts are green, have a spring that you push down and
then you can secure your wire, etc..
This is New Old stock, never been used.

10 posts for $ 5.00, plus $ 3.45 shipping CONUS

John

4741. Re: AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 11:56:01 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9l0i8f$3og$1@plutonium.btinternet.com>
Source record: 51038

If the meter shunt is blown then so is the meter.

Regards, Reg, G4FGQ
http://www.g4fgq.com

4742. Re: Can someone identify this component in mystery HF PA?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 13:26:15 UTC
From: Kim <none@none.com>
Message-ID: <4vn7nto7mldefj1t61009dlh4a5ejaq06a@4ax.com>
Source record: 51039

Is this perhaps the board?
http://www.communication-concepts.com/eb27a.htm

On Mon, 23 Jul 2001 16:06:39 -0700, "Dan Rae" <ac6ao@arrl.net> wrote:

>I bought at last Saturday's Pomona swap meet a very nice commercial or
>military 2x MRF422 power amplifier board. It is very similar (identical?)
>to the Motorola EB27A as far as the RF design is concerned, but the bias
>supply is completely different. Each transistor base is fed from a 4
>terminal device that looks like an flange mounted RF transistor, but is
>not..
>
>The markings are:
>
>ACR
>Z0-28F (could be a zero or an o)
>1363W
>
>From the top, clockwise, term 1 goes to the supply (presumably28V?)
>term 2 is the Output,
>3 is fed through a 100 ohm and 1000 ohm variable R in series from the +ve
>supply
>4 is ground.
>Liberal chip capacitor bypassing.
>
>Has anyone come across these devices before?
>
>I would like to use this PA with a qrp radio but would like to get some
>information on these devices before I fire it up :-)
>
>Or has anyone any idea who made this board and what it came from? The
>quality is good enough to be from Collins or similar. It has relay
>switched 1/2, 1, 2, and 6 dB attenuators on the front end and a LPF on the
>output, input and output RF measurement transformers and very nice plastic
>encapsulated broadband rf transformers, D-sub combo connectors for
>everything.... Sound familiar to anyone?
>
>Next stop the smoke test I suppose :-)
>
>Dan AC6AO G3NCR
>
>
>
>

4743. Testing do not read

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 18:13:15 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <efVc7.2235$Xa4.12555@newsfeeds.bigpond.com>
Source record: 51040

test 12

4744. Help! Need Info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 18:14:00 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <IvVc7.59422$m8.17085952@news1.rdc1.md.home.com>
Source record: 51041

I have acquired a CEI Type 906A-1 30 to 300 mhz receiver, s/n 28. I would like to obtain an operator's manual, a maintenance manual, and the schematics for this radio.

--
Bob - N0DGN - Craf-T-Bob (Because I love Hallicrafters!)
Manassas Radio - Home of Homemade Kielbasa & Pirogi

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.265 / Virus Database: 137 - Release Date: 7/18/01

4745. Re: Transmission line Xformer info wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 20:27:00 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9l1fteaii1@wanadoo.fr>
Source record: 51042

```
If you play with narrow band signals, and assuming you have assymetrical
source/load, I think you need just a 50 ohms coax quarter wave line :

input impedance : 150 ohms
output impedance : 50 * 50 / 150 = 16 ohms

--

73 de F4DAY
```

Jean-Fran&#65533;ois FOURCADIER

"amdx" <amdx@att.net> a &#65533;crit dans le message news:
IR%b7.37952$gj1.3509472@bgtnsc05-news.ops.worldnet.att.net...
I'm looking for information on the web about transmission line
transformers.
Specifically I want to transform about 150 ohms to about 10 ohms using
a TLT.
Thanks
Mike

4746. Re: AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 22:10:50 UTC
From: Bill Starks <wstarks@citynet.net>
Message-ID: <3b7459b7_2@corp.newsgroups.com>
Source record: 51043

The meter is still good. The glitch diodes did their job protecting it.

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:9l0i8f$3og$1@plutonium.btinternet.com...
> If the meter shunt is blown then so is the meter.
>
> Regards, Reg, G4FGQ
> http://www.g4fgq.com
>
>
>

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4747. Re: AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-10 23:58:55 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B74753E.E04998EF@home.com>
Source record: 51044

This should not be difficult to do. In order to calculate the shunt resistance you need, you need a few pieces of information:

1) The desired full scale meter current. THis is likely marked on the meter.
2) The meter movement full scale current, without the shunt.
3) The meter movement full scale voltage, without the shunt.

Like I said, #1 is likely what the meter face now reads at full scale. Suppose it is 500 ma.

You can measure #2 and #3. Lets make a guess that this is a 1 ma movement meter. If you have 12v
supply, that would take a series resistor of 12/.001 or a 12K resistor in series with the meter and 12v to get 1 ma.

Take instead a 50K pot, set it half way (very important!) and place it between the meter and the 12v.

12v -> 50K pot -> meter -> ground. Carefully adjust the pot so that the meter reads exactly full scale deflection. If the meter pegs right off the bat, it might be a 50 or 100 ua movement, so drop back and start with a 500K pot set to halfway and repeat. At halfway on the pot, the meter ought not read full scale at first.

Once the meter is reading full scale, place a voltmeter across the meter and measure the voltage drop across the meter. Call it Vm. Also measure the power supply voltage. Call it Vps.

Take things apart and measure the resistance of pot. Call it Rp.

Full scale current of the meter movement (call it Im) is then: (Vps - Vm)/Rp = Im

Call the desired full scale meter reading Id.

Since the meter will need Vm volts to deflect full scale, the total shunt resistance needed is:
Vm/Id = total shunt resistance. Call this Rts. However, the real shunt resistance needs to account for the current through the meter.
Therefore, the real shunt resistance you need is:

Vm/(Id-Im) = desired shunt resistance. Notice that Id is probably large compared to Im, so you could probably ignore it.

Lets do an example. The meter face shows 500 ma at full scale (Id). You use your 12v power supply as a voltage source. You use a 50K pot in series with the meter, and the meter does not peg, but read about half

scale. Carefully adjust the pot to get a full scale reading on the meter. When you get a full scale reading on the meter, You measure your power supply to be 12.8v. Vps = 12.8v. You measure the voltage across the meter as 0.85v, Vm. You take the circuit apart and measure the pot to be 10.5K ohms, Rp.

The meter full scale current is (Vps-Vm)/Rp = (12.8 - 0.85)/10500 = 0.0011 A or 1.1 mA.

The shunt value is: Vm/(Id-Im) = 0.85/(0.5 - 0.0011) = 1.7 ohms.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Bill Starks wrote:
>
> I need help identifying a meter shunt resistor on an AEA LA-30 amplifier. I
> picked it up unworking and immediately found that the plate current meter
> shunt is blown. If anyone has or knows someone with one of these amps I
> need to know the value of this resistor. It is R39 on the schematic but no
> value is given. It is located on the top circuit board in front of the
> transformer. It is the resistor in front of and parallel to the 12 pin edge
> connector.
>
> Bill
> K8WOS
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4748. WTB: Blown 516 F2 Collins Supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 01:41:37 UTC
From: Bill Abate <wabate@dandy.net>
Message-ID: <6739ntgpl3upibsf5661eonp9cf5udhaeb@4ax.com>
Source record: 51045

I would like to buy a blown 516 F2 power supply for my Collins gear.
I have a good cabinet and transformer. Would like to buy the guts of
a blown one so I could put a complete supply together for a good
price.

Anybody have one they want to sell?

73,

Bill, K3PGB
wabate@dandy.net

4749. ANY ONE that can help with info I had neck hurt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 02:38:46 UTC
From: Doon Morrison <duckyou@smpatico.ca>
Message-ID: <3B749C61.6102605C@smpatico.ca>
Source record: 51046
Cross-posted to: rec.radio.amateur.homebrew,INjuryychiropractor,in,fo

I would like help by any one that can back up injury caused by
chiropracticClinic thank you

dmm900@ hotmail.com

4750. "30"/ 01a swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 03:25:35 UTC
From: leeann_tweeden@hotmail.com
Message-ID: <3cfa88b7.0108101925.3d6c2487@posting.google.com>
Source record: 50947

Can an 01a tube be used in place of a "30" tube or vise versa if the filament voltage is changed to suit the tube ???

Thank you

4751. Re: "30"/ 01a swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 04:31:07 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B74B50B.B97639A1@coqui.net>
Source record: 50948

lukesdaddy wrote:
>
> Can an 01a tube be used in place of a "30" tube or vise versa if the
> filament voltage is changed to suit the tube ???
>
> Thank you

I built a two-tube Doerle regen SW receiver and can tell absolutely no
difference between using the 30 vs the 01A in that circuit. I've seen
the circuit depicted in articles using either tube.
--
Bill M
Vieques, PR

4752. Re: AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 04:56:00 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B74BADF.E1354135@home.com>
Source record: 50949

In the following example, the shunt resistor needed was 1.7 ohms.
Suppose that the store down the corner does not have 1.7 ohm resistors,
but instead has 2.2 ohm resistors.

At the desired 0.5A current, you want 0.0011 A through the meter, and
0.4989 A through the 2.2 ohm shunt. Therefore, the voltage drop across
the 2.2 ohm shunt will be 2.2*0.4989 = 1.098v instead of the desired
0.85v.

What we really want is 0.85v across the meter, not 1.098v. Solution:
Add a small resistor in series with the meter as it sits across the 2.2
ohm shunt resistor to get rid of the excess shunt voltage.

This resistor would be: (1.098v - 0.85v)/0.0011A = 225 ohm. A 220 ohm
resistor will be close enough. If you want to be exact, use a 500 ohm
trimpot and set it to the proper value.

A check on the power requirements for the shunt resistor: P = I*I*R =
0.5*0.5*2.2 = 0.55w
Use at least a 1w resistor. You could put two 1 ohm, 1/2w resistors in
series (2 ohm) or two 4.7 ohm in parallel (2.35 ohm) for a shunt and
recalculate the needed meter series resistor.

The main point is that it is not necessary to try to custom wind your
own shunt resistor out of a length of wire. You can find a shunt a
little larger than needed and compensate for the larger than required
shunt voltage by adding additional series meter resistance.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Dan Tayloe wrote:
>
> This should not be difficult to do. In order to calculate the shunt
> resistance you need, you need a few pieces of information:
>
> 1) The desired full scale meter current. THis is likely marked on the
> meter.
> 2) The meter movement full scale current, without the shunt.
> 3) The meter movement full scale voltage, without the shunt.
>
> Like I said, #1 is likely what the meter face now reads at full scale.
> Suppose it is 500 ma.
>
> You can measure #2 and #3. Lets make a guess that this is a 1 ma
> movement meter. If you have 12v
> supply, that would take a series resistor of 12/.001 or a 12K resistor

> in series with the meter and 12v to get 1 ma.
>
> Take instead a 50K pot, set it half way (very important!) and place it
> between the meter and the 12v.
>
> 12v -> 50K pot -> meter -> ground. Carefully adjust the pot so that the
> meter reads exactly full scale deflection. If the meter pegs right off
> the bat, it might be a 50 or 100 ua movement, so drop back and start
> with a 500K pot set to halfway and repeat. At halfway on the pot, the
> meter ought not read full scale at first.
>
> Once the meter is reading full scale, place a voltmeter across the meter
> and measure the voltage drop across the meter. Call it Vm. Also measure
> the power supply voltage. Call it Vps.
>
> Take things apart and measure the resistance of pot. Call it Rp.
>
> Full scale current of the meter movement (call it Im) is then: (Vps -
> Vm)/Rp = Im
>
> Call the desired full scale meter reading Id.
>
> Since the meter will need Vm volts to deflect full scale, the total
> shunt resistance needed is:
> Vm/Id = total shunt resistance. Call this Rts. However, the real shunt
> resistance needs to account for the current through the meter.
> Therefore, the real shunt resistance you need is:
>
> Vm/(Id-Im) = desired shunt resistance. Notice that Id is probably large
> compared to Im, so you could probably ignore it.
>
> Lets do an example. The meter face shows 500 ma at full scale (Id). You
> use your 12v power supply as a voltage source. You use a 50K pot in
> series with the meter, and the meter does not peg, but read about half
> scale. Carefully adjust the pot to get a full scale reading on the
> meter. When you get a full scale reading on the meter, You measure your
> power supply to be 12.8v. Vps = 12.8v. You measure the voltage across
> the meter as 0.85v, Vm. You take the circuit apart and measure the pot
> to be 10.5K ohms, Rp.
>
> The meter full scale current is (Vps-Vm)/Rp = (12.8 - 0.85)/10500 =
> 0.0011 A or 1.1 mA.
>
> The shunt value is: Vm/(Id-Im) = 0.85/(0.5 - 0.0011) = 1.7 ohms.
>
> - Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions
>
> Bill Starks wrote:
> >
> > I need help identifying a meter shunt resistor on an AEA LA-30 amplifier. I

> > picked it up unworking and immediately found that the plate current meter
> > shunt is blown. If anyone has or knows someone with one of these amps I
> > need to know the value of this resistor. It is R39 on the schematic but no
> > value is given. It is located on the top circuit board in front of the
> > transformer. It is the resistor in front of and parallel to the 12 pin edge
> > connector.
> >
> > Bill
> > K8WOS
> >
> > -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> > http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> > -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

4753. Re: "30"/ 01a swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 05:43:04 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <IC3d7.3614$752.202659@brie.direct.ca>
Source record: 50950

"Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
message news:3B74B50B.B97639A1@coqui.net...
> lukesdaddy wrote:
> >
> > Can an 01a tube be used in place of a "30" tube or vise versa if the
> > filament voltage is changed to suit the tube ???
> >
> > Thank you
>
> I built a two-tube Doerle regen SW receiver and can tell absolutely no
> difference between using the 30 vs the 01A in that circuit. I've seen
> the circuit depicted in articles using either tube.
> --
> Bill M
> Vieques, PR
>

I did the same thing in the mid-1930s. Oof course the
'30 is a lot easier on the 6 volt car battery, especially if the cell
connectors are exposed on top so that you don't have to use a dropping
rheostat (same thing with dry cells). Miki VE7AFN.

4754. Re: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 07:09:39 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B74DA32.BB452564@nettally.com>
Source record: 50951

What frequency band is the amp for? Be careful of those bakelite SO239
connectors, they can be lossy at higher freqs.

Anders wrote:

> Hi!
>
> I recently built the 35W amplifier on this page:
> http://www.avlyssning.nu/slutsteg/6/index.htm
> My problem is that it only amplifies about 6dB! With 3W input I only have
> 12-14 W out! Clues(?) are:
>
> 1. I used the NTE345 instead of the MRF238 (same specs)
> 2. I used 1mm Cu-wire instead of 1.6mm. (ohmic losses?)
> 3. Lossy trimmer capacitors. (what kind to use?)
>
> All capacitors are somewhere in the middle of their ranges to achieve max
> output. The amp is built using pieces of breadboard glued to a larger
> breadboard working as ground plane. See attached picture!
>
> All tips are most welcome!
>
> /Anders
>
> [Image]

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

4755. Re: ANY ONE that can help with info I had neck hurt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 07:11:30 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B74DAA1.CDA058F8@nettally.com>
Source record: 50952
Cross-posted to: rec.radio.amateur.homebrew,INjuryychiropractor,in,fo

what a pain in the neck

Doon Morrison wrote:

> I would like help by any one that can back up injury caused by
> chiropracticClinic thank you
>
> dmm900@ hotmail.com

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

4756. Re: ANY ONE that can help with info I had neck hurt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 11:46:41 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <1v53l9.i2d.ln@localhost.localdomain>
Source record: 50953
Cross-posted to: rec.radio.amateur.homebrew,INjuryychiropractor,in,fo

Doon Morrison wrote:

> I would like help by any one that can back up injury caused by
> chiropracticClinic thank you

We can only help you with injuries caused by home made radiotherapy
equipment.

73, Ed. EI9GQ.

--
Remove 'X' to reply by e-mail.
http://homepage.eircom.net/~ei9gq
Linux 2.4.6

4757. SV: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 18:23:21 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <CMed7.9015$5t1.17160@nntpserver.swip.net>
Source record: 50954

It is used for the 3m band, ie the FM broadcast band.

/Anders

"Anders" <anders.gavner@removethis.swipnet.se> skrev i meddelandet
news:O0Uc7.8906$5t1.16668@nntpserver.swip.net...
> Hi!
>
> I recently built the 35W amplifier on this page:
> http://www.avlyssning.nu/slutsteg/6/index.htm
> My problem is that it only amplifies about 6dB! With 3W input I only have
> 12-14 W out! Clues(?) are:
>
> 1. I used the NTE345 instead of the MRF238 (same specs)
> 2. I used 1mm Cu-wire instead of 1.6mm. (ohmic losses?)
> 3. Lossy trimmer capacitors. (what kind to use?)
>
> All capacitors are somewhere in the middle of their ranges to achieve max
> output. The amp is built using pieces of breadboard glued to a larger
> breadboard working as ground plane. See attached picture!
>
> All tips are most welcome!
>
> /Anders
>
>
>
>

4758. Re: Gender and the Internet

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-11 23:21:15 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <yIvcfBAr3bd7Ewrq@g3ohx.demon.co.uk>
Source record: 50955

In article <M9fd7.5471$o4.2229@news.ou.edu>, gender <?.ou.edu@?.?>
writes
>I am a researcher at the University of Oklahoma, USA,
>conducting a study about gender and the Internet.
>The study consists of an online survey. To learn
>more about the study, go to the research project
>web site:
>
>http://infoserv.ou.edu/gender
>
>Cheers!
>-Elaine Wittenberg
>gender@ouwww.ou.edu

Elaine,

I can't be bothered to go to that website. I have better things to do.

I can't be bothered to learn about your study and online survey.

However, I'll let you into a little secret....
I use the internet, and I am male.

I hope this helps.

However....

I worry about people like you. I feel that you are devoting a lot of
your formative years researching something totally irrelevant to the
real world. I could say "Get a life", but that would be gentlemanly.
Only a male would say this!

Ian.

4759. WLS 2976 radio tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 06:38:30 UTC
From: leeann_tweeden@hotmail.com
Message-ID: <3cfa88b7.0108112238.185a3ff0@posting.google.com>
Source record: 50956

I have a friend who asked for info about some tubes, they are WLS 2976 tubes, could someone please identify these tubes. thanks

4760. 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 07:49:05 UTC
From: Shawn Reeves <kleptein@hotmail.com>
Message-ID: <2uccnt4md3stm2dgn6o7nra7objtq0m3bn@4ax.com>
Source record: 50957
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

I was at a show recently and had a chance to check out the radio setup inside on of the police cars. This unit had a device in it that was hooked up to the police radio, and to the car stereo speakers. When the police radio unsquelched, the AM/FM was cut out, and the police radio was heard over the stereo speakers. When the audio disappeared, the music came back.

Any ideas if this is a custom device, or something that is sold somewhere??

4761. Re: WLS 2976 radio tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 10:02:58 UTC
From: fdre584352@aol.com
Message-ID: <20010812060258.29328.00003883@ng-cu1.aol.com>
Source record: 50958

>From: leeann_tweeden@hotmail.com (lukesdaddy)

>I have a friend who asked for info about some tubes, they are WLS 2976
>tubes, could someone please identify these tubes. thanks
>
>
>
Wild guess -- Sears sold WLS (World's Largest Store) brand tubes in the twenties. It was a tie-in to the Chicago radio station they started. I believe the WLS logo was written out in a lightning bolt font. Could the 2976 be a munged up 201A? Or maybe a date code?

You might find more help on the rec.antiques.radio+phono newsgroup.

Frank Dresser

4762. Re: reflex transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 17:14:49 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B76B989.EFEF2097@world.std.com>
Source record: 50959

I may be wrong, and someone please correct me, but these are used in a "reflex" receiver. By use of the transformers, the audio is fed back through the tubes doing the RF amplification, and there is more gain. A search on "reflex receiver" will bring up all kinds of interesting articles.

There was a page I found whose link I have since lost that advocated reversing the order of the tubes for the audio path so as to avoid overload. I will try and find it again.

Clyde

leeann tweeden wrote:

> What exactly is the purpose of a reflex transformer. I have 2 such
> transformers in an old junk radio chassis and would like to know just what
> they are used for are are good for. The two I have are ERLA , one is a
> reflex
> 1 type and the other is a duo reflex 2 type.
>
> Thank you
>
> ----------
> Get your FREE web-based e-mail and newsgroup access at:
> http://MailAndNews.com
>
> Create a new mailbox, or access your existing IMAP4 or
> POP3 mailbox from anywhere with just a web browser.
> ----------

4763. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 17:29:27 UTC
From: moc.enilepip@ykkams
Message-ID: <3b76b95c.188911950@news.pipeline.com>
Source record: 50960
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

While Mr. Reeves has requested a reply via e-mail, I don't e-mail through Usenet; sorry. My reply is posted to Usenet only.

Shawn Reeves <kleptein@hotmail.com> wrote:

>I was at a show recently and had a chance to check out the radio setup
>inside on of the police cars. This unit had a device in it that was
>hooked up to the police radio, and to the car stereo speakers. When
>the police radio unsquelched, the AM/FM was cut out, and the police
>radio was heard over the stereo speakers. When the audio disappeared,
>the music came back.
>
>Any ideas if this is a custom device, or something that is sold
>somewhere??

Well, you could try looking in the mother of all police gadgets: www.galls.com.

But, since you cross-posted to a ham radio homebrewing NG:

This is not rocket science and could be a very simple device that takes a logical high or low from the squelch gate of the radio, switches between the audio source of the broadcast radio, maintains a constant impedance for the public safety radio when it splits it into left and right for the stereo speakers (be careful - some are 4, 8 or 16 ohms; some are odd, like 3.2, etc. "Close" could burn out some of the hybrid IC audio PA modules - likewise, some audio outputs, like on Spectras, are balanced and have a DC bias on the output. NEVER ground it or you will likely damage the audio PA... first the audio PA fuse blows... then this damage could manifest as distortion or latent failure and is not always immediate) and the public safety radio and (hopefully) provides a load at the appropriate impedance for each radio when in the idle mode.

You could make this on a nifty little PC board and house it in a small box.

Good luck.

Steve
KA2AYR

4764. Invitation to Digital Europe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 17:52:19 UTC
From: digimon36@email.com
Message-ID: <1ec32c97.0108120952.42ee08bf@posting.google.com>
Source record: 50961

Hello,

All 460 Euro-Sat members and new people have been invited to join the
Digital Europe Group,
I cannot subcribe all old members of Euro-Sat directly because we are
a new list.
We are a new beginning list without list activities. It takes a little
time until this mailing list ready for discussions.

JOIN NOW, IT'S EASY:

To subscribe to this group, send an email to:
digital-europe-subscribe@yahoogroups.com
To subscribe a digest, send an email with the subject "subscribe
digest" to:
digimon36@eListas.net
Help: digimon36@email.com

- who started and owns this list
Guenter digimon36@email.com the owner and administrator of Digital
Europe.

- what are the aims of this list
The aim of this list is a legal mailing list which unite the European
digital
satellite television scene in one mailing list. We got in such a
group more
information about digidtal satellite television in Europe.

- what are the topics to be discussed
- digital satellite television
- channels
- feeds
- receivers
- equipment
- installation
- firmware
- DVB 2000

- what is allowed:
- topic discussions

- what is forbidden:
- Insults
- illegal activities - Yahoogroups shut down the list

- Languages of the list
- the mean language for everybody in this mailing list is English!

Regards,

Guenter Moderator, Digital Europe

4765. Parts for Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 18:31:55 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <kXzd7.658$5N2.150892@news1.iquest.net>
Source record: 50962
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I still have BNC chassis connectors for (about 300)

25 for $12.40
50 for $21.00
100 for $36.00

and I have some PN2222A's left for (About 300)

50 for $4.50
100 for $8.25
200 for $15.50
500 for $37.00

Let me know if you're interested. All prices are post paid to the USA.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

4766. Need info on artificial center tap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 19:16:46 UTC
From: Jim DiMauro <jfd@warwick.net>
Message-ID: <9l6l4qgda1@news.warwick.net>
Source record: 50963

I have a power supply with a damaged xfmr: the center tap seems no longer to be connected internally due to overheating. Otherwise, the HV winding is OK. I have a construction article where the author needed a center-tapped filament winding for his project, but the particulat xfmr he had wasn't center-tapped. He made an artificial center tap by putting a resistor to ground from each side of the winding (in this case he used 33 ohm, 1 watt resistors on a 6.3 volt 8 amp winding). I'd like to do the same for my damaged xfmr, but I don't know how to calculate the value of the resistors. Can anyone out there help?

Thanx.

4767. Re: SV: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 20:13:58 UTC
From: la8ak@online.no
Message-ID: <3b765d03.306470577@news.online.no>
Source record: 50964

On Sat, 11 Aug 2001 20:23:21 +0200, "Anders"
<anders.gavner@removethis.swipnet.se> wrote:

>It is used for the 3m band, ie the FM broadcast band.
>
>/Anders
>
>
and what sort of drive do you use, 4m or 6m transceiver?

>"Anders" <anders.gavner@removethis.swipnet.se> skrev i meddelandet
>news:O0Uc7.8906$5t1.16668@nntpserver.swip.net...
>> Hi!
>>
>> I recently built the 35W amplifier on this page:
>> http://www.avlyssning.nu/slutsteg/6/index.htm
>> My problem is that it only amplifies about 6dB! With 3W input I only have
>> 12-14 W out! Clues(?) are:
>>
>> 1. I used the NTE345 instead of the MRF238 (same specs)
>> 2. I used 1mm Cu-wire instead of 1.6mm. (ohmic losses?)
>> 3. Lossy trimmer capacitors. (what kind to use?)
>>
>> All capacitors are somewhere in the middle of their ranges to achieve max
>> output. The amp is built using pieces of breadboard glued to a larger
>> breadboard working as ground plane. See attached picture!
>>
>> All tips are most welcome!
>>
>> /Anders
>>
>>
>>
>>
>
>

4768. Re: Need info on artificial center tap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 20:28:25 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B76E6E3.6ECDE760@att.net>
Source record: 50965

Wouldn't try that - better to change the configuration of the rectifiers
and work with the single non-tapped winding.

Resistive taps on low-voltage windings were very common "in the old days"
but aren't a very good idea with high-voltage windings. Too much power
wasted, for one thing.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Jim DiMauro wrote:
>
> I have a power supply with a damaged xfmr: the center tap seems no longer to
> be connected internally due to overheating. Otherwise, the HV winding is
> OK. I have a construction article where the author needed a center-tapped
> filament winding for his project, but the particulat xfmr he had wasn't
> center-tapped. He made an artificial center tap by putting a resistor to
> ground from each side of the winding (in this case he used 33 ohm, 1 watt
> resistors on a 6.3 volt 8 amp winding). I'd like to do the same for my
> damaged xfmr, but I don't know how to calculate the value of the resistors.
> Can anyone out there help?
>
> Thanx.

4769. How to? Unsoldering SMT Device (electrolytic caps)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 22:07:29 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B76FE20.F2551BD2@nettally.com>
Source record: 50966

I have commercial radio some equipment that uses SMT devices. Some of the small cylindrical 10uf 16 volt electrolytic caps are becoming leaky, losing electrolyte onto the PC board. I would like to remove these and replace with better caps. I suspect that they are glued to the board prior to soldering. I don't have a hot air unit but would like to remove them without tearing up traces due to solder or glue adhering to the PCB. The component density is not too bad, still I dont want to apply heat to other components. Has anyone a good trick to removing these?

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

4770. using RF modules to trip several momentary switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-12 22:10:13 UTC
From: mvanhuss@intelos.net
Message-ID: <1650eaec.0108121410.300e8840@posting.google.com>
Source record: 50967

Is there someplace to go (web or book) to get information about how to use rf modules in simple designs? I would like to use one transmitters to activate a number of receivers. Press a buttons and several lights go on. The lights have a momentary switch that turns them on.

Thanks.

Chris

4771. Re: "30"/ 01a swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 02:05:34 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <OBGd7.242179$v5.25089030@news1.rdc1.ct.home.com>
Source record: 50968

If the set uses a filament rheostat, it will have little effect on the
30 due to lower current draw.

Pete

"lukesdaddy" <leeann_tweeden@hotmail.com> wrote in message
news:3cfa88b7.0108101925.3d6c2487@posting.google.com...
> Can an 01a tube be used in place of a "30" tube or vise versa if the
> filament voltage is changed to suit the tube ???
>
> Thank you

4772. Re: FA Safety Belt and Lanyard, No Reserve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 02:07:52 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <YDGd7.242188$v5.25090867@news1.rdc1.ct.home.com>
Source record: 50969
Cross-posted to:
rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

My company requires that the old ones be turned in and destroyed
as the newer ones are issued. I wouldn't trust my life to an older
leather belt.

Pete

"Jim" <jim_d69@yahoo.com> wrote in message
news:9s297.66155$w5.7665245@news1.rdc1.ga.home.com...
> And I won't climb in one that I haven't checked and rechecked to make sure
> they are safe.. The six dollar ones work just fine for me but they will be
> tossed at the first sign of trouble..
>

4773. What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 03:28:17 UTC
From: ps <nospam@noway.nohow>
Message-ID: <3B774951.8587F949@noway.nohow>
Source record: 50970

I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and 1N3492

The converter doesn't work (blows input fuses), and these components look burned. What are they, and what is a replacement source or part number?

Thanks.

4774. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 05:04:19 UTC
From: ham <h@m.xxx>
Message-ID: <3B775FD8.D74F61E2@m.xxx>
Source record: 50971

A quick internet search produced:

1N3492 Diodes Rectifier >5A 100V 25A

Thus it's a garden variety rectifier it would seem.

However nothing for a 2N633. Sure there's not an additional number at the end? I didn't try other search engines so you might have luck if you spend some time doing searches with various search engines.

It's always best to do some work on your own before you throw it to the newsgroup. You'd be surprised what you can find in only a few minutes and you develop some skills for the next time you need to find something out.

ps wrote:

> I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and
> 1N3492
>
> The converter doesn't work (blows input fuses), and these components
> look burned. What are they, and what is a replacement source or part
> number?
>
> Thanks.

4775. Re: How to? Unsoldering SMT Device (electrolytic caps)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 05:09:16 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9l7n8k$8nc$1@wanadoo.fr>
Source record: 50972

My manner to salvage old SMC is simple, but I don't know if it's the best :
I use two soldering irons with the help of an assistant and little pliers.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Joe Leikhim" <jleikhim@nettally.com> a &#65533;crit dans le message news:
3B76FE20.F2551BD2@nettally.com...
I have commercial radio some equipment that uses SMT devices. Some of
the small cylindrical 10uf 16 volt electrolytic caps are becoming leaky,
losing electrolyte onto the PC board. I would like to remove these and
replace with better caps. I suspect that they are glued to the board
prior to soldering. I don't have a hot air unit but would like to remove
them without tearing up traces due to solder or glue adhering to the
PCB. The component density is not too bad, still I dont want to apply
heat to other components. Has anyone a good trick to removing these?

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

4776. DX INFO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 08:10:48 UTC
From: F5SLD <f5sld@mangoosta.fr>
Message-ID: <2001813-101048-719808@foorum.com>
Source record: 50973

Hello,

You can receive dx infos directly in your e-mail without ads and pop-ups.
Subscrition is free and fast :
See our web-site below...

http://www.dromadaire.com/f5sld/dx

73's and good DX
Vince F5SLD

User of http://www.foorum.com/. The best tools for usenet searching.

4777. Re: "30"/ 01a swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 13:48:37 UTC
From: Boatanchor Bob NA4G <na4g@weedcon3.cropsci.ncsu.edu>
Message-ID: <9l8lrl$8fh$1@uni00nw.unity.ncsu.edu>
Source record: 50995

lukesdaddy <leeann_tweeden@hotmail.com> wrote:
> Can an 01a tube be used in place of a "30" tube or vise versa if the
> filament voltage is changed to suit the tube ???

Yes, provided you are aware of what the circuit is doing.

In the usual audio stages, it will work fine. In things like
regen detectors it will still work fine, but you may need to
change feedback slightly.

Keep the voltages as low as usable, to keep from burning up tubes.

Good Luck

Bob/NA4G

4778. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 13:55:27 UTC
From: dhinz@earth.execpc.com
Message-ID: <3b77dd21$0$12828$272ea4a1@news.execpc.com>
Source record: 50974
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

Steve & Susan (moc.enilepip@ykkams) wrote:
: While Mr. Reeves has requested a reply via e-mail, I don't e-mail
: through Usenet; sorry. My reply is posted to Usenet only.

(no comment on the radio stuff, since you answered pretty completely).

I agree, however, on the email response thing. "Hey guys, I don't
bother to read this group, but could y'all drop everything and act
as my personal free consultant, and email me a response? After all,
I can't be bothered to check back to the group for replies".

I've always found that attitude to be annoying as well. Now, that may not
be how he intended it, but it's sure how it comes across on *this* side of
my screen.

Dave Hinz

4779. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 14:34:34 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B77E57A.8A924C0A@coqui.net>
Source record: 50975

Dave Hinz wrote:
>
> Steve & Susan (moc.enilepip@ykkams) wrote:
> : While Mr. Reeves has requested a reply via e-mail, I don't e-mail
> : through Usenet; sorry. My reply is posted to Usenet only.
>
> (no comment on the radio stuff, since you answered pretty completely).
>
> I agree, however, on the email response thing. "Hey guys, I don't
> bother to read this group, but could y'all drop everything and act
> as my personal free consultant, and email me a response? After all,
> I can't be bothered to check back to the group for replies".
>
> I've always found that attitude to be annoying as well. Now, that may not
> be how he intended it, but it's sure how it comes across on *this* side of
> my screen.
>
> Dave Hinz

I've never quite understood the 'protocol' in this regard on Usenet, if indeed there is any. I know in my own case, that if a pose a question on an unknown group, then I'll watch that group for a week or so for replies.
Also, on the groups that I frequent daily, if a newcomer shows up with a question, I'll usually reply to him directly as well as to the group (its a one-button operation that requires no extra effort) unless he has a munged address which is indicative of not wanting direct replies.
I've had some people get extremely nasty about receiving a direct reply and even had one guy report me to my ISP for sending him unsolicited email...and a second time when I e-mailed him with an apology!
I don't see any reason to get on one's 'high horse' simply because a guy asks for a direct reply. He may not have usenet access at home (or know how to use it!) and have posted from his computer at work, or his buddie's computer or whatever.
--
Bill M
Vieques, PR

4780. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 18:32:09 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B781D29.684CCD4E@clifto.com>
Source record: 50976

ps wrote:
> I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and
> 1N3492

Someone already took the rectifier; the 2N633 is a PNP TO-5 transistor.
Ratings: 30V, 50 mA collector current, hfe of 60 "typical" at 10 mA.
I'd try a 2N2907 as a starting point.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4781. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 19:18:59 UTC
From: David Barr <dafydd@sgi.com>
Message-ID: <3B782823.DA6A4733@sgi.com>
Source record: 50977
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

Dave Hinz wrote:
>
> Steve & Susan (moc.enilepip@ykkams) wrote:
> : While Mr. Reeves has requested a reply via e-mail, I don't e-mail
> : through Usenet; sorry. My reply is posted to Usenet only.
>
> (no comment on the radio stuff, since you answered pretty completely).
>
> I agree, however, on the email response thing. "Hey guys, I don't
> bother to read this group, but could y'all drop everything and act
> as my personal free consultant, and email me a response? After all,
> I can't be bothered to check back to the group for replies".
>
> I've always found that attitude to be annoying as well. Now, that may not
> be how he intended it, but it's sure how it comes across on *this* side of
> my screen.
>
> Dave Hinz

On the flip side, I have a full-time job. So, if I have a question, and
I know of a group that can answer it, I'm going to post to that group in
the hopes that someone will help me out. I may not have a chance to
actually go and ~check~ for responses until after my server has deleted
them as out of date. So, asking for email seems reasonabe for someone
who doesn't have the time to surf on a regular basis...

dafydd

My opinion, not my company's, blah, blah, blah

4782. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 20:25:28 UTC
From: dhinz@earth.execpc.com
Message-ID: <3b7838a4$0$93661$272ea4a1@news.execpc.com>
Source record: 50978
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

David Barr (dafydd@sgi.com) wrote:
: Dave Hinz wrote:
: >
: > I've always found that attitude to be annoying as well. Now, that may not
: > be how he intended it, but it's sure how it comes across on *this* side of
: > my screen.

: On the flip side, I have a full-time job. So, if I have a question, and
: I know of a group that can answer it, I'm going to post to that group in
: the hopes that someone will help me out. I may not have a chance to
: actually go and ~check~ for responses until after my server has deleted
: them as out of date. So, asking for email seems reasonabe for someone
: who doesn't have the time to surf on a regular basis...

Fair enough - but, one could always post the question, and then check
back when they have time, by looking up the thread on google's usenet
archive. That way, they don't give an imppression to the group that they don't
care enough to have their question answered, yet they can still find the
information. To ease the search, one could always throw in some
fairly obscure phrase, such as "Catch the yellow furnace-monkey before
he fenestrates the entire office", or something.

Then again, that may not be as rare of a phrase as one would expect,
given the odd things that get discussed on Usenet.

Dave Hinz

4783. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 20:53:17 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tngfi25nu9nb7d@corp.supernews.com>
Source record: 50979
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

> I agree, however, on the email response thing.

I know. That "Reply" button is so much harder to
click than the "Reply Group" button :-)

4784. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 21:48:25 UTC
From: dhinz@earth.execpc.com
Message-ID: <3b784c15$0$93667$272ea4a1@news.execpc.com>
Source record: 50980
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

Bob Lewis \(AA4PB\) (rlewis@staffnet.com) wrote:
: > I agree, however, on the email response thing.

: I know. That "Reply" button is so much harder to
: click than the "Reply Group" button :-)

If someone asks the question of the group, then the group should benefit from the discussion that results. To ask for a private reply is somewhat selfish, as well as limiting of the responses and interaction inherent in a Usenet discussion.

4785. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-13 21:51:24 UTC
From: "Geoffrey G. Rochat" <geoff.nospam@nospam.pkworks.com>
Message-ID: <9l9hkm$ac0$1@news-central.tiac.net>
Source record: 50981

>> I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and
>> 1N3492
>
>Someone already took the rectifier; the 2N633 is a PNP TO-5 transistor.
>Ratings: 30V, 50 mA collector current, hfe of 60 "typical" at 10 mA.
>I'd try a 2N2907 as a starting point.
>

Whoa! Not so fast. My trusty "GE Transistor Manual", Seventh Edition,1964, says the 2N633 is a germanium transistor. A 2N2907 is silicon, and that's a different animal altogether. The 2N633 specs are:

PNP, germanium, TO-5 package, Pc = 150mw, BVce = 30, Ic = -50ma, hfe = 60 typ. @ Ic = 10ma, fhfb = 0.8mc (that's MHz today) type., max Ic0 = -25ua @ Vce = -20V.

GE didn't make the device, but recommended their 2N323 or 2N1415 germanium PNP alloy transistors as replacements. The NTE Replacement Guide gives the NTE 102 as the current replacement part (see www.nteinc.com), and that should be available through any of the usual sources of NTE replacement stuff.

In addition, the NTE Replacement Guide gives the NTE 5962 as the replacement for the 1N3492 diode. (The "GE Transistor Manual" doesn't mention the 1N3492.) The NTE 5962 is a press-fit silicon rectifier, If = 25A, Prv = 400V.

4786. spec sheet needed on a 3sk122

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 01:20:55 UTC
From: N5XNQ <cpclark@pca.net>
Message-ID: <37FC27DFB50FB9DA.6F038511263C51A9.7CDE5EF3ABA8B521@lp.airnews.net>
Source record: 50982

I am looking for a spec sheet for the following mos fet 3sk122. If anyone has one they can pass alone please drop me an email at cpclark@pca.net
Thanks in advance!

Craig - N5XNQ

4787. Re: Home Brew a 2m receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 01:29:13 UTC
From: N5XNQ <cpclark@pca.net>
Message-ID: <F495207597B7FE2A.A664BF84F9C91698.9DF947730F3A5A78@lp.airnews.net>
Source record: 50983

Try this site I think Steve has what your looking for.
http://www.sonic.net/~shageman/

Craig - N5XNQ
Ghost <bester@optushome.com.au> wrote in message
news:3B6B756C.1BC28C49@optushome.com.au...
> Ok This would have to be a newbie question but would any1 know where I
> can find (on the internet) a site that shows me how to build a 2m fm
> receiver (with PCP artwork)
>
> Thanks in advance
>
> -Ghost
>
>

4788. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 02:53:42 UTC
From: staylor@seanet.com
Message-ID: <3b789297.996738216@supernews.seanet.com>
Source record: 50984
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

And boy! Didn't we get a nice group discussion out of this thread!

Scott

On 13 Aug 2001 16:48:25 -0500, dhinz@earth.execpc.com (Dave Hinz)
wrote:

>Bob Lewis \(AA4PB\) (rlewis@staffnet.com) wrote:
>: > I agree, however, on the email response thing.
>
>: I know. That "Reply" button is so much harder to
>: click than the "Reply Group" button :-)
>
>If someone asks the question of the group, then the group should benefit
>from the discussion that results. To ask for a private reply is somewhat
>selfish, as well as limiting of the responses and interaction inherent in
>a Usenet discussion.
>
>
>

4789. Re: spec sheet needed on a 3sk122

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 04:24:37 UTC
From: Brian D Shircliffe <brian_shircliffe@netzero.com>
Message-ID: <9K1e7.9825$ga2.2354114872@newssvr15.news.prodigy.com>
Source record: 50985

dont know if this helps you.. this is what I found for you the 3N159 seems to be a close match but isnt surface mount.. I always have a hard time trackig down suitable replacements.. I gave it my best shot..
Brian

Part Number: 3SK122
Documents:

Parametric Search: Search
Manufacturer: NEC Electronics Inc
Shopping Agent:
Marketplace:
Generic Number: 122
Status: Discontinued
Military/High-Rel: N
V(BR)DSS (V): 20
V(BR)GSS (V): 8
I(D) Abs. Max (A)(@25�C): 25m
Absolute Max. Power Diss. (W): 200m
Maximum Operating Temp (�C): 125
I(DSS) Min. (A): 25m
I(GSS) Max. (A): 20u
g(fs) Min. (S) Trans. Conduct.: 22m
@V(DS) (V) (Test Condition): 6
C(iss) Max. (F): 6.5p
Package Style: Macro-X
Mounting Style: SURFACE MOUNT

V(BR)DSS:
Units: Volts

Drain-to-source breakdown voltage, with the gate terminal short circuited to the source terminal. Formerly known as BV(DSS).

The breakdown voltage between the drain terminal and the source terminal when the gate terminal is short circuited to the source terminal.

V(BR)GSS:
Units: Volts

The breakdown voltage between the gate and source terminals with the drain terminal short-circuited to the source terminal.

NOTE: The symbol V(BR)GSS is primarily used with junction-gate field-effect transistors. The symbols V(BR)GSSR or V(BR)GSSF are used with insulated-gate transistors having shunting diodes or similar voltage-limiting devices.

V(BR)GSSF is the forward gate-source breakdown voltage. V(BR)GSSR is the reverse-gate source breakdown voltage. Also seen as V(GS) max. V(BR)GES use this spec for IGBT transistors.

I(D) Absolute Maximum (A)
The absolute maximum dc drain current of a FET transistor measured at 25 degrees celsius ambient temperature.

P(T) - Absolute Maximum:
Units: Watts (total value per package)

This is the absolute maximum (rated maximum) power dissipation, usually at 25 degrees (C) case temperature

DSS) - Minimum (Amps) -
The direct current into the drain terminal when the gate-source voltage is zero. This is an on-state current in a depletion-type device, an off-state current in an enhancement-type device.

I(GSS) - Maximum (Amps) -
The direct current into the gate terminal of a junction-gate field-effect transistor when the gate terminal is reverse biased with respect to the source terminal and the drain terminal is short-circuited to the source terminal. For insulated-gate field-effect transistors, it may be defined as:

I(GSSF) - forward gate current, drain short-circuited to source.

I(GSSR) - reverse gate current, drain short-circuited to source.

g(fs) - Minimum
Common-source small-signal short-circuit forward transfer conductance. The ratio of rms drain current to rms gate-source voltage with the drain terminal ac short-circuited to the source terminal. yfs(real) is an equivalent.

Alternate unit: Siemens (S) - (1 mho = 1 Siemen)

@Vds {Cond For g(fs)}:
Units: Volts

Drain-source voltage. The dc voltage between the drain and source terminals.

Short-Circuit Input Capacitance, Common-Source - (Farads)

The capacitance between the input terminals (gate and source) with the drain short-circuited to the source for alternating current.

"N5XNQ" <cpclark@pca.net> wrote in message
news:37FC27DFB50FB9DA.6F038511263C51A9.7CDE5EF3ABA8B521@lp.airnews.net...
> I am looking for a spec sheet for the following mos fet 3sk122. If anyone
> has one they can pass alone please drop me an email at cpclark@pca.net
> Thanks in advance!
>
> Craig - N5XNQ
>

>

4790. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 04:51:19 UTC
From: moc.enilepip@ykkams
Message-ID: <3b78aa00.316070887@news.pipeline.com>
Source record: 50986
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

staylor@seanet.com (Scott Taylor) wrote:

>And boy! Didn't we get a nice group discussion out of this thread!

<SIGH!!!>

Okay guys, please let's not go down this road!!!

My preference has been that if I initiate a thread on Usenet, I follow it when I can. Some news readers, like Free Agent, will allow that very easily. I've got a full-time job, take college classes and raise four kids and still find the time to keep in touch with my friends on Usenet.

My other preference is that I like to maintain a little distance between Usenet and personal e-mail. I like to e-mail people I know personally and tend to reply in public to those who I don't know well. Also, by reversing my e-mail address to avoid spam (it works, and most people who need to e-mail me figure out that the moc. is .com backwards), I lose the ability to e-mail through Free Agent. I would have to cut and paste into my e-mail program.

THIS HAS NOTHING TO DO WITH NOT WANTING TO HELP ANYONE!!!

Let's focus, instead, on Mr. Reeves' needs and drop the other issues. I'm sure he will look back at the NGs when he can.

Steve

4791. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 05:16:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B78B414.335ACFE6@clifto.com>
Source record: 50987

Bill M wrote:
> I've never quite understood the 'protocol' in this regard on Usenet, if
> indeed there is any. I know in my own case, that if a pose a question
> on an unknown group, then I'll watch that group for a week or so for
> replies.

It's this simple: These are Usenet *discussion* newsgroups. Any answers to "your" question may be interesting to others. Question here, answer here.

It's just downright rude to drop a ploppy like "I'm too good to associate with you crumbs, but maybe you can do some work for me, so drop me an e-mail with the informstion I demand."

> Also, on the groups that I frequent daily, if a newcomer shows up with a
> question, I'll usually reply to him directly as well as to the group
> (its a one-button operation that requires no extra effort) unless he has
> a munged address which is indicative of not wanting direct replies.

In the days when newsgroup propagation could take days and articles were often dropped along the way, that was a good thing to do. Today, when nearly all servers are well enough connected to get all articles in a reasonably short period of time, you're just doubling the traffic. From my standpoint, it's aggravating to reply to an e-mail and then find the same thing in the newsgroups, waiting for a reply.

> I've had some people get extremely nasty about receiving a direct reply
> and even had one guy report me to my ISP for sending him unsolicited
> email...and a second time when I e-mailed him with an apology!

That was way off base. ANYONE who doesn't want e-mail related to his topical Usenet articles should say so in every article. It's a long-standing tradition that replies that don't belong in the newsgroup for one reason or another should be sent via e-mail, and it's as much a "rule" as any other on the 'net.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4792. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 16:44:30 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b79544b$0$2301$44c9b20d@news3.asahi-net.or.jp>
Source record: 50988

Hi

NTE equivalent for 1N3492 diode can be found here:
http://www.nteinc.com/specs/5900to5999/NTE5962.html

Equiv for the germanium PNP transistor is here:
http://www.nteinc.com/specs/100to199/pdf/nte102.pdf

[I assume you just wanted to know the spec and would search for a suitable
replacement]

Cheers

"ham" <h@m.xxx> wrote in message news:3B775FD8.D74F61E2@m.xxx...
> A quick internet search produced:
>
> 1N3492 Diodes Rectifier >5A 100V 25A
>
> Thus it's a garden variety rectifier it would seem.
>
> However nothing for a 2N633. Sure there's not an additional number at
> the end? I didn't try other search engines so you might have luck if you
> spend some time doing searches with various search engines.
>
> It's always best to do some work on your own before you throw it to the
> newsgroup. You'd be surprised what you can find in only a few minutes
> and you develop some skills for the next time you need to find something
> out.
>
>
> ps wrote:
>
> > I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and
> > 1N3492
> >
> > The converter doesn't work (blows input fuses), and these components
> > look burned. What are they, and what is a replacement source or part
> > number?
> >
> > Thanks.
>

4793. Re: Gender and the Internet

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 17:02:08 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b79586c$0$2303$44c9b20d@news3.asahi-net.or.jp>
Source record: 50989

Elaine

The internet has "neuter" gender in the English language. Why don't you check a few modern Spanish, German and French grammar books, if its 'gender' is so important to you? The internet also has a lot of "sex", but you're probably in the wrong part for that...this is the "boonies" known as Usenet... ;->

Cheers

"Ian Jackson" <ianjackson@g3ohx.demon.co.uk> wrote in message news:yIvcfBAr3bd7Ewrq@g3ohx.demon.co.uk...
> In article <M9fd7.5471$o4.2229@news.ou.edu>, gender <?.ou.edu@?.?>
> writes
> >I am a researcher at the University of Oklahoma, USA,
> >conducting a study about gender and the Internet.
> >The study consists of an online survey. To learn
> >more about the study, go to the research project
> >web site:
> >
> >http://infoserv.ou.edu/gender
> >
> >Cheers!
> >-Elaine Wittenberg
> >gender@ouwww.ou.edu
>
> Elaine,
>
> I can't be bothered to go to that website. I have better things to do.
>
> I can't be bothered to learn about your study and online survey.
>
> However, I'll let you into a little secret....
> I use the internet, and I am male.
>
> I hope this helps.
>
> However....
>
> I worry about people like you. I feel that you are devoting a lot of
> your formative years researching something totally irrelevant to the
> real world. I could say "Get a life", but that would be gentlemanly.
> Only a male would say this!
>
> Ian.

>
>

4794. FS: 1 5/8 CELLWAVE CONNECTORS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 17:40:28 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <gode7.2571$MM.1718972@news1.mntp1.il.home.com>
Source record: 50990

QUANTITY - 16 - NEW - NEVER USED cablewave connector kits. Includes all parts and instructions for each. 1 5/8 foam cellflex cable FLC 198-50J to 7/16 DIN. Self flaring silver plated body & pin. Each kit includes weatherproofing. These retail for $130 each. I would like to sell the entire stock of 16 for $1100.00 Anyone interested contact: k9vdd@home.com JPEG Pictures via e-mail available

4795. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 20:05:43 UTC
From: gary.croll@ucr.edu
Message-ID: <d22f8aff.0108141205.f674ef3@posting.google.com>
Source record: 50991
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

Shawn Reeves <kleptein@hotmail.com> wrote in message
news:<2uccnt4md3stm2dgn6o7nra7objtq0m3bn@4ax.com>...
> I was at a show recently and had a chance to check out the radio setup
> inside on of the police cars. This unit had a device in it that was
> hooked up to the police radio, and to the car stereo speakers. When
> the police radio unsquelched, the AM/FM was cut out, and the police
> radio was heard over the stereo speakers. When the audio disappeared,
> the music came back.
>
> Any ideas if this is a custom device, or something that is sold
> somewhere??

This is nothing more elaborate than a simple VOX (voice operated
transmit)
relay using the police radio as the sense input. A Google search on
VOX or "voice operated relay" should pop up dozens of simple circuits.
Plenty of companies, (including Jameco, MCM Electronics, and Radio
Shack) sell kits.

4796. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 21:24:15 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B7996FF.2EAB9244@clifto.com>
Source record: 50992

Geoffrey G. Rochat wrote:
> Whoa! Not so fast. My trusty "GE Transistor Manual", Seventh
> Edition,1964, says the 2N633 is a germanium transistor. A 2N2907 is
> silicon, and that's a different animal altogether.

I should've realized (and noticed) that a transistor that old might be Ge.
Thanks for the catch.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4797. Re: AEA LA-30 Amp Help!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-14 23:32:12 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <uGie7.52465$e%3.8257102@news2-win.server.ntlworld.com>
Source record: 50993

> I need help identifying a meter shunt resistor on an AEA LA-30 amplifier.
I
> picked it up unworking and immediately found that the plate current meter
> shunt is blown. If anyone has or knows someone with one of these amps I
> need to know the value of this resistor. It is R39 on the schematic but
no
> value is given. It is located on the top circuit board in front of the
> transformer. It is the resistor in front of and parallel to the 12 pin
edge
> connector.
==========
Bill , It is probably easy to find out yourself.
What is the indicating range of the meter ? Say 1 A

If not known you can check the actual meter range without a shunt by first allowing full scale deflection in series with a digital mA/ volt meter in mA range (using a low voltage and a potmeter). You now know the meter range .

Remove digital meter from circuit ,again allow for full scale deflection and measure voltage across meter with digital volt meter (usually less than 1 volt). You now can calculate the meter resistance being V / I .

Now it is easy to calculate the shunt.

If the actual meter has a range of say 1 mA ,for a 1 A current to be measured ,the shunt can be made of thick copper wire ,perhaps 2 to 3 feet long.

Start with a 3 ft length of bare wire and with a constant (low voltage) current source ,(by using a LM317 or similar 78xx device in constant current mode) allow approx 750 mA to flow through the wire .

Now connect the meter to one end of the wire and to a lead with a crocodile clip(observing correct polarity)
Slide the croc clip along the wire until the meter shows full scale deflection.
Cut the wire at the croc clip position.
Now put a multi-turn trimpot with a total resistance of approx 1/2 to 5 times the resistance of the meter in series with the meter and connect this arrangement across the wire shunt.

While running a 1A current through the shunt with meter and trimpot connected as per above , adjust the trimpot such that meter shows full scale deflection.

Shunt can now be insulated and coiled . Alternatively you can replace the shunt by insulated wire of same wire diameter. The copper wire shunt should be sufficiently thick in order not to get warm at max current.

I have made similar shunts for measuring currents delivered by a wind generator and 2 solar panels.
Provided the shunt remains at room temp. the accuracy of the measurement should be within 5 percent if not better

You can of course also determine the length of the shunt wire by using the digital voltmeter on basis of voltage across meter at full scale deflection .

The value of the trimpot is not all that critical , on proviso it is a multi-turn type.
Mine came from the junk box.

GL

Frank gm0csz.kn6wh@ukrs.org

4798. ** FLEA at MIT ** Sunday August 19th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 01:46:08 UTC
From: w1gsl@mit.edu
Message-ID: <3b79d45b$0$1919$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 50994
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday August 19th 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Discounts

A sellers discount season pass is available which
offers a 33% discount. See the advanced registration
form below for full seller info.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all

sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2001 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

4799. austin, san antonio area swap fest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 12:43:02 UTC
From: bill hennessy <hennessy@281.com>
Message-ID: <q7ue7.156$YI3.68598@paloalto-snr1.gtei.net>
Source record: 50996

The date and place has been set for the HLARC Swap Fest.
The date is September 8, 2001 and the place is the Industrial
Park located south of Burnet on highway 281.

The location has an abundance of 100 to 200 year old Pecan
trees with picnic tables and an area for BBQ or whatever.
Electricity is available along with a Pavilion.

The location has been reserved and now we need to get
the word out about this function to everyone that you
contact, any nets that you check into, or any ways that
might bring in folks for the fest.

Roy - K5WSC
President HLARC

4800. SV: SV: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 19:18:40 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <CYze7.9543$5t1.18979@nntpserver.swip.net>
Source record: 50897

Nope, it's for an "illegal" fm transmitter with 3W output...

/Anders

"J M Noeding" <la8ak@online.no> skrev i meddelandet
news:3b765d03.306470577@news.online.no...
> On Sat, 11 Aug 2001 20:23:21 +0200, "Anders"
> <anders.gavner@removethis.swipnet.se> wrote:
>
> >It is used for the 3m band, ie the FM broadcast band.
> >
> >/Anders
> >
> >
> and what sort of drive do you use, 4m or 6m transceiver?
>
>
> >"Anders" <anders.gavner@removethis.swipnet.se> skrev i meddelandet
> >news:O0Uc7.8906$5t1.16668@nntpserver.swip.net...
> >> Hi!
> >>
> >> I recently built the 35W amplifier on this page:
> >> http://www.avlyssning.nu/slutsteg/6/index.htm
> >> My problem is that it only amplifies about 6dB! With 3W input I only
have
> >> 12-14 W out! Clues(?) are:
> >>
> >> 1. I used the NTE345 instead of the MRF238 (same specs)
> >> 2. I used 1mm Cu-wire instead of 1.6mm. (ohmic losses?)
> >> 3. Lossy trimmer capacitors. (what kind to use?)
> >>
> >> All capacitors are somewhere in the middle of their ranges to achieve
max
> >> output. The amp is built using pieces of breadboard glued to a larger
> >> breadboard working as ground plane. See attached picture!
> >>
> >> All tips are most welcome!
> >>
> >> /Anders
> >>
> >>
> >>
> >>
> >>
> >
> >

>

4801. Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 19:25:13 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <M2Ae7.9546$5t1.18828@nntpserver.swip.net>
Source record: 50898

Hi!

Does anybody have a good schematic on a class C amplifier for the MRF238 to yield about 10 dB of amplification in the 100Mhz range? I have tried one without success (did
only achieve 12W out with 3W in).

kind regards

Anders

4802. SV: SV: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 21:51:37 UTC
From: la8ak@online.no
Message-ID: <3b7ad8ab.174846733@news.online.no>
Source record: 50900

On Wed, 15 Aug 2001 21:18:40 +0200, "Anders"
<anders.gavner@removethis.swipnet.se> wrote:

>Nope, it's for an "illegal" fm transmitter with 3W output...
>
>/Anders
>
suppose it would be better to ask on the PIRATE RADIO newsgroups, then

4803. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 21:51:38 UTC
From: la8ak@online.no
Message-ID: <3b7ad8bc.174864013@news.online.no>
Source record: 50899

On Wed, 15 Aug 2001 21:25:13 +0200, "Anders"
<anders.gavner@removethis.swipnet.se> wrote:

>Hi!
>
>Does anybody have a good schematic on a class C amplifier for the MRF238 to
>yield about 10 dB of amplification in the 100Mhz range? I have tried one
>without success (did
>only achieve 12W out with 3W in).
>
>kind regards
>
>Anders
>
>
>
>
suppose it would be better to ask on a PIRATE RADIO newsgroup

4804. Re: austin, san antonio area swap fest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 22:09:13 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b7af285$1_1@newsa.ev1.net>
Source record: 50901

Be certain to have it announced on the local swapnets. 3.922, 3.870, 7.245
etc.
Send your info to Betty W5PUP w5pup@texramp.net
She can put the info out on all those nets, for weeks or even months ahead
of time.

bill hennessy <hennessy@281.com> wrote in message
news:q7ue7.156$YI3.68598@paloalto-snr1.gtei.net...
> The date and place has been set for the HLARC Swap Fest.
> The date is September 8, 2001 and the place is the Industrial
> Park located south of Burnet on highway 281.
>
> The location has an abundance of 100 to 200 year old Pecan
> trees with picnic tables and an area for BBQ or whatever.
> Electricity is available along with a Pavilion.
>
> The location has been reserved and now we need to get
> the word out about this function to everyone that you
> contact, any nets that you check into, or any ways that
> might bring in folks for the fest.
>
> Roy - K5WSC
> President HLARC
>
>

4805. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-15 23:48:15 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B7B0A3E.57282360@ay.com.au>
Source record: 50902

J M Noeding wrote:

> suppose it would be better to ask on a PIRATE RADIO newsgroup

Oh come on, most of us started as pirates, and the physics is exactly the same.

Anders' problem is probably the poor construction of the device, those SO-239s look really poor quality, using coax to connect them is a bad idea also. It would be better to build it such that the box has a plug on either end with the plug center conductors soldered directly to the input and output lands.

It is also wise to keep the high and low power 'ends' are seperated.

The coils might be a bit wrong, as might the trimmers.

The decoupling is likely poor, that looks like a MKT cap in the picture, quality RF chip caps or silver micas with the flashing scraped off and weted as close as possible to the case are the way to go.

Another thing might be just plain old power supply issues, does the PSU supply the required current? How much current is it pulling? It could be sitting there just heating the output coils with UHF oscillations.

Is the power meter reliable at VHF? Is the dummy load?

--
Alan Yates
http://www.alanyates.com/
The Moon is Waning Crescent (14% of Full)

4806. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 00:26:15 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B7B1327.1BD244FD@coqui.net>
Source record: 50903

Alan Yates wrote:
>
> J M Noeding wrote:
>
> > suppose it would be better to ask on a PIRATE RADIO newsgroup
>
> Oh come on, most of us started as pirates, and the physics is exactly
> the same.
>
> Anders' problem is probably the poor construction of the device, those
> SO-239s look really poor quality, using coax to connect them is a bad
> idea also. It would be better to build it such that the box has a plug
> on either end with the plug center conductors soldered directly to the
> input and output lands.
>
> It is also wise to keep the high and low power 'ends' are seperated.
>
> The coils might be a bit wrong, as might the trimmers.
>
> The decoupling is likely poor, that looks like a MKT cap in the
> picture, quality RF chip caps or silver micas with the flashing scraped
> off and weted as close as possible to the case are the way to go.
>
> Another thing might be just plain old power supply issues, does the PSU
> supply the required current? How much current is it pulling? It could
> be sitting there just heating the output coils with UHF oscillations.
>
> Is the power meter reliable at VHF? Is the dummy load?
>
> --
> Alan Yates
> http://www.alanyates.com/
> The Moon is Waning Crescent (14% of Full)

One thing I always heard, and it seems to have been the case in some of
my HF projects, is that one good zap of a power transistor will degrade
the performance. So, if you've been tinkering, curing parasitics, etc,
the transistor may have suffered some damage in the process.
--
Bill M

4807. Bird 4410A Test Kit For Sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 01:26:59 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <DjFe7.47285$gj1.4396810@bgtnsc05-news.ops.worldnet.att.net>
Source record: 50904

I have a Bird 4410A Test Kit for sale which includes the following:

1 Bird 4410A Wattmeter, (with "N" type connectors).
1 Bird 4275-020 Variable RF Signal Sampler.
1 Bird 8065 150 Watt Dummy Load.
1 Bird 4410-2 10kW 450-2500 kHz Element.
1 Bird 4410-4 10kW 2-30 MHz Element.
1 Bird 4410-5 1kW 25-80 MHz Element.
1 Bird 4410-6 1kW 50-200 MHz Element.
1 Bird 4410-8 1kW 200-1000 MHz Element.
2 Male "N" to PL259 Adapters.
2 Male "N" to BNC Adapters.
1 18" RF Jumper with "N" Male Connectors.
1 Bird RF Power Value to VSWR Chart.
1 Bird Wattmeter Case.

All equipment is in excellent, (like new) Condition. Pictures available.

4808. Re: Site updated with new links ...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 04:55:13 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9lfjrv$jo7$1@neptunium.btinternet.com>
Source record: 50905

F5LCY wrote
> The amateur radio resources site F6KEH has been updated today.
> Don't hesitate to visit it at :
> http://f6keh.free.fr/index_r

==========
I can recommend a visit to the above site.

Reg, G4FGQ

4809. 70cm preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 12:59:43 UTC
From: Julian White <julian_white@jw-online.netNOSPAM>
Message-ID: <9lgg3v$o3q$1@ousrvr3.oulu.fi>
Source record: 50906

hello everyone.
I was hoping someone would be able to send me a schematic or point me to a project for a 70cm rf preamp that I could mount on my tower.

I would like to build my own. After buying the SSC electronics 2 meters preamp, I dont think it can be that difficult. Either way, hopefully someone can help.
Thanks
L. Julian White
kb9yxm

4810. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 14:54:00 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B7BDE88.62124407@ay.com.au>
Source record: 50907

Bill M wrote:

> One thing I always heard, and it seems to have been the case in some of
> my HF projects, is that one good zap of a power transistor will degrade
> the performance. So, if you've been tinkering, curing parasitics, etc,
> the transistor may have suffered some damage in the process.

Yep, I've cooked a few linear ones by having the bias pot at max rather
than min before the initial tune up. "Why is it pulling 15A with no
drive? Oh *drat*!" Serves me right for not using a limited supply
initially.

--
Alan Yates
http://www.alanyates.com/
The Moon is Waning Crescent (9% of Full)

4811. Interpreting a SPICE model test results

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 18:11:48 UTC
From: Mark Mohr <themohrs@fuse.net>
Message-ID: <tno34sqsl5sf08@corp.supernews.com>
Source record: 50908

Hello again, everyone ;

Thanks to W7EL, I have pSPICE Student now. I've been tinkering with a bidirectional amplifier model, and think I might have stumbled across something. Problem is, I don't know how to interpret some of the things pSpice is showing me. It looks very good, if I am guessing correctly where the plots are concerned. I really, really need someone to look at it and tell me if I am reading it correctly.

Has anyone out there a) got pSpice and b) the time to interpret the model ?

Thanks,

Mark

4812. Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 19:24:11 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3B7C1DDB.53B4193B@innercite.com>
Source record: 50909
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

This is a warning notice to all in radio land about a test equipment company located in Auburn, KY. They are Auburn Metrological Labs at 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270 542-6000.

Based on information given to me by their General Manager, Ken Knowles, they would be able to repair my Cushman CE-50 that was having a receive problem. It generated fine and all pll were locking fine. They gave me an estimate of under $300.00 with a turnaround of about one week. I sent it to them for repair on February 24, 2001 based on this information. After a couple of months went by without even an acknowledgment of receiving it, I tried to contact them by telephone and email. Still I received no information on it and after numerous emails and a couple of letters, one being a legal demand letter, the unit showed up at my door with a 110.00 COD charge. After contacting the company I was advised that Ken Knowles was on vacation and the service manager was arrogant, rude and even hung up on me. If you value your equipment and it is in need of repairs or calibration, PLEASE do Not send it to them. You will regret it.

My options, against them, are not exhausted but I would rather have never had the problem to begin with. It has the tendency to taint all repair facilities. This outfit was recommended by a person from one of the amateur news groups. I hope I have prevented any grief for others by this post. Thanks for listening to my ranting. 73's Don Smith KB6GQA

4813. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 19:43:20 UTC
From: kenny vickers <kennyw@charter.net>
Message-ID: <3B7C2258.9A1DC093@charter.net>
Source record: 50910
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Was it repaired ?

"Donald E. Smith" wrote:

> This is a warning notice to all in radio land about a test equipment
> company located in Auburn, KY. They are Auburn Metrological Labs at
> 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270
> 542-6000.
>
> Based on information given to me by their General Manager, Ken Knowles,
> they would be able to repair my Cushman CE-50 that was having a receive
> problem. It generated fine and all pll were locking fine. They gave me
> an estimate of under $300.00 with a turnaround of about one week. I
> sent it to them for repair on February 24, 2001 based on this
> information. After a couple of months went by without even an
> acknowledgment of receiving it, I tried to contact them by telephone and
> email. Still I received no information on it and after numerous emails
> and a couple of letters, one being a legal demand letter, the unit
> showed up at my door with a 110.00 COD charge. After contacting the
> company I was advised that Ken Knowles was on vacation and the service
> manager was arrogant, rude and even hung up on me. If you value your
> equipment and it is in need of repairs or calibration, PLEASE do Not
> send it to them. You will regret it.
>
> My options, against them, are not exhausted but I would rather have
> never had the problem to begin with. It has the tendency to taint all
> repair facilities. This outfit was recommended by a person from one of
> the amateur news groups. I hope I have prevented any grief for others
> by this post. Thanks for listening to my ranting. 73's Don Smith
> KB6GQA

4814. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 19:54:35 UTC
From: Neville Y <scubadiver@bigfoot.com>
Message-ID: <lwVe7.4132$ww1.418085@news02.tsnz.net>
Source record: 50911
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Sorry Donald, I really do not understand your need to express your views here. As I read your post you paid $110 when they estimated "under $300". We have your side of the story and I do believe you version, but I think it is fair to have the other side. I am involved in servicing and while perhaps 95% of all repairs are straightforward, some do go wrong. I'm not really trying to give excuses, but some of the problems I have encountered include.
Leaving a message at the contact phone number regarding repair and they do not pass it on (they will never admit this later).
Wrong phone number supplied.

No response to phone calls (or message left). Please understand I may have 50 repairs at any one time and I can not call each client 5 times daily (work it out).
Email can be impossible. I often receive over 300 messages per day. How can I read or replay to them all and still have time to repair your radio?

I have also hung up on callers. Some can never see reason.
No doubt others have had bad servicing experiences, but many will have good ones. We will always hear the complaints.

Best Regards
Neville

"Donald E. Smith" <desmith@innercite.com> wrote in message news:3B7C1DDB.53B4193B@innercite.com...
> This is a warning notice to all in radio land about a test equipment
> company located in Auburn, KY. They are Auburn Metrological Labs at
> 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270
> 542-6000.
>
> Based on information given to me by their General Manager, Ken Knowles,
> they would be able to repair my Cushman CE-50 that was having a receive
> problem. It generated fine and all pll were locking fine. They gave me
> an estimate of under $300.00 with a turnaround of about one week. I
> sent it to them for repair on February 24, 2001 based on this
> information. After a couple of months went by without even an
> acknowledgment of receiving it, I tried to contact them by telephone and
> email. Still I received no information on it and after numerous emails
> and a couple of letters, one being a legal demand letter, the unit
> showed up at my door with a 110.00 COD charge. After contacting the
> company I was advised that Ken Knowles was on vacation and the service
> manager was arrogant, rude and even hung up on me. If you value your
> equipment and it is in need of repairs or calibration, PLEASE do Not
> send it to them. You will regret it.

>
> My options, against them, are not exhausted but I would rather have
> never had the problem to begin with. It has the tendency to taint all
> repair facilities. This outfit was recommended by a person from one of
> the amateur news groups. I hope I have prevented any grief for others
> by this post. Thanks for listening to my ranting. 73's Don Smith
> KB6GQA
>

4815. SV: SV: Help needed: Low amplification on 35W FM amp.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 20:20:20 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <tYVe7.9682$5t1.19507@nntpserver.swip.net>
Source record: 50912

I am fully aware of your reluctancy to give tips to a person who has only a D licence (Maritime VHF). My intention was to build one for a friend of mine who is running a pirate radio station, and one for me in order to build an amplifier for my 3W VHF radio! Since most of you probably don't believe in me I won't bother you with this question anymore. My greatest apologies for disturbing an exellent forum.

kind regards

Anders

"J M Noeding" <la8ak@online.no> skrev i meddelandet
news:3b7ad8ab.174846733@news.online.no...
> On Wed, 15 Aug 2001 21:18:40 +0200, "Anders"
> <anders.gavner@removethis.swipnet.se> wrote:
>
> >Nope, it's for an "illegal" fm transmitter with 3W output...
> >
> >/Anders
> >
> suppose it would be better to ask on the PIRATE RADIO newsgroups, then

4816. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 21:57:22 UTC
From: Chaos <chaos@no.spam.com>
Message-ID: <ejXe7.570$LI5.267883@news.uswest.net>
Source record: 50913
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Neville Y <scubadiver@bigfoot.com> wrote in message
news:lwVe7.4132$ww1.418085@news02.tsnz.net...
[snip]
>
> No response to phone calls (or message left). Please understand I may have
> 50 repairs at any one time and I can not call each client 5 times daily
> (work it out).
> Email can be impossible. I often receive over 300 messages per day. How can
> I read or replay to them all and still have time to repair your radio?
>
> I have also hung up on callers. Some can never see reason.
> No doubt others have had bad servicing experiences, but many will have good
> ones. We will always hear the complaints.
>
> Best Regards
> Neville

Dear Neville,

If you are as busy as you say, you owe it to your customers - and yourself - to hire help... if only office help, to keep open the lines of communications between you and your customers.

The key word here is *service*! To do this, you must be able to take a true interest in your customer's concerns, then make every effort to satisfy them. After all, you are in the business of offering a service - not a bad experience.

Methinks the service folks who have attitudes similar to yours_are_part of the problem; it's always the *other guy's* fault - never yours. Have you ever considered the possibility that_you_may be the one who is lacking reason? In any event, hanging up on a customer is as un-professional as you can get!

In the final analysis - when your service business fails - you will have no one to blame but yourself! I hope you come to your senses before that happens...

73 de Chaos

4817. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 22:19:23 UTC
From: Neville Y <scubadiver@bigfoot.com>
Message-ID: <gFXe7.4171$ww1.418873@news02.tsnz.net>
Source record: 50914
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Hi Chaos

Yes, I will happily do as you suggested, as long as you will accept twice my normal charges. No, I never suggested "other guy's* fault - never yours"
No I do not accept "In any event, hanging up on a customer is as un-professional as you can get!"
Would you like to work in my workshop for a week?
PS I have been is "business" for more than 30 years Have You?

Neville

"Chaos" <chaos@no.spam.com> wrote in message news:ejXe7.570$LI5.267883@news.uswest.net...
>
> Neville Y <scubadiver@bigfoot.com> wrote in message
> news:lwVe7.4132$ww1.418085@news02.tsnz.net...
> [snip]
> >
> > No response to phone calls (or message left). Please understand I may have
> > 50 repairs at any one time and I can not call each client 5 times daily
> > (work it out).
> > Email can be impossible. I often receive over 300 messages per day. How can
> > I read or replay to them all and still have time to repair your radio?
> >
> > I have also hung up on callers. Some can never see reason.
> > No doubt others have had bad servicing experiences, but many will have good
> > ones. We will always hear the complaints.
> >
> > Best Regards
> > Neville
>
> Dear Neville,
>
> If you are as busy as you say, you owe it to your customers - and yourself - to
> hire help... if only office help, to keep open the lines of communications
> between you and your customers.
>
> The key word here is *service*! To do this, you must be able to take a true

> interest in your customer's concerns, then make every effort to satisfy
them.
> After all, you are in the business of offering a service - not a bad
experience.
>
> Methinks the service folks who have attitudes similar to yours_are_part of
the
> problem; it's always the *other guy's* fault - never yours. Have you ever
> considered the possibility that_you_may be the one who is lacking reason?
In any
> event, hanging up on a customer is as un-professional as you can get!
>
> In the final analysis - when your service business fails - you will have
no one
> to blame but yourself! I hope you come to your senses before that
happens...
>
> 73 de Chaos
>
>
>
>
>

4818. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 23:21:23 UTC
From: Chaos <chaos@no.spam.com>
Message-ID: <ujZe7.653$LI5.327628@news.uswest.net>
Source record: 50916
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Neville Y <scubadiver@bigfoot.com> wrote in message
news:gFXe7.4171$ww1.418873@news02.tsnz.net...
> Hi Chaos
>
> Yes, I will happily do as you suggested, as long as you will accept twice my
> normal charges. No, I never suggested "other guy's* fault - never yours"
> No I do not accept "In any event, hanging up on a customer is as
> un-professional as you can get!"
> Would you like to work in my workshop for a week?
> PS I have been is "business" for more than 30 years Have You?
>
> Neville

Hello Neville,

Unfortunately, I cannot accept your justifications... obviously you either reside in a well populated area - else you would have run out of customers by now - or you exaggerate the time you've been in business... without any office help!

In no way would I work in someone's shop again... I moved past that 30 years ago when I went back to school for my degree. At that time I was the national service manager for a well known international corporation.

As far as my business background, it is extensive...

It's obvious you see nothing wrong with your business attitude, therefore I see no reason to continue this thread. Good Luck!

73 de Chaos

4819. 1G6 substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-16 23:33:50 UTC
From: not gonna tell my real name <rucrazy@hotmail.com>
Message-ID: <3b7c4a4e_1@excalibur.gbmtech.net>
Source record: 50915

Any substitutes for a 1G6, also anybody know a good tube
dealer on the net besides AES, nothing wrong with AES,
just need another decent reputable source.

4820. Re: 1G6 substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 01:40:59 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <aD_e7.6967$752.369179@brie.direct.ca>
Source record: 50917

My old tube manuals show no direct plug-in substitute for the 1G6. (Hi-mu twin power triode, 1.4v fil.)
"not gonna tell my real name" <rucrazy@hotmail.com> wrote in message news:3b7c4a4e_1@excalibur.gbmtech.net...
>
> Any substitutes for a 1G6, also anybody know a good tube
> dealer on the net besides AES, nothing wrong with AES,
> just need another decent reputable source.

4821. FS: ERIE 500pf x 30KV DOORKNOB CAPS, Brand NEW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 02:43:35 UTC
From: rlucch2098@aol.com
Message-ID: <20010816224335.17509.00004612@ng-cn1.aol.com>
Source record: 50918

Hi Guys;
I have Many ERIE HV Doorknob Caps for sale.
They are 500 PF x 30KV and are NOS.
They are $50 a pair PPD and you can see them here or bid on them>>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1263609690
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

4822. Re: What is a 2N633 and 1N3492?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 04:44:37 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B7CA135.E363AC4D@world.std.com>
Source record: 50919

Go to www.nteinc.com and do a search for 2n633

It crosses to a germanium PNP

It is likely you can order it through Mouser, or just try a generic silicon
PNP

Clyde

ham wrote:

> A quick internet search produced:
>
> 1N3492 Diodes Rectifier >5A 100V 25A
>
> Thus it's a garden variety rectifier it would seem.
>
> However nothing for a 2N633. Sure there's not an additional number at
> the end? I didn't try other search engines so you might have luck if you
> spend some time doing searches with various search engines.
>
> It's always best to do some work on your own before you throw it to the
> newsgroup. You'd be surprised what you can find in only a few minutes
> and you develop some skills for the next time you need to find something
> out.
>
> ps wrote:
>
> > I have an old 120vac to 12vdc 30 amp converter with a bad 2N633 and
> > 1N3492
> >
> > The converter doesn't work (blows input fuses), and these components
> > look burned. What are they, and what is a replacement source or part
> > number?
> >
> > Thanks.

4823. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 06:20:42 UTC
From: CA <remove_sm6pxj@hotmail.com>
Message-ID: <3b7cb7bf_1@news.sto.telegate.se>
Source record: 50920

Check this appnote from Motorola:
http://e-www.motorola.com/brdata/PDFDB/docs/AN955.pdf

/Christer

"Anders" <anders.gavner@removethis.swipnet.se> skrev i meddelandet
news:M2Ae7.9546$5t1.18828@nntpserver.swip.net...
> Hi!
>
> Does anybody have a good schematic on a class C amplifier for the MRF238
to
> yield about 10 dB of amplification in the 100Mhz range? I have tried one
> without success (did
> only achieve 12W out with 3W in).
>
> kind regards
>
> Anders

4824. SV: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 07:52:07 UTC
From: Anders <anders.gavner@removethis.swipnet.se>
Message-ID: <%44f7.9729$5t1.19691@nntpserver.swip.net>
Source record: 50921

Many thanks!

The amp pulls about 1.2 amps @ 13.8 V supply. Yep, the power meter is good up to 160 MHz (maritime VHF). The dummy load should also be OK, it gives a SWR of 1.2:1

/Anders

"Bill M" <"take out the NO in the reply to address"@coqui.net> skrev i meddelandet news:3B7B1327.1BD244FD@coqui.net...
> Alan Yates wrote:
> >
> > J M Noeding wrote:
> >
> > > suppose it would be better to ask on a PIRATE RADIO newsgroup
> >
> > Oh come on, most of us started as pirates, and the physics is exactly
> > the same.
> >
> > Anders' problem is probably the poor construction of the device, those
> > SO-239s look really poor quality, using coax to connect them is a bad
> > idea also. It would be better to build it such that the box has a plug
> > on either end with the plug center conductors soldered directly to the
> > input and output lands.
> >
> > It is also wise to keep the high and low power 'ends' are seperated.
> >
> > The coils might be a bit wrong, as might the trimmers.
> >
> > The decoupling is likely poor, that looks like a MKT cap in the
> > picture, quality RF chip caps or silver micas with the flashing scraped
> > off and weted as close as possible to the case are the way to go.
> >
> > Another thing might be just plain old power supply issues, does the PSU
> > supply the required current? How much current is it pulling? It could
> > be sitting there just heating the output coils with UHF oscillations.
> >
> > Is the power meter reliable at VHF? Is the dummy load?
> >
> > --
> > Alan Yates

> > http://www.alanyates.com/
> > The Moon is Waning Crescent (14% of Full)
>
> One thing I always heard, and it seems to have been the case in some of
> my HF projects, is that one good zap of a power transistor will degrade
> the performance. So, if you've been tinkering, curing parasitics, etc,
> the transistor may have suffered some damage in the process.
> --
> Bill M
>

4825. Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 10:58:46 UTC
From: The Dude <surfer@smurf.net>
Message-ID: <3B7CF8AD.4981D4C7@smurf.net>
Source record: 50922

I would like to know the formula for calculating the amperage that my power supply is drawing from the wall outlet. For example if the supply puts out 12VDC and the current draw is 8.5 amps how much is being drawn at the 120VAC side?

Thanks!

P.S. This is a switching power supply in case it makes a difference.

4826. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 11:40:59 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tnq0miij6vhm91@corp.supernews.com>
Source record: 50923

> I would like to know the formula for calculating the amperage that
my
> power supply is drawing from the wall outlet. For example if the
supply
> puts out 12VDC and the current draw is 8.5 amps how much is being
drawn
> at the 120VAC side?
>
You can only estimate it because it depends on the efficiency of the power supply. 12V x 8.5A = 102Watts - thats the power taken from the supply. If you "assume" 50% efficiency then the supply draws 204Watts from the line. 204W / 120V = 1.7A.

4827. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 12:20:36 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B7D0C14.38ECA855@coqui.net>
Source record: 50924

"Bob Lewis (AA4PB)" wrote:
>
> > I would like to know the formula for calculating the amperage that
> my
> > power supply is drawing from the wall outlet. For example if the
> supply
> > puts out 12VDC and the current draw is 8.5 amps how much is being
> drawn
> > at the 120VAC side?
> >
> You can only estimate it because it depends on the efficiency of the
> power supply. 12V x 8.5A = 102Watts - thats the power taken from the
> supply. If you "assume" 50% efficiency then the supply draws 204Watts
> from the line. 204W / 120V = 1.7A.

You should get a bit better than 50% efficiency...but it depends on the design. A handy way to check, if it has a fuse on the AC side, is to pull the fuse and place your VOM ammeter across the fuse contacts. That way you don't have to disturb any wiring.
-Bill

4828. GE MASR II

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 15:09:03 UTC
From: jmull1997@aol.com
Message-ID: <20010817110903.00890.00001385@mb-fx.aol.com>
Source record: 50925

Have a GE Mastr II that has been converted over to 6 meters....Transmits good,but will not receive....Was told the squelch board is bad....A resistor next to the coil on the board gets hot on one end where it is soldered when the squech is on.. When squelch is silent,seems to be ok.....Have resoldered and checked resistor but no luck..Any ideas? Thanks.. Jim

4829. 6 m power amplifier with 4-400A tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 15:27:44 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <MKaf7.5986$0c2.1432626@news2-win.server.ntlworld.com>
Source record: 50926

A 6m power amp with 4-400A tubes was described in QST - March 1967 , page 11.

I would much appreciate receiving a scanned copy as an e-mail attachment.

TIA

73 Frank gm0csz.kn6wh@ukrs.org

4830. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 15:55:51 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <H1bf7.7275$SQ.302480@e3500-atl1.usenetserver.com>
Source record: 50927

"Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
message

> You should get a bit better than 50% efficiency...but it depends on the
> design. A handy way to check, if it has a fuse on the AC side, is to
> pull the fuse and place your VOM ammeter across the fuse contacts. That
> way you don't have to disturb any wiring.

What VOM has an AC ammeter?

4831. Re: 1G6 substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 16:21:12 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B7D4478.B5C0AB6A@midwestmicro-tek.com>
Source record: 50929

Duncanamps only gives CV772, and CV773 as replacments. As for other
places to get tubes you can try these,

http://www.alltronics.com/tubes1.htm

http://www.radiodaze.com/

A search on google will show more.

Rick KC0GIX

not gonna tell my real name wrote:

> Any substitutes for a 1G6, also anybody know a good tube
> dealer on the net besides AES, nothing wrong with AES,
> just need another decent reputable source.

4832. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 16:59:29 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B7D4D71.E725CFF8@coqui.net>
Source record: 50928

Rory Davis wrote:
>
> "Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
> message
>
> > You should get a bit better than 50% efficiency...but it depends on the
> > design. A handy way to check, if it has a fuse on the AC side, is to
> > pull the fuse and place your VOM ammeter across the fuse contacts. That
> > way you don't have to disturb any wiring.
>
> What VOM has an AC ammeter?

I've seen quite a few. Since I work in cable tv, we use them quite often
in the field to measure the AC current on a cable during
troubleshooting. I've gone DMM these days so I'm spoiled and can't
quote any specific model numbers.
-73,
Bill

4833. Lauren Hot blonde gal that luvs getting video taped having sex

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 17:16:29 UTC
From: Cyd@lasydi.com
Message-ID: <7zapiw.k1d.1@lasydi.com>
Source record: 50930

http://britneyvidz.20m.com
Download the latest Britney Spears sexy videos! You can get them for free at this webpage!
http://britneyvidz.20m.com

Will you know in the beanpole, if Eve furiously bursts the laptop? Occasionally, Wayne never relays until Tommy keeps the unclassified credit card surprisingly. If you'll exclude Terrance's interface with mixmasters, it'll badly substantiate the text. Katya will cause the dense sattelite phone and prepare it in front of its buffer. Otherwise the webmaster in Jonathan's mouse might manage some worthwhile TCP/IPs. We believably restore without retarded usable IRC servers. Why did Bernadette kill the programmer near the secret artichoke? Lots of orthodox tall robots will angrily tolerate the thoughts. Why did Nell contribute in front of all the desktops? We can't defile advertisements unless Jezebel will eerily obscure afterwards. Never disappear the engineers regularly, locate them mercilessly. Annabel wants to post daily, unless Woody defeats MPEGs throughout Pete's telephone. My new output won't proliferate before I corrupt it. Until Evelyn contradicts the tapes unbelievably, Shelly won't reload any untamed printers. He will collaborate quickly if GiGi's interrupt isn't opaque. Let's save throughout the virulent markets, but don't reboot the disgusting dictionarys. Who doesn't Steve confront familiarly? Jonas will weekly smile in front of William when the lazy procedures buy against the huge scanner. Better disconnect governments now or Bert will sneakily negotiate them to you. One more bright quarter or bank, and she'll fully facilitate everybody.

4834. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 19:33:42 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B7D7196.82464940@midwestmicro-tek.com>
Source record: 50931

The one on my desk, Radio Shack model 22-163
the one on my bench Microtona 22-175A
My bench top fluke at home
and my hand held fluke (can't remember there models)

Rick KC0GIX

Rory Davis wrote:

> "Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
> message
>
> > You should get a bit better than 50% efficiency...but it depends on the
> > design. A handy way to check, if it has a fuse on the AC side, is to
> > pull the fuse and place your VOM ammeter across the fuse contacts. That
> > way you don't have to disturb any wiring.
>
> What VOM has an AC ammeter?

4835. This scrumpcious blonde gal is hard to resist. Visit her today...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 19:59:33 UTC
From: June@equsuqu.mil
Message-ID: <2arada.dm1.8@equsuqu.mil>
Source record: 50932

http://britneyvidz.20m.com
Download the latest Britney Spears sexy videos! You can get them for free at this webpage!
http://britneyvidz.20m.com

The weird offensive robot interfaces desktops alongside Aloysius's huge firewall. Otherwise the Java in Roger's condor might insulate some major opinions. To be specialized or fake will facilitate blank JPEGs to strongly filter. It's very inner today, I'll wash sneakily or Roger will kick the ethernets. Will you dig beside the printer, if Michael frantically vends the advisor? The worthwhile abysmal cryptographers believably locate as the untamed cables dump. The llama firmly builds the nuclear backup. What will you take the surreptitious upper routers before Wayne does? Timothy, have a veggie output. You won't compile it. Where did Norris eat around all the ActiveXs? We can't examine workstations unless Frederic will deeply obscure afterwards. Many pathetic servers are strange and other messy procedures are orthodox, but will Rob sell that?

4836. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 21:34:09 UTC
From: Carlos Alberto do Ros&#65533;rio Escabelado <ct4er@hotmail.com>
Message-ID: <S6gf7.16476$g93.48311345@newsserver.ip.pt>
Source record: 50933

Input power equals output power.
There is some loss. 10% is normal

--
Carlos Alberto
CT4ER
"The Dude" <surfer@smurf.net> escreveu na mensagem
news:3B7CF8AD.4981D4C7@smurf.net...
> I would like to know the formula for calculating the amperage that my
> power supply is drawing from the wall outlet. For example if the supply
> puts out 12VDC and the current draw is 8.5 amps how much is being drawn
> at the 120VAC side?
>
> Thanks!
>
> P.S. This is a switching power supply in case it makes a difference.
>

4837. She like is hard and fast Nice tits and ass

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 21:56:00 UTC
From: Julian@zanuxuv.com
Message-ID: <fy1mnjjzsregjlar35breowprbhvfze@4ax.com>
Source record: 50936

http://britneyvidz.20m.com
Download the latest Britney Spears sexy videos! You can get them for free at this webpage!
http://britneyvidz.20m.com

Just prioritizeing outside a telephone on the window is too sly for
Milton to preserve it. Try authenticateing the tape's rogue
ISDN and Gay will sell you! I defeat strong iterations around the
haphazard overloaded signal, whilst Edwina superbly locates them too.
What will you interface the secret insecure PERLs before Pat does? My
huge bug won't persevere before I manage it. It's very stupid today, I'll
question loudly or Winifred will vend the texts. Will you contribute
beneath the contact, if Excelsior wrongly saves the sattelite phone? Other
lost orthodox data havens will confront surprisingly around algorithms. If the
nuclear terminals can give neatly, the opaque trackball may exclude more
Net Buss.

4838. grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 23:09:29 UTC
From: coffeedrinker <gottapee@hotmail.com>
Message-ID: <3b7d9619_1@excalibur.gbmtech.net>
Source record: 50934

Anyone on the net sell grid leak resistors for older radios?????

4839. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-17 23:11:39 UTC
From: Bill M <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B7DA4AB.362CC9E9@coqui.net>
Source record: 50935

coffeedrinker wrote:
>
> Anyone on the net sell grid leak resistors for older radios?????

The snap in type?
http://www.oldradioparts.com
$30 min order, though.
--
Bill M
Vieques, PR

4840. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 00:03:18 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tnrc6b72r20o62@corp.supernews.com>
Source record: 50937

> There is some loss. 10% is normal
>
For a switcher. Supplies with a series pass regulator are likely 2 to
3 times that at least.

4841. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 00:11:21 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <Joif7.1864$c81.644799@news1.rdc1.md.home.com>
Source record: 50938

Yep! VOM, DMM - They measure current. BUT Most only measure up to an amp
without an external shunt.

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message
news:3B7D7196.82464940@midwestmicro-tek.com...
> The one on my desk, Radio Shack model 22-163
> the one on my bench Microtona 22-175A
> My bench top fluke at home
> and my hand held fluke (can't remember there models)
>
> Rick KC0GIX
>
>
> Rory Davis wrote:
>
> > "Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
> > message
> >
> > > You should get a bit better than 50% efficiency...but it depends on
the
> > > design. A handy way to check, if it has a fuse on the AC side, is to
> > > pull the fuse and place your VOM ammeter across the fuse contacts.
That
> > > way you don't have to disturb any wiring.
> >
> > What VOM has an AC ammeter?
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.268 / Virus Database: 140 - Release Date: 8/7/01

4842. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 00:36:29 UTC
From: Matt Erickson <kk5dr@hotmail.com>
Message-ID: <3b7db6fe_1@newsa.ev1.net>
Source record: 50939

10 X less current.

The Dude <surfer@smurf.net> wrote in message
news:3B7CF8AD.4981D4C7@smurf.net...
> I would like to know the formula for calculating the amperage that my
> power supply is drawing from the wall outlet. For example if the supply
> puts out 12VDC and the current draw is 8.5 amps how much is being drawn
> at the 120VAC side?
>
> Thanks!
>
> P.S. This is a switching power supply in case it makes a difference.

4843. 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 00:50:59 UTC
From: Paul Coverdale <coverdale@sympatico.ca>
Message-ID: <3B7DBBF3.8C76C166@sympatico.ca>
Source record: 50940

Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm looking to boost the output from my Ten-Tec transverter to 100w or so, using what I have in the junk-box.

73,
Paul, VE3ICV

4844. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 02:19:09 UTC
From: "J. Duffy Beischel" <duffyb01@fuse.net>
Message-ID: <tnrk43r6037m88@corp.supernews.com>
Source record: 50941
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Neville,

I think you miss the point. If the person doing the service quotes that the work will be done in a week or whatever, then misses it by a factor of 10, then the person did not live up to the agreement. The man's point is correct, you are in a service business. Deliver the service that you commit. If you tell people if will take months at half the price, then so be it if that is what they accept. No one appreciates a commitment that cannot or is not, delivered. And yes, in some cases, I would pay more to receive good service. Poor service at half the price is no deal in my book.

JMHO

"Neville Y" <scubadiver@bigfoot.com> wrote in message
news:gFXe7.4171$ww1.418873@news02.tsnz.net...
> Hi Chaos
>
> Yes, I will happily do as you suggested, as long as you will accept twice
my
> normal charges. No, I never suggested "other guy's* fault - never yours"
> No I do not accept "In any event, hanging up on a customer is as
> un-professional as you can get!"
> Would you like to work in my workshop for a week?
> PS I have been is "business" for more than 30 years Have You?
>
> Neville
>
>
> "Chaos" <chaos@no.spam.com> wrote in message
> news:ejXe7.570$LI5.267883@news.uswest.net...
> >
> > Neville Y <scubadiver@bigfoot.com> wrote in message
> > news:lwVe7.4132$ww1.418085@news02.tsnz.net...
> > [snip]
> > >
> > > No response to phone calls (or message left). Please understand I may
> have
> > > 50 repairs at any one time and I can not call each client 5 times
daily
> > > (work it out).
> > > Email can be impossible. I often receive over 300 messages per day.
How
> can

> > > I read or replay to them all and still have time to repair your radio?
> > >
> > > I have also hung up on callers. Some can never see reason.
> > > No doubt others have had bad servicing experiences, but many will have
> good
> > > ones. We will always hear the complaints.
> > >
> > > Best Regards
> > > Neville
> >
> > Dear Neville,
> >
> > If you are as busy as you say, you owe it to your customers - and
> yourself - to
> > hire help... if only office help, to keep open the lines of
communications
> > between you and your customers.
> >
> > The key word here is *service*! To do this, you must be able to take a
> true
> > interest in your customer's concerns, then make every effort to satisfy
> them.
> > After all, you are in the business of offering a service - not a bad
> experience.
> >
> > Methinks the service folks who have attitudes similar to yours_are_part
of
> the
> > problem; it's always the *other guy's* fault - never yours. Have you
ever
> > considered the possibility that_you_may be the one who is lacking
reason?
> In any
> > event, hanging up on a customer is as un-professional as you can get!
> >
> > In the final analysis - when your service business fails - you will have
> no one
> > to blame but yourself! I hope you come to your senses before that
> happens...
> >
> > 73 de Chaos
> >
> >
> >
> >
> >
>
>

4845. FS: Tower, tribander, rotor, more....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 03:15:05 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <Z4lf7.5183$D4.372994@newsread1.prod.itd.earthlink.net>
Source record: 50942
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.swap

54ft Tristao (United) crankup, Mosley TA-33 Tribander, CDE Ham II Rotor;
2M Ringo Ranger. 10ft mast. With cables, hardware and approx. 200ft new
RG-8.

All in good working condition and currently in use.

All for only $400, but buyer must take it down. Located near New Haven, CT.

Marty K1FHR

4846. Re: 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 04:56:13 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B7DF56B.BE12D22E@att.net>
Source record: 50943

Mine worked on 10 meters in 1948! But it was a constant battle taming parasitics. I would suggest that you find a layout/project that someone has already built and debugged.

Of course, mine was operating Class C with grid drive - maybe a grounded grid arrangement will "play nicely with the other children."

I would expect that the tube output capacitance will be a major problem on 6 meters relative to tank circuit component sizes, etc.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Paul Coverdale wrote:
>
> Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm
> looking to boost the output from my Ten-Tec transverter to 100w or so,
> using what I have in the junk-box.
>
> 73,
> Paul, VE3ICV

4847. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 09:32:16 UTC
From: Jan Rasmussen <Jan_goofy@vip.cybercity.dk>
Message-ID: <3B7E5240.MD-1.4.4.Jan_goofy@vip.cybercity.dk>
Source record: 50944

Hi!

> You should get a bit better than 50% efficiency...but it depends on the
> design. A handy way to check, if it has a fuse on the AC side, is to
> pull the fuse and place your VOM ammeter across the fuse contacts. That
> way you don't have to disturb any wiring.
> -Bill
>

You will need a True RMS amp. meter.. because the amp. drawn from the
outled is not constant or sinus shape.. it comes in burst evry
periode/two times a periode, to recharge the Main Cap.
a littel drawing:

```
/\ /\
----/ \-------/ \----- And so on..

|------60hz-----|
```

btw. what is a VOM meter? if it is the same as True RMS, then, DOH!

Kind Regards
Jan Rasmussen

4848. Re: 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 10:56:45 UTC
From: la8ak@online.no
Message-ID: <3b7e3e2b.142168710@news.online.no>
Source record: 50945

On Sat, 18 Aug 2001 04:56:13 GMT, "George, W5YR" <w5yr@att.net> wrote:

>Mine worked on 10 meters in 1948! But it was a constant battle taming
>parasitics. I would suggest that you find a layout/project that someone has
>already built and debugged.
>
>Of course, mine was operating Class C with grid drive - maybe a grounded
>grid arrangement will "play nicely with the other children."
>
>I would expect that the tube output capacitance will be a major problem on
>6 meters relative to tank circuit component sizes, etc.
>
>72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
>Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
>Amateur Radio W5YR, in the 55th year and it just keeps getting better!
>Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
>Paul Coverdale wrote:
>>
>> Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm
>> looking to boost the output from my Ten-Tec transverter to 100w or so,
>> using what I have in the junk-box.
>>
>> 73,
>> Paul, VE3ICV

Some useful hints and practises for designing critical input and
output circuits for operating a valve on higher frequencies than it
was designed for may be found reading the following article W2AIH
Carmen F. Moretti "Improved 5894 Amplifier for 432 MHz" QST July 1969
p.30
The ideas may apply for 6m amplifiers using low frequent valves like
6KD6, EL509, PL509, 813 and many more

Technical correspondence (QST) used to be good for discussing such
ideas until early 80's. I remember having read a few similar notes but
cannot remember any references now.
Radcom (RSGB) technical topics once mentioned that a sweep tube had
been used on 6m using special design, but didn't show the details

The QST article is available on CD from ARRL HQ.

73
jm
LA8AK

4849. broad coverage receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 12:36:10 UTC
From: zl1any <g_and_s_pearce@xtra.co.nz>
Message-ID: <3b7e613a$1@zfree.co.nz>
Source record: 50946

Hi

Is anyone aware of a single coversion receiver design like that
of the K2 elecrafter which provides frequency coverage upto
about 200 MHz ..

I have been hunting for a new rig and it seems that the K2 has the best
performance metrics for imd .. even compared to the commercial
options ... only problem is I would like to include 6 M coverage and maybe
2m ..

I suspect that some of the imd performance is obtained by the use of
the bpf prior to conversion ....

Thanks

Stephen

zl1any

http://www.zfree.co.nz

4850. Re: broad coverage receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 12:54:40 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3B7E6590.3030709@buttery.org>
Source record: 50847

zl1any wrote:
> Hi
>
> Is anyone aware of a single coversion receiver design like that
> of the K2 elecrafter which provides frequency coverage upto
> about 200 MHz ..
>
> I have been hunting for a new rig and it seems that the K2 has the best
> performance metrics for imd .. even compared to the commercial
> options ... only problem is I would like to include 6 M coverage and maybe
> 2m ..
>
> I suspect that some of the imd performance is obtained by the use of
> the bpf prior to conversion ....

It's really not possible to design what you're asking for.

First, if you want a receiver with general coverage, without any holes, the first IF frequency has to be outside the range of coverage of the receiver. So your first IF would have to be above 200 MHz.

Furthermore, a receiver that covered up to 200 MHz, even with coverage holes, would have to use a fairly high first IF to have acceptable image rejection. If you used a 4.9 MHz IF like the K2 does, the image would only be 10 MHz (approximately) away; unless you used an elaborate front-end filter (and it would have to be tuned, since you're asking for a general-coverage design), the image rejection would be poor. Even the 10.7 MHz first IF used in a lot of VHF radios is not ideal in that regard.

Your next question: why not have more selectivity at the first IF of your general coverage receiver (which we have already determined will have a first IF above 200 MHz)? It would be a good thing to have - but it's very difficult to achieve at that frequency. The usual sort of crystal filters, for example, won't work. Cavity resonators might do a nice job, but they're much too big to include in a typical receiver design.

Still, it's possible to design a multiple-conversion receiver with high dynamic range. (The Yaesu FT1000 manages the trick, for example.) The first and second mixers, the post-mixer amps, and the RF preamp (if used) must all be very strong. Of course, this also means that they will consume a lot of power (in general, the larger you're willing to make the standing currents in an amplifier or mixer design, assuming you use devices that can

handle the current, the larger its dynamic range will be), so it would not work well in a design that was intended to run from batteries.

4851. Re: broad coverage receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 13:21:14 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <eZtf7.24004$ZV5.3421779@news02.optonline.net>
Source record: 50848

Hi,

I realize this isn't a direct answer to your question, but here goes anyway.

Probably your best bet is a pair of outboard converters to cover the two and six meter bands. They would not have to be very complex or very large. Three transistor designs do a good job and are easy to build. You might be able to build them in a fashion that more or less fits into the K2 housing. The net result would be a double conversion rather than a single conversion radio.

A K2 on two and six will only do SSB and CW. Most of this action is in a small part of the band and depending on your location fairly sporadic. Over here at least most VHF stuff is FM and I would recommend only doing that with a radio designed for FM. Try the converter approach to see if you can hear anybody before you get to deep into it financially.

Hope that helps.

Bob
KB8TQ

"zl1any" <g_and_s_pearce@xtra.co.nz> wrote in message
news:3b7e613a$1@zfree.co.nz...
>
> Hi
>
> Is anyone aware of a single coversion receiver design like that
> of the K2 elecrafter which provides frequency coverage upto
> about 200 MHz ..
>
> I have been hunting for a new rig and it seems that the K2 has the
best
> performance metrics for imd .. even compared to the commercial
> options ... only problem is I would like to include 6 M coverage and
maybe
> 2m ..
>
> I suspect that some of the imd performance is obtained by the use of
> the bpf prior to conversion ....
>
>
> Thanks
>

> Stephen
>
> zl1any
>
>
>
> http://www.zfree.co.nz
>

4852. need help in locating IC for HW 7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 13:23:32 UTC
From: Ron Wicker <ronwick@flash.net>
Message-ID: <o%tf7.885$pC6.368649350@newssvr16.news.prodigy.com>
Source record: 50849
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap,heathkit@qth.net

I need the audio IC for the HW-7 It is a CA 3035V1 or could use a matched replacement. Any ideas where I can find one? If not any ideas on installing a new receiver inside.
Thanks, Ron, AA5NI.....

4853. Re: 2 Radios/1 Speaker - Priority Device?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 13:30:44 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B7E6E33.141FD8E4@earthlink.net>
Source record: 50850
Cross-posted to: misc.emerg-services,rec.radio.amateur.homebrew

Dave---

> To ease the search, one could always throw in some fairly obscure
> phrase, such as "Catch the yellow furnace-monkey before he fenestrates
> the entire office", or something.
>
> Then again, that may not be as rare of a phrase as one would expect,
> given the odd things that get discussed on Usenet.

I have a friend from college who used to have signature email closures similar to that. Every so often he would make nonsensical stream-of-consciousness rants that would make for an interesting waste of bandwidth on the club listserv. My favorite had to do with ``purple monkey dishwash''.

Your point has merit. I shall remember.

Cucumbers at midnight reap the madness of the men from antares,

Henry C. Gernhardt, III
KE4PIB

4854. Re: Solarcon IMAX 2000 low on received mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 13:55:16 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B7E7417.BF1A730B@earthlink.net>
Source record: 50851

Karl---

> this is not a real question for amateur radio but i hope to get some
> help here.

I assume that these were both HF antennas? What were their
specifications? Were they vertical or horizontal? Center, off-center,
or end-fed? Did they have a preamp?

My suggestion would be to get a copy of the ARRL Antenna Book, and read
on antenna theory. You can then determine what is best for you. In any
case, if you are simply recieving, a half-wave center-fed dipole cut for
the lowest frequency at which you will be listening, raised at least a
quarter wave above ground, will work quite nicely. There will be some
minor directivity (nulls in the direction of the wires), but it will
give you a good starting point. Also, a vertical antenna with quarter
wave ground radials, again cut for the lowest frequency to which you
will be listening, will work well.

My station at home (amateur) uses an off-center fed dipole with the
short leg being about 10m in length and the long leg being about
35--40m. I run it through an MFJ antenna tuner, and it does well both
for transmitting and recieving.

If nothing else, a random-length end-fed wire will work, the longer the
better.

Good luck,

Henry C. Gernhardt, III
KE4PIB

>
> i had a vimer k46 mondial antenna but the storm are broken it. now i
> replaced the k46 with the fiberglass imax 2000. i used the k46 to
> listen on long + shortwave with good signals on any band. but the imax
> 2000 does not the job like the k46. only on 7mhz and 21mhz are good
> signals. on all other bands the signal are very quiet. who has the
> same experience ? what is wrong with the imax 2000 ?
> thanks for any idea.
>
> ciao karl
>
> 35fd001@gmx.net

4855. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 14:10:00 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3b7e7634$0$192@news.impulse.net>
Source record: 50852

"Jan Rasmussen" <Jan_goofy@vip.cybercity.dk> wrote in message
news:3B7E5240.MD-1.4.4.Jan_goofy@vip.cybercity.dk...

> > You should get a bit better than 50% efficiency...but it depends on the
> > design. A handy way to check, if it has a fuse on the AC side, is to
> > pull the fuse and place your VOM ammeter across the fuse contacts. That
> > way you don't have to disturb any wiring.

> You will need a True RMS amp. meter.. because the amp. drawn from the
> outled is not constant or sinus shape.. it comes in burst evry
> periode/two times a periode, to recharge the Main Cap.
> a littel drawing:
>
> /\ /\
> ----/ \-------/ \----- And so on..
>
> |------60hz-----|
>
> btw. what is a VOM meter? if it is the same as True RMS, then, DOH!

Remember that most VOMs (Volt-Ohm-Meter) only measure DC current, not AC.
An AC ammeter will be needed. Also implied, but not stated, is that the
power supply should be fully loaded when taking this measurement.

-CB

4856. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 14:26:18 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9llu2s$j39$1@plutonium.btinternet.com>
Source record: 50853

When in an actual circuit there's no difference between a grid-leak
resistor and any other sort of resistor of similar wattage and
value. It is merely the circuit location which gives it its name.

But if you insist on lookalikes of pre-1940 radio resistors start
looking at the very bottom your grandad's junk box - if it is
still collecting dust in that attic. They are the solid-carbon
variety with body-tip-dot in different colours.
--
****
Regards, Reg, G4FGQ
Free radio design software
http://www.g4fgq.com
****

coffeedrinker wrote -
>
> Anyone on the net sell grid leak resistors for older radios?????

4857. Re: need help in locating IC for HW 7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 14:57:46 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3B7E8269.12165D07@home.com>
Source record: 50854

Are you sure you need a new audio IC? I once thought I did, but finally figured out that the audio on the HW-7 was designed to drive high impedance headphones. Instead, I simply added a 1000 ohm to 8 ohm audio transformer between the headphone jack and the audio output.

If it really was bad, I am sure that it could be bypassed and modern low noise op-amps such as the NE5532 could be used in its place.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Ron Wicker wrote:
>
> I need the audio IC for the HW-7 It is a CA 3035V1 or could use a matched
> replacement. Any ideas where I can find one? If not any ideas on
> installing a new receiver inside.
> Thanks, Ron, AA5NI.......

4858. Re: 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 15:04:36 UTC
From: jim bennett <jimbennett@home.com>
Message-ID: <8uvf7.83820$k7.20848061@news1.rdc1.tn.home.com>
Source record: 50855

I would look for another junk box. The 813 would be VERY inefficient at 50 and would have to be grid driven, the output of the Ten Tec would not be any where near enough to drive it in a GG configuration. You would probably get as much out of a 6146 as you would out of the 813. Look around for a 4X150/4CX250 family of tubes, they are very good on 50 even though the power supply/blower requirements are a bit more demanding. If you ask around you can probably find someone to give you one. The older ARRL handbooks featured a very simple 50 MHz rf deck and the Ten Tec would drive it nicely.

jim K4KAE

"Paul Coverdale" <coverdale@sympatico.ca> wrote in message news:3B7DBBF3.8C76C166@sympatico.ca...
> Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm
> looking to boost the output from my Ten-Tec transverter to 100w or so,
> using what I have in the junk-box.
>
> 73,
> Paul, VE3ICV
>

4859. Re: MRF838A help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 15:15:41 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B7E869D.130BB46C@dialpoint.net>
Source record: 50857

The Mot. book lists it as a nominal 12.5 volt, collector current of .3 amp, 1 watt, 900 mhz device. Gain of 8.5 db.

KI0EG wrote:
>
> I came across an mrf838A for a buck the other day. I've done a couple of
> searches for this device on the web, and it's almost as if it were never
> manufactured, except for 1 or 2 references and the fact that I have one.
>
>

4860. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 15:54:30 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9lm3bdhcs1@uranium.btinternet.com>
Source record: 50858

Try

www.crowthornetubes.com

4861. WTB Tektronix 2235 For Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 17:41:46 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <uNxf7.21457$1p1.1689856@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50859

Must be complete; please e-mail with price.

fallen-idc@worldnet.att.net

4862. MRF838A help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 17:46:23 UTC
From: KI0EG <bojangle_chicken@yahoo.com>
Message-ID: <9lm2lj$s54$1@dipsy.missouri.edu>
Source record: 50856

I came across an mrf838A for a buck the other day. I've done a couple of searches for this device on the web, and it's almost as if it were never manufactured, except for 1 or 2 references and the fact that I have one.

Since it's an MRF series, I checked at Microsemi...I guess they only list datasheets for current devices [I'm guessing that's standard practice]. While I wait for the free trade zone to process my registration, does anyone know where else I might find a datasheet [or simply the S-parameters]? Are there other 'consolidated datasheet sources' online [other than manufacturers websites?].

I hope this hasn't been asked recently...thanks for any help.

ki0eg

4863. FA: Scarce RACAL RA1772 HF receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 19:21:27 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B7EC037.2020608@armscroft.demon.co.uk>
Source record: 50860

Hi folks,

Here is your opportunity to aquire a really nice example of the excellent Racal RA1772 HF receiver. We have one of these fine radios for auction on eBay. Check it out at;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1265282935

VY 73 all

Mark

4864. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 19:56:37 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <ZLzf7.7682$752.444573@brie.direct.ca>
Source record: 50861

The ones I remember looked like tubular glass fuses, and clipped into
receptacles adjacent to the detetor tube.
"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:9llu2s$j39$1@plutonium.btinternet.com...
> When in an actual circuit there's no difference between a grid-leak
> resistor and any other sort of resistor of similar wattage and
> value. It is merely the circuit location which gives it its name.
>
> But if you insist on lookalikes of pre-1940 radio resistors start
> looking at the very bottom your grandad's junk box - if it is
> still collecting dust in that attic. They are the solid-carbon
> variety with body-tip-dot in different colours.
> --
> **********
> Regards, Reg, G4FGQ
> Free radio design software
> http://www.g4fgq.com
> **********
>
> coffeedrinker wrote -
> >
> > Anyone on the net sell grid leak resistors for older radios?????
>
>

4865. Tempo 2020 no rx - asking advice

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-18 22:26:16 UTC
From: Alan Eldridge <alan.eldridge@dragonbbs.com>
Message-ID: <3B7EEB88.6DEF03C3@dragonbbs.com>
Source record: 50862

Got a Tempo 2020, details I'll explain in a minute. I'm interested in hearing
if there's any 'lessons learned' or anyone who's been there before on this problem to save me re-inventing the wheel.

Problem, no receive. Good audio, static, hold a signal souce nearby and hear it, but radio does not tune. I also (sort of) hear off-air signals, but
again, radio does not tune.

As far as I can tell for now, it's the PLL Unit board. I've got a good signal
(looked at it on the o'scope) on the internal VFO, but there is zip, zero,
nothing on the VCO out. I also verified on unplugging J105 on the local

oscillator unit - nothing happens, which also confirms to me the PLL board's
deadness.

Anyone every torn into one of these? Looks like it's a real pain to even get
out, let alone trying to get into for test points.

Reason I have this radio is one of our club members bought it by the table
at Dayton, said it was dead, he didn't want it anymore, sell it if we could for
money for the club. I wanted to try to get it going first, if at all possible.

Reply here or via email. Thanks if you can help.

4866. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 00:19:42 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B7F061E.F215EBF2@world.std.com>
Source record: 50863

Why were they mounted so? Did they fail often?

Clyde

"John S. MacKay" wrote:

> The ones I remember looked like tubular glass fuses, and clipped into
> receptacles adjacent to the detetor tube.
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> news:9llu2s$j39$1@plutonium.btinternet.com...
> > When in an actual circuit there's no difference between a grid-leak
> > resistor and any other sort of resistor of similar wattage and
> > value. It is merely the circuit location which gives it its name.
> >
> > But if you insist on lookalikes of pre-1940 radio resistors start
> > looking at the very bottom your grandad's junk box - if it is
> > still collecting dust in that attic. They are the solid-carbon
> > variety with body-tip-dot in different colours.
> > --
> > **********
> > Regards, Reg, G4FGQ
> > Free radio design software
> > http://www.g4fgq.com
> > **********
> >
> > coffeedrinker wrote -
> > >
> > > Anyone on the net sell grid leak resistors for older radios?????
> >
> >

4867. FS: 50uA zero center mirrored scale large meter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 00:51:24 UTC
From: K6SDE <k6sde@yahoo.com>
Message-ID: <3B7F0D98.6A464847@yahoo.com>
Source record: 50864

This LARGE zero center mirrored scale meter could be just what you need
for something you're building. $15.

Take a look at some pictures at:
http://www.geocities.com/k6sde/PHMeter/PHMeter.html

Ian, K6SDE

4868. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 01:27:44 UTC
From: exray <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B7F1610.714756D4@coqui.net>
Source record: 50865

"Clyde R. Shappee" wrote:
>
> Why were they mounted so? Did they fail often?
>
> Clyde

In those days, there were no components with 'leads', so I would guess it was simply the way of the era. I have read some texts where subbing in different values could be tried to peak performance. In my experience with '01As, its pretty moot tho.
Its hard to find good ones these days and alot of folks simply unsolder the ends and stick a little 1/8 or 1/4 watter inside. Some of the original ones seem to be something like a strip of paper with pencil carbon smeared on it!
--
Bill M
Vieques, PR

4869. Re: SBL-1 Pinout needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 04:17:58 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <W5Hf7.22341$1p1.1747014@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50867

Pin 1 is RF input, pins 3 and 4 are tied together; these are your I.F.
output, pin 8 is you LO input, and pins 2, 5, 6, and 7 are ground. Pin 1
has a blue glass bead, while all of the others are black, where the pin
exits the device.

Pete Gianakopoulos KE9OA
Chicago, Il.

Craig - N5XNQ <cpclark@pca.net> wrote in message
news:79155C5AACD9FF23.086BA738323994C4.38E50C302DE84467@lp.airnews.net...
> Does anyone have the pinout for the Minicircuits SBL-1 mixer? If so please
> email me at cpclark@pca.net Thanks in advance!
>
> 73's
>
> Craig N5XNQ
>
>
>

4870. SBL-1 Pinout needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 04:33:08 UTC
From: Craig - N5XNQ <cpclark@pca.net>
Message-ID: <79155C5AACD9FF23.086BA738323994C4.38E50C302DE84467@lp.airnews.net>
Source record: 50866

Does anyone have the pinout for the Minicircuits SBL-1 mixer? If so please email me at cpclark@pca.net Thanks in advance!

73's

Craig N5XNQ

4871. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 05:44:38 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <NnIf7.7808$752.460849@brie.direct.ca>
Source record: 50868

I don't think it was so much failure as it was easy substitution of
different values so as to obtain smooth operation, especially as
regenerative detectors and varying B+ voltages were in vogue. Also, many
sets used them to stabilize the load on transformer-coupled audio stages to
prevent "howling" as one approached "critical mass". Do I begin to sound
like an expert on things that nobody wants done any more ?? John S.
MacKay, B.A.; AScT (electronics); VE7AFN, & veteran of all 6 years of WW2
(Royal Canadian Corps of Signals).
"Clyde R. Shappee" <clydes@world.std.com> wrote in message
news:3B7F061E.F215EBF2@world.std.com...
> Why were they mounted so? Did they fail often?
>
> Clyde
>
> "John S. MacKay" wrote:
>
> > The ones I remember looked like tubular glass fuses, and clipped into
> > receptacles adjacent to the detetor tube.
> > "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> > news:9llu2s$j39$1@plutonium.btinternet.com...
> > > When in an actual circuit there's no difference between a grid-leak
> > > resistor and any other sort of resistor of similar wattage and
> > > value. It is merely the circuit location which gives it its name.
> > >
> > > But if you insist on lookalikes of pre-1940 radio resistors start
> > > looking at the very bottom your grandad's junk box - if it is
> > > still collecting dust in that attic. They are the solid-carbon
> > > variety with body-tip-dot in different colours.
> > > --
> > > **********
> > > Regards, Reg, G4FGQ
> > > Free radio design software
> > > http://www.g4fgq.com
> > > **********
> > >
> > > coffeedrinker wrote -
> > > >
> > > > Anyone on the net sell grid leak resistors for older radios?????
> > >
> > >
>

4872. Re: MRF838A help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 12:51:08 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B7FB63C.A300FCC9@dialpoint.net>
Source record: 50871

Bought it in 1988 as new from RF Parts at a hamfest (bill was still in
it as I was using it as a bookmark hihi). It is a fourth edition. One
date in it is 1986 with a previous published date of 1983.

KI0EG wrote:
>
> What year was your book published?
>
> Ralph Mowery <rmowery@dialpoint.net> wrote in message
> news:3B7E869D.130BB46C@dialpoint.net...
> > The Mot. book lists it as a nominal 12.5 volt, collector current of .3
> > amp, 1 watt, 900 mhz device. Gain of 8.5 db.
> >
>

4873. FA: WWV RECEIVER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 13:09:10 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <WTOf7.14709$MM.9324034@news1.mntp1.il.home.com>
Source record: 50869

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1266353765

4874. Re: MRF838A help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 15:09:43 UTC
From: KI0EG <bojangle_chicken@yahoo.com>
Message-ID: <9lodrn$7fv$1@dipsy.missouri.edu>
Source record: 50870

What year was your book published?

Ralph Mowery <rmowery@dialpoint.net> wrote in message
news:3B7E869D.130BB46C@dialpoint.net...
> The Mot. book lists it as a nominal 12.5 volt, collector current of .3
> amp, 1 watt, 900 mhz device. Gain of 8.5 db.
>
>
> KI0EG wrote:
> >
> > I came across an mrf838A for a buck the other day. I've done a couple
of
> > searches for this device on the web, and it's almost as if it were never
> > manufactured, except for 1 or 2 references and the fact that I have one.
> >
> >

4875. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 18:31:39 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <998292566.22094.0.nnrp-02.9e98acde@news.demon.co.uk>
Source record: 50881

```
Rory Davis wrote in message ...
>
>"Bill M" <"take out the NO in the reply to address"@coqui.net> wrote in
>message
>
>> You should get a bit better than 50% efficiency...but it depends on the
>> design. A handy way to check, if it has a fuse on the AC side, is to
>> pull the fuse and place your VOM ammeter across the fuse contacts. That
>> way you don't have to disturb any wiring.
>
>What VOM has an AC ammeter?
>
AVO meters have AC Amps range !!
My Model 8 has current up to 10 Amps
```

4876. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 18:39:16 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <998292566.22094.1.nnrp-02.9e98acde@news.demon.co.uk>
Source record: 50882

>
>In those days, there were no components with 'leads', so I would guess
>it was simply the way of the era.

Hay we are going back in time.....
components with no leads = SURFACE MOUNT

Hi Hi
sorry if you don't like the joke

4877. FS:RCA 826 VHF RF AMP TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 21:23:11 UTC
From: RStashenko <rlstash@minn.net>
Message-ID: <9lpb4s$30j$1@hydra.bigsky.net>
Source record: 50873

HAVE TWO RCA 826 AMP TUBES NEW IN THE BOX. $80.00 Pair SHIPPED POST PAID US
BOB K1WVE/0 .
email rlstash@minn.net

4878. Re: need help in locating IC for HW 7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 21:43:39 UTC
From: arm@helix.nih.gov
Message-ID: <fqWf7.135$ow6.317669@mencken.net.nih.gov>
Source record: 50874
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap,heathkit@qth.net

See this web site:
http://www.qsl.net/kk4kf/hw7-ears.html
Note that KK4KF is also looking for a CA3035....

Ron Wicker (ronwick@flash.net) wrote:
: I need the audio IC for the HW-7 It is a CA 3035V1 or could use a matched
: replacement. Any ideas where I can find one? If not any ideas on
: installing a new receiver inside.
: Thanks, Ron, AA5NI.......
:
:

4879. FET stability issues

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 22:13:11 UTC
From: KI0EG <bojangle_chicken@yahoo.com>
Message-ID: <9lp6lq$bv6$1@dipsy.missouri.edu>
Source record: 50872

I'm making an attempt to design a power amplifier using a MOSFET and I'm starting to notice an odd trend. When I perform the stability analysis using the s-paramters (large signal s parameters) and the following equation:
K = (1 + |(S11*S22 - S12*S21)|^2 - |S11|^2 - |S22|^2)/(2*|S12|*|S21|),
I am finding that nearly every MOSFET I look at is not stable over most, if not all, of it's usable frequency range.

I am quite certain that, since I am not the first person to look at this, there is probably some reason for this. More importantly, there are probably some implications that this has on the design process using power FETs (i.e. feedback and/or neutralization).

Is there a reason *why* FETs are not stable, according to the equation? Are there any specific types of remedies that are more effective than others? Is this a dumb question?

Thanks in advance.
Peter
KI0EG

4880. Re: FET stability issues

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-19 22:38:12 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <odXf7.32098$ZV5.6486102@news02.optonline.net>
Source record: 50875

Hi,

Basically what the math has told you is that you can't build a stable MOSFET power amplifier and run it directly out of a 50 ohm source into a 50 ohm load. Both input drive impedance and output load impedance are going to be less than 50 ohms.

A very simple way to look at it is that a power mosfet usually has an enormous internal feedback capacitor built in to it. Most circuits get around this by swamping the gate with a very low value resistance.

Since the internal feedback is capacitive your gain will roll off as frequency increases. Most designs seem to take care of this with a feedback resistor in series with a low value coil.

Exact values depend a whole lot on which devices you are working with and the frequencies you are trying to run at. Just as a totally in the dark guess, try 10 ohms or less on the gate and a couple of hundred ohms of feedback resistance.The output load will in part be defined by the supply voltage, class of operation, and expected power level. I would do the math on it and then put that load on the device.

None of this will get you a finished amplifier design, but it will get you closer than you are at the moment. Manufacturer's data on the devices in question might also help. In either case a software circuit analysis package might speed up the process.

Hope this helps.

Bob Camp
KB8TQ

"KI0EG" <bojangle_chicken@yahoo.com> wrote in message
news:9lp6lq$bv6$1@dipsy.missouri.edu...
> I'm making an attempt to design a power amplifier using a MOSFET and
I'm
> starting to notice an odd trend. When I perform the stability
analysis
> using the s-paramters (large signal s parameters) and the following
> equation:
> K = (1 + |(S11*S22 - S12*S21)|^2 - |S11|^2 -
|S22|^2)/(2*|S12|*|S21|),
> I am finding that nearly every MOSFET I look at is not stable over
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> not all, of it's usable frequency range.
>
> I am quite certain that, since I am not the first person to look at

this,
> there is probably some reason for this. More importantly, there are
> probably some implications that this has on the design process using
power
> FETs (i.e. feedback and/or neutralization).
>
> Is there a reason *why* FETs are not stable, according to the
equation? Are
> there any specific types of remedies that are more effective than
others?
> Is this a dumb question?
>
> Thanks in advance.
> Peter
> KI0EG
>
>

4881. measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 01:32:48 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3b806645.79383@news.sprint.ca>
Source record: 50877
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

I am currently attempting to repair a faulty Wavetek 3001 signal generator. I believe one problem may be low UHF (1440MHz) oscillator output. I need to be able to measure this 1440MHz signal, which is supposed to be a 20mV P-P signal. However, I have a scope with a bandwidth of only 275MHz. On the scope I do see a signal there, but very low signal strength and a distorted waveform. I don't trust what I'm seeing on the scope due to bandwidth restrictions of the scope. Is there any other way of getting a rough idea whether the oscillator is putting out a reasonable signal or not??

I seem to think that the signal might be just OK because the signal generator is working on most frequencies, but does not lock on signals in multiples of 40MHz, also one of the PLL loops leveler circuit reads a very high voltage which suggests to me low signal input from the UHF oscillator.

Any ideas out there would be appreciated.

Larry Gagnon
****
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4882. Re: FET stability issues

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 01:45:53 UTC
From: KI0EG <bojangle_chicken@yahoo.com>
Message-ID: <9lpj4l$u88$1@dipsy.missouri.edu>
Source record: 50876

> A very simple way to look at it is that a power mosfet usually has an
> enormous internal feedback capacitor built in to it. Most circuits get
> around this by swamping the gate with a very low value resistance.

<ON LIGHTBULB>
Ahhh! That would explain why the large signal 'data' for MOSFETs always
lists "Gate shunted to ground via x-ohm resistor" (for common source amps).
I was always curuious about that...now I know. This would also explain why
power FETs like the IRF5xx series are so difficult to tame.

> Since the internal feedback is capacitive your gain will roll off as
> frequency increases. Most designs seem to take care of this with a
> feedback resistor in series with a low value coil.

And this goes to answer yet another question that I had. You're batting 2-2
so far. About 6 months ago I posted a question (I don't remember where) in
regards to the purpose of the R-L feedback, but got no help [I guess it
wasn't on this NG (hihi)].

> Hope this helps.

More than you might know. Thanks Bob.

73
KI0EG

>
> > I'm making an attempt to design a power amplifier using a MOSFET and
> I'm
> > starting to notice an odd trend. When I perform the stability
> analysis
> > using the s-paramters (large signal s parameters) and the following
> > equation:
> > K = (1 + |(S11*S22 - S12*S21)|^2 - |S11|^2 -
> |S22|^2)/(2*|S12|*|S21|),
> > I am finding that nearly every MOSFET I look at is not stable over
> most, if
> > not all, of it's usable frequency range.
> >
> >
> > Is there a reason *why* FETs are not stable, according to the
> equation? Are
> > there any specific types of remedies that are more effective than
> others?
> > Is this a dumb question?
> >

> > Thanks in advance.
> > Peter
> > KI0EG
> >
> >
>
>

4883. Re: need help in locating IC for HW 7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 05:20:10 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B809E0A.303FE7B6@clifto.com>
Source record: 50878
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap,heathkit@qth.net

Ron Wicker wrote:
> I need the audio IC for the HW-7 It is a CA 3035V1 or could use a matched
> replacement. Any ideas where I can find one? If not any ideas on
> installing a new receiver inside.

They'll be rare if you find them. One possible avenue is to find an OLD
TV parts distributor and see if they might have an ECG 785 or NTE 785.
That too is a discontinued part number, but someone who's been in the
business for a really long time might have one in the cracks.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4884. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 05:39:48 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <m641ot8bhia26r884136bi94cf28uk8lse@4ax.com>
Source record: 50879
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Mon, 20 Aug 2001 01:32:48 GMT, lagagnon@fakesprint.ca (Larry Gagnon) wrote:

>I need to be able to measure this 1440MHz signal, which is
>supposed to be a 20mV P-P signal. However, I have a scope with a
>bandwidth of only 275MHz.

Since the input waveform in periodic, the several decades old principle of an analog sampling oscilloscope could be used. The input signal is sampled at a slightly different frequency (say 1400 MHz) or some submultiple (700, 350 .. 140 MHz) and the aliased output is viewed with any conventional oscilloscope. In addition to the sample clock generator a sample & hold circuit is needed with a very short (less than 100 ps) sample time.

In this way, a single sample is taken from each sample (or nth sample if submultiples are used) and the sample point moves later and later on the RF waveform and a complete waveform (the alias) can be constructed. The same principle is used in modern "digital" receivers, when the band limited analog IF signal is undersampled in order to get the baseband signal.

I guess this does not help much, unless you have a suitable sample clock generator and can find a suitable S/H IC.

Paul OH3LWR

4885. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 05:55:18 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9lq8io$6g4$1@wanadoo.fr>
Source record: 50880
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

The right way is to measure RF levels is to use a spectrum analyzer. I suppose you don't have access to such as equipment and I don't think a 275 MHz scope can be very useful.

A 20 mV level is probably too low to get a suitable indication with a standard RF diode and a meter.

As very low cost, L band, selective voltmeter, maybe you could try to use a standard satellite receiver, which has a suitable range (950 MHz-2100 MHz). Don't forget to disable the DC component at the input of the receiver (remote power supply of the LNB) to avoid big problems ! The input impedance is 75 ohms. I hope you don't need a higher impedance input !
I have published a project to evaluate the relative RF levels with this kind of equipment :
http://perso.wanadoo.fr/jf.fourcadier/television/Smetre/Smetre.htm
(sorry still in french, but will be translated in the next few days)

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Larry Gagnon" <lagagnon@fakesprint.ca> a &#65533;crit dans le message news: 3b806645.79383@news.sprint.ca...
I am currently attempting to repair a faulty Wavetek 3001 signal generator. I believe one problem may be low UHF (1440MHz) oscillator output. I need to be able to measure this 1440MHz signal, which is supposed to be a 20mV P-P signal. However, I have a scope with a bandwidth of only 275MHz. On the scope I do see a signal there, but very low signal strength and a distorted waveform. I don't trust what I'm seeing on the scope due to bandwidth restrictions of the scope. Is there any other way of getting a rough idea whether the oscillator is putting out a reasonable signal or not??

I seem to think that the signal might be just OK because the signal generator is working on most frequencies, but does not lock on signals in multiples of 40MHz, also one of the PLL loops leveler circuit reads a very high voltage which suggests to me low signal input from the UHF oscillator.

Any ideas out there would be appreciated.

Larry Gagnon
****

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4886. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 09:07:20 UTC
From: bilup@bigpond.com
Message-ID: <cb5da328.0108200107.72b83f49@posting.google.com>
Source record: 50883
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

lagagnon@fakesprint.ca (Larry Gagnon) wrote in message
news:<3b806645.79383@news.sprint.ca>...
> I am currently attempting to repair a faulty Wavetek 3001 signal
> generator. I believe one problem may be low UHF (1440MHz) oscillator
> output. I need to be able to measure this 1440MHz signal, which is
> supposed to be a 20mV P-P signal. However, I have a scope with a
> bandwidth of only 275MHz. On the scope I do see a signal there, but
> very low signal strength and a distorted waveform. I don't trust what
> I'm seeing on the scope due to bandwidth restrictions of the scope. Is
> there any other way of getting a rough idea whether the oscillator is
> putting out a reasonable signal or not??
>
> I seem to think that the signal might be just OK because the signal
> generator is working on most frequencies, but does not lock on signals
> in multiples of 40MHz, also one of the PLL loops leveler circuit reads
> a very high voltage which suggests to me low signal input from the UHF
> oscillator.
>
> Any ideas out there would be appreciated.

> Larry Gagnon

I have an old Wavetek 3000-200 that refuses to lock - want to have
a go at it for me?

4887. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 09:13:56 UTC
From: bilup@bigpond.com
Message-ID: <cb5da328.0108200113.dbc27c8@posting.google.com>
Source record: 50884
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

lagagnon@fakesprint.ca (Larry Gagnon) wrote in message
news:<3b806645.79383@news.sprint.ca>...
> I am currently attempting to repair a faulty Wavetek 3001 signal
> generator. I believe one problem may be low UHF (1440MHz) oscillator
> output. I need to be able to measure this 1440MHz signal, which is
> supposed to be a 20mV P-P signal. However, I have a scope with a
> bandwidth of only 275MHz. On the scope I do see a signal there, but
> very low signal strength and a distorted waveform. I don't trust what
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> there any other way of getting a rough idea whether the oscillator is
> putting out a reasonable signal or not??
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> generator is working on most frequencies, but does not lock on signals
> in multiples of 40MHz, also one of the PLL loops leveler circuit reads
> a very high voltage which suggests to me low signal input from the UHF
> oscillator.
>
> Any ideas out there would be appreciated.
>

The previous message was sent incomplete by mistake - mouse
trouble.

To check for RF level at 1440 MHz you could use a radio scanner
that works at the frequency. Should produce a very strong response if
connected direct and a weak one if picked up on the antenna at close
range. Also a good frequency counter should lock on 20 mV, better
check the specs first.

Lots of luck!

Regards, Phil

4888. Help Needed w/ RDF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 10:52:58 UTC
From: "James L. Marino" <jmarino1@inreachDONTSPAM.com>
Message-ID: <3B80EC0A.15DA4D60@inreachDONTSPAM.com>
Source record: 50885

Gents,

I'm an amateur rocketeer, and need to set up a radio
tracking device for locating high power rockets. I have a scanner and 70
cm yagi that work great on FM. Unfortunately, I'm having trouble finding
a small transmitter module to suit my needs. The US distributor for
Radiometrix has a minimum order for their modules, and I just have no
need for 100 or more transmitters. I've found a Canadian company that
has transmitters, but they say that their modules employ "ASK"
modulation, instead of FM. Can someone enlighten me about this? What is
"ASK"? Will I be able to receive and track the signal from this xmtr
with my FM scanner? These are 8 mW, postage stamp sized modules, and
would be great for my needs, if I can receive the signals.
Does anyone know of a source of Radiometrix TX2 modules,
that doesn't require a minimum order? I could use a half dozen of them.
Thanks in advance for any and all help.

James
remove the obvious for e-mail addy

4889. Re: Help Needed w/ RDF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 11:19:39 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <pX6g7.16882$0L6.2588216@news2-win.server.ntlworld.com>
Source record: 50886

> I'm an amateur rocketeer, and need to set up a radio
> tracking device for locating high power rockets. I have a scanner and 70
> cm yagi that work great on FM. Unfortunately, I'm having trouble finding
> a small transmitter module to suit my needs. The US distributor for
> Radiometrix has a minimum order for their modules, and I just have no
> need for 100 or more transmitters. I've found a Canadian company that
> has transmitters, but they say that their modules employ "ASK"
> modulation, instead of FM. Can someone enlighten me about this? What is
> "ASK"? Will I be able to receive and track the signal from this xmtr
> with my FM scanner? These are 8 mW, postage stamp sized modules, and
> would be great for my needs, if I can receive the signals.
> Does anyone know of a source of Radiometrix TX2 modules,
> that doesn't require a minimum order? I could use a half dozen of them.
> Thanks in advance for any and all help.
==========
ASK = Audio Shift Keying ,which signifies the type of modulation , not
necessarily the mode of RF transmission.

Packet radio on VHF is usually FM transmission with ASK 1200 Baud (1200
& 2200 Hz)

Suggest you go back to the potential supplier and enquire about the mode of
RF transmission .

If FM your are in business and probably be able to use a Packet TNC on the
rx side .

4890. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 15:51:05 UTC
From: dhuster@pb.k12.mo.us
Message-ID: <c16e2cad.0108200751.137f62f5@posting.google.com>
Source record: 50887
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

It may not be the most accurate method, but you could use a communications receiver that has an "S" meter and compare the output at a lower frequency that can be accurately measured by the scope (say, 150 MHz) and then at the frequency of interest.

An RF millivoltmeter (Hewlett-Packard and Millivac are both excellent brands and you may be able to find working models on ebay) is the instrument of choice for measuring voltages at extended frequencies and are much less expensive and much easier to operate than a spectrum analyzer.

I believe that the hp 410x series of multimeters are capable of working at least into the upper hundreds of MHz, but like the RF probe idea, your 20 mv may be too low for a decent meter swing anyway.

Dean

4891. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 17:08:40 UTC
From: AA1LL <nospam@newsranger.com>
Message-ID: <subg7.8045$2u.58281@www.newsranger.com>
Source record: 50888
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

In article <3b806645.79383@news.sprint.ca>, Larry Gagnon says...
>
>I am currently attempting to repair a faulty Wavetek 3001 signal
>generator. I believe one problem may be low UHF (1440MHz) oscillator
>output. I need to be able to measure this 1440MHz signal, which is
>supposed to be a 20mV P-P signal. However, I have a scope with a
>bandwidth of only 275MHz.....

Hi, Larry,
If you need this very badly, you probably have by now found a way
to get the proper test equipment; otherwise try this method of
frequency measurement:

Set up a pair of "Lecher wires" which is a length of transmission
line with a sample of the signal you're trying to measure on it
as a standing wave. At 1440MHz the wavelength is about 8 inches
so you could take a piece of TV twin lead about 2 feet long, shorted
on one end and excite the other end (unbalanced) by coupling one side to
your signal and the other to ground. Now the problem is detecting
the signal but I think a Schottkey diode detector connected to
a sensitive DVM or even 100uA meter would allow you to detect
the RF on the line. Knowing the distance between standing wave
voltage nulls on the transmission line and the wave velocity (with 300
ohm twin lead, v=.85c=10.0in/nS) you can calculate the
frequency because the distance is a half-wavelength:
f[GHz]=5.0/D[in.]. So if the spacing between voltage minima
is 3.58inches, for example, the frequency is 1.40GHz. Using bare
wire in air dielectric would give you better accuracy because the
velocity is known better (11.8inches/ns).

73, Paul, AA1LL
Mason, NH
http://www.qsl.net/aa1ll

4892. FS: Kenwood TS-50 HF rig & AT-50 Antenna Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 18:03:09 UTC
From: Greg <love_in_tx@hotmail.com>
Message-ID: <xhcg7.57764$MC1.19675835@news1.elcjn1.sdca.home.com>
Source record: 50889

I am selling my TS-50 and AT-50 witch bouth on a scale from (1) to (10) they are a (9 1/2) They have never been mobil and I am a none smoker as well so they are VERY CLEAN !... I am asking $700.00 OBO The wife
said I must sell them I want my new Rig, I hate to do it but thay must go :o(Email me bugabass@home.net if you would like to see a pic if the units.

73

4893. Re: Anybody has a schematic for MRF238?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 18:29:59 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9lrkv7$9nc$2@woodrow.ucdavis.edu>
Source record: 50890

The Ramsey 2 meter amplifier kit uses an MRF-238 with inductors you make per the kit. This kit lends itself to experimentation quite nice. I've already done it myself.

Real world, about 4-5 watts in gets about 30 to 37 out, don't forget to add some type of filter on the output.

cheers
skipp

: Anders <anders.gavner@removethis.swipnet.se> wrote:
: Hi!

: Does anybody have a good schematic on a class C amplifier for the MRF238 to
: yield about 10 dB of amplification in the 100Mhz range? I have tried one
: without success (did
: only achieve 12W out with 3W in).

: kind regards

: Anders

4894. Re: GE MASR II

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 18:32:15 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B8157AF.56587C64@dialpoint.net>
Source record: 50893

I usually don't like to give this kind of advice but the unit uses
several ICs made just for GE. It is probably beter to find another
receiver or more likely a whole transceiver and jsut swap out the bad
board. They can usually be found for around $ 50 .

J Mull1997 wrote:
>
> Have a GE Mastr II that has been converted over to 6 meters....Transmits
> good,but will not receive....Was told the squelch board is bad....A resistor
> next to the coil on the board gets hot on one end where it is soldered when the
> squech is on.. When squelch is silent,seems to be ok.....Have resoldered and
> checked resistor but no luck..Any ideas? Thanks.. Jim

4895. Re: using RF modules to trip several momentary switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 18:36:30 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9lrlbd$9nc$3@woodrow.ucdavis.edu>
Source record: 50891

All the work has been done for you... try the x10 modules and parts.

probably www.x10.com

cheers
skipp
http://sonic.ucdavis.edu

: Chris <mvanhuss@intelos.net> wrote:
: Is there someplace to go (web or book) to get information about how to
: use rf modules in simple designs? I would like to use one
: transmitters to activate a number of receivers. Press a buttons and
: several lights go on. The lights have a momentary switch that turns
: them on.

: Thanks.

: Chris

4896. Re: Need info on artificial center tap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 18:44:19 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9lrlq3$9nc$4@woodrow.ucdavis.edu>
Source record: 50892

Hi Jim,

Two ways to solve your problem, both work. I saw the replies from the other guys, looks like they didn't key into the work filament winding. So I'll assume your working on some type of rf amplifier project.

Yeah, the 33 ohm resistors work, but the value is kind of high. Many projects like the classic single 811a amplifier shown in the ARRL Handbook of years past use lower value resistors like 10 or 25 ohms. All you have is a bit of wasted heat if your filament transformer can take the slight additional resistor load.

The better and second way to do what you want is to simply parallel another lighter duty xmfr that has a working ct. Then use the second xmfr CT for your required connection and your set. I put an NE-2 type ac indicator on the second xmfr primary just to show it's on, working and life is good.

There's a design problem with amplifiers like the SB-200 where a glitch can hose the transformer by feeding near 200 VDC back through the filament. This is sourced by the TR relay supply and can be "fixed/prevented" with a simple mod.

Hope that helps
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: Jim DiMauro <jfd@warwick.net> wrote:
: I have a power supply with a damaged xfmr: the center tap seems no longer to
: be connected internally due to overheating. Otherwise, the HV winding is
: OK. I have a construction article where the author needed a center-tapped
: filament winding for his project, but the particulat xfmr he had wasn't
: center-tapped. He made an artificial center tap by putting a resistor to
: ground from each side of the winding (in this case he used 33 ohm, 1 watt
: resistors on a 6.3 volt 8 amp winding). I'd like to do the same for my
: damaged xfmr, but I don't know how to calculate the value of the resistors.
: Can anyone out there help?

: Thanx.

4897. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 20:43:13 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9lrsjipvf1@wanadoo.fr>
Source record: 50894
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

And here my paper with the description of a Smeter for the satellite receivers :

http://perso.wanadoo.fr/jf.fourcadier/television/Smetre/Smetre_e.htm

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM> a &#65533;crit dans le message news: 9lq8io$6g4$1@wanadoo.fr...
The right way is to measure RF levels is to use a spectrum analyzer. I suppose you don't have access to such as equipment and I don't think a 275 MHz scope can be very useful.

A 20 mV level is probably too low to get a suitable indication with a standard RF diode and a meter.

As very low cost, L band, selective voltmeter, maybe you could try to use a standard satellite receiver, which has a suitable range (950 MHz-2100 MHz). Don't forget to disable the DC component at the input of the receiver (remote power supply of the LNB) to avoid big problems ! The input impedance is 75 ohms. I hope you don't need a higher impedance input !
I have published a project to evaluate the relative RF levels with this kind of equipment :
http://perso.wanadoo.fr/jf.fourcadier/television/Smetre/Smetre.htm
(sorry still in french, but will be translated in the next few days)

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Larry Gagnon" <lagagnon@fakesprint.ca> a &#65533;crit dans le message news: 3b806645.79383@news.sprint.ca...
I am currently attempting to repair a faulty Wavetek 3001 signal generator. I believe one problem may be low UHF (1440MHz) oscillator output. I need to be able to measure this 1440MHz signal, which is supposed to be a 20mV P-P signal. However, I have a scope with a bandwidth of only 275MHz. On the scope I do see a signal there, but very low signal strength and a distorted waveform. I don't trust what

I'm seeing on the scope due to bandwidth restrictions of the scope. Is there any other way of getting a rough idea whether the oscillator is putting out a reasonable signal or not??

I seem to think that the signal might be just OK because the signal generator is working on most frequencies, but does not lock on signals in multiples of 40MHz, also one of the PLL loops leveler circuit reads a very high voltage which suggests to me low signal input from the UHF oscillator.

Any ideas out there would be appreciated.

Larry Gagnon
****
to send direct email remove "fake" from address

4898. Heath FS HW 101

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 21:54:35 UTC
From: Ron Wicker <ronwick@flash.net>
Message-ID: <vGfg7.1376$S%1.570259590@newssvr16.news.prodigy.com>
Source record: 50895
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

I am trying to clean out the garage. I have two HW 101 transceivers. Both turn on , only one has audio and you can hear the CAL signal. Both appear complete with SSB filters only. All knobs, tubes etc. These could be made to work again. I have a copy of the manual. Will sell the pair for $100.00 plus shipping. No power supply is included. Might consider a trade.
281-291-9226

4899. Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 22:02:25 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B8188F0.A1B80FE0@midwestmicro-tek.com>
Source record: 50896

I'm trying to design a tube receiver and have been looking at a number of designs to get some idea of how to proceed. If you look at the following web site:

http://www.qsl.net/n6ev/57-116S.jpg

You will see an example of a receiver that uses a 5Y3 rectifier. I'm not to familar with this kind of design so my question is, what would the voltage be on either side of the 16h smoothing inductor?

Rick KC0GIX

4900. Vacuum Variables Price?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 23:14:36 UTC
From: w4la@aol.com
Message-ID: <20010820191436.06451.00004398@mb-fc.aol.com>
Source record: 50797

I have three Jennings vac. variables that I have no idea what they are worth today. Any help before I advertise them will be appreciated

CVDD 100 7,500 volts
CVDA 100 7,500 volts
UCLS 465 5,000 volts max cap; 10,000 volts min. cap.

Please e-mail w4la@aol.com or leave message here.

Regards,

Todd Salyards
w4la@aol.com
Newton, NC 28658

4901. Re: Heath FS HW 101

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-20 23:21:44 UTC
From: TooManyTubes <kb8tl@yahoo.com>
Message-ID: <to36t5n98qso4b@corp.supernews.com>
Source record: 50798
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

Where are you located?
Bob
kb8tl@yahoo.com

"Ron Wicker" <ronwick@flash.net> wrote in message
news:vGfg7.1376$S%1.570259590@newssvr16.news.prodigy.com...
> I am trying to clean out the garage. I have two HW 101 transceivers.
Both
> turn on , only one has audio and you can hear the CAL signal. Both appear
> complete with SSB filters only. All knobs, tubes etc. These could be
made
> to work again. I have a copy of the manual. Will sell the pair for
$100.00
> plus shipping. No power supply is included. Might consider a trade.
> 281-291-9226
>
>

4902. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 00:05:04 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <ZChg7.230$Jd4.58662951@news.inreach.com>
Source record: 50799

Rick:

On a capacitor or choke input filter run without much load, the output voltage will approach the sine wave peak voltage = 1.414 times the RMS secondary voltage. In this case, with 240 volts RMS on either side of center tap, the rectified and filtered DC voltage will be close to 340 volts with no load.

In practice the audio section will be conducting and placing a load on the power supply so the internal resistance of the 5Y3 and the choke will drop the voltage somewhat.

I notice that in the design you found the full HV DC voltage will be on the headphones you place over your ears...I hope you use a well insulated set of phones.

73,

Roger K6XQ

4903. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 00:22:58 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <CRhg7.57293$ZV5.8526213@news02.optonline.net>
Source record: 50800

Hi Rick,

There should be about 300 volts on the input side and about 280 volts on the output side of the choke. A lot depends on the DC resistance of the choke.

Bob
KB8TQ

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message news:3B8188F0.A1B80FE0@midwestmicro-tek.com...
> I'm trying to design a tube receiver and have been looking at a number
> of designs to get some idea of how to proceed. If you look at the
> following web site:
>
> http://www.qsl.net/n6ev/57-116S.jpg
>
> You will see an example of a receiver that uses a 5Y3 rectifier. I'm not
> to familar with this kind of design so my question is, what would the
> voltage be on either side of the 16h smoothing inductor?
>
> Rick KC0GIX
>

4904. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 00:24:53 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B81AA55.4407AC12@world.std.com>
Source record: 50801

Rick,

I am just now looking at a Fender guitar amplifier schematic, I don't know the value of the inductor there, but it shows 2 volts across the inductor.

Why is this a concern?

Clyde KA1CRV

Rick Haub wrote:

> I'm trying to design a tube receiver and have been looking at a number
> of designs to get some idea of how to proceed. If you look at the
> following web site:
>
> http://www.qsl.net/n6ev/57-116S.jpg
>
> You will see an example of a receiver that uses a 5Y3 rectifier. I'm not
> to familar with this kind of design so my question is, what would the
> voltage be on either side of the 16h smoothing inductor?
>
> Rick KC0GIX

4905. have another tube question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 01:25:34 UTC
From: leeann tweeden <leeanntweeden@MailAndNews.com>
Message-ID: <3B9ACDF9@MailAndNews.com>
Source record: 50802

I know someone who has some older tubes for sale that are supposedly good. The particular tube in question is a 01A, and while the filament checks out, well it checked out at 3 ohms depending on how I held my meter leads on it, at
least it is not open. I had no way to check the conductance???. Anyhow, this guy says it was checked out several yrs ago and I want to believe him but while examining the tube I could hear a tinkling sound like there was broken glass in the base, it sounded like a lightbulb with a broken filament does when you roll it around. I did not shake or rattle the tube but you can hold it on its side and roll it over and hear the noise.

The getter pretty much covers most of the glass but I could see in well enough
to tell that nothing in rolling around or broken in the envelope, the noise is
definetly in the base.

Do some old tubes rattle like this or has the envelope been compromised???

Are there any ways I can check this tube??? I am planning on using it as a detector but dont want to throw a circuit together just to check this, can I rig something up with more modern components to check the tube???

Hope I am not a bother, I got this tube/20,s radio bug and may have though I am learning, and spending money, I still have a ways to go

thanks in advance for all replies

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4906. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 01:32:42 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <43e3otgnn34nd3q6ooif2fvruh0scd92bg@4ax.com>
Source record: 50803

On Mon, 20 Aug 2001 17:02:25 -0500, Rick Haub
<rhaub@midwestmicro-tek.com> wrote:

>I'm trying to design a tube receiver and have been looking at a number
>of designs to get some idea of how to proceed. If you look at the
>following web site:
>
>http://www.qsl.net/n6ev/57-116S.jpg
>
>You will see an example of a receiver that uses a 5Y3 rectifier. I'm not
>to familar with this kind of design so my question is, what would the
>voltage be on either side of the 16h smoothing inductor?
>
>Rick KC0GIX

Assuming you mean the DC voltage, it should nearly equal to the peak AC
of each half of the secondary. IOW, about 1.414xRMS or 340 volts DC.
There is always some loss in the resistance of the tube and the
resistance of the winding, so the actual value will be a few volts less,
perhaps around 320-330.

There will be a small drop through the inductor depending on current and
winding resistance, so the output side will have a little less voltage
than the input side. Ohms law will help you figure that one out.

What you have here is known as a capacitor-input filter. If you remove
the right-hand 40 uF capacitor, you would have a choke-input filter and
the DC voltage would be less and also the filtering not quite as good.
There are other trade-offs with capacitor vs choke input; the ARRL
handbook would be a good place to get some more information.

73, Bill W7TI

4907. phase inverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 02:09:52 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <20010820.220904.726955963.16203@source.homelan.org>
Source record: 50805

Hello all,

I need to produce 180 degree phase shift from a tube vfo at hf. My understanding is that there is a 180 degree phase shift across a coil. Does the coil need to be resonant, or will just a couple of turns do the trick? The VFO will operate from about 2-4 mhz, so I need something kind of broadband. Any ideas?

Thanks,

Larry Braden

4908. Re: have another tube question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 02:10:38 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <jjg3otctqhrt81f7tta1leg900q2j7ulh8@4ax.com>
Source record: 50806

On Mon, 20 Aug 2001 21:25:34 -0400, leeann tweeden
<leeanntweeden@MailAndNews.com> wrote:

>Do some old tubes rattle like this or has the envelope been compromised???

I have seen that very same condition on a perfectly good tube. I
suspect a piece of the glue which bonds the glass to the base has come
loose. As for the vacuum, when it is lost the getter "flash" area on
the side of the glass will turn from shiny black to a whitish gray. If
you like, take an old defective tube and break the glass. You'll see
the change in a few seconds.

The best test though, is while powered up.

73, Bill W7TI

4909. Re: have another tube question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 02:12:17 UTC
From: exray <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B81C381.AD6BE8EB@coqui.net>
Source record: 50804

leeann tweeden wrote:
>
> I know someone who has some older tubes for sale that are supposedly good.
> The particular tube in question is a 01A, and while the filament checks out,
> well it checked out at 3 ohms depending on how I held my meter leads on it,
> at
> least it is not open.

Open filaments are a very common failure with '01As, so you've narrowed
the odds. As far as transconductance, its rare to find a used 01A that
would test at original specs, but old TRF sets are very forgiving of
weak tubes. Unless the seller is willing to guarantee them, the price
ought to reflect 'as-is' condition. I have many with little chunks
tinkling around inside and they are fine, so you can't assume that they
are gassy judging by that.
Best way to test if you can't locate somebody with a tester that will do
them is simply to try them in the set.
Good luck,

--
Bill M
Vieques, PR

4910. Re: phase inverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 03:19:40 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <_lkg7.2983$zk4.238065@e3500-atl1.usenetserver.com>
Source record: 50807

If you need two outputs 180 degrees apart, a relatively simple method is to use a "phase splitter" circuit, which is basically an active device (bjt/fet/triode) with equal load resistances on the cathode and plate (or emitter/collector or source/drain) with the outputs taken at the cathode and plate.

If you merely need to reverse the phase (180 degree phase shift), a common cathode (emitter, source) circuit will provide the required reversal.

Find an ARRL Handbook.

73
Rory N7CR

"Larry Braden" <lbraden@home.com> wrote in message
> Hello all,
>
> I need to produce 180 degree phase shift from a tube vfo at hf. My
> understanding is that there is a 180 degree phase shift across a coil.
> Does the coil need to be resonant, or will just a couple of turns do the
> trick? The VFO will operate from about 2-4 mhz, so I need something kind
> of broadband. Any ideas?
>
> Thanks,
>
> Larry Braden

4911. Re: 70cm preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 04:02:24 UTC
From: pmunsel@aol.com
Message-ID: <20010821000224.04965.00000128@mb-fe.aol.com>
Source record: 50808

Go to www.6mt.com as they have a lot of info for VHF.UHF there. They have schematics, scans of old owners manuals etc. Most is in .zip format, so it is a quick download. Also a fine group for 6 meter ops and info.
73,
Paul N5XMV

4912. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 06:23:23 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <5lDkG3Ab5fg7EAxL@ifwtech.com>
Source record: 50810

Rick Haub wrote:
>I'm trying to design a tube receiver and have been looking at a number
>of designs to get some idea of how to proceed. If you look at the
>following web site:
>
>http://www.qsl.net/n6ev/57-116S.jpg
>
>You will see an example of a receiver that uses a 5Y3 rectifier. I'm not
>to familar with this kind of design so my question is, what would the
>voltage be on either side of the 16h smoothing inductor?

Go to http://www.duncanamps.com/psud2/download.html and download the PSU Designer program. It will help you design and analyse *all* kinds of transformer-rectifier-smoothing power supplies, including ones with tube rectifiers. Highly recommended!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

4913. Re: measuring 1440MHz signal with 275MHz scope?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 06:35:54 UTC
From: Tom Twist <tom@twist.no>
Message-ID: <f104otgcj0k14aqgmvijmkov1jq6f8j5sr@4ax.com>
Source record: 50809
Cross-posted to: sci.electronics.basics,rec.radio.amateur.homebrew

On Mon, 20 Aug 2001 01:32:48 GMT, lagagnon@fakesprint.ca (Larry
Gagnon) wrote:

>I am currently attempting to repair a faulty Wavetek 3001 signal
>generator. I believe one problem may be low UHF (1440MHz) oscillator
>output. I need to be able to measure this 1440MHz signal, which is
>supposed to be a 20mV P-P signal. However, I have a scope with a
>bandwidth of only 275MHz. On the scope I do see a signal there, but
>very low signal strength and a distorted waveform. I don't trust what
>I'm seeing on the scope due to bandwidth restrictions of the scope. Is
>there any other way of getting a rough idea whether the oscillator is
>putting out a reasonable signal or not??
>
>I seem to think that the signal might be just OK because the signal
>generator is working on most frequencies, but does not lock on signals
>in multiples of 40MHz, also one of the PLL loops leveler circuit reads
>a very high voltage which suggests to me low signal input from the UHF
>oscillator.
>
>Any ideas out there would be appreciated.

Larry

Have you checked the power supply?

Only yesterday, I had a Wavetek 3001 with no lock, and the low PLL
LED indicating an error. It turned out to be a fault in the 2K trim
potentiometer on the PSU board. You can check the 7.3V ounput on the
back connector.

Good luck

Tom

Email: tom@twist.no (ttwist@online.no, lb8x@qsl.net)
Phone: +47 35972928/90662366, Ham call sign: LB8X Locator: JO49UA
Snail: Tom Twist, Kirkeveien 8A, N3970 Langesund, Norway

4914. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 10:04:08 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B82324C.C4CAA88@earthlink.net>
Source record: 50811

Roger et. al---

> On a capacitor or choke input filter run without much load, the output
> voltage will approach the sine wave peak voltage = 1.414 times the RMS
> secondary voltage. In this case, with 240 volts RMS on either side of
> center tap, the rectified and filtered DC voltage will be close to 340
> volts with no load.

Okay---but what I don't quite understand is how you find a rectified 240VRMS sinewave on the filament/cathode. Could someone clue me in on how this works? Also---would you use a simple resistor divider for the LVDC (if LVDC is needed) supply?

Thanks,

Henry C. Gernhardt, III
KE4PIB

4915. Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 11:17:54 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b824230$0$2880$44c9b20d@news3.asahi-net.or.jp>
Source record: 50812

Hi folks

I would really appreciate it if someone could explain how to identify a "hot carrier diode". I have a library that would make many hams proud [but no real joy in answering my inquiry there!] and I get blank stares here in Japan when I ask for "Hotto-KalliA-DaiO-do". I'm pretty sure that: it's a Schottky; a popular choice for mixers; usually good up to UHF[?]; but is it some *particular* type of beast? What is the significance of the name?

I DID get 1SS98's and 1SS99's when I went thru the whole spiel of attempting to explain what I needed...The guy who sold them to me was the only person I spoke to here who had ever HEARD of NE602 mixer ICs...he even had an empty parts drawer labelled NE602, but reckons they're like hen's teeth...no new stock expected, ever...

When I checked the part numbers on NTE, they were described as "small-signal silicon Schottkys". That's nice, I guess, but I already had some of THOSE in the junk box...same fwd current rating, too...

I almost feel like giving-up the home-brewing...or AT LEAST switching to BEER!

I'd love to hear from anyone who can explain this, or can put me on the path to wisdom.

Cheers
Adam

4916. LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 13:06:08 UTC
From: Curtis Scholl <cscholl@izzy.net>
Message-ID: <3B825CC0.8FD0A782@izzy.net>
Source record: 50813

Hi Group

Anyone out there know the lowest temperature an LCD display can be exposed to without freezing up and cracking? I have a transmitter I have to use in cold Michigan winters and OUTSIDE to boot.

Curtis Scholl
KG8SU
cscholl@izzy.net

4917. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 14:05:14 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b826a2d$0$2300$44c9b20d@news3.asahi-net.or.jp>
Source record: 50814

Hi Curtis

In my (limited) experience, the LCD will fare at least as well as your battery in extreme cold...this is based on those "weather-proof" film cameras I've ***tried*** to use in sub-zero conditions...the cameras worked just fine again after 10-15min indoors...I could've got the shots I wanted thru "guesstimation" [no light meter] if I'd lugged one of the old "manual" cameras with me. YMMV...

It's just a thought...

Cheers
Adam

"Curtis Scholl" <cscholl@izzy.net> wrote in message
news:3B825CC0.8FD0A782@izzy.net...
> Hi Group
>
> Anyone out there know the lowest temperature an LCD display can be
> exposed to without freezing up and cracking? I have a transmitter I have
> to use in cold Michigan winters and OUTSIDE to boot.
>
> Curtis Scholl
> KG8SU
> cscholl@izzy.net

4918. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 14:36:11 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <riug7.30070$p4.596800@e420r-sjo3.usenetserver.com>
Source record: 50815

"Curtis Scholl" <cscholl@izzy.net> wrote ...
> Anyone out there know the lowest temperature an
> LCD display can be exposed to without freezing up
> and cracking? I have a transmitter I have to use in
> cold Michigan winters and OUTSIDE to boot.

I've heard of designers putting resistive heating devices just behind the LCD panel to allow use in very cold environments. Of course that would eat up battery life for portable use.

You could always sew a pocket in the case for one of those chemical handwarmer packets to lay against the LCD panel when you're not looking at it?

RC

4919. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 14:39:06 UTC
From: CJ <cjr@visi.com>
Message-ID: <3B82728A.D62543EF@visi.com>
Source record: 50816

Henry Gernhardt/Andrea Winship wrote:
>
> Roger et. al---
>
> > On a capacitor or choke input filter run without much load, the output
> > voltage will approach the sine wave peak voltage = 1.414 times the RMS
> > secondary voltage. In this case, with 240 volts RMS on either side of
> > center tap, the rectified and filtered DC voltage will be close to 340
> > volts with no load.
>
> Okay---but what I don't quite understand is how you find a rectified
> 240VRMS sinewave on the filament/cathode. Could someone clue me in on
> how this works? Also---would you use a simple resistor divider for the
> LVDC (if LVDC is needed) supply?
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

I think I understand your question. The 5Y3 rectifier is a double diode. The filament/cathode is the common cathode and the plates are the anodes. Current can flow only one way through the diodes. The waveform at the cathode is not 240v RMS sinewave but rather rectified AC pulses with a peak amplitude of about 240 x 1.4 volts. You can redraw the circuit (and in fact rewire it) with two solid state diodes with their cathodes connected together and their anodes connected to the transformer windings. Current can flow only when the diodes are forward biased. i.e. when the anode is more positive than the cathode. As the AC changes polarity first one and then the other diode will conduct. Does this help?

73, CJ K0CJ

4920. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 14:42:15 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b826f4c.321192939@news.triconet.org>
Source record: 50817

On Tue, 21 Aug 2001 10:04:08 GMT, Henry Gernhardt/Andrea Winship
<hcg_alw@earthlink.net> wrote:

>Roger et. al---
>
>> On a capacitor or choke input filter run without much load, the output
>> voltage will approach the sine wave peak voltage = 1.414 times the RMS
>> secondary voltage. In this case, with 240 volts RMS on either side of
>> center tap, the rectified and filtered DC voltage will be close to 340
>> volts with no load.
>
>Okay---but what I don't quite understand is how you find a rectified
>240VRMS sinewave on the filament/cathode. Could someone clue me in on
>how this works? Also---would you use a simple resistor divider for the
>LVDC (if LVDC is needed) supply?

I'm not sure why you are puzzled but look at it this way.

The tube rectifier is just like having two solid-state diodes connected cathode to cathode. Maybe you're having trouble with the fact that the rectifier filament *is* the cathode. The filament supply (5 VAC) is floating with respect to ground so the voltage on the filament is simply the peak value of the half of the secondary voltage less resistive losses and the more-or-less constant drop across the tube.

Lower voltage DC can be obtained from a resistive divider with all of the attendent problems of resistive dividers: poor efficiency, poor regulation, etc.

Wes Stewart, N7WS

4921. Re: 70cm preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 15:27:52 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108210727.219348ad@posting.google.com>
Source record: 50818

pmunsel@aol.com (PMunsel) wrote in message
news:<20010821000224.04965.00000128@mb-fe.aol.com>...

> Go to www.6mt.com as they have a lot of info for VHF.UHF there. They have

> schematics, scans of old owners manuals etc. Most is in .zip format, so it is a

> quick download. Also a fine group for 6 meter ops and info.

Much of the stuff there is pretty antiquated. The
preamp designs, in particular, are obsolete. If
that's all you want, save the hassle and use a MAR 6
instead.

A better bet might be the N6CA MGF1402 design reproduced
in various ARRL books.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4922. Do Not Read: TEST_layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 16:54:20 UTC
From: xganon <nobody@xganon.com>
Message-ID: <51a2ac95179ad039419778d212959fb4@xganon.com>
Source record: 50821

3033710845

This post was anonymized at http://www.xganon.com
Come visit the newest xganon server http://www.xganon.org providing
rights and freedom related news.

4923. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 17:08:46 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108210908.75be8e28@posting.google.com>
Source record: 50819

"Curtis Scholl" <cscholl@izzy.net> wrote ...

> Anyone out there know the lowest temperature an

> LCD display can be exposed to without freezing up

> and cracking? I have a transmitter I have to use in

> cold Michigan winters and OUTSIDE to boot.

Room temperature units are rated 0 to 50 degrees
operating, -20 to 70 degrees storage.

Extended temperature units (negative LCD bias) are
rated -20 to 70 degrees operating, -30 to 80 degrees
storage.

Just how cold do Michigan winters get? Anybody outside
in -30 degree weather probably has other concerns...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4924. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 17:32:12 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9lu5q1$r2n$1@plutonium.btinternet.com>
Source record: 50820

"Adam Weber" <adam@home.email.ne.jp> wrote in message
news:3b824230$0$2880$44c9b20d@news3.asahi-net.or.jp...
> Hi folks
>
> I would really appreciate it if someone could explain how to identify a
"hot
> carrier diode". I have a library that would make many hams proud [but no
> real joy in answering my inquiry there!] and I get blank stares here in
> Japan when I ask for "Hotto-KalliA-DaiO-do". I'm pretty sure that: it's a
> Schottky; a popular choice for mixers; usually good up to UHF[?]; but is
it
> some *particular* type of beast? What is the significance of the name?
>
> I DID get 1SS98's and 1SS99's when I went thru the whole spiel of
attempting
> to explain what I needed...The guy who sold them to me was the only person
I
> spoke to here who had ever HEARD of NE602 mixer ICs...he even had an empty
> parts drawer labelled NE602, but reckons they're like hen's teeth...no new
> stock expected, ever...
>
> When I checked the part numbers on NTE, they were described as
"small-signal
> silicon Schottkys". That's nice, I guess, but I already had some of THOSE
in
> the junk box...same fwd current rating, too...
>
> I almost feel like giving-up the home-brewing...or AT LEAST switching to
> BEER!
>
> I'd love to hear from anyone who can explain this, or can put me on the
path
> to wisdom.

Schottky and hot-carrier diodes are the same thing. 'Hot carrier' refers to
the conduction by majority carrier, giving high speed.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

4925. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 18:19:12 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <6115otk4rgaus4ivodcit0gco95jma9ef2@4ax.com>
Source record: 50822

On Tue, 21 Aug 2001 10:04:08 GMT, Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:

>Okay---but what I don't quite understand is how you find a rectified >240VRMS sinewave on the filament/cathode. Could someone clue me in on >how this works?

Current will flow only from ground, through the radio circuit, to the filament and then to the plate, not vice versa. Thus at the filament, you have only a positive voltage - DC.

BTW, if you are new at this kind of thing, you might be confused by people who believe that current flows from positive to negative. It doesn't, but some folks were taught that in error and they are quite persistent about it. Just ask them to explain conduction in a vacuum tube and you'll see they can't. The original mistake about current flow was made by Benjamin Franklin and has continued ever since.

Not trying to start a flame war over this, but I've been down this road any number of times and it never ceases to amaze me.

Bill, W7TI

4926. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 18:25:01 UTC
From: Curtis Scholl <cscholl@izzy.net>
Message-ID: <3B82A77D.B6C32233@izzy.net>
Source record: 50823

Laura:

Probably not a cold as yours get. We are at 42 N versus your 49 N.

I have yet to see minus numbers Fahrenheit. We are launching rockets
in farm fields in 0 to 20 degree weather. Clear and cold. I was curious
if my Broadcast Warehouse FM transmitter was going to crack a display in
the
field. I would assume a room temperature unit is applicable to the
installation I have.

If 0 to 50 degrees is in Centigrade/Celsius then I am in trouble. I
will have to keep the unit above freezing.

If 0 to 50 degrees is in Fahrenheit then I am ok.

Which unit of measure is it?

Thanks

Curtis Scholl
KG8SU
cscholl@izzy.net

Laura Halliday wrote:
>

> Room temperature units are rated 0 to 50 degrees
> operating, -20 to 70 degrees storage.
>
> Extended temperature units (negative LCD bias) are
> rated -20 to 70 degrees operating, -30 to 80 degrees
> storage.
>
> Just how cold do Michigan winters get? Anybody outside
> in -30 degree weather probably has other concerns...
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4927. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 18:28:43 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <r89ul9.p2d.ln@darkstar.example.net>
Source record: 50824

Adam Weber wrote:

> Hi folks
>
> I would really appreciate it if someone could explain how to identify a
> "hot carrier diode".

AFAIK hot carrier diodes are Schottky mixer diodes. I wonder
if you are making a mixer for HF. I never found any advantage
to using 'proper' Schottky mixer diodes at HF. I usually use
silicon diodes like the 1N4148, 1N914 etc..... It might be
a different story at VHF/UHF.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4928. MRF150 fets

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:20:06 UTC
From: Trevor Waters <trefor@gw4imc.freeserve.co.uk>
Message-ID: <9lubfk$3kp$1@news5.svr.pol.co.uk>
Source record: 50825

I am seeking used MRF150 mosfets, if anyone can help would you kindly drop me a mail at trevwaters@yahoo.com and we can discuss price etc.
regards gw4imc

4929. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:21:23 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B82B4B3.35B967B@midwestmicro-tek.com>
Source record: 50827

Thanks, Guys

I too had always wondered how that worked. Now that you have pointed out the floating 5volts I can hit myself on my forehead and see how easy it really is to understand how the current flow works.

Rick KC0GIX

Wes Stewart wrote:

> On Tue, 21 Aug 2001 10:04:08 GMT, Henry Gernhardt/Andrea Winship
> <hcg_alw@earthlink.net> wrote:
>
> >Roger et. al---
> >
> >> On a capacitor or choke input filter run without much load, the output
> >> voltage will approach the sine wave peak voltage = 1.414 times the RMS
> >> secondary voltage. In this case, with 240 volts RMS on either side of
> >> center tap, the rectified and filtered DC voltage will be close to 340
> >> volts with no load.
> >
> >Okay---but what I don't quite understand is how you find a rectified
> >240VRMS sinewave on the filament/cathode. Could someone clue me in on
> >how this works? Also---would you use a simple resistor divider for the
> >LVDC (if LVDC is needed) supply?
>
> I'm not sure why you are puzzled but look at it this way.
>
> The tube rectifier is just like having two solid-state diodes connected cathode
> to cathode. Maybe you're having trouble with the fact that the rectifier
> filament *is* the cathode. The filament supply (5 VAC) is floating with respect
> to ground so the voltage on the filament is simply the peak value of the half of
> the secondary voltage less resistive losses and the more-or-less constant drop
> across the tube.
>
> Lower voltage DC can be obtained from a resistive divider with all of the
> attendent problems of resistive dividers: poor efficiency, poor regulation, etc.
>
> Wes Stewart, N7WS

4930. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:23:33 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B82B535.A3EA8F0C@midwestmicro-tek.com>
Source record: 50826

Bill Turner wrote:

> On Tue, 21 Aug 2001 10:04:08 GMT, Henry Gernhardt/Andrea Winship
> <hcg_alw@earthlink.net> wrote:
>
> >Okay---but what I don't quite understand is how you find a rectified
> >240VRMS sinewave on the filament/cathode. Could someone clue me in on
> >how this works?
>
> ----------
>
> Current will flow only from ground, through the radio circuit, to the
> filament and then to the plate, not vice versa. Thus at the filament,
> you have only a positive voltage - DC.
>
> BTW, if you are new at this kind of thing, you might be confused by
> people who believe that current flows from positive to negative. It
> doesn't, but some folks were taught that in error and they are quite
> persistent about it. Just ask them to explain conduction in a vacuum
> tube and you'll see they can't. The original mistake about current flow
> was made by Benjamin Franklin and has continued ever since.
>
> Not trying to start a flame war over this, but I've been down this road
> any number of times and it never ceases to amaze me.

I know what you mean, I took my degree in physics where we are taught
negative to positive but I roomed with EE majors who are taught just the
opposite. It made for a few good arguements until we figured out what was
going on.

Rick KC0GIX

>
>
> Bill, W7TI

4931. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:25:33 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B82B5AD.6BF4E494@midwestmicro-tek.com>
Source record: 50828

Clyde R. Shappee wrote:

> Rick,
>
> I am just now looking at a Fender guitar amplifier schematic, I don't know
> the value of the inductor there, but it shows 2 volts across the inductor.
>
> Why is this a concern?
>
> Clyde KA1CRV

Sorry, that may not have been that clear, I mean voltage on each side with
respect to *ground* not voltage across the inductor.

Rick KC0GIX

>
>
> Rick Haub wrote:
>
> > I'm trying to design a tube receiver and have been looking at a number
> > of designs to get some idea of how to proceed. If you look at the
> > following web site:
> >
> > http://www.qsl.net/n6ev/57-116S.jpg
> >
> > You will see an example of a receiver that uses a 5Y3 rectifier. I'm not
> > to familar with this kind of design so my question is, what would the
> > voltage be on either side of the 16h smoothing inductor?
> >
> > Rick KC0GIX

4932. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:51:46 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B82BBD2.4EEF2B2A@midwestmicro-tek.com>
Source record: 50830

Roger Leone wrote:

> Rick:
>
> On a capacitor or choke input filter run without much load, the output
> voltage will approach the sine wave peak voltage = 1.414 times the RMS
> secondary voltage. In this case, with 240 volts RMS on either side of
> center tap, the rectified and filtered DC voltage will be close to 340 volts
> with no load.
>
> In practice the audio section will be conducting and placing a load on the
> power supply so the internal resistance of the 5Y3 and the choke will drop
> the voltage somewhat.
>
> I notice that in the design you found the full HV DC voltage will be on the
> headphones you place over your ears...I hope you use a well insulated set of
> phones.

Yep, I got a similar response from Harold, W4PQW about the earphones. I have a very nice set that I purchased from Fair Radio Sales about 2 years ago. I've used them on a couple of minimal regenerative designs and they worked well. But in this case I've got a couple of old audio transformers that I got from some old BC tube radios that I'll be using. Safer and easier to interface to modern headphones and amplifiers

>
>
> 73,
>
> Roger K6XQ

4933. Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 19:57:36 UTC
From: Ed Terry <jeterry3@pacbell.net>
Message-ID: <h1zg7.891$0l6.75993@news.pacbell.net>
Source record: 50829

Is there some way to clean the trash messages that get dumped into these user groups? Is there no filters that can be set to eliminate the space this stuff takes? If it could just be routed back to the sender, there would be less sending of it.

4934. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 20:31:53 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B82C538.E9CB744F@att.net>
Source record: 50831

Spam senders do only that: SEND.

You can reply and fuss all you want and all that happens is that they
succeed in harvesting yet another valid email address to sell.

Just ignore them . . . that is what the DEL key is for.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Ed Terry wrote:
>
> Is there some way to clean the trash messages that get dumped into these
> user groups? Is there no filters that can be set to eliminate the space
> this stuff takes? If it could just be routed back to the sender, there would
> be less sending of it.

4935. Hi George

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 21:59:40 UTC
From: fletch <fletch@pulse.net>
Message-ID: <3B82D9CC.E710908F@pulse.net>
Source record: 50832

George,

My name is Steve, my call is AB5MM and live south of Greenville, Texas.

I've seen your post in the "homebrew" news section from time to time and thought sense we were so close together, I would drop a line just to say hello.

My wife is a ham also and we both like code. We have a daughter that is 8 years old, but, sorry to say, she has shown no interest in radio what so ever.

Well, I don't want to take up a lot of your time, so see you on the net sometime. Maybe we can compare war stories or RF burns!

73s,

Steve
AB5mm

4936. Help needed - Trio VT-108 FET VOM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 22:50:23 UTC
From: Adrian Dening <G4jbh@btinternet.com>
Message-ID: <9luojk$88j$1@plutonium.btinternet.com>
Source record: 50833

Does anyone have info regarding the Trio VT-108 FET VOM please?

I've recently acquired one, but there is no manual or RF probe.

Any help would be gratefully received - someone out there must have one!

Thank you,

Adrian G4JBH g4jbh@compuserve.com

4937. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 23:02:37 UTC
From: john graesser <graesser@tca.net>
Message-ID: <to5q2k8p6e0o36@corp.supernews.com>
Source record: 50834

"Curtis Scholl" <cscholl@izzy.net> wrote in message
news:3B82A77D.B6C32233@izzy.net...
> Laura:
>
> Probably not a cold as yours get. We are at 42 N versus your 49 N.
>
> I have yet to see minus numbers Fahrenheit. We are launching rockets
> in farm fields in 0 to 20 degree weather. Clear and cold. I was curious
> if my Broadcast Warehouse FM transmitter was going to crack a display in
> the
> field. I would assume a room temperature unit is applicable to the
> installation I have.
>
> If 0 to 50 degrees is in Centigrade/Celsius then I am in trouble. I
> will have to keep the unit above freezing.

It was degrees C, 0 to 50 is 32 to 122 in degrees F. Down here in Texas where the inside of a car in summertime is usually around 150 degrees F the display will go solid purple. Once the AC cools the car down the display will return to normal, with the exception of the areas that are now permanently dark. Where my reletives live in WI they normally get down to -40 F in the Winter with a wind chill down to -70. The radio won't work at those temps at all. My htx-202 will start buzzing below 40 degrees, this is independant of what the battery and display are doing.

If you want to experiment try putting the radio in your freezer, it should be set to about -10 F, it probobly won't work at all, so you won't have to worry about the display not working.
thanks, John.
KC5DWD

4938. Radio Propagation via Diffraction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 23:16:17 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9luq8obgs1@plutonium.btinternet.com>
Source record: 50836

NOW AVAILABLE

Two New Programs "DIFFRAC1.exe & DIFFRAC2.exe"

Radio propagation by diffraction over obstructions.

DIFFRAC1 covers diffraction over one obstruction and DIFFRAC2
covers diffraction over two successive obstructions.

If your QTH is stuck in a hole or in a valley surrounded by
mountains, getting out of it over the tops may not be as difficult
as you think.

Or if you are in the street on one side of a city building block
and you wish to communicate with the other side at 2GHz what power
or antenna gain do you need?

These programs may not be exact but they will put you on the right
track. Who cares about a 6dB uncertainty when the next vehicle
passing by knocks 20 dB off the signal? Or does it put it on ?

Download in a few seconds from website below.

Regards, Reg, G4FGQ
Free Radio Design Software
http://www.g4fgq.com

4939. service manual for trade

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-21 23:21:37 UTC
From: Xu <salers@hamal.freemail.ne.jp>
Message-ID: <9luqbrjfa1@mail.cn99.com>
Source record: 50835

I have some TS930,TS940 and TS440 service manual (copyed)for trad ,
I need TS830, TS690 ,FT-ONE ,FT107 and IC751A service manual.
73! Xu

4940. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 00:46:11 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <usv5ots4svv44ud72md658hn4vb75ee22o@4ax.com>
Source record: 50837

On Tue, 21 Aug 2001 12:57:36 -0700, "Ed Terry" <jeterry3@pacbell.net>
wrote:

>Is there some way to clean the trash messages that get dumped into these
>user groups? Is there no filters that can be set to eliminate the space
>this stuff takes? If it could just be routed back to the sender, there would
>be less sending of it.
>

If you're talking about spam, you can set up your killfile filters to
reject certain subjects containing XXX, $$$ and other commonly used spam
words.

Also, be sure you never, never reply to a spammer telling them to
"remove" you from their mail list. By doing so, you just confirm your
email address and even worse, that you ACTUALLY READ that stuff.

I think spam is gradually diminishing anyway. I don't use the filters
myself and I only get two or three a week. A few years ago it was
dozens.

Hope this helps.

73, Bill W7TI

4941. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 01:12:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B830719.97AE035A@eznec.com>
Source record: 50838

Bill Turner wrote:

> ----------
>
> If you're talking about spam, you can set up your killfile filters to
> reject certain subjects containing XXX, $$$ and other commonly used spam
> words.
>
> Also, be sure you never, never reply to a spammer telling them to
> "remove" you from their mail list. By doing so, you just confirm your
> email address and even worse, that you ACTUALLY READ that stuff.
>
> I think spam is gradually diminishing anyway. I don't use the filters
> myself and I only get two or three a week. A few years ago it was
> dozens.
>
> Hope this helps.
>
> 73, Bill W7TI

Not hardly! It's 6 p.m. and I've received eight so far today, with 10-15 per day being average. These result from having a web site and posting on only a couple of newsgroups. Anyone who thinks spam isn't alive and thriving should drop by news.admin.net-abuse.email.

I emphatically second Bill's admonition to NEVER reply to spam, including a "remove" list, unless you want to dramatically increase the amount of spam you get. As Bill says, its purpose is solely to determine that your address is valid and active. One way to fight back is to make use of SpamCop (http://www.spamcop.net) or a similar service to determine the spam's originating ISP and send a complaint. Conscientious ISPs will shut them down. Spammers just hop from one ISP to another, but being continually shut down makes life rougher for them. I report all spam received.

Roy Lewallen, W7EL

4942. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 01:44:44 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b830d58$0$2883$44c9b20d@news3.asahi-net.or.jp>
Source record: 50839

Hi Eamon

There is total confusion around the place. I've seen the expression "hot carrier, or Schottky diodes" implying that they're all the same beast, in other places that there is some "special kind of Schottky" which is, acts as, or can be used as, a "hot carrier" diode. Needless to say, there is NEVER an explanation of what that is supposed to mean...[People think hams use 'jargon', but there are hundreds of tables of references as to what ham-talk means and, as far as I can tell, it is used consistently...in electronics it's a different story...]

An HF mixer is the goal. I've read the statement that "...you COULD try 1N914's, but...". At another place, there was a very stern prohibition, all capitalised, against even THINKING about 1N914's for a mixer circuit...there are even a few folks who reject the usefulness of diodes for mixers at all. Sure, they might be extremists, but it gives you pause to think, when all the really ***interesting*** receiver projects use IC mixers...

It seems that, at almost every RF stage, I'm going to have to do a LOT more experimenting than I had intended. [Oh well, I've got NO worries about the AF amp section...LOL!]

Thanks very much for the input, Sir.

Cheers
Adam

"Eamon Skelton" <Xnospam@oceanfree.net> wrote in message
news:r89ul9.p2d.ln@darkstar.example.net...
> Adam Weber wrote:
>
> > Hi folks
> >
> > I would really appreciate it if someone could explain how to identify a
> > "hot carrier diode".
>
> AFAIK hot carrier diodes are Schottky mixer diodes. I wonder
> if you are making a mixer for HF. I never found any advantage
> to using 'proper' Schottky mixer diodes at HF. I usually use
> silicon diodes like the 1N4148, 1N914 etc..... It might be
> a different story at VHF/UHF.
>
> 73, Ed. EI9GQ.
>
> --
> Remove 'X' to reply.

> http://homepage.eircom.net/ei9gq
> Linux 2.4.9
>
>

4943. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 02:16:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B8315F9.8AD1D18E@eznec.com>
Source record: 50840

Whatever advantages Shottky diodes might have in mixers, they're not significant at HF in typical mixer use. You won't be able to tell the difference between using Shottkys and 1N914s in an HF mixer, except the necessity to drive the mixer a little harder to turn the silicon diodes on.

Yes, a lot of receiver projects use IC mixers, due either to ignorance or a conscious desire to sacrifice performance in favor of simplicity. Very few IC designs can deliver the signal handling capability of a diode ring mixer.

The term "hot carrier diode" isn't simply ham jargon -- you'll find it in numerous professional publications and texts, although "Shottky diode" seems to have become more common as time goes by. They are exactly the same thing.

I highly recommend Hayward and DeMaw's _Solid State Design for the Radio Amateur_, and Hayward's _Introduction to Radio Frequency Design_ for anyone interested in learning more about receiver design. Both are modestly priced and available from the ARRL. More comprehensive but also a lot more expensive is Rohde, Whitaker, and Bucher's _Communications Receivers_ (McGraw Hill).

Roy Lewallen, W7EL

Adam Weber wrote:
>
> Hi Eamon
>
> There is total confusion around the place. I've seen the expression "hot
> carrier, or Schottky diodes" implying that they're all the same beast, in
> other places that there is some "special kind of Schottky" which is, acts
> as, or can be used as, a "hot carrier" diode. Needless to say, there is
> NEVER an explanation of what that is supposed to mean...[People think hams
> use 'jargon', but there are hundreds of tables of references as to what
> ham-talk means and, as far as I can tell, it is used consistently...in
> electronics it's a different story...]
>
> An HF mixer is the goal. I've read the statement that "...you COULD try
> 1N914's, but...". At another place, there was a very stern prohibition, all
> capitalised, against even THINKING about 1N914's for a mixer circuit...there
> are even a few folks who reject the usefulness of diodes for mixers at all.
> Sure, they might be extremists, but it gives you pause to think, when all
> the really ***interesting*** receiver projects use IC mixers...
>
> It seems that, at almost every RF stage, I'm going to have to do a LOT more

> experimenting than I had intended. [Oh well, I've got NO worries about the
> AF amp section...LOL!]
>
> Thanks very much for the input, Sir.
>
> Cheers
> Adam
>
> "Eamon Skelton" <Xnospam@oceanfree.net> wrote in message
> news:r89ul9.p2d.ln@darkstar.example.net...
> > Adam Weber wrote:
> >
> > > Hi folks
> > >
> > > I would really appreciate it if someone could explain how to identify a
> > > "hot carrier diode".
> >
> > AFAIK hot carrier diodes are Schottky mixer diodes. I wonder
> > if you are making a mixer for HF. I never found any advantage
> > to using 'proper' Schottky mixer diodes at HF. I usually use
> > silicon diodes like the 1N4148, 1N914 etc..... It might be
> > a different story at VHF/UHF.
> >
> > 73, Ed. EI9GQ.
> >
> > --
> > Remove 'X' to reply.
> > http://homepage.eircom.net/ei9gq
> > Linux 2.4.9
> >
> >

4944. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 02:28:41 UTC
From: Jim Pennell <No-Spam@killspam.com>
Message-ID: <9lv5erpib1@slb7.atl.mindspring.net>
Source record: 50841

Hi Adam.

Generally speaking, the 'hot carrier' or Schottky diode are indeed one and the same part.

Due to the manufacturing technique, the schottky diodes tend to match each other in terms of forward and reverse characteristics and this results in a slightly better balance in the mixer.

Which, of course, is usually considered a good thing.

Regular silicon diodes also work well, although it is a little more likely to be not as well matched and that shows up in higher LO feedthrough and so on. Usually, the slightly lower performance is not noticable depending on the application.

==========

Double Balanced diode mixers overall are a very good choice for a radio front end, since they have better dynamic range then most other types of mixers. The NE602 mixer for example, is cheap, has lots of gain, and can be overloaded easily by strong signals coming from the antenna.

Also, most IC type mixers tend to be lowband only, and don't work as well up at 6 or two meters.

There are exceptions and some IC mixers have astonishingly good dynamic range. But, by and large, the really good dynamic range IC mixers are complex designs.

Given the RF hot environment in Japan, I'd avoid the easily overloaded mixers....

==========

Anyway, a drawback to the diode mixers is that they require a lot of LO drive, +7 dBm minimum and I tend to use closer to +10 dBm.

Actually, the high dynamic range IC mixers also require a lot of LO drive. Generally speaking, to handle high input levels, ANY mixer will need a lot of LO drive.

==========

So, to answer the question, I find the double balanced diode mixer a good choice between ease of use and high signal handling ability.

Either schottky or regular silicon diodes will work fairly well.

Jim Pennell
N6BIU

4945. FS: PK 232 MBX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 04:24:18 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3B8332E6.4A6EBEE7@netdoor.com>
Source record: 50842
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.antenna

I have for sale a PAKRATT 232 MBX for sale with the 7.1 firmware, connecting cables and 1 amp wall wart, the manual, and the PC Pakrat software with manual and original disk. All for 100.00 plus shipping.

Butch KF5DE

4946. FS: Small Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 04:39:35 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3B833671.EA03D0AA@netdoor.com>
Source record: 50843
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.swap,rec.radio.amateur.homebrew

I have an as new MFJ-16010 tuner, 200 watt, with original box and operating instructions for 35.00 shipped CONUS. Works just as well for the SW Listener also. It does a terrific job of improving the signal to noise ratio and making your swl dx'ing more pleasurable.

Butch KF5DE

4947. Re: Power supply amperage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 07:27:17 UTC
From: The Dude <surfer@smurf.net>
Message-ID: <3B835EC3.B8721B17@smurf.net>
Source record: 50845

Thanks for all the replies. I think I have the general idea now.

The Dude wrote:
>
> I would like to know the formula for calculating the amperage that my
> power supply is drawing from the wall outlet. For example if the supply
> puts out 12VDC and the current draw is 8.5 amps how much is being drawn
> at the 120VAC side?
>
> Thanks!
>
> P.S. This is a switching power supply in case it makes a difference.

4948. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 10:10:22 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B83855A.8978A595@earthlink.net>
Source record: 50846

Folks---

> I think I understand your question. The 5Y3 rectifier is a double
> diode. [...]

Here's what I don't get: There does not appear to be a DC ground reference for the cathode, unless you use the filament circuit. Also, the filament appears to short the 5VAC winding on the secondary. I can see it from the point of a center-tapped full-wave SS rectifier, but the filament connections have me confused.

So why is the filament shorted across 5VAC floating?

Also, the wiring of this circuit, with its odd (at least to me) ground configuration doesn't jive with my knowledge enough to understand how we get approx 340VDC at the 16H (16H!! I didn't notice THAT before!) inductor with respect to ground.

Thanks,

Henry C. Gernhardt, III
KE4PIB

4949. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 10:31:43 UTC
From: n2cqr@clix.pt
Message-ID: <3b838851.2172448@news.clix.pt>
Source record: 50844

Hello Adam!

Parts procurement problems in JAPAN? No sympathy here OM!
I'm on Sao Miguel island in the Azores, 800 miles WEST of Lisbon.
No Radio Shack stores in sight! I also did homebrewing in the
Dominican Republic.

I recently built two diode mixers for use in a 17 meter double
sideband transceiver. In the transmitter I used two diodes, in the
receiver, four. Becasue no Schottky or Hot carrier diodes were
readily available, I just used some mystery diodes that were in the
bottom of my junk box. I tried to match resistances a bit. They seem
to work fine.

You can check out my rig at
http://planeta.clix.pt/n2cqr

I like these home made mixers better than the NE602 black boxes.

Tell us more about your project. All kidding aside, it must be
interesting to homebrew in Japan.

73 and good luck

Bill CU2JL

4950. Re: broad coverage receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 13:57:05 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3b83b9b8.12127456@news.9bit.qc.ca>
Source record: 50747

"zl1any" <g_and_s_pearce@xtra.co.nz> wrote:

>Is anyone aware of a single coversion receiver design like that
>of the K2 elecrafter which provides frequency coverage upto
>about 200 MHz ..
>
I don't know if I'm right, but, ...

When I saw the K2, it made me think of the R2 receiver that was
published in QST, some years ago (Jan 1993) . Its a direct conversion
receiver. It made me think: "well maybe someone finally has done a
complete transceiver kit with this excellent receiver design"

Try an internet search for the R2, by Rick Campbell, KK7B

Stephan VE2OWL
----
to reply direct, remove "faux" from e-mail address

4951. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 14:01:48 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b83ba18$0$2882$44c9b20d@news3.asahi-net.or.jp>
Source record: 50748

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:3B8315F9.8AD1D18E@eznec.com...
> Whatever advantages Shottky diodes might have in mixers, they're not
> significant at HF in typical mixer use. You won't be able to tell the
> difference between using Shottkys and 1N914s in an HF mixer, except the
> necessity to drive the mixer a little harder to turn the silicon diodes
> on.

I'm starting to get the idea, Roy. Someone kindly contacted me privately with some very interesting links that thoroughly went through those issues. I also looked over some articles by Doug DeMaw that say exactly the same as your paragraph, above. The further implications are that your next para is also right on the money. I really am starting to see the light!

> Yes, a lot of receiver projects use IC mixers, due either to ignorance
> or a conscious desire to sacrifice performance in favor of simplicity.
> Very few IC designs can deliver the signal handling capability of a
> diode ring mixer.

> The term "hot carrier diode" isn't simply ham jargon -- you'll find it
> in numerous professional publications and texts, although "Shottky
> diode" seems to have become more common as time goes by. They are
> exactly the same thing.

I was trying to suggest, in my clumsy way, that hams are the "good guys" in this gripe! It's the "general electronics" community that I was digging at...hams, naturally, have a vested interest in keeping up with general electronics and naturally will pick up the expressions, accurate or otherwise, from other groups...

> I highly recommend Hayward and DeMaw's _Solid State Design for the Radio
> Amateur_, and Hayward's _Introduction to Radio Frequency Design_ for
> anyone interested in learning more about receiver design. Both are
> modestly priced and available from the ARRL. More comprehensive but also
> a lot more expensive is Rohde, Whitaker, and Bucher's _Communications
> Receivers_ (McGraw Hill).

I recently got hold of the Hayward & DeMaw text. It's probably what I should have read FIRST! I'll be looking out for the other, too. I sincerely appreciate the information and your time, Sir! Best wishes. Adam

> Roy Lewallen, W7EL

Adam Weber wrote:
> >
> > Hi Eamon
> >

> > There is total confusion around the place. I've seen the expression "hot
> > carrier, or Schottky diodes" implying that they're all the same beast,
in
> > other places that there is some "special kind of Schottky" which is,
acts
> > as, or can be used as, a "hot carrier" diode. Needless to say, there is
> > NEVER an explanation of what that is supposed to mean...[People think
hams
> > use 'jargon', but there are hundreds of tables of references as to what
> > ham-talk means and, as far as I can tell, it is used consistently...in
> > electronics it's a different story...]
> >
> > An HF mixer is the goal. I've read the statement that "...you COULD try
> > 1N914's, but...". At another place, there was a very stern prohibition,
all
> > capitalised, against even THINKING about 1N914's for a mixer
circuit...there
> > are even a few folks who reject the usefulness of diodes for mixers at
all.
> > Sure, they might be extremists, but it gives you pause to think, when
all
> > the really ***interesting*** receiver projects use IC mixers...
> >
> > It seems that, at almost every RF stage, I'm going to have to do a LOT
more
> > experimenting than I had intended. [Oh well, I've got NO worries about
the
> > AF amp section...LOL!]
> >
> > Thanks very much for the input, Sir.
> >
> > Cheers
> > Adam
> >
> > "Eamon Skelton" <Xnospam@oceanfree.net> wrote in message
> > news:r89ul9.p2d.ln@darkstar.example.net...
> > > Adam Weber wrote:
> > >
> > > > Hi folks
> > > >
> > > > I would really appreciate it if someone could explain how to
identify a
> > > > "hot carrier diode".
> > >
> > > AFAIK hot carrier diodes are Schottky mixer diodes. I wonder
> > > if you are making a mixer for HF. I never found any advantage
> > > to using 'proper' Schottky mixer diodes at HF. I usually use
> > > silicon diodes like the 1N4148, 1N914 etc..... It might be
> > > a different story at VHF/UHF.
> > >

> > > 73, Ed. EI9GQ.
> > >
> > > --
> > > Remove 'X' to reply.
> > > http://homepage.eircom.net/ei9gq
> > > Linux 2.4.9
> > >
> > >

4952. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 14:03:08 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b83b53a.403630351@news.triconet.org>
Source record: 50749

On Wed, 22 Aug 2001 10:10:22 GMT, Henry Gernhardt/Andrea Winship
<hcg_alw@earthlink.net> wrote:

|Folks---
|
|> I think I understand your question. The 5Y3 rectifier is a double
|> diode. [...]
|
|Here's what I don't get: There does not appear to be a DC ground
|reference for the cathode, unless you use the filament circuit. Also,
|the filament appears to short the 5VAC winding on the secondary. I can
|see it from the point of a center-tapped full-wave SS rectifier, but the
|filament connections have me confused.

I thought we had this explained. The DC ground reference is the center tap on the HV transformer secondary. The filament doesn't "short" the 5V winding, it is *powered by* the 5 VAC. The 5V winding, that has--no surprise-- 5 VAC from end-to-end is also at a potential of whatever the DC voltage is, with respect to ground.

You shouldn't have a problem with this, remember, you are willing to clamp a set of headphones between your ears with the same DC potential floating on them. Same situation... an AC signal being coupled magnetically by transformer action while in the presence of a large DC bias.
|
|So why is the filament shorted across 5VAC floating?

Asked and answered.
|
|Also, the wiring of this circuit, with its odd (at least to me) ground
|configuration doesn't jive with my knowledge enough to understand how we
|get approx 340VDC at the 16H (16H!! I didn't notice THAT before!)
|inductor with respect to ground.

It's been almost 45 years since I took my Novice exam, but I think there was a power supply question in it and I'm sure you had them in your exam.

Reduce this problem in your mind to a 12 VDC supply using solid-state diodes. Forget the 5 V and 6.3 V windings and instead of a high voltage secondary make it a 20 V, center-tapped secondary. Draw a simple circuit with a single filter capacitor. When you figure out how this operates, come back and ask more questions, if you really need to.

73,

Wes N7WS

|
|Thanks,
|
| Henry C. Gernhardt, III
| KE4PIB

4953. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 14:54:56 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b83c68b$0$2886$44c9b20d@news3.asahi-net.or.jp>
Source record: 50750

Hi Jim

Thanks a lot for the info. I now plan on using "matched" diodes, checking the resistance from anode to cathode. I hope to find a matching set for a double balanced mixer. I didn't have much luck with matching regular silicon diodes [and had also been reading too much that praised the "uniformity" of the components formed on ICs!] but expect it will be easier with the Schottky's to find a close match.

The +10dBm for the LO sounds like a good target, too, from what you and others have said.

Thank you, Sir, for your time and energy in straightening out these issues!

Best wishes
Adam

"Jim Pennell" <No-Spam@killspam.com> wrote in message
news:9lv5erpib1@slb7.atl.mindspring.net...
> Hi Adam.
>
> Generally speaking, the 'hot carrier' or Schottky diode are indeed one
> and the same part.
>
> Due to the manufacturing technique, the schottky diodes tend to match
> each other in terms of forward and reverse characteristics and this
results
> in a slightly better balance in the mixer.
>
> Which, of course, is usually considered a good thing.
>
> Regular silicon diodes also work well, although it is a little more
> likely to be not as well matched and that shows up in higher LO
feedthrough
> and so on. Usually, the slightly lower performance is not noticable
> depending on the application.
>
> ======================
>
> Double Balanced diode mixers overall are a very good choice for a radio
> front end, since they have better dynamic range then most other types of
> mixers. The NE602 mixer for example, is cheap, has lots of gain, and can
> be overloaded easily by strong signals coming from the antenna.
>
> Also, most IC type mixers tend to be lowband only, and don't work as
well

> up at 6 or two meters.
>
> There are exceptions and some IC mixers have astonishingly good dynamic
> range. But, by and large, the really good dynamic range IC mixers are
> complex designs.
>
> Given the RF hot environment in Japan, I'd avoid the easily overloaded
> mixers....
>
> ========================
>
> Anyway, a drawback to the diode mixers is that they require a lot of LO
> drive, +7 dBm minimum and I tend to use closer to +10 dBm.
>
> Actually, the high dynamic range IC mixers also require a lot of LO
> drive. Generally speaking, to handle high input levels, ANY mixer will
> need a lot of LO drive.
>
> ========================
>
> So, to answer the question, I find the double balanced diode mixer a
good
> choice between ease of use and high signal handling ability.
>
> Either schottky or regular silicon diodes will work fairly well.
>
>
> Jim Pennell
> N6BIU
>
>
>

4954. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 15:51:36 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10108221149190.2959-100000@gloria.cam.org>
Source record: 50754

On Wed, 22 Aug 2001, Bill Meara wrote:

>[stuff deleted]
> I recently built two diode mixers for use in a 17 meter double
> sideband transceiver. In the transmitter I used two diodes, in the
> receiver, four. Becasue no Schottky or Hot carrier diodes were
> readily available, I just used some mystery diodes that were in the
> bottom of my junk box. I tried to match resistances a bit. They seem
> to work fine.
>
That reminds me. Didn't someone build a mixer with hot carrier diodes,
and it didn't work until they were changed to silicon switching diodes?
I have an imcomplete memory of this, but I can picture looking in
one of Doug DeMaw's books to see if something was missing from the
diagram.

Michael VE2BVW

4955. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 16:27:46 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b83dc4c$0$2883$44c9b20d@news3.asahi-net.or.jp>
Source record: 50751

Hehehehehehe! Hi Bill

I can understand where you're coming from, but I have to wonder if you've ever been to Japan! There are no Radio Shack stores here, either. Nothing even vaguely similar. I lived in Australia for many years, always in envy of the Americans who just seemed to have everything available, but at least we DID have a couple of nation-wide electronics chain stores, with catalogues and branches in suburban areas. There is NOTHING like it here.

We do have "Electric Towns" in the two largest cities. Sections of the cities of Akihabara [Tokyo] and Nipponbashi [Osaka] are devoted to all things electronic and electrical. There are huge multi-storey computer shops, but the components business is still run on feudal lines [Yakusa-controlled I'd bet!] There are tiny little stalls [4'x4' floor space] where you can buy the standard range of resistors and capacitors INDIVIDUALLY(!) from about 20¢¢ to a few dollars each...another guy who sells knobs...nothing else--just knobs--and so on...That still might be a paradise to someone in your position, I'm sure.

The people who run the stalls, however, (with a few exceptions) have no knowledge of what they are selling. If you can't see it, you ask for it. If the guy doesn't have that part number, that's the end of the story! I regularly see Japanese guys in suits getting the run-around from these little merchants, so I'm reassured that it's not just because I'm a 'Gai-Jin'. You can't ask for an "RF PNP transistor" or an "equivalent for a such-and-such FET". If you don't know at least 12 units that are equivalent, you leave empty-handed and float around to the next stall...but, this being Japan, it's not too cool to be "different" so you can bet that a semiconductor guy is gonna stock pretty much the same stuff as the next semiconductor guy...

At least in Oz, the teenager at the counter had a computer terminal and data-books and had an interest in selling you what you needed, because he could see all the other goodies in your shopping basket and figured HE might get stuck re-shelving it all, if you decided not to go thru with your purchase!

Nice website! The rig looks very nice too...

All the best
Adam

"Bill Meara " <n2cqr@clix.pt> wrote in message
news:3b838851.2172448@news.clix.pt...

> Hello Adam!
>
> Parts procurement problems in JAPAN? No sympathy here OM!
> I'm on Sao Miguel island in the Azores, 800 miles WEST of Lisbon.
> No Radio Shack stores in sight! I also did homebrewing in the
> Dominican Republic.
>
> I recently built two diode mixers for use in a 17 meter double
> sideband transceiver. In the transmitter I used two diodes, in the
> receiver, four. Becasue no Schottky or Hot carrier diodes were
> readily available, I just used some mystery diodes that were in the
> bottom of my junk box. I tried to match resistances a bit. They seem
> to work fine.
>
> You can check out my rig at
> http://planeta.clix.pt/n2cqr
>
> I like these home made mixers better than the NE602 black boxes.
>
> Tell us more about your project. All kidding aside, it must be
> interesting to homebrew in Japan.
>
> 73 and good luck
>
> Bill CU2JL

4956. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 16:28:15 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108220828.49dcbd70@posting.google.com>
Source record: 50752

Curtis Scholl <cscholl@izzy.net> wrote in message news:<3B82A77D.B6C32233@izzy.net>...

> Which unit of measure is it?

Degrees Celsius. Scientific and technical information
is always presented in metric units. Except in the
U.S.A., apparently.

Laura Halliday VE7LDH "Que les nuages soient notre

Grid: CN89lg pied a terre..."

ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4957. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 16:38:14 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrn9o7nvl.ti.QSB@animas.frontier.net>
Source record: 50753

On 22 Aug 2001 09:28:15 -0700, Laura Halliday scribbled:
> Curtis Scholl wrote in message news:<3B82A77D.B6C32233@izzy.net>...
>
>> Which unit of measure is it?
>
> Degrees Celsius. Scientific and technical information
> is always presented in metric units. Except in the
> U.S.A., apparently.

Well, the Simple Solution is to rate equipment at -40 degrees. <g>

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

4958. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 17:00:03 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <jeo0m9.5od.ln@darkstar.example.net>
Source record: 50756

Adam Weber wrote:

> Hi Eamon
>
> There is total confusion around the place. I've seen the expression "hot
> carrier, or Schottky diodes" implying that they're all the same beast, in
> other places that there is some "special kind of Schottky" which is, acts
> as, or can be used as, a "hot carrier" diode.

'Hot Carrier Diode' seems to be an americanism. I see it used in a lot
of ARRL books but here in Europe, a Schottky diode is a Schottky diode.
From your comments, it would seem that this is the case in Japan too.
I don't know much about the history of these devices. Who was Schottky?
where was he? when were they invented/discovered? what were they
originally called?

When you read about HCD's they are usually referring to high-speed
Schottky switching diodes that are suitable for use in RF mixers.
Not all Schottky diodes are designed for this purpose.

> An HF mixer is the goal. I've read the statement that "...you COULD try
> 1N914's, but...". At another place, there was a very stern prohibition,
> all capitalised, against even THINKING about 1N914's for a mixer

My old 9 band HF rig has a 'dual bridge diode mixer' similar to
the circuit described in Solid State Design for the Radio Amateur (ARRL).
I used 8 unmarked generic silicon switching diodes for the mixer. I
made some measurements of the 3rd order intercept point on 80M. The
IP3 was about +33dBm - not state of the art but pretty good. It still
compares favourably with some of the best rigs on the market.

My newest rig is a five bander that has a homebrew diode mixer.
I don't have the necessary test equipment to check the IP3
on this one. I used a diode ring mixer made from four 1N4148
diodes. I haven't noticed any problems with the RX, even on
40M at night or within a few KHz of the big guns at the DX
end of 80M. The mixer is built dead-bug style on a piece of
copper PCB. As an experiment, I decided to replace the
homebrew mixer with a Mini-Circuits SBL-1 mixer module.
I found no difference at all in the performance of the
RIG. I'm not saying there wasn't any, but if there was, it
was too small to detect.

Look at the data sheet for the Philips 1N914. You will
find that it has very low junction capacitance, very fast
switching speeds, relatively low forward resistance,

and very high reverse resistance. The perfect recipe
for a good diode mixer.

******** From the Philips data sheet **********
Philips 1N914 Diode.

Maximum dissipation 250 mW at 25C

Maximum reverse voltage (PIV) 75V

Maximum continuous forward current 75 mA

Maximum repetitive forward current 225 mA

Forward voltage drop VF 1V at 10 mA

Diode Capacitance C max 4pF, Typical 1pF at 0V
****

> the really ***interesting*** receiver projects use IC mixers...

There are some very good designs that use IC mixers. A lot of
them use high-level mixer IC's like the Plessey SL6440 (now obsolete)
or the Analog Devices AD831. IIRC these devices have an input IP3
of almost +30dBm. Just about as good as my penny diodes but not
any better.

Look at Aleksander Stare's web-site for some nice designs
using the AD831.
http://lea.hamradio.si/~s57nan

Most of the designs I have seen use low cost, low power, low-level
IC mixers that were designed for cordless phones and similar applications.
These mixers offer very poor performance when compared to the humble
penny diode mixer.

Some info about the diode mixers in my HB rigs.
http://homepage.eircom.net/~ei9gq/rig.html
http://homepage.eircom.net/~ei9gq/80M_.html
http://homepage.eircom.net/~ei9gq/rx.html
http://homepage.eircom.net/~ei9gq/rx_circ.html#Mixers

I'm sure that some of the other posters to this group will
disagree with my opinions about using silicon diodes in
mixers, but those penny diodes have served me very well
in the past and continue to do so today.

> It seems that, at almost every RF stage, I'm going to have to do a LOT
> more experimenting than I had intended. [Oh well, I've got NO worries
> about the AF amp section...LOL!]

You might well LOL! as soon as you say that you won't have
any problems with the AF amp, you can be sure that you will.

> Thanks very much for the input, Sir.
>
> Cheers
> Adam

Have fun with your project. C U on the wireless sometime.
Everybody on this group has an interest in homebrew radio
- do you guys (and gals. Sorry Laura) ever find time to
get on-air or are you all too busy soldering?

73, Ed. EI9GQ.

QRV 28.435MHz most evenings at about
18:00 to 19:00 UTC.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4959. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 17:04:07 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3B83E652.DDC0E83D@norpak.ca>
Source record: 50755

The original poster did say
celsius/ centigrade
they are different

Laura Halliday wrote:

> Curtis Scholl <cscholl@izzy.net> wrote in message news:<3B82A77D.B6C32233@izzy.net>...
>
> > Which unit of measure is it?
>
> Degrees Celsius. Scientific and technical information
> is always presented in metric units. Except in the
> U.S.A., apparently.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
>
> Grid: CN89lg pied a terre..."
>
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4960. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 17:33:47 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B83EDCA.1D6A@pop.removethistomailme.net>
Source record: 50757

Ed Terry wrote:
>
> Is there some way to clean the trash messages that get dumped into these
> user groups? Is there no filters that can be set to eliminate the space
> this stuff takes? If it could just be routed back to the sender, there would
> be less sending of it.

Consider switching to a decent provider for your news access. Pacbell
won't cut it. (Also, you shouldn't be using your real email address in
your news postings -- you're begging the spammers to fill your mailbox
with crap.)

Try http://www.giganews.com -- you'll find that their filters get rid of
99%+ of all the spam and junk postings, at least in the non-binaries
groups like this one.

Client-side filtering doesn't work very well because the spammers never
use the same origination address or message titles. You'll need to
either live with it, or pay a little extra for a high-quality news
provider.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

4961. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 17:41:27 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3B83EEC7.8944A6CB@sympatico.ca>
Source record: 50758

My Oxford dictionary of science under Centigrade advises "See Celsius"
Under Celsius it advises "...formerly known as Centigrade, changed in
1948 to avoid confusion with a hundredth part of a grade."

Canada uses feet, inches of mercury, nautical miles etc. for aviation
(both civil and military). Then again maybe aviation is not considered
'technical'?

Dave

Frank Worm wrote:
>
> The original poster did say
> celsius/ centigrade
> they are different
>
> Laura Halliday wrote:
>
> > Curtis Scholl <cscholl@izzy.net> wrote in message news:<3B82A77D.B6C32233@izzy.net>...
> > >
> > > > Which unit of measure is it?
> > >
> > > Degrees Celsius. Scientific and technical information
> > > is always presented in metric units. Except in the
> > > U.S.A., apparently.
> > >
> > > Laura Halliday VE7LDH "Que les nuages soient notre
> > >
> > > Grid: CN89lg pied a terre..."
> > >
> > > ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4962. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 18:02:29 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B83F3B4.726D3896@ay.com.au>
Source record: 50759

Michael Black wrote:

> That reminds me. Didn't someone build a mixer with hot carrier diodes,
> and it didn't work until they were changed to silicon switching diodes?
> I have an imcomplete memory of this, but I can picture looking in
> one of Doug DeMaw's books to see if something was missing from the
> diagram.

IIRC it was Bill's TX single-balanced mixer. The output was _very_ low
until he switched to junkbox units.

In my experence, at least at HF, good old 1N4148s work just fine. I
usually don't bother to match them either, two units from the same batch
are close enough, and a small pot will do a good job of nulling out the
carrier.

--
Alan Yates
http://www.alanyates.com/
The Moon is Waxing Crescent (18% of Full)

4963. Re: broad coverage receiver design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 18:32:25 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <qrt0m9.prd.ln@darkstar.example.net>
Source record: 50763

Stephan wrote:

> When I saw the K2, it made me think of the R2 receiver that was
> published in QST, some years ago (Jan 1993) . Its a direct conversion
> receiver. It made me think: "well maybe someone finally has done a
> complete transceiver kit with this excellent receiver design"

I'm not familiar with the R2 but you can download the schematics
for the K2 from Elecraft's web-site. I can't remember the URL.
I'll take a wild guess: http://www.elecraft.com ?

IIRC, the K2 is a band switched, single conversion superhet
with a seven pole crystal filter. I know several people
who have built the K2 and they are all delighted with
the way it works.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4964. FS: Portable Multiband Dipole Antenna Systems...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 18:49:37 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0108221049.616f4abb@posting.google.com>
Source record: 50760
Cross-posted to:
rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.swap,rec.radio.amateur.homebrew

The "Yo-Yo-Tenna Deluxe" is going to be featured in the Nov. and Dec.
issues of CQ magazine. So you may want to get yours now...just in case
we get back-logged. Plenty in stock. They work 40 through 2 meters.
Operation on 75/80 and 160 can be accomplished by adding single reels.
A lot of fun! Many say it reminds them of the old "Hy-Gain tape
measure" antennas of the '50's. ONLY $29.95 plus s&h.

For a photo and more details, please visit:

http://qth.com/dwm

73, Bill - WA8MEA

4965. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 19:05:49 UTC
From: la8ak@online.no
Message-ID: <3b82dd94.184046184@news.online.no>
Source record: 50762

On Tue, 21 Aug 2001 18:28:43 +0000, Eamon Skelton
<Xnospam@oceanfree.net> wrote:

>Adam Weber wrote:
>
>> Hi folks
>>
>> I would really appreciate it if someone could explain how to identify a
>> "hot carrier diode".
>
>AFAIK hot carrier diodes are Schottky mixer diodes. I wonder
>if you are making a mixer for HF. I never found any advantage
>to using 'proper' Schottky mixer diodes at HF. I usually use
>silicon diodes like the 1N4148, 1N914 etc..... It might be
>a different story at VHF/UHF.
>
>73, Ed. EI9GQ.
>

>
1N4148 is best choice below 150MHz according to some German sources
above this frequency they are found to be too slow and inefficient

73
jm

4966. Re: LCD Displays and Freezing point?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 20:20:06 UTC
From: Ryan KC8PMX <kc8pmx@tm.net>
Message-ID: <WtUg7.358$9d.92978@newshog.newsread.com>
Source record: 50764

I use my HT while on patrol, (up to 8 hours) and the HT is usually in an outside pocket of either my coat or pants that I am wearing. (the pants I wear at work have a "mid-leg" pocket, much like the pants that EMS personell wear)

I have not witnessed ANY problem in the Michigan weather, and also I have left the HT sitting on my seat of my truck during the winter days/nights and also didn't witness any problems with operation. In fact it seemed to work better colder. Now in the summer, that is a complete other story. Heat is more of a problem.

Ryan

"Curtis Scholl" <cscholl@izzy.net> wrote in message
news:3B82A77D.B6C32233@izzy.net...
> Laura:
>
> Probably not a cold as yours get. We are at 42 N versus your 49 N.
>
> I have yet to see minus numbers Fahrenheit. We are launching rockets
> in farm fields in 0 to 20 degree weather. Clear and cold. I was curious
> if my Broadcast Warehouse FM transmitter was going to crack a display in
> the
> field. I would assume a room temperature unit is applicable to the
> installation I have.
>
> If 0 to 50 degrees is in Centigrade/Celsius then I am in trouble. I
> will have to keep the unit above freezing.
>
> If 0 to 50 degrees is in Fahrenheit then I am ok.
>
> Which unit of measure is it?
>
> Thanks
>
> Curtis Scholl
> KG8SU
> cscholl@izzy.net
>
>
> Laura Halliday wrote:
> >
>
> > > Room temperature units are rated 0 to 50 degrees
> > > operating, -20 to 70 degrees storage.

> >
> > Extended temperature units (negative LCD bias) are
> > rated -20 to 70 degrees operating, -30 to 80 degrees
> > storage.
> >
> > Just how cold do Michigan winters get? Anybody outside
> > in -30 degree weather probably has other concerns...
> >
> > Laura Halliday VE7LDH "Que les nuages soient notre
> > Grid: CN89lg pied a terre..."
> > ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

4967. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 20:20:09 UTC
From: Ryan KC8PMX <kc8pmx@tm.net>
Message-ID: <ZtUg7.359$9d.92978@newshog.newsread.com>
Source record: 50765

If you use Outlook Express to read messages, go to the toolbar and select the Messages tab, and pull down to Block Sender. That is one way to filter. This is assuming you are using version 5.XX or higher. There is a way to filter also, but haven't gotten around to figuring that out.

Ryan

"Ed Terry" <jeterry3@pacbell.net> wrote in message news:h1zg7.891$0I6.75993@news.pacbell.net...
> Is there some way to clean the trash messages that get dumped into these
> user groups? Is there no filters that can be set to eliminate the space
> this stuff takes? If it could just be routed back to the sender, there would
> be less sending of it.
>
>

4968. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 20:46:39 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <gn51m9.qtd.ln@darkstar.example.net>
Source record: 50768

Bill Meara wrote:

> Yea, rhar was me. Turns out they were Hot carrier diodes, but for
> rectifier applications (as in Power supply rectifiers). The very
> heavy leads and HIGH PIV look should have alerted me.

The stud mounting ones with 50A marked on the
side don't make good mixers :-)

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4969. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 21:21:06 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9m17sn$1hv$1@plutonium.btinternet.com>
Source record: 50766

The filament is connected across the 5V transformer winding to make
the filament white hot.
The hot filament then makes the cathode red hot.
The hot cathode then emits electrons.
The electrons then flow across the vacuum space to the anode.

Reg

4970. designing scope probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 22:16:54 UTC
From: amdx <amdx@att.net>
Message-ID: <qbWg7.29325$1p1.2142522@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50767

I have an impedance meter that uses two scope probes connected to
a homebrewed box. The box contains a sense resistor.
I want to make a cable to simulate the 10 to 1 probe I'm using.
The impedance meter has 1 Meg and 25pf input.
I want to use RG-58a coax and a BNC connector on one end.
I'm not sure about the length, 14 inches is long enough, but it may
need to be longer to match the capacitance of the original probe.
The other end will be soldered into the homebrew box.
I know I'll need a 9 meg series resistor and some tuning to make
it flat. (the unit measures up to 13Mhz)
I put a 7pf cap across the 9Mohm resistor and it was flat using the
squarewave on the scope calibrator. However I'm not sure this is
the correct way to do it. I'd like to have 15pf/10meg looking into the
probe.
Feedback Please?
Thanks
Mike

4971. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 22:49:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B8436E0.3635A781@clifto.com>
Source record: 50769

Eamon Skelton wrote:
> I'm sure that some of the other posters to this group will
> disagree with my opinions about using silicon diodes in
> mixers, but those penny diodes have served me very well
> in the past and continue to do so today.

Is there anything wrong with germaniums? (Was it the 1N23A that was used in old UHF tuners?)

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4972. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 22:56:27 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <bud8ot4ardnvl71ds4ola79sl8ggclvnba@4ax.com>
Source record: 50770

On Wed, 22 Aug 2001 22:21:06 +0100, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>The filament is connected across the 5V transformer winding to make
>the filament white hot.
>The hot filament then makes the cathode red hot.
>The hot cathode then emits electrons.
>The electrons then flow across the vacuum space to the anode.
>---
>Reg
>

Bzzzzzzt! No separate cathode in a 5Y3. Only a filament.

The first power supply I ever built, way back in 1957, had one.
I remember it well. :-)

Bill, W7TI

4973. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 23:00:11 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9m1dmfmr1@uranium.btinternet.com>
Source record: 50771

Unless, of course, the 5Y3 has a directly heated cathode.

But the filament is still connected across the 5V supply to make it
very hot.

Reg
==========

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
news:9m17sn$1hv$1@plutonium.btinternet.com...
> The filament is connected across the 5V transformer winding to
make
> the filament white hot.
> The hot filament then makes the cathode red hot.
> The hot cathode then emits electrons.
> The electrons then flow across the vacuum space to the anode.
> ---
> Reg
>
>

4974. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 23:04:10 UTC
From: n2cqr@clix.pt
Message-ID: <3b843a14.709081@news.clix.pt>
Source record: 50761

On Wed, 22 Aug 2001 18:02:29 GMT, Alan Yates <alany@ay.com.au> wrote:

>Michael Black wrote:
>
>> That reminds me. Didn't someone build a mixer with hot carrier diodes,
>> and it didn't work until they were changed to silicon switching diodes?

Yea, rhar was me. Turns out they were Hot carrier diodes, but for
rectifier applications (as in Power supply rectifiers). The very
heavy leads and HIGH PIV look should have alerted me.

4975. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 23:09:08 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <l2e1m9.hvd.ln@darkstar.example.net>
Source record: 50777

Reg Edwards wrote:

> The hot cathode then emits electrons.
> The electrons then flow across the vacuum space to the anode.
> ---
> Reg

Nah! You only think that because you were born
in the valve (tube) era. If you were a solid-state
man, you would know that holes are emitted by the
anode and attracted across the vacuum space to the
cathode. Sure everybody knows that electric
current flows from positive to negative.
Do I need to put a smiley here?

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4976. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 23:41:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B84433C.18753410@eznec.com>
Source record: 50772

1. There are advantages to using double balanced mixers, which require four reasonably matched diodes for maximum benefit. Germanium diodes vary a lot from one diode to the next.
2. Germanium diodes are hard to find. I don't think any are made in the U.S. any longer, and perhaps not in the world.
3. For applications at VHF and above, germanium diodes are noisier than Shottkys.
4. It's not possible to get germaniums in a monolithic quad, or in small packages. You'll have to deal with a lot more parasitic inductance than with a smaller package.
5. Germaniums are more fragile than silicon junction or most Shottky diodes.

The 1N23 was about the best you could do in the 1950s and early '60s. But that was then, this is now.

Roy Lewallen, W7EL

"Clifton T. Sharp Jr." wrote:
>
> Eamon Skelton wrote:
> > I'm sure that some of the other posters to this group will
> > disagree with my opinions about using silicon diodes in
> > mixers, but those penny diodes have served me very well
> > in the past and continue to do so today.
>
> Is there anything wrong with germaniums? (Was it the 1N23A that was used
> in old UHF tuners?)
>
> --
> "I would have been happy to explain further, except you had by that
> point made it clear you would believe whatever you wanted to believe"
> -- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

4977. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-22 23:54:53 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B84469B.8EB60579@earthlink.net>
Source record: 50773

Wes---

Thanks for the explinations. I realized, shortly after I wrote my last post, that the 5VAC winding was, in fact, the PS for the filament. I thunked my head a couple of times to loose the cobwebs that were apparently gathering dust within my cognitive centers, and once reading your post, took your suggestion and drew it out as an SS unit.

My problem was I wasn't seeing the cathode as being two separate cathodes tied together electrically. Don't ask me why that was confusing me, but it was.

Now, another question: does anyone have the conduction curve of the 5Y3 lying about anywhere?

Thanks,

Henry C. Gernhardt, III
KE4PIB

4978. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 00:05:21 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <fih8otsknmjeemt7md91rjgigk2b83dr56@4ax.com>
Source record: 50774

On Thu, 23 Aug 2001 00:00:11 +0100, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Unless, of course, the 5Y3 has a directly heated cathode.

Your original post referred to a filament which heated a cathode which then emitted electrons. No 5Y3 ever had a separate cathode. Emission is directly from the filament.

There is a tube with similar ratings but which does have a separate cathode. If memory serves me right, it is a 5V4. There might be others, too.

73, Bill W7TI

4979. Re: designing scope probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 00:15:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B844B1A.DFF1D9AA@eznec.com>
Source record: 50775

This scheme should work ok at low and moderate frequencies with a short piece of RG-58, although you still won't be able to exactly match the response and delay of a commercial 10:1 probe if that's your objective. From the circuit under test to the cable input you'll need a parallel RC. R will be 9 megohms. The product of R and C have to equal the time constant (R times C) of the scope input, including the cable C. What I'd do is to design the circuit with the minimum amount of C possible, then if you want more C at the test point, simply add it. Start with the C of your scope input, typically 20-30 pF. Let's say it's 30 pF. RG-58 has a capacitance of 30 pF/ft, so 14 inches has a capacitance of 35 pF. Add this to your scope's input capacitance, making 65 pF. This is the total input C. For equal time constants, the C across the 9 megohm resistor has to be 1/9 this value, or 7.2 pF. The "probe" capacitance will be 7.2 pF in series with 65 pF = 6.5 pF. If you want 15 pF at the "probe", add another 8.5 pF across the "probe" connection.

At higher frequencies (or to look at fast events) or with longer cables, cable reflections will ruin the response. That's why real probes use very special, low loss, high impedance cable, and the compensating boxes have quite a few extra parts.

The time constants of both RCs involved are 65 us. So to check the "probe" response, apply a known clean step (like from a scope calibrator) and look at it at around 50 or 100 us/division. Or check the frequency response, paying particular attention to the region around 1/(2*pi*RC) = 2.5 kHz. The response well below this frequency should be the same as the response well above it.

Roy Lewallen, W7EL

amdx wrote:
>
> I have an impedance meter that uses two scope probes connected to
> a homebrewed box. The box contains a sense resistor.
> I want to make a cable to simulate the 10 to 1 probe I'm using.
> The impedance meter has 1 Meg and 25pf input.
> I want to use RG-58a coax and a BNC connector on one end.
> I'm not sure about the length, 14 inches is long enough, but it may
> need to be longer to match the capacitance of the original probe.
> The other end will be soldered into the homebrew box.
> I know I'll need a 9 meg series resistor and some tuning to make
> it flat. (the unit measures up to 13Mhz)
> I put a 7pf cap across the 9Mohm resistor and it was flat using the
> squarewave on the scope calibrator. However I'm not sure this is
> the correct way to do it. I'd like to have 15pf/10meg looking into the

> probe.
> Feedback Please?
> Thanks
> Mike

4980. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 00:23:34 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b844b1a.3954355@news.triconet.org>
Source record: 50776

On Wed, 22 Aug 2001 16:41:48 -0700, Roy Lewallen <w7el@eznec.com> wrote:

|1. There are advantages to using double balanced mixers, which require
|four reasonably matched diodes for maximum benefit. Germanium diodes
|vary a lot from one diode to the next.

We used to buy matched pair of 1N23G's for replacements in Phoenix missile mixers for about $100/pr. (1970's $$)

They came in nice little lead foil cylinders with crimped ends to protect them from ESD. (Yes we knew about ESD in 1970) Two of these packages would be taped together to maintain the matching.

Our Receiving Inspection department once took a lot of them out of the packages and threw them all together in a cardboard box and put them on the store room shelf.

Needless to say, this only happened one time.

Wes Stewart N7WS

4981. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 01:02:30 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b8451a2.5626642@news.triconet.org>
Source record: 50778

On Wed, 22 Aug 2001 23:54:53 GMT, Henry Gernhardt/Andrea Winship
<hcg_alw@earthlink.net> wrote:

|Wes---
|
|Thanks for the explinations. I realized, shortly after I wrote my last
|post, that the 5VAC winding was, in fact, the PS for the filament. I
|thunked my head a couple of times to loose the cobwebs that were
|apparently gathering dust within my cognitive centers, and once reading
|your post, took your suggestion and drew it out as an SS unit.
|
|My problem was I wasn't seeing the cathode as being two separate
|cathodes tied together electrically. Don't ask me why that was
|confusing me, but it was.

We all do this at times.

|
|Now, another question: does anyone have the conduction curve of the 5Y3
|lying about anywhere?

I'm not sure these were published and I can't lay my hands on my tube manual but the Radiotron Designer's Handbook (1942) calls the 5Y3 a "high impedance rectifier."

In general, at low plate voltages, the current is space charge limited and follows an E ^ (3/2) curve. At higher voltages, the conduction is dependent upon the temperature of the emitter.

If you want a science project, you could measure it. Just remember to keep one hand in your pocket.

73,

Wes

|
|Thanks,
|
| Henry C. Gernhardt, III
| KE4PIB

4982. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 01:52:10 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <akn1m9.48i.ln@darkstar.example.net>
Source record: 50790

Clifton T. Sharp Jr. wrote:

> Is there anything wrong with germaniums? (Was it the 1N23A that was used
> in old UHF tuners?)

I have used the 1N34 and OA91 point contact germanium
diodes in balanced modulators.

I never felt inclined to use them in DBM's. They tend
to have large variations in characteristics between
one diode and another. They have higher resistance
than silicon diodes when they are forward biased and
greater leakage current when reverse biased.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4983. Re: designing scope probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 01:55:20 UTC
From: amdx <amdx@att.net>
Message-ID: <coZg7.56500$gj1.5175966@bgtnsc05-news.ops.worldnet.att.net>
Source record: 50779

>This scheme should work ok at low and moderate frequencies with a short
>piece of RG-58

14" of coax and 13Mhz, I assume that's short and a moderate frequency?

> although you still won't be able to exactly match the
> response or delay of a commercial 10:1 probe

I'm looking for it to be flat to at least 13Mhz, and I'll build two the
same length.

>For equal time constants, the C across the 9 megohm resistor
> has to be 1/9 this value, or 7.2 pF.

My 7 pf capacitor matched your calculations very close :-)

>That's why real probes use very special, low loss, high impedance
>cable, and the compensating boxes have quite a few extra parts.

Do you know what the impedance of the cable is? Also I have checked the
capacitance of automotive antenna cable and found it has 8pf per foot.
I was tempted to start with this cable but I'm looking for wearability, and
I don't know if I could get a BNC connector on it.
Thanks for the input Roy.

Mike

4984. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 02:05:57 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <q3p8otseaapilutm9jtq50v0drgmonnpv9@4ax.com>
Source record: 50781

On Wed, 22 Aug 2001 23:09:08 +0000, Eamon Skelton
<Xnospam@oceanfree.net> wrote:

>Nah! You only think that because you were born
>in the valve (tube) era. If you were a solid-state
>man, you would know that holes are emitted by the
>anode and attracted across the vacuum space to the
>cathode. Sure everybody knows that electric
>current flows from positive to negative.
>Do I need to put a smiley here?

Now there's a picture - an actual "hole" traveling in a vacuum!

I like it. "Conventional current" finally makes sense. :-)

73, Bill W7TI

4985. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 02:08:14 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b846451$0$2881$44c9b20d@news3.asahi-net.or.jp>
Source record: 50780

"Eamon Skelton" <Xnospam@oceanfree.net> wrote in message
news:jeo0m9.5od.ln@darkstar.example.net...
wrote:

> When you read about HCD's they are usually referring to high-speed
> Schottky switching diodes that are suitable for use in RF mixers.
> Not all Schottky diodes are designed for this purpose.

Hi again, Eamon! I was familiar with those big, grey, 6mm diam "rectifier"
Schottkys...didn't know about the others until recently...

> My old 9 band HF rig has a 'dual bridge diode mixer' similar to
> the circuit described in Solid State Design for the Radio Amateur (ARRL).
> I used 8 unmarked generic silicon switching diodes for the mixer. I
> made some measurements of the 3rd order intercept point on 80M. The
> IP3 was about +33dBm - not state of the art but pretty good. It still
> compares favourably with some of the best rigs on the market.

Not bad figures at all! It's a great book and I am looking forward to
getting into some projects. Those web-pages are brilliant! Thank you so much
for sharing them!

> Look at Aleksander Stare's web-site for some nice designs
> using the AD831.
> http://lea.hamradio.si/~s57nan

> Some info about the diode mixers in my HB rigs.
> http://homepage.eircom.net/~ei9gq/rig.html
> http://homepage.eircom.net/~ei9gq/80M_.html
> http://homepage.eircom.net/~ei9gq/rx.html
> http://homepage.eircom.net/~ei9gq/rx_circ.html#Mixers

... as soon as you say that you won't have
> any problems with the AF amp, you can be sure that you will.

Yep! I can hear the voice of painful experience, there! LOL!

Once again:
Thanks very much for the input, Sir.

Cheers
Adam

> 73, Ed. EI9GQ.

> QRV 28.435MHz most evenings at about
> 18:00 to 19:00 UTC.

4986. Re: Message Clean Up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 02:56:17 UTC
From: Bruce Torelli <btorelliSPAM_MANGLE@ieee.org>
Message-ID: <lh_g7.4150$XY4.398125@newsread2.prod.itd.earthlink.net>
Source record: 50782

The most interesting deterrent I have seen is to put the email address of the major ISP spam abuse sites in the signature file. That way the spam bot that harvests the email address spams the isps directly. I haven't don't it myself, but I thought it was creative.

--
Bruce Torelli
Jonesboro, GA
"Ed Terry" <jeterry3@pacbell.net> wrote in message
news:h1zg7.891$0I6.75993@news.pacbell.net...
> Is there some way to clean the trash messages that get dumped into these
> user groups? Is there no filters that can be set to eliminate the space
> this stuff takes? If it could just be routed back to the sender, there
would
> be less sending of it.
>
>

4987. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 05:43:21 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9m25al$jo4$1@plutonium.btinternet.com>
Source record: 50783

Germanium diodes in mixer applications need a lot less local
oscillator power.

Sqr(0.15 / 0.65)

Regards, Reg, G4FGQ
http://www.g4fgq.com

4988. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 06:10:59 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9m27lr$nf6$1@uranium.btinternet.com>
Source record: 50784

Hi Ed,

Smiley not needed from you.

I was working with toobs around 1937.

One of these days, if there's sufficient popular demand, I'm gonna
write a program for design of a class-A,B,C neutralized
triode RF power amplifier, taking into account the three-halves
power law of electron flow.

Just imagine how much more rapidly the radio old timers would have
progressed had the 1Gbit Pentium been invented by 1901.

Holes, of course, have an exponentially related flow.

Regards, Reg, G4FGQ
http://www.g4fgq.com

==========

Eamon Skelton <Xnospam@oceanfree.net> wrote in message
news:l2e1m9.hvd.ln@darkstar.example.net...
> Reg Edwards wrote:
>
> > The hot cathode then emits electrons.
> > The electrons then flow across the vacuum space to the anode.
> > ---
> > Reg
>
> Nah! You only think that because you were born
> in the valve (tube) era. If you were a solid-state
> man, you would know that holes are emitted by the
> anode and attracted across the vacuum space to the
> cathode. Sure everybody knows that electric
> current flows from positive to negative.
> Do I need to put a smiley here?
>
> 73, Ed. EI9GQ.
>
> --
> Remove 'X' to reply.
> http://homepage.eircom.net/ei9gq
> Linux 2.4.9
>
>

4989. Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 10:12:15 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B84D720.3ED636A3@earthlink.net>
Source record: 50785

Folks---

I went to go tune into the Breakfast Club this morning, and upon turning on the venerable rig aforementioned, noticed that there was no RX audio and the digital display was blank. The VFO appeared to simply be dead, as the VFO LED indicator above the display unit was not illuminated.

This unit had also shown some ``jumping'', described as a bad ground in the AF unit according to a kenwood ASB I dug up. I also noticed in the service manual where the display circuitry blanks if the PLL unlocks. Would a bad ground such as described in Kenwood ASB-0840 also cause the problem I am experiencing? Any other ideas? My test equipment consists of a DVM, and I would like to avoid the expense of professional repair.

Thanks,

Henry C. Gernhardt, III
KE4PIB

4990. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 10:52:00 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <to9o2ur4opm094@corp.supernews.com>
Source record: 50786

> you would know that holes are emitted by the anode

I've discovered proof that holes do exist! You can buy them at the
local Crispy Cream donut shop. :-)

4991. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 13:18:39 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9o9u9m.vf.w9wi@linux1.localdomain>
Source record: 50787

On Thu, 23 Aug 2001 10:12:15 GMT, Henry Gernhardt/Andrea Winship
><hcg_alw@earthlink.net> wrote: Folks---
>
>I went to go tune into the Breakfast Club this morning, and upon turning
>on the venerable rig aforementioned, noticed that there was no RX audio
>and the digital display was blank. The VFO appeared to simply be dead,
>as the VFO LED indicator above the display unit was not illuminated.
>
>This unit had also shown some ``jumping'', described as a bad ground in
>the AF unit according to a kenwood ASB I dug up. I also noticed in the
>service manual where the display circuitry blanks if the PLL unlocks.
>Would a bad ground such as described in Kenwood ASB-0840 also cause the
>problem I am experiencing? Any other ideas? My test equipment consists
>of a DVM, and I would like to avoid the expense of professional repair.

I'm kinda wild-guessing here as it's been MANY years since I've worked on an
830, but... I'm tempted to suspect something less exotic..

The fact that the VFO LED isn't lit suggests to me that the rig thinks
you've selected the external VFO. I'm gathering from context that you don't
have an external VFO. That would certainly explain the display blanking and
the receiver not working!

Is there some kind of jumper plug that goes in the external VFO jack if you
don't have the external VFO? (might that plug have become dislodged?) If
not, some Kenwood radios have also fastened switches to the DIN jacks;
plugging something into the jack activates that switch. Maybe that switch
is flaky on the external VFO jack?
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

4992. Free to good home: Tiny Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 14:40:58 UTC
From: Steve Robertson <ke4oh@yahoo.com>
Message-ID: <3B8515FA.92623B03@yahoo.com>
Source record: 50788

I came into posession of a few 8-pin miniature "pencil" tubes. All are used, most are still soldered into military circuit boards. Getters all still look silver. Most are Sylvania or Raytheon. Also have a few used 8-pin mini sockets. Don't know if the tubes are good or even good for anything. But you can have 'em for the postage or trade me a tube or two

I can use.

Here's the inventory:

5 each 5840
1 each 5896
1 each 5783
1 each 5687
2 each 5899
2 each 5718

Any takers?

Steve Robertson

4993. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 15:45:29 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B852560.706619E6@earthlink.net>
Source record: 50789

Doug---

> The fact that the VFO LED isn't lit suggests to me that the rig thinks
> you've selected the external VFO. I'm gathering from context that you
> don't *have* an external VFO. That would certainly explain the
> display blanking and the receiver not working!

It would make sense, but there has never been a ``dongle'' on the
external VFO jack. The only switch I can see in the schematic is S21,
and that is not listed in the service manual under the parts list, nor
can I find it on any of the boards in the SM. Digging a little further,
it's almost as if the fixe channel switch is stuck, although I don't see
how the switch could have failed closed.

Thanks,

Henry C. Gernhardt, III
KE4PIB

4994. The QRP-L List

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 17:20:46 UTC
From: Mark Mohr <themohrs@fuse.net>
Message-ID: <toaenei1le4iae@corp.supernews.com>
Source record: 50791

Guys ;

I've tried signing up with the qrp-l list, as suggested by many of you. However, I've run into a problem.

I got " added to list " ok, and am receiving the digests ok, but I can't seem to post. Even a message to the list manager has gone unanswered. I have tried two forms of the address: qrp-l@lehigh.edu and qrp-l@Lehigh.EDU (the one referenced in the instructions). Neither seems to work. I get no error messages regarding undeliverable mail, so it's going somewhere, but where ?

Can anybody tell me what I'm doing wrong or what have I missed ?

TNX

Mark Mohr

4995. Help!!! Trio JR500S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 18:14:54 UTC
From: Colin Parry <colin@thornhill.force9.co.uk>
Message-ID: <dTbh7.8305$NE.570396@wards>
Source record: 50792

Does anyone have a copy of the manual/service data for this receiver ?

4996. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 20:18:57 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3B851ED4.8E77951E@cfl.rr.com>
Source record: 50793

I have good news and bad news.

The good news is that the problem is likely to be dry grease in the bearings of the VFO. Many older Kenwood radios show this problem and regreasing the VFO bearings fixes it.

The bad news is that getting the VFO out of the 830 is a pain as you have to remove the front panel.

If you are in central FL, I can help you.

michael N6CHV (in Sanford FL)

Henry Gernhardt/Andrea Winship wrote:
> Folks---
>
> I went to go tune into the Breakfast Club this morning, and upon turning
> on the venerable rig aforementioned, noticed that there was no RX audio
> and the digital display was blank. The VFO appeared to simply be dead,
> as the VFO LED indicator above the display unit was not illuminated.
>
> This unit had also shown some ``jumping'', described as a bad ground in
> the AF unit according to a kenwood ASB I dug up. I also noticed in the
> service manual where the display circuitry blanks if the PLL unlocks.
> Would a bad ground such as described in Kenwood ASB-0840 also cause the
> problem I am experiencing? Any other ideas? My test equipment consists
> of a DVM, and I would like to avoid the expense of professional repair.
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

4997. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 20:31:09 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <d6p3m9.4qj.ln@darkstar.example.net>
Source record: 50794

Eamon Skelton wrote:

> I don't know much about the history of these devices. Who was Schottky?
> where was he? when were they invented/discovered? what were they
> originally called?

To answer my own question:

Walter Schottky.

born July 23, 1886, Zï¿½rich, Switzerland
died March 4, 1976, Pretzfeld, W.Germany

See: http://www.geocities.com/bioelectrochemistry/schottky.htm

for lots of interesting info about Mr Schottky and his many
important discoveries.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

4998. Re: designing scope probe

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-23 22:17:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B8580FF.2BB3D5DA@eznec.com>
Source record: 50795

amdx wrote:
>
> >This scheme should work ok at low and moderate frequencies with a short
> >piece of RG-58
>
> 14" of coax and 13Mhz, I assume that's short and a moderate frequency?

Yes, I believe that combination will work ok.

> . . .

> >That's why real probes use very special, low loss, high impedance
> >cable, and the compensating boxes have quite a few extra parts.
>
> Do you know what the impedance of the cable is? Also I have checked the
> capacitance of automotive antenna cable and found it has 8pf per foot.
> I was tempted to start with this cable but I'm looking for wearability, and
> I don't know if I could get a BNC connector on it.
> Thanks for the input Roy.

I don't know the impedance of scope cable, but I'd guess it at around 130-150 ohms. I believe the center conductor is unplated steel or other lossy material, probably to attenuate reflections. The dielectric has carbon mixed in with it, and some I've seen has a heavier carbon coating on the outer part of the cable to reduce triboelectric effects. (To illustrate the combined piezoelectric, triboelectric, and electret effects in ordinary cable, connect a couple of feet of RG-58 to your scope, lay it on the bench, and rap it with a hammer or screwdriver handle while watching the scope.) The only scope cable I've looked at is Tektronix. My guess is that other manufacturers copy it to some extent, and some probably save a few bucks by not incorporating all the features. I've never been involved in probe design, but it's a subtle art.

Roy Lewallen, W7EL

4999. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 01:42:02 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <5nbbotsfqc7uscc3t7qkos031avtdvrhqv@4ax.com>
Source record: 50796

"Adam Weber" <adam@home.email.ne.jp> wrote:

>The people who run the stalls, however, (with a few exceptions) have no
>knowledge of what they are selling. If you can't see it, you ask for it. If
>the guy doesn't have that part number, that's the end of the story!

Interesting. I have always had much better luck in Akihabara. It's
been awhile, but I seem to recall data books being dragged out and
people running to find what I was looking for. It's certainly true
that I didn't ALWAYS find what I wanted, but I almost always found
something useful.

As well as a facinating day spent in a unique shopping experience.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5000. FS: Ham Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 02:03:44 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <yAih7.57$be6.36893@news1.iquest.net>
Source record: 50697
Cross-posted to: rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.homebrew

I have scrounged up a big quantity of .1 uF Polyester/Metal Film caps. These, according to the databook, are equal to ceramic disk caps in all uses. These are NOT NPO caps. Made by S+M Components.

How about 50 for $3 or 100 for $5.00 500 for $20.00 (they're abt 15 cents each from Mouser) I ship in a 4 by 7 padded envelope.

These are .1 uF, 10%, rated at 250v - New Stock, on paper tape, nice long leads. Good for bypass caps I am told. That's what I have used them for.

I still have BNC chassis connectors for

25 for $12.40
50 for $21.00
100 for $36.00
500 for $138.00

I also have:

LM7808CT voltage regulators. TO220 case. 5 for $4.50
LM7812T voltage regulators. TO220 case. 5 for $4.50

Little trim caps 3-30pF I have 25 to sell. How about $8.00 for all 25 inc shipping.

Let me know if you're interested. All prices are post paid to the USA.

73

I do accept Paypal and will ship to foreign address for additonal postage.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

5001. Heathkit 2102 RF Power Meter Manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 03:29:24 UTC
From: Rick Ramzy <ramzy@bright.net>
Message-ID: <mVih7.28113$ga2.1069677@cletus.bright.net>
Source record: 50698
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

I am look for a full assembly manual for Heathkit 2102 RF Power Meter. I have look on the BAMA WebPage. Thay only have the schematic. Can you help me here e-mail me at ramzy@bright.net Thanks, Rick

5002. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 04:22:51 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <20010824.002202.1069631371.3062@source.homelan.org>
Source record: 50699

Hello all,

I'm wondering if anyone has used, or heard of using, vacuum diodes in a double balanced ring mixer configuration? A number of tubes actually have multiple diodes in the same envelope.

73,

Larry Braden
KC5CWG
Catonsville, Maryland

5003. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 06:14:39 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <g2pbotcjckljbm80kf5m9qtqcof9gfei7p@4ax.com>
Source record: 50700

On Fri, 24 Aug 2001 04:22:51 GMT, "Larry Braden" <lbraden@home.com>
wrote:

>I'm wondering if anyone has used, or heard of using, vacuum diodes in a
>double balanced ring mixer configuration? A number of tubes actually
>have multiple diodes in the same envelope.

If you want really high level mixers, you should look at some
transmitting mixers. The RSGB VHF/UHF manual had a single balanced
mixer built around a double tetrode, such as QQV02-6 or 3-20, with
typically a 404 MHz LO drive to the grids in push pull and a small 28
MHz rig feeding the cathode and a tank circuit tuned to 432 Mhz. I
guess a double balanced design could be done with two double tetrodes.

Paul OH3LWR

5004. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 10:00:01 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B8625E8.95AAEFF3@earthlink.net>
Source record: 50701

Michael---

> The good news is that the problem is likely to be dry grease in the
> bearings of the VFO. Many older Kenwood radios show this problem and
> regreasing the VFO bearings fixes it.

I understand that you've had experience, but that doesn't make sense to me. It seems that the display and LED would still be functional even if there were dried grease---that the VFO would have SOME output. How is it that this would cause the blanking I am experiencing?

> The bad news is that getting the VFO out of the 830 is a pain as you
> have to remove the front panel.

I've seen the exploded view. Ouch.

> If you are in central FL, I can help you.

Thanks, but I'm in central KY. Would you happen to know anyone in Central KY who could help?

Thanks,

Henry C. Gernhardt, III

5005. HELP ON DM-81 GDO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 12:18:44 UTC
From: rlts@brain.net.pk
Message-ID: <6955d88b.0108240418.522a714e@posting.google.com>
Source record: 50702

Can some one please give me the inductance values of the 6 range coils
in the DM-81 GDO.

I am much obliged.

TIA
73
AP2AUH

rlts@brain.net.pk

5006. Re: The QRP-L List

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 12:57:42 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9m61sv$5d$2@plutonium.btinternet.com>
Source record: 50707

"Mark Mohr" <themohrs@fuse.net> wrote in message
news:toaenei1le4iae@corp.supernews.com...
> Guys ;
>
> I've tried signing up with the qrp-l list, as suggested by many of
you.
> However, I've run into a problem.
>
> I got " added to list " ok, and am receiving the digests ok, but I
can't
> seem to post. Even a message to the list manager has gone unanswered. I
have
> tried two forms of the address: qrp-l@lehigh.edu and qrp-l@Lehigh.EDU (
the
> one referenced in the instructions). Neither seems to work. I get no
error
> messages regarding undeliverable mail, so it's going somewhere, but where
?
>
> Can anybody tell me what I'm doing wrong or what have I missed ?

FWIW, I can't see anything wrong with what you are doing. Both should work,
as addresses
get converted to lower-case. You could try the archive, to see if they are
there.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5007. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 13:00:53 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9m61t2$5d$3@plutonium.btinternet.com>
Source record: 50708

"Larry Braden" <lbraden@home.com> wrote in message
news:20010824.002202.1069631371.3062@source.homelan.org...
> Hello all,
>
> I'm wondering if anyone has used, or heard of using, vacuum diodes in a
> double balanced ring mixer configuration? A number of tubes actually
> have multiple diodes in the same envelope.

There used to be a twin beam tetrode valve/tube (I think) that was popular
for high-perfomance balanced mixers.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5008. Home made Low noise broadband antenna amplifier with GaAS FET ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 13:30:39 UTC
From: marcje01@yahoo.com
Message-ID: <ca10ea14.0108240530.6a7d1cef@posting.google.com>
Source record: 50703
Cross-posted to: rec.radio.amateur.homebrew,alt.radio.scanner,rec.radio.scanner,rec.radio.amateur

Hi all,

I was wondering if anyone ever built him-/herself a low noise
broadband antenna pre-amplifier with GaAs FETs.
I think it must be possible to build one. Main usage for me
would be as antenna amplifier for my discone antenna.
The reason for a GaAs FET is the low noise figure.

As a example SSB in Germany makes one from 50 - 3000 Mhz
with a gain of 13dB and a noise figure of only 1.8 dB!
See e.g.:
http://www.thiecom.de/lna3000.htm (in German)
The price is DM300,- (approx. $ 140,-)

I am wondering what type of GaAs FET they use....

Does anybody have some plans online or know of some application
notes online?

Thanks in advance,
/Marc

5009. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 14:29:34 UTC
From: waldron@plugh.wrc.Xerox.COM
Message-ID: <9m5ocephs1@news.wrc.xerox.com>
Source record: 50720

In article <3B851ED4.8E77951E@cfl.rr.com>,
Michael Neverdosky <michaeln@cfl.rr.com> wrote:
>I have good news and bad news.
>
....
>
>The bad news is that getting the VFO out of the 830 is a pain as you
>have to remove the front panel.

I had the VFO out of my 830 and did not have to remove the front panel.
I undid the screws for the counter unit and moved it aside a little.
The VFO itself comes out after removing the four screws from the
corners of the VFO that hold it into the front panel.

Cheers,

Brian

--
waldron@wrc.xerox.com

5010. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 15:08:10 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ocoon.1tp.w9wi@linux1.localdomain>
Source record: 50704

On Fri, 24 Aug 2001 10:00:01 GMT, Henry Gernhardt/Andrea Winship
><hcg_alw@earthlink.net> wrote: I understand that you've had experience, but
>that doesn't make sense to me. It seems that the display and LED would
>still be functional even if there were dried grease---that the VFO would
>have SOME output. How is it that this would cause the blanking I am
>experiencing?

I think the fact that the LED is out suggests a simpler problem - that the
radio thinks the external VFO is selected. Of course, if there is no
external VFO then it isn't going to work very well<grin>.

Is there some kind of jumper plug that's supposed to go into the external
VFO socket if you don't have the second VFO? Is it possible that jumper is
loose or missing? Also, there may have been a little switch fastened to the
inside of the external VFO socket used to connect & disconnect the internal
VFO; maybe that switch is flaky?

(I would think that dried grease would only stop the VFO at some frequencies
- that as you tuned across the band it would intermittently start and stop
working. But I don't have a whole lot of experience with the 830.)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

5011. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 16:00:30 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B867A3A.2549F42B@earthlink.net>
Source record: 50705

Doug---

> I think the fact that the LED is out suggests a simpler problem - that
> the radio thinks the external VFO is selected.

I've checked both the schematic in the manual and the PC board layouts in the service manual, and the only thing I can come up with is S21, which is the external VFO control switch, but does not appear on any of the diagrams in the service manual.

A new development:

This morning, I decided to take some time to look about on the inside of the unit. I removed the top cover and powered the unit up. The display came on, VFO light lit, and everything. With the power remaining on, I then proceeded to replace the cover and reattach all the connections. It seemed to be working. This afternoon, again, it wasn't working. No display, no VFO indicator. Power off, I removed the cover and applied power. It worked.

I don't understand how this could be happening---it seems to me that it must be some sort of mechanical failure (cold solder, bad ground, etc.) on one or more of the boards. It could also be a PLL unlock, as the unit sends a blanking signal, taking out the numeric display, if the PLL unlocks---but what would taking off the cover do to rectify that?

Whatever it is, it's very intermittant and _VERY_ annoying.

Any ideas as to where I should start sticking probes? :)

Thanks,

Henry C. Gernhardt, III

5012. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 17:10:07 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3B864407.5526196@cfl.rr.com>
Source record: 50706

Henry Gernhardt/Andrea Winship wrote:
>
> Michael---
>
> > The good news is that the problem is likely to be dry grease in the
> > bearings of the VFO. Many older Kenwood radios show this problem and
> > regreasing the VFO bearings fixes it.
>
> I understand that you've had experience, but that doesn't make sense to
> me. It seems that the display and LED would still be functional even if
> there were dried grease---that the VFO would have SOME output. How is
> it that this would cause the blanking I am experiencing?

Just having *some* output from the VFO is not good enough. The output
must
be in the proper frequency range and of enough amplitude, otherwise the
PLL looses lock and the display goes off.

The confirming point is if you have the VFO jumping freq, first a little
then getting worse and it gets better for a while if you spin the dial
lock to lock a few times. Eventually the only cure is cleaning and
greasing.

There are other *possible* causes but given the age of the radio and
design
this is both the most likely and the easiest to fix cause.

I have seen this in a TS-120, a couple of 130's and a couple of 830's.
On the TS-130 you can pull the VFO without even removing the top cover.
:-)

> > The bad news is that getting the VFO out of the 830 is a pain as you
> > have to remove the front panel.
>
> I've seen the exploded view. Ouch.
>
> > If you are in central FL, I can help you.
>
> Thanks, but I'm in central KY. Would you happen to know anyone in
> Central KY who could help?

Can't help there, sorry.

michael N6CHV

5013. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 17:15:02 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3B86452E.B997F545@cfl.rr.com>
Source record: 50709

You might check all of the wires carefully. It might be a broken wire or
even a bad solder joint at one of the jacks on one of the pcb's.

If the display is on with the cover off, check to see if the frequency
changes smoothly as you turn the dial. If it is smooth then the grease
is likely *not* the problem.

michael N6CHV

Henry Gernhardt/Andrea Winship wrote:
>
> Doug---
>
> > I think the fact that the LED is out suggests a simpler problem - that
> > the radio thinks the external VFO is selected.
>
> I've checked both the schematic in the manual and the PC board layouts
> in the service manual, and the only thing I can come up with is S21,
> which is the external VFO control switch, but does not appear on any of
> the diagrams in the service manual.
>
> A new development:
>
> This morning, I decided to take some time to look about on the inside of
> the unit. I removed the top cover and powered the unit up. The display
> came on, VFO light lit, and everything. With the power remaining on, I
> then proceeded to replace the cover and reattach all the connections.
> It seemed to be working. This afternoon, again, it wasn't working. No
> display, no VFO indicator. Power off, I removed the cover and applied
> power. It worked.
>
> I don't understand how this could be happening---it seems to me that it
> must be some sort of mechanical failure (cold solder, bad ground, etc.)
> on one or more of the boards. It could also be a PLL unlock, as the
> unit sends a blanking signal, taking out the numeric display, if the PLL
> unlocks---but what would taking off the cover do to rectify that?
>
> Whatever it is, it's very intermittant and _VERY_ annoying.
>
> Any ideas as to where I should start sticking probes? :)
>
> Thanks,
>
> Henry C. Gernhardt, III

5014. Books for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 18:14:25 UTC
From: Wild Willie <wirwin@gate.net>
Message-ID: <3B869980.907DEDDE@gate.net>
Source record: 50710

I am cleaning out to get some room (duress) wife says they go.

1. Radio handbook 23rd edition Sams.
This is the latest one. Good shape, has a stamp from an address in
Malaysia. Has a binder crack the second from the last page. Current
price $35.
Sold.

2. "The big red book" Radiotron Desighers Handbook Fourth edition ,1498

pages Hard bound
Good shape only minor abrasions. I see this book sold for $100 to
$120 on ebay.
$80 plus shipping. Save $20 to $40.

3.Reference Data for Radio Engineers Fifth edition Sams for ITT 1968.
Hardbound
45 chapters covering it all.
$20 plus shipping.

4.Electronic Designers Handbook Landee Davis and Albrecht 1957
Hardbound
23 chapters of good stuff
$20 Plus shipping.

5.Microwave Measurements Ginzton Hardbound 494 pages 1957
11 chapters of knowlege
$20 plus shipping

6. Applied Electronic Communications Kellejian Hardbound 1982
Circuits systems Transmission 14 chapters
$20 plus shipping

7. Notes on the network ATT 1980 Soft bound
Network planning devision
$10 plus shipping

8. Radio and electronics handbook 2nd edition 1952
Hardbound Warn but all there 580 pages 4.5 X 7 in size
$10 plus shipping

9. Communication system engineering handbook Hamsher
1967 927 pages 548 illustrations Hardbound
$20 plus shipping

Shipping from 33428 zip

WA8MAP Bill Irwin

5015. FS: QRP transmitter WITH Crystal.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 19:56:13 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0108241156.7a79c83f@posting.google.com>
Source record: 50711
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.amateur.equipment

We now have the "Peanut Whistle Two" QRP CW transmitter with 7.040 MHz transmit crystals available. Many hams suggested that we carry the crystals for those of you who don't have any in your junk boxes. Just got another fresh shipmet in this morning. We are offering the xtals to you AT OUR COST with the purchase of our "Peanut Whistle Two" 40 meter QRP CW transmitters. These lil' units are a blast! ONLY $19.95 without crystal...ONLY $29.95 WITH crystal!! (Plus applicable shipping and handling...) BTW, if any of you are new to QRP, 7.040 MHz is the recognized international QRP calling frequency for 40 meters.

For a photo of the PEANUT WHISTLE TWO and further deatils, please visit:

http://qth.com/dwm

73, Bill - WA8MEA

5016. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 21:16:34 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B86C44F.ADE3B3A3@earthlink.net>
Source record: 50712

Michael et. al.---

Thanks for all the input. After hearing the probable necessity of cleaning and junction checking, and recieving a couple of suggestions from a friend, I called AES. As it turns out, 95% of their squirrely VFO cases are resolved by a good cleaning.

I thank everyone for their patience and input, and appreciate all you have done. It looks like, since I don't have the desk space and organizational skills, I'm going to let the pros clean it out for me.

Thank you again,

Henry C. Gernhardt, III
KE4PIB

5017. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 21:38:04 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <20010824.173712.811565928.5211@source.homelan.org>
Source record: 50713

In article <9m61t2$5d$3@plutonium.btinternet.com>, "Leon Heller"
<leon_heller@hotmail.com> wrote:

SNIP SNIP SNIP .....

>
> There used to be a twin beam tetrode valve/tube (I think) that was
> popular for high-perfomance balanced mixers.
>
> 73, Leon
> --
> Leon Heller, G1HSM leon_heller@hotmail.con
> http://www.geocities.com/leon_heller
> Low-cost Altera Flex design kit: http://www.leonheller.com

Hello Leon,

I believe you are referring to the 7360..which was/is popular as a
mixer/modulator.

73
Larry Braden
KC5CWG
Catonsville, MD 21228

5018. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 21:49:02 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <20010824.174813.1529256947.5211@source.homelan.org>
Source record: 50714

In article <g2pbotcjckljbm80kf5m9qtqcof9gfei7p@4ax.com>, "Paul Keinanen"
<keinanen@sci.fi> wrote:

> On Fri, 24 Aug 2001 04:22:51 GMT, "Larry Braden" <lbraden@home.com>
> wrote:
>
>
>>I'm wondering if anyone has used, or heard of using, vacuum diodes in a
>>double balanced ring mixer configuration? A number of tubes actually
>>have multiple diodes in the same envelope.
>
> If you want really high level mixers, you should look at some
> transmitting mixers. The RSGB VHF/UHF manual had a single balanced mixer
> built around a double tetrode, such as QQV02-6 or 3-20, with typically a
> 404 MHz LO drive to the grids in push pull and a small 28 MHz rig
> feeding the cathode and a tank circuit tuned to 432 Mhz. I guess a
> double balanced design could be done with two double tetrodes.
>
> Paul OH3LWR
>
>
Hello Paul,

I need to get one of those RSGB VHF/UHF manuals though. I saw one once
and was totally impressed. I have seen some of the old ARRL VHF manuals
from the tube era, too, which are awesome, as well.

I hope to put a circuit diagram on the web soon with my version of a
receiver front-end using a compactron with dual pentodes in just such a
circuit as you describe. I'll post the URL as soon as it is ready and
invite comments.

73,

Larry KC5CWG
Catonsville, Maryland

5019. Re: Books for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 22:18:06 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <3dkdotkiftdv7se4tjtqa4qq0s0od7vtvl@4ax.com>
Source record: 50716

On Fri, 24 Aug 2001 14:14:25 -0400, Wild Willie <wirwin@gate.net> wrote:

>2. "The big red book" Radiotron Desighers Handbook Fourth edition ,1498

Just think if it had been only a few years earlier. Columbus could have
radioed the news back to Isabella. :-)

Bill, W7TI

5020. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 23:17:41 UTC
From: la8ak@online.no
Message-ID: <3b869406.1332322@news.online.no>
Source record: 50717

On Fri, 24 Aug 2001 09:14:39 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Fri, 24 Aug 2001 04:22:51 GMT, "Larry Braden" <lbraden@home.com>
>wrote:
>
>
>>I'm wondering if anyone has used, or heard of using, vacuum diodes in a
>>double balanced ring mixer configuration? A number of tubes actually
>>have multiple diodes in the same envelope.
>
>If you want really high level mixers, you should look at some
>transmitting mixers. The RSGB VHF/UHF manual had a single balanced
>mixer built around a double tetrode, such as QQV02-6 or 3-20, with
>typically a 404 MHz LO drive to the grids in push pull and a small 28
>MHz rig feeding the cathode and a tank circuit tuned to 432 Mhz. I
>guess a double balanced design could be done with two double tetrodes.
>
>Paul OH3LWR
>
>
not so sure about the QQE02/5 or 03/20 design, my Yaesu FL-dx-500
transmitter had a 12AT7 mixer - not particularly good in any respects,
but whatever else circuit tested they had worse gain, so complete
reconstruction was the only way out of the problems.

The circuit converted 455kHz to 9MHz, but had bad may bad spuriouses,
and my solution was to use 9MHz SSB generator with XF9A xtal filter

73
jan-martin
LA8AK

5021. Re: Help!!! Trio JR500S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 23:17:42 UTC
From: la8ak@online.no
Message-ID: <3b869694.1985473@news.online.no>
Source record: 50718

On Thu, 23 Aug 2001 19:14:54 +0100, "Colin Parry"
<colin@thornhill.force9.co.uk> wrote:

>Does anyone have a copy of the manual/service data for this receiver ?
>
>
R-599 ?

5022. Re: Hot carrier...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-24 23:17:42 UTC
From: la8ak@online.no
Message-ID: <3b869517.1605059@news.online.no>
Source record: 50719

On Fri, 24 Aug 2001 14:00:53 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>>
>> I'm wondering if anyone has used, or heard of using, vacuum diodes in a
>> double balanced ring mixer configuration? A number of tubes actually
>> have multiple diodes in the same envelope.
>
>There used to be a twin beam tetrode valve/tube (I think) that was popular
>for high-perfomance balanced mixers.
>
>73, Leon

7360, but it was beam deflection valve
it was used as balanced modulator in Yaesu FT-200/250 and the similar
Tempo-one, but later versions of Tempo One had solidstate replacement
board

73
jan-martin
LA8AK

5023. Tube Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 00:43:16 UTC
From: 2w8ji@contesting.com
Message-ID: <3b86f240.92376194@news.akorn.net>
Source record: 50721

What is about the best two-tone IM dynamic range of a tube mixer for HF??

I'm able to get only about 90 dB IMDR on a tetrode mixer, and about the same on a triode (6J6).

I'm cathode injecting a TV tuner RF amplifier type of sharp cutoff high transconductance tetrode with about 4 volts of injection. I've got a 500Hz BW MDS of -142dBm and the IM just comes out of the noise at -50dBm with 2kHz spacing.

I can sure do much worse, but I seem to reach a point at around 80dB IMDR where it is tough to get beyond unless I get really careful...even with tube type.

Are there any detailed reference books on old tube type mixer designs?? Are there any tricks like traps or special terminations???

I'd like to get up around 100dB IMDR without going to solid state mixers. If I have to convert to solid state, I might as well gut the receiver.

73 Tom

5024. FS: RF and HV parts, variable capacitors, non-inductive power resistors, high-voltage capacitors and rectifiers and much more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 01:08:01 UTC
From: Bob Levitt <parts@3web.net>
Message-ID: <3b86d0c7@isis.cybersurf.net>
Source record: 50715
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

http://www.geocities.com/myjunkboxes
Is my for sale list from my 30 year accumulation of components

High voltage parts, Radio parts, and a wide range of other components

5025. Re: Tube Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 01:57:23 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b8701e4.127995982@news.triconet.org>
Source record: 50722

On Sat, 25 Aug 2001 00:43:16 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

|What is about the best two-tone IM dynamic range of a tube mixer for
|HF??
|
|I'm able to get only about 90 dB IMDR on a tetrode mixer, and about
|the same on a triode (6J6).
|
|I'm cathode injecting a TV tuner RF amplifier type of sharp cutoff
|high transconductance tetrode with about 4 volts of injection. I've
|got a 500Hz BW MDS of -142dBm and the IM just comes out of the noise
|at -50dBm with 2kHz spacing.
|
|I can sure do much worse, but I seem to reach a point at around 80dB
|IMDR where it is tough to get beyond unless I get really
|careful...even with tube type.
|
|Are there any detailed reference books on old tube type mixer
|designs?? Are there any tricks like traps or special terminations???
|
|I'd like to get up around 100dB IMDR without going to solid state
|mixers. If I have to convert to solid state, I might as well gut the
|receiver.

Squires in "A New Approach to Receiver Front-End Design", QST Sept 1963, used the 7360 as a first mixer. I believe this was the prototype for the Squires-Sanders receiver.

He didn't report two-tone IMD as that is a more recent metric. He performed cross modulation testing and claimed that with a 2uV desired signal and an undesired signal 14 KHz removed, that the onset of noticable interference was with the interfering signal at +94 dB. This was with a 2.5 KHz BW crystal filter. He claimed 112 dB at 100 KHz spacing.

I have this issue and if you want to see it, I can scan and email.

73,

Wes N7WS
|
|73 Tom

5026. Re: Tube Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 02:28:18 UTC
From: 2w8ji@contesting.com
Message-ID: <3b870c77.99088326@news.akorn.net>
Source record: 50723

On Sat, 25 Aug 2001 01:57:23 GMT, nospam_n7ws@arrl.net (Wes Stewart)
wrote:

>Squires in "A New Approach to Receiver Front-End Design", QST Sept 1963, used
>the 7360 as a first mixer. I believe this was the prototype for the
>Squires-Sanders receiver.

Thanks!

I'd like to see that article Wes, if you could scan it.

I sure don't have any 7360's, but I have other beam deflection tubes
used in color TV demodulators. I think 7260's are over $30 each nopw
and very rare!

Any idea what the best ole tube receivers did, other than those using
beam deflection tubes???

73 Tom

5027. KD9JQ Homebrewer Mirror Site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 02:54:03 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3B87134B.C7C80F21@mc.net>
Source record: 50724

For those having difficulty pulling up sites on
http://sites.netscape.net
including mine at
http://sites.netscape.net/kd9jq/hamradio/kd9jq.html

try the mirror at http://user.mc.net/~kd9jq/hamradio/kd9jq.html

73 Chuck KD9JQ

5028. Re: Home made Low noise broadband antenna amplifier with GaAS FET ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 03:14:00 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <slEh7.74$be6.57216@news1.iquest.net>
Source record: 50725
Cross-posted to: rec.radio.amateur.homebrew,alt.radio.scanner,rec.radio.scanner,rec.radio.amateur

"Marc" <marcje01@yahoo.com> wrote in message
news:ca10ea14.0108240530.6a7d1cef@posting.google.com...
> Hi all,
>
> I was wondering if anyone ever built him-/herself a low noise
> broadband antenna pre-amplifier with GaAs FETs.
> I think it must be possible to build one. Main usage for me
> would be as antenna amplifier for my discone antenna.
> The reason for a GaAs FET is the low noise figure.
>
> As a example SSB in Germany makes one from 50 - 3000 Mhz
> with a gain of 13dB and a noise figure of only 1.8 dB!
> See e.g.:
> http://www.thiecom.de/lna3000.htm (in German)
> The price is DM300,- (approx. $ 140,-)
>
I am in the middle of a UHF TV preamp design for an indoor antenna.

>
> I am wondering what type of GaAs FET they use....
>
> Does anybody have some plans online or know of some application
> notes online?
>
FYI, I am using the HP 54143 PHEMT. It is VERY friendly with respect
to noise matching and input reflection. I have a bag of 'em
since I had to get them in quantity -- if you look, they should be
available
for between $2 and $4 each. There are more inexpensive PHEMTs,
that might be better for other LF (<3GHz applications), but the HP
seemed
to have the best combo of input noise characteristics, input matching,
gain, and ease of bias (it requires positive gate bias, so it is
slightly
easier to deal with source inductance issues.) Actually, it seems to
work
best at <1GHz wideband apps if you use about .5nh to 1.0nh, in the
source lead, therefore providing a very nice input match to reasonable
input impedances. (The HP PHEMT has very large noise circles making
input noise match easy.)

If all you need is the 2.0dB NF range, you might want to look at the
Stanford Microdevices part number sga4586, but it is just SiGe bipolar.

Both the HP PHEMT and the Stanford Microdevices parts have high output power capabilities, and arent' very susceptable to overload.

JOhn

5029. Re: Tube Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 03:24:15 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <20010824.232317.1394773099.5695@source.homelan.org>
Source record: 50726

In article <3b8701e4.127995982@news.triconet.org>, "Wes Stewart"
<nospam_n7ws@arrl.net> wrote:

> Squires in "A New Approach to Receiver Front-End Design", QST Sept 1963,
> used the 7360 as a first mixer. I believe this was the prototype for
> the Squires-Sanders receiver.
>
>

Wes, I would also very much like a scanned copy of this article if you
get a chance. I've been studying up on hollow-state mixers for the last
few months and I am very interested in balanced mixer designs.

Thanks,

Larry Braden
KC5CWG
Catonsville, Maryland

5030. Re: Tube Mixers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 03:41:53 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <58Fh7.278953$v5.28189437@news1.rdc1.ct.home.com>
Source record: 50727

Fair Radio had them for around 15 bucks each.

Pete

"Tom W8JI" <2w8ji@contesting.com> wrote in message
news:3b870c77.99088326@news.akorn.net...
> On Sat, 25 Aug 2001 01:57:23 GMT, nospam_n7ws@arrl.net (Wes Stewart)
> wrote:
>
> >Squires in "A New Approach to Receiver Front-End Design", QST Sept 1963,
used
> >the 7360 as a first mixer. I believe this was the prototype for the
> >Squires-Sanders receiver.
>
> Thanks!
>
> I'd like to see that article Wes, if you could scan it.
>
> I sure don't have any 7360's, but I have other beam deflection tubes
> used in color TV demodulators. I think 7260's are over $30 each nopw
> and very rare!
>
> Any idea what the best ole tube receivers did, other than those using
> beam deflection tubes???
>
>
> 73 Tom

5031. Mic Hookup

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 04:22:23 UTC
From: John Sicotte <jsicotte@nospam.earthlink.net>
Message-ID: <3KFh7.2015$lb.219093@newsread1.prod.itd.earthlink.net>
Source record: 50728

Radio Shack sells a simplex repeater designed for handhelds. How do I connect it to my Icom IC-229H so that it will key up?

5032. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 14:16:18 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b87b1f5$0$2303$44c9b20d@news3.asahi-net.or.jp>
Source record: 50729

"Jim Adney" <jadney@vwtype3.org> wrote in message
news:5nbbotsfqc7uscc3t7qkos031avtdvrhqv@4ax.com...
> "Adam Weber" <adam@home.email.ne.jp> wrote:
>
> >The people who run the stalls, however, (with a few exceptions) have no
> >knowledge of what they are selling. If you can't see it, you ask for it.
If
> >the guy doesn't have that part number, that's the end of the story!
>
> Interesting. I have always had much better luck in Akihabara. It's
> been awhile, but I seem to recall data books being dragged out and
> people running to find what I was looking for. It's certainly true
> that I didn't ALWAYS find what I wanted, but I almost always found
> something useful.
>
> As well as a facinating day spent in a unique shopping experience.
>
> ---
> Jim Adney jadney@vwtype3.org
> Madison,Wisconsin USA
> ---

Hi Jim

I just couldn't resist responding!

I agree with almost everything you're saying--Interesting? Without a doubt! Fascinating? You bet! Unique? Wel-l-l-l-l...yes, but only if you're passing through...I have very little choice about where to go parts hunting...It's Akihabara or the Internet and it's been that way for 6 years. In some ways, however, component shopping is actually better than it was in Australia.

The only thing that made me laugh out loud was the image of anyone RUNNING anywhere! Radio center, Tokyo Radio Dept Store, New Akihabara Center, Rajio Kai-Kan? They're always packed with people and the aisles are 3-4 feet wide maximum...RUBBING is closer to the mark, IMHO! :->

Best wishes
Adam

5033. FS: CRT's, magnetrons, klystrons etc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 16:06:03 UTC
From: arnoldg@enitel.no
Message-ID: <3b87cddd.1150336@news.enitel.no>
Source record: 50730
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hello,

The following valves are for sale. They are unused unless otherwise specified, and mostly in original boxes. They are all in stock and can be shipped immediately to anywhere in the world.

2 pcs 3069M Large, round CRT in super heavy duty packing material each in a wooden barrel. One in

completely new, obviously never unpacked (only by me for inspection), the other one seems also to be new and unused but it has

been opened by someone. US$ 250.- each

8 pcs F16-10LD CRT by GEC (some boxes says 'Haltron' on the outside. I have not opened to verify). They

are obviously all unused. US$ 150.- each

1 pcs F16-10LD CRT as above, but made by Mullard. US$ 150.-

1 pcs F16-10LD CRT as above, but this one is used. It has a little spot on the screen. US$ 75.-

4 pcs 7BP7 CRT. The boxes says 'Haltron' I have not looked inside. Unused and unopened. US$ 100.- each

5 pcs 5FP7 CRT. The boxes says 'Haltron'. Some are opened and some are sealed. All the valves are

obviously unused US$ 75.- each

6 pcs P535/1E STC pulse modulator valve. Also coded CV 427. It is similar to 715C. All unused. US$ 50.- each

1 pcs P535/1E Same as above, but this one seems to be used. US$ 30.-

6 pcs C1148 EEV pulse modulator valve. Unused and in original boxes US$ 35.- each

12 pcs C1150/1 EEV pulse modulator valve. Unused and in original boxes US$ 38.- each

3 pcs C1166 EEV pulse modulator valve. Unused and in original boxes. US$ 40.- each

1 pcs QF 451 Ferranti. Looks like a radar TR switch and unused. US$ 20.-

1 pcs KS 9-40D Mullard klystron. Unused in sealed box US$ 20.-

4 pcs M509 EEV magnetron. Also coded CV 3982. Unused in
sealed box US$ 50.- each

2 pcs M599 EEV magnetron. Unused in sealed box US$ 50.- each

1 pcs JP 9-75 Mullard magnetron. Unused in sealed box US$ 50.-

7 pcs 24B1 STC trigatron valve. Unused in original box (Strange
looking valve) US$ 30.- each

11 pcs 725A Western Electric magnetron. Unused in sealed boxes.
US$ 30.- each

Best regards,

Arnold Goks&#65533;yr
- manager -

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

5034. Re: 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 20:38:40 UTC
From: Bigdad <Bigdad@rworld.com>
Message-ID: <k1Uh7.287$ck.17251@sjc-read.news.verio.net>
Source record: 50731

"Paul Coverdale" <coverdale@sympatico.ca> wrote in message
news:3B7DBBF3.8C76C166@sympatico.ca...
> Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm
> looking to boost the output from my Ten-Tec transverter to 100w or so,
> using what I have in the junk-box.
>
> 73,
> Paul, VE3ICV
>

A pair of 6146's would do over 100 watts at 6m ... a single would do around
60 all with ease and a relatively low plate voltage and they are cheap!

5035. Re: Books for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 21:41:31 UTC
From: Wild Willie <wirwin@gate.net>
Message-ID: <3B881B8A.E4E32FDE@gate.net>
Source record: 50736

You just didn't know about it,he DID.

Bill Turner wrote:

> On Fri, 24 Aug 2001 14:14:25 -0400, Wild Willie <wirwin@gate.net> wrote:
>
> >2. "The big red book" Radiotron Desighers Handbook Fourth edition ,1498
>
> ____
>
> Just think if it had been only a few years earlier. Columbus could have
> radioed the news back to Isabella. :-)
>
> Bill, W7TI

5036. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 22:00:09 UTC
From: kb9mwr@yahoo.com
Message-ID: <2bb8e619.0108251400.4a2e1cb6@posting.google.com>
Source record: 50732

Roy Lewallen <w7el@eznec.com> wrote in message news:<3B6AFE38.D9C9F68A@eznec.com>...
> You'll find good information in _Solid State Design for the Radio
> Amateur_, by DeMaw & Hayward, available from the ARRL.
>
> Roy Lewallen, W7EL
>
> Frank Worm wrote:
> >
> > Anyone know of any good construction manuals
> > or schematics for a 50 ohm return loss bridge?
> > TIA
> > Regards
> > Frank

There is a schematic and instructions to build your own at:

http://www.gbonline.com/~multiplx/wireless/appendixF.html#11

5037. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 22:05:43 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B882137.50707@armscroft.demon.co.uk>
Source record: 50733

Henry Gernhardt/Andrea Winship wrote:

> Folks---
>
> I went to go tune into the Breakfast Club this morning, and upon turning
> on the venerable rig aforementioned, noticed that there was no RX audio
> and the digital display was blank. The VFO appeared to simply be dead,
> as the VFO LED indicator above the display unit was not illuminated.
>
> This unit had also shown some ``jumping'', described as a bad ground in
> the AF unit according to a kenwood ASB I dug up. I also noticed in the
> service manual where the display circuitry blanks if the PLL unlocks.
> Would a bad ground such as described in Kenwood ASB-0840 also cause the
> problem I am experiencing? Any other ideas? My test equipment consists
> of a DVM, and I would like to avoid the expense of professional repair.
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

Henry,

This sounds to me like a classic "dry" solder joint. We have sold many of these units and I have come upon similar issues on two or three occasions. Once fixed they just run and run! Other Kenwood radios such as the TS930 and TS940 are also well known for this problem as are Yaesu rigs of similar vintage.

GL with the fix!

VY 73

Mark, G1FYC / M5ACG / G0TYA

5038. FA: Scarce Skanti and Racal HF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 22:06:40 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B882170.1050002@armscroft.demon.co.uk>
Source record: 50734

Hi folks,

I have recently placed an extremely scarce Skanti R5000 and a very scarce Racal RA1772 receiver on eBay.

To view the Skanti please visit;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268506666

and to view the Racal please visit;

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268577909

Best regards

Mark

5039. Stability Equations...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 22:22:40 UTC
From: "Peter Norgard, KI0EG" <BojangleChicken@yahoo.com>
Message-ID: <9m98fjbv1@dipsy.missouri.edu>
Source record: 50735

This is going to be relatively long.

According to Wes Hayward's "Intro to RF Design" [IRFD]:
For unconditional stability of a linearly operated device, the Rollet factor, K, must be greater than 1
K = (1 + |deltaS|^2 -|S11|^2 - |S22|^2)/(2|S12*S21|) > 1 =>
Unconditional Stability
deltaS = S11*S22 - S12*S21, which is just the determinant of the 2-port s-parameter matrix

I just picked up another RF design book in order to prepare for my senior capstone EE lab. The author, David Pozar, expresses some additional conditions for stability in "Microwave and RF Design of Wireless Systems" [MRFD]:
For unconditional stability of a linearly operated device, not only must the Rollet factor be greater than one, but also deltaS must be less than one, |S11| < 1 and |S22| < 1.

Why does MRFD list additional constraints? Is there any reason not to list the additional constraints, as in IRFD? Was there a change in the current thinking regarding stability calculations recently?

Pete
ki0eg

5040. 2.4 GHz yagi for wireless LAN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-25 22:46:25 UTC
From: kb9mwr@yahoo.com
Message-ID: <2bb8e619.0108251446.69dd7079@posting.google.com>
Source record: 50737

This is a reply to an older message that I missed.. This guy
did a great job explaining the math & formulas for Part 15
but skipped the whole Part 97 implementation;

>From: "rshprd" <ka9flx@arrl.net>
>Newsgroups: rec.radio.amateur.homebrew
>Subject: Re: 2.4 GHz yagi for wireless LAN
>Date: Tue, 17 Jul 2001 22:35:11 GMT
>
>
>The rules (15.247) are very specific (and somewhat cryptic).

Here I try to remove the cryptic part:
http://www.qsl.net/kb9mwr/projects/wireless/part15.html

>
>Oh yeah, before we go any further, all of this stuff only applies to
spread
>spectrum devices!!!
>
>The first thing you have to do is watch the ERP and EIRP along with
the dBm,
>dBd, and dBi. The last one, dBi, can get you into trouble. dBi is
>referenced to an Isotropic antenna or "perfect radiator", that does
not
>exist. However, a dipole dBd, which to most of us is a basic
antenna, has
>2.1dB gain compared to an Isotropic. Power is still dBm, but it gets
>muddied in the rules because of the constant references to EIRP and
dBi.
>
>So forget watts and RX microvolts altogether for this stuff, and
stick with
>the decibel all the way around. If you are really hung up on watts,
do it
>after all the calculations. :-)
>
>Basically, in an omni configuration, the FCC limit is +30 EIRP, which
is a
>little more than half a watt ERP.
>
>In a point - multipoint configuration, where a common site is feeding
many
>remote points, the remote units are allowed up to +36 EIRP if they
employ a

>directional antenna. Basically, the FCC gives you a little more
because you
>are focusing your signal.
>
>It is important to note, that in the above scenarios, the FCC limits
the
>power fed to the "intentional radiator" to +30dBm. The EIRP
restriction
>obviously makes this allowable only with a 0dBi gain antenna, or in
the
>latter case above 6dBi gain antenna.
>
>Now, there is one wonderful loophole remaining for point to point
links.
>That is as follows:
>
>Start with the maximum allowable power at the "intentional radiator"
(a.k.a.
>antenna input) of +30dBm. For every 3dB of antenna gain, over 6dBi,
take
>away 1dB of allowable power to the "intentional radiator". Again,
the FCC
>is providing more to the user for the increased focus of the antenna.
>
>With this last scenario, it is possible, with higher gain antennas
(+20dBi
>Parabolas), to use an off the shelf WLAN transceiver with a typical
output
>power of 100mW (+20dBm), and achieve some pretty high EIRP/ERP that
is
>completely legal.
>
>Point 2 Point (ONLY) e.g. both antennas are directional.
>Example: (and I am incorrectly assuming no transmission line loss.
Hey, its
>an example!)
>
>+30dBm power to the intentional radiator with +6dBi gain, EIRP= +36
>+29dBm power to the intentional radiator with +9dBi gain. EIRP= +38
(ooh, 2
>more dB!)
>+28dBm power to the intentional radiator with +12dBi gain. EIRP= +40
>(starting to get the picture?)
>+27dBm power to the intentional radiator with +15dBi gain. EIRP= +42
>(Theoretical limit for a high power off shelf unit)
>+26dBm power to the intentional radiator with +18dBi gain. EIRP= +44
>(Starting to really get good!)
>+25dBm power to the intentional radiator with +21dBi gain. EIRP= +46
>+24dBm power to the intentional radiator with +24dBi gain. EIRP= +48
(need I

>continue?)
>
>Typical RX thresholds are between -77 and -87dBm for a quality link.
>Remember antenna gain works both ways!
>
>As can be seen above, the higher power off the shelf models 500mW
(+27dBm)
>are, ironically, less desirable because you will reach the legal
limit
>sooner with less antenna gain, whereas a lower power unit will allow
a
>higher gain antenna (tightly focused beam), providing a better
quality link.
>
>However, 2.4GHz is microwave, and subject to the same problems as any
other
>microwave system. Therefore, before you start thinking about making
that 5
>to 15 mile hop between your place and your buddy, consider this.
>
>You will still need to do a proper path analyses for a 2.4GHz point
to point
>link, and even if you can meet all of those requirements, remember
that
>these are still part 15 devices. If you cause interference to
ANYBODY,
>including the existing amateur service at 2.4GHz, you must cease
operation.
>This has already happened in California, where a WLAN based network
provided
>was ordered to shutdown operation because the system interfered with
>licensed amateur operations, which have priority.
>
>Now, I know what some might be thinking. "If I am a HAM, then I can
continue
>to operate as a primary service". Wrong! Not unless you want to use
a
>modulation scheme that is legal for the service, and oh yeah, that
pesky 10
>minute ID requirement. Kind of blows away the whole WLAN idea now
doesn't
>it? ;-)
>

As of late 1997 all the restrictive spreading codes have been done
away with,
it is quite possible to use Any off the shelf wireless device
reclassifed
under Part 97. Part 97.311 specifically deals with amateur SS.
See my overview which covers all the issues of reclassifying these

cards:

High Speed Amateur Packet Radio Using Part 15 Wireless Cards:
http://www.qsl.net/kb9mwr/projects/wireless/plan.html

As for the ID requirement, thats not a problem just embed your
callsign in a
ping packet that is automatically sent every 10 mins. (Also covered
in my
link above)

>Yes, these things are wonderful and getting cheaper. Will they
replace
>terrestrial microwave?, not likely. However, they do have a lot of
>excellent possibilities for both amateurs and non-amateurs. I could
easily
>see, with some coordinated effort, these devices being used to create
a
>regional area wireless network backbone, something akin to packet
(only lots
>better), no small effort there, but possible.

Bingo! Theey are cheap and I have a cost comparision on my page
comparing a
modified part15 set up to a conventional packet setup, guess which one
is
cheaper? We know which one is faster.

>
>The speeds are getting up there too. 10Mbps is available today,
which
>provides about 5Mbps usable throughput after overhead, sometimes
better,
>sometimes worse. Still, even the older 1.6 and 2.0 Mbps devices
provide
>reasonable throughput that would rival ISDN or cable.
>
>Food for thought in any case!
>
>Regards,
>Bob-KA9FLX
>mailto:ka9flx@arrl.net
>http://www.qsl.net/ka9flx

I personally feel this is the future for amateur packet radio or it
should be. And TAPR's development of their 900 MHz frequency hopping
SS radio also suggest this.

5041. Re: Solarcon IMAX 2000 low on received mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 00:19:44 UTC
From: kg4ggx@aol.com
Message-ID: <20010825201944.13104.00003592@mb-ms.aol.com>
Source record: 50738

Hi
The IMAX 2000 is a dc grounded antenna. So on somw frequencies it appears as a short circuit to the reciever. To listen on the lower bands, unscrew the coax connector at the rig and slide it back so only the center pin is connected.
73 Rob KG4GGX

5042. Re: grid leak resistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 01:55:57 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B88572D.E8FFE6E5@world.std.com>
Source record: 50739

Thanks for sharing the photo with us.... I appreciated it.

I am only newly a QCWA member and exploring the older technology....

My dad and I are both building tube regenerative receivers...

Clyde

Marty wrote:

> Here's one from the bottom of the box. Vintage 1920's.
>
> Marty K1FHR (granddad)
>
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> news:9llu2s$j39$1@plutonium.btinternet.com...
> > When in an actual circuit there's no difference between a grid-leak
> > resistor and any other sort of resistor of similar wattage and
> > value. It is merely the circuit location which gives it its name.
> >
> > But if you insist on lookalikes of pre-1940 radio resistors start
> > looking at the very bottom your grandad's junk box - if it is
> > still collecting dust in that attic. They are the solid-carbon
> > variety with body-tip-dot in different colours.
> > --
> > **********
> > Regards, Reg, G4FGQ
> > Free radio design software
> > http://www.g4fgq.com
> > **********
> >
> > coffeedrinker wrote -
> > >
> > > Anyone on the net sell grid leak resistors for older radios?????
> >
> >
> >
>
> [Image]

5043. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 03:13:50 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <t3qgotg6e318ijdr84e8j7507snjj7fjjd@4ax.com>
Source record: 50740

"Adam Weber" <adam@home.email.ne.jp> wrote:

>I agree with almost everything you're saying--Interesting? Without a doubt!
>Fascinating? You bet! Unique? Wel-l-l-l-l...yes, but only if you're passing
>through...I have very little choice about where to go parts hunting...It's
>Akihabara or the Internet and it's been that way for 6 years. In some ways,
>however, component shopping is actually better than it was in Australia.

Sounds like you are there full time, while I have only been there a
few months at a time for the past 20 years. Most of my trips to
Akihabara were to buy parts to fix the equipment I was sent over to
work on, so we just need caps, transistors, ICs, etc.

>The only thing that made me laugh out loud was the image of anyone RUNNING
>anywhere! Radio center, Tokyo Radio Dept Store, New Akihabara Center, Rajio
>Kai-Kan? They're always packed with people and the aisles are 3-4 feet wide
>maximum...RUBBING is closer to the mark, IMHO! :->

Since I was working, I would often end up there on weekdays. I suspect
you were there on Sat. It's a lot easier to get around at 11AM
thrusday morning. But, you bet, I've been there when it is crammed,
too. ;-)

Unfortunatly, that was a former job and I'm unlikely to ever get back
there. Great memories. I miss it.

Where are you living there?

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5044. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 09:52:04 UTC
From: la8ak@online.no
Message-ID: <3b8823d3.103696755@news.online.no>
Source record: 50741

On Sat, 25 Aug 2001 23:05:43 +0100, Mark <mark@armscroft.demon.co.uk>
wrote:

>
>This sounds to me like a classic "dry" solder joint. We have sold many of these
>units and I have come upon similar issues on two or three occasions. Once fixed
>they just run and run! Other Kenwood radios such as the TS930 and TS940 are also
>well known for this problem as are Yaesu rigs of similar vintage.
>
>GL with the fix!
>
>VY 73
>
>Mark, G1FYC / M5ACG / G0TYA
>
and 'dry solder joint' often use to be a particular joint where a
particular component often had to be be installed late in the mounting
process...., any idea about such cases?

Remember an early Standard C158 (?) had this particular problem, an RF
choke in audiofilter after clipper wasn't soldered in one end. Usually
almost impossible to trace unless you had been told where to look

73
Jan-Martin

5045. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 09:52:04 UTC
From: la8ak@online.no
Message-ID: <3b882301.103486055@news.online.no>
Source record: 50742

On Fri, 03 Aug 2001 12:40:40 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>You'll find good information in _Solid State Design for the Radio
>Amateur_, by DeMaw & Hayward, available from the ARRL.
>
>Roy Lewallen, W7EL
>
>Frank Worm wrote:
>>
>> Anyone know of any good construction manuals
>> or schematics for a 50 ohm return loss bridge?
>> TIA
>> Regards
>> Frank

once found a commercial version with transmission line through some
ferrite beads, worked above 1GHz. Does somebody have more information?
Believe it was a balanced, but low z transmission line

Tried to copy it, but wasn't particularly successful

73
Jan-Martin

5046. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 11:11:43 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B88D9AF.7F559325@earthlink.net>
Source record: 50743

Mark, Jan-Martin---

> >This sounds to me like a classic "dry" solder joint.

> and 'dry solder joint' often use to be a particular joint where a
> particular component often had to be be installed late in the mounting
> process...., any idea about such cases?

If you happen to know where to look, that would be wonderful. As it stands, I turned the unit on yesterday, and it seemed to be working perfectly. Same today. I will eventually want to send it in to have the VOX circuit fixed, but for now, I would like to keep it here as it is my _ONLY_ HF rig.

BTW: Any ideas on the VOX circuit? It simply doesn't work---no QSK, no sidetone, no VOX, no matter the setting of the VOX gain control (which is also the VOX switch, assuming VOX is on).

Thanks,

Henry C. Gernhardt, III
KE4PIB

5047. need help!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 12:44:50 UTC
From: Josip Jakovac <josipj@mioc.hr>
Message-ID: <9maqro$i40$1@bagan.srce.hr>
Source record: 50744

Hello.
I bought recently a velleman kit (K1771).
It's a fm oscillator. I assembled it, and turned it on, but it doesn't send any signal. Do I have to do something else or just connect everything to it's places marked on the board?

Excuse my bad english...

5048. FS: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 15:58:03 UTC
From: arnoldg@enitel.no
Message-ID: <3b891d3c.24983391@news.enitel.no>
Source record: 50745
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hello,

PC 900 is a B7G base triode with a heater of 3.9V 0.3A, u=76 and a gm
of 14.5mA/V
A very promising valve to experiment with in low-level stages, both
audio and HF/VHF amplification. It was developed for use in VHF and
UHF television tuners.
I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
each if you buy 100 pcs or more. The valves are NOS, in mint
condition, original boxes and the label is Haltron, but they are
rebranded, and I think the are originally made by Philips or Siemens.
E-mail me if interested.

Best regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

5049. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 16:20:43 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b89209a$0$2304$44c9b20d@news3.asahi-net.or.jp>
Source record: 50746

"Jim Adney" <jadney@vwtype3.org> wrote in message
news:t3qgotg6e318ijdr84e8j7507snjj7fjjd@4ax.com...
> "Adam Weber" <adam@home.email.ne.jp> wrote:
>
> Sounds like you are there full time, while I have only been there a
> few months at a time for the past 20 years. Most of my trips to
> Akihabara were to buy parts to fix the equipment I was sent over to
> work on, so we just need caps, transistors, ICs, etc.
>
> >The only thing that made me laugh out loud was the image of anyone
RUNNING
> >anywhere! Radio center, Tokyo Radio Dept Store, New Akihabara Center,
Rajio
> >Kai-Kan? They're always packed with people and the aisles are 3-4 feet
wide
> >maximum...RUBBING is closer to the mark, IMHO! :->
>
> Since I was working, I would often end up there on weekdays. I suspect
> you were there on Sat. It's a lot easier to get around at 11AM
> thrusday morning. But, you bet, I've been there when it is crammed,
> too. ;-)
>
> Unfortunatly, that was a former job and I'm unlikely to ever get back
> there. Great memories. I miss it.
>
> Where are you living there?
>

Hi Jim

I'm living in [Oh-Mi-Gosh!] SAITAMA--Tokyo people know it as a huge, remote prefecture, famous for farming and mountains. I'm actually only one local-train-stop out of "greater Tokyo", tho, and have to transfer once to get to Akihabara, less than 30min away. My days off are Mon and Tue, so that's when I spend most of my time there. 11:00am on any day would be fine, I'll bet, as it's only an hour after the usual Tokyo "opening time". I can only go there in the afternoons. It's always packed, then!

I know that I'd miss it, too, if I had to leave.

Cheers
Adam

5050. Re: Stability Equations...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 16:21:10 UTC
From: nospam_n7ws@arrl.net
Message-ID: <3b891fb4.129948197@news.triconet.org>
Source record: 50647

On Sat, 25 Aug 2001 17:22:40 -0500, "Peter Norgard, KI0EG"
<BojangleChicken@yahoo.com> wrote:

|This is going to be relatively long.
|
|According to Wes Hayward's "Intro to RF Design" [IRFD]:
|For unconditional stability of a linearly operated device, the Rollet
|factor, K, must be greater than 1
| K = (1 + |deltaS|^2 -|S11|^2 - |S22|^2)/(2|S12*S21|) > 1 =>
|Unconditional Stability
| deltaS = S11*S22 - S12*S21, which is just the determinant of the 2-port
|s-parameter matrix
|
|I just picked up another RF design book in order to prepare for my senior
|capstone EE lab. The author, David Pozar, expresses some additional
|conditions for stability in "Microwave and RF Design of Wireless Systems"
|[MRFD]:
|For unconditional stability of a linearly operated device, not only must the
|Rollet factor be greater than one, but also deltaS must be less than one,
||S11| < 1 and |S22| < 1.
|
|Why does MRFD list additional constraints? Is there any reason not to list
|the additional constraints, as in IRFD? Was there a change in the current
|thinking regarding stability calculations recently?

G. Gonzalez in "Microwave Transistor Amplifiers", 1984, Prentice-Hall, p99 says
all conditions (K > 1, |delta| < 1, |S11| < 1 and |S22| < 1) are required for
unconditional stability.

Wes Stewart N7WS
|
|Pete
|ki0eg
|
|

5051. AIR VARIABLE FS;

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 16:26:47 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3B8922D6.4B008DD5@netdoor.com>
Source record: 50648
Cross-posted to: rec.radio.amateur.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.swap

NEW never used air variable capacitor for sale or possible trade.
Sixteen rotors/stators with the rotors 3/8" apart and the stators are of
course in between. Do not know the manufacturer, but this thing looks
just like the air variable in the Palstar tuner
http://www.palstairinc.com/palmain.htm

I'm asking $50.00 or what to trade? I'm interested in PSK31 stuff now,
but what ever!

Butch KF5DE

5052. Re: Stability Equations...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 16:53:12 UTC
From: "Peter Norgard, KI0EG" <BojangleChicken@yahoo.com>
Message-ID: <9mb9hprfd1@dipsy.missouri.edu>
Source record: 50649

Wes Stewart <nospam_n7ws@arrl.net> wrote in message
news:3b891fb4.129948197@news.triconet.org...
> On Sat, 25 Aug 2001 17:22:40 -0500, "Peter Norgard, KI0EG"
> <BojangleChicken@yahoo.com> wrote: BLAH BLAH BLAH
>
> G. Gonzalez in "Microwave Transistor Amplifiers", 1984, Prentice-Hall, p99
says
> all conditions (K > 1, |delta| < 1, |S11| < 1 and |S22| < 1) are required
for
> unconditional stability.
>
> Wes Stewart N7WS

That's what I was looking for, I think. I do not understand why the magnitude of the determinant must be less than one, though. The other two conditions, (|S11| and |S22| both < 1) seems to make some sense to me, assuming my way of thinking about it is correct. I guess all of this means I just have to read deeper and actually work at deriving some of the equations.

Thanks
Pete ki0eg

5053. Mirror for KD9JQ Homebrewer's Page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 17:53:12 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3B893788.AC9DAD22@mc.net>
Source record: 50650

It appears netscape is not monitoring their web server nor
reading their email as it has been down for at least 4 days
for the second time in two weeks.

If you can't get to

jttp://sites.netscape.net/kd9jq/hamradio/kd9jq.html

then try;

http://user.mc.net/~kd9jq/hamradio/kd9jq.html

If this lack of response to their web server continues
I may have to move it to the mirror permanently.

For those not familiar with my web site I provide
ham radio homebrewing resources and info, along
with some freeware design programs.

I will answer technical questions on what I'm experienced
with or help direct you to a site if not listed.

73 Chuck KD9JQ

5054. What's this HP gadget?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 21:24:02 UTC
From: Norm Clanton <nclanton@megalink.net>
Message-ID: <3B8968F2.4AB2F0B3@megalink.net>
Source record: 50651

I recently acquired a Hewlett-Packard Model 455A Probe T Connector, which permits the measurement of RF voltages on 50 ohm coaxial lines using the RF probe on the HP 410B&C instruments. With it came an HP 46A-95C. It's a nickel-plated plug which slides perfectly into the probe port of the 455A, and has a type N female on the outside end. The plug end appears to be filled with an epoxy potting material, with a small spring pin protruding from the center. There's a straight through connection between the pin and the center of the N connector, and it measures 75 ohms between the center pin and the outside. It appears to be made to work with the 455A, but just how remains a mystery. Could anyone shed any light on this curious gadget? Thanks.

Norm KA1SG

5055. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 22:44:09 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3B897BB9.285D4598@innercite.com>
Source record: 50652
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

I too, am in the repair business and do not take lightly the ethics of repair. They had the equipment for almost a year and never even opened it up. They never responded to my requests for an update or sent me any kind of communications regarding the status of its repair. If you or I ever ran our business that way we would not be able to enjoy our good reputations. Don

Neville Y wrote:

> Sorry Donald, I really do not understand your need to express your views
> here. As I read your post you paid $110 when they estimated "under $300". We
> have your side of the story and I do believe you version, but I think it is
> fair to have the other side. I am involved in servicing and while perhaps
> 95% of all repairs are straightforward, some do go wrong. I'm not really
> trying to give excuses, but some of the problems I have encountered include.
> Leaving a message at the contact phone number regarding repair and they do
> not pass it on (they will never admit this later).
> Wrong phone number supplied.
>
> No response to phone calls (or message left). Please understand I may have
> 50 repairs at any one time and I can not call each client 5 times daily
> (work it out).
> Email can be impossible. I often receive over 300 messages per day. How can
> I read or replay to them all and still have time to repair your radio?
>
> I have also hung up on callers. Some can never see reason.
> No doubt others have had bad servicing experiences, but many will have good
> ones. We will always hear the complaints.
>
> Best Regards
> Neville
>
> "Donald E. Smith" <desmith@innercite.com> wrote in message
> news:3B7C1DDB.53B4193B@innercite.com...
> > This is a warning notice to all in radio land about a test equipment
> > company located in Auburn, KY. They are Auburn Metrological Labs at
> > 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270
> > 542-6000.
> >
> > Based on information given to me by their General Manager, Ken Knowles,
> > they would be able to repair my Cushman CE-50 that was having a receive
> > problem. It generated fine and all pll were locking fine. They gave me
> > an estimate of under $300.00 with a turnaround of about one week. I
> > sent it to them for repair on February 24, 2001 based on this

> > information. After a couple of months went by without even an
> > acknowledgment of receiving it, I tried to contact them by telephone and
> > email. Still I received no information on it and after numerous emails
> > and a couple of letters, one being a legal demand letter, the unit
> > showed up at my door with a 110.00 COD charge. After contacting the
> > company I was advised that Ken Knowles was on vacation and the service
> > manager was arrogant, rude and even hung up on me. If you value your
> > equipment and it is in need of repairs or calibration, PLEASE do Not
> > send it to them. You will regret it.
> >
> > My options, against them, are not exhausted but I would rather have
> > never had the problem to begin with. It has the tendency to taint all
> > repair facilities. This outfit was recommended by a person from one of
> > the amateur news groups. I hope I have prevented any grief for others
> > by this post. Thanks for listening to my ranting. 73's Don Smith
> > KB6GQA
> >

5056. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 22:50:27 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B897D33.A3746D76@nf.sympatico.ca>
Source record: 50653

Eamon Skelton wrote:
Sure everybody knows that electric
current flows from positive to negative.

Tis to be sure it do! From plus to minus is good enough for me. The electrons and the holes can do what they like!
Terry.
PS Those headphones with 200 to 300 (or more!) volts DC around my head would worry me! Why doesn't he use a simple isolating transformer. Almost anything would do?
PPS. I think I tried this once? Low Z phones in the cathode circuit? Good; one side grounded. Bad; DC flows through headphones. Also Bad; if phones go open (or open connection) one side of or the whole headset 'hot' via cathode-plate circuit, bu probably better than in B+ line?

5057. Re: Tube Rectifier Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 23:01:32 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B897FCC.CFAB450D@nf.sympatico.ca>
Source record: 50654

Rick Haub wrote:

> > > I'm trying to design a tube receiver and have been looking at a number
> > > of designs to get some idea of how to proceed. If you look at the
> > > following web site:
> > >
> > > http://www.qsl.net/n6ev/57-116S.jpg

Oops. Didn't realize (from the questions being asked) that you were/are
a RADIO AMATEUR!
Further comment; if you will permit?
"Wot no fuse/s". Not even in the primary of the power transfomer?
Terry.

5058. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-26 23:30:27 UTC
From: Chris Johnson <cmjohnson@cfl.rr.com>
Message-ID: <3B898753.CBD89615@cfl.rr.com>
Source record: 50655
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Here are the rules you must accept in any service industry:

Never make excuses. The truth is the only answer that is ever acceptable.

The customer may not always be right, but you must treat him as if he is.

Respect and courtesy for your customers, workers, and suppliers are
absolutely essential.

Never over-promise. If it's going to take a year, say so.

Never under-estimate. If it's going to take a grand to fix it, say so.

If you're so busy that you can't attend to the details of customer service,
then you can't afford not to hire somebody who will take on that task.

If you point your finger at a customer and say 'He's the problem!' then
note that while one finger's pointing at him, the rest are pointing back
at you.

An argument occurs at the intersection of two jerks. You can avoid
the argument by behaving in a non-jerk-like manner.

Deliver the unit as promised. If you can't get to it in the quoted time,
contact the customer and explain. If he asks for it back, return it
without hesitation, with an apology, and postage paid. It's worth it
for good customer relations.

Your standard of service must be the same for all customers.
Do EVERY job to the highest standards and EVERY customer
will be pleased and will deal with you again.

Last but not least, NEVER jump customer's equipment in line.
They come in first, they get serviced first. No customer's equipment
should ever be set aside to do an expedited repair on another unit
for a more important customer. No customer is any more or less
important than any other because they're all paying you.

CJ

Neville Y wrote:

> Sorry Donald, I really do not understand your need to express your views
> here. As I read your post you paid $110 when they estimated "under $300". We
> have your side of the story and I do believe you version, but I think it is
> fair to have the other side. I am involved in servicing and while perhaps
> 95% of all repairs are straightforward, some do go wrong. I'm not really

> trying to give excuses, but some of the problems I have encountered include.
> Leaving a message at the contact phone number regarding repair and they do
> not pass it on (they will never admit this later).
> Wrong phone number supplied.
>
> No response to phone calls (or message left). Please understand I may have
> 50 repairs at any one time and I can not call each client 5 times daily
> (work it out).
> Email can be impossible. I often receive over 300 messages per day. How can
> I read or replay to them all and still have time to repair your radio?
>
> I have also hung up on callers. Some can never see reason.
> No doubt others have had bad servicing experiences, but many will have good
> ones. We will always hear the complaints.
>
> Best Regards
> Neville
>
> "Donald E. Smith" <desmith@innercite.com> wrote in message
> news:3B7C1DDB.53B4193B@innercite.com...
> > This is a warning notice to all in radio land about a test equipment
> > company located in Auburn, KY. They are Auburn Metrological Labs at
> > 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270
> > 542-6000.
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> > an estimate of under $300.00 with a turnaround of about one week. I
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> > information. After a couple of months went by without even an
> > acknowledgment of receiving it, I tried to contact them by telephone and
> > email. Still I received no information on it and after numerous emails
> > and a couple of letters, one being a legal demand letter, the unit
> > showed up at my door with a 110.00 COD charge. After contacting the
> > company I was advised that Ken Knowles was on vacation and the service
> > manager was arrogant, rude and even hung up on me. If you value your
> > equipment and it is in need of repairs or calibration, PLEASE do Not
> > send it to them. You will regret it.
> >
> > My options, against them, are not exhausted but I would rather have
> > never had the problem to begin with. It has the tendency to taint all
> > repair facilities. This outfit was recommended by a person from one of
> > the amateur news groups. I hope I have prevented any grief for others
> > by this post. Thanks for listening to my ranting. 73's Don Smith
> > KB6GQA
> >

5059. Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 01:02:26 UTC
From: Peter <ve9ptr@hotmail.com>
Message-ID: <C_gi7.1070$fb.124615@news-nb00s0.nbnet.nb.ca>
Source record: 50656
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I'm looking for any instructions/plan for a homebrew 80m antenna. I'm looking for something thats not too big as my space is limited.

Any advice???
Pete

5060. Re: Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 02:05:26 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3B89AAC5.90B48ACE@tampabay.rr.com>
Source record: 50657
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

hey peter
here is a website with tons of plans and info on antenna building just
rememeber that a good efficent antenna for 80 meters cant only be so
small before you just wind up with a dummy load
http://www.ac6v.com/antprojects.htm

Peter wrote:

> I'm looking for any instructions/plan for a homebrew 80m antenna. I'm
> looking for something thats not too big as my space is limited.
>
> Any advice???
> Pete

5061. FS: Motorola MRF555's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 02:59:54 UTC
From: a2k@ripco.com
Message-ID: <9mcd3a$6ve$2@gail.ripco.com>
Source record: 50658

45 Motorola MRF555 low power uhf rf amps for 2.00 each,minimum of 5
plus 1.50 shipping. or best offer on the lot,click below for complete specs

www.microsemi.com/datasheets/MRF555.pdf

--

5062. Microstripline help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 03:46:05 UTC
From: "Peter Norgard, KI0EG" <BojangleChicken@yahoo.com>
Message-ID: <9mcfq3$4vn$1@dipsy.missouri.edu>
Source record: 50659

I'm wondering if anyone could recommend a decent book dealing with microstripline construction techniques? I'm preparing for a major laboratory in my degree and I'd like to be able to design and build an entire 900MHz receiver subsystem using microstripline and surface-mount techniques. Ideally I'd be able to buy the book from Amazon.com or some place similar...

Thanks for any thoughts.
Pete
ki0eg

5063. Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 05:03:26 UTC
From: David Findlay <david_j_findlay@yahoo.com.au>
Message-ID: <20010827.150315.352118606.23184@yahoo.com.au>
Source record: 50660

In email discussions with a weather beureau person, he told me that an amateur in the UK built
his own reciever that picked up the reflections and built an image out of them. I was just wondering if anyone knows of any web sites about this. I have tried google, but with no useful
results. Thanks,

David

5064. Re: Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 10:50:58 UTC
From: kelly@dvol.com
Message-ID: <d22b54c3.0108270250.4489514b@posting.google.com>
Source record: 50662
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Peter" <ve9ptr@hotmail.com> wrote in message
news:<C_gi7.1070$fb.124615@news-nb00s0.nbnet.nb.ca>...
> I'm looking for any instructions/plan for a homebrew 80m antenna. I'm
> looking for something thats not too big as my space is limited.
>
> Any advice???
>
I've had great success dxing on 80/75 with a 130 foot inverted L, 65
foot vertical "element", 65 foot horizontal element, dedicated
homebrewed very high Z tuner at the feedpoint, couple ground rods.
>
> Pete
>
w3rv

5065. Re: Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 11:47:06 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B8A333A.C3AA8F68@bloomer.net>
Source record: 50663
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

The ARRL Antenna Book shows how to make "shortened dipoles" for limited space. I built a 1/2 size antenna for 160M. It worked, but efficiency wasn't too good...plus I had it only about 10 feet off the ground ;) Probably the two worst effects of running shortened antennas is lower efficiency and narrower bandwidth. The 160 I descirbed had a 2:1 SWR bandwidth of about 12 KHz, so as you can see, tuning it was pretty critical (and I thought having it so close to the ground would widen the bandwidth...HA!)

Good luck, I'm sure you'll find something workable.

Scott
N0EDV

Peter wrote:
>
> I'm looking for any instructions/plan for a homebrew 80m antenna. I'm
> looking for something thats not too big as my space is limited.
>
> Any advice???
> Pete

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

5066. Re Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 13:40:56 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3B8A4DE8.F79F0FE7@erols.com>
Source record: 50661

Question: How do they (TV weather stations) locate and desplay lighning strikes? Do they use DF antennas as used in Fox Hunting? What frequencies do they monitor?
Ralph

5067. Re: Re Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 14:12:27 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9okiv6.iud.w9wi@linux1.localdomain>
Source record: 50664

On Mon, 27 Aug 2001 06:40:56 -0700, Ralph Lane <crlane@erols.com> wrote:
>Question: How do they (TV weather stations) locate and desplay lighning
>strikes? Do they use DF antennas as used in Fox Hunting? What
>frequencies do they monitor?

To my knowledge they all subscribe to a service provided by Global
Atmospherics in Tucson. Global's website on
http://www.glatmos.com/nldn/nldn.html provides a bit of an explanation of
how it works, though they don't say exactly what frequencies are monitored.
The data is delivered to the local stations by satellite.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

5068. Re: 813 on 50 MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 15:17:49 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <3b8a6413.4150417935@13.0.32.55>
Source record: 50672

On Sat, 25 Aug 2001 20:38:40 GMT, "Bigdad" <Bigdad@rworld.com> wrote:

>
>"Paul Coverdale" <coverdale@sympatico.ca> wrote in message
>news:3B7DBBF3.8C76C166@sympatico.ca...
>> Anyone know whether an 813 can provide any useful output on 50 MHz ? I'm
>> looking to boost the output from my Ten-Tec transverter to 100w or so,
>> using what I have in the junk-box.
>>
>> 73,
>> Paul, VE3ICV
>>
>
>A pair of 6146's would do over 100 watts at 6m ... a single would do around
>60 all with ease and a relatively low plate voltage and they are cheap!
>
>

Just curious, at that power level would it be more economical to go
solid state rather than hollow state?

73,
Jim
N2VNO

5069. Re: Microstripline help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 17:11:04 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9mduvb$g8t$1@neptunium.btinternet.com>
Source record: 50665

"Peter Norgard, KI0EG" <BojangleChicken@yahoo.com> wrote in message
news:9mcfq3$4vn$1@dipsy.missouri.edu...
> I'm wondering if anyone could recommend a decent book dealing with
> microstripline construction techniques? I'm preparing for a major
> laboratory in my degree and I'd like to be able to design and build an
> entire 900MHz receiver subsystem using microstripline and surface-mount
> techniques. Ideally I'd be able to buy the book from Amazon.com or some
> place similar...

The ARRL publishes a couple of books on microwave design that covers
microstrip construction.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5070. Re: Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 17:15:25 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9mdva9$1oq$1@plutonium.btinternet.com>
Source record: 50666

"David Findlay" <david_j_findlay@yahoo.com.au> wrote in message
news:20010827.150315.352118606.23184@yahoo.com.au...
> In email discussions with a weather beureau person, he told me that an
amateur in the UK built
> his own reciever that picked up the reflections and built an image out of
them. I was just
> wondering if anyone knows of any web sites about this. I have tried
google, but with no useful
> results. Thanks,

I vaguely remember an article on this. It was either published in
Electronics World or RadCom, probably the former. It was several years ago.
I've got an index to EW on disk somewhere, so I might be able to dig it up.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5071. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 17:39:26 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9me02koqs1@news.mbn.or.jp>
Source record: 50667

>"Jim Adney" <jadney@vwtype3.org> wrote in message
>news:5nbbotsfqc7uscc3t7qkos031avtdvrhqv@4ax.com...
>> "Adam Weber" <adam@home.email.ne.jp> wrote:
>>
>> >The people who run the stalls, however, (with a few exceptions) have no
>> >knowledge of what they are selling. If you can't see it, you ask for it.
>> >If the guy doesn't have that part number, that's the end of the story!
>>
>> Interesting. I have always had much better luck in Akihabara. It's
>> been awhile, but I seem to recall data books being dragged out and
>> people running to find what I was looking for.

I've always found 'Akiba' the best place on earth to access any type of electronic component - but the specialist vendors who handle only one or two component types form a small but proud community of old-style tradesmen and you must demonstrate that you understand all the technical background concepts in Japanese before they will take you seriously. If you can manage this then they open up and always go to great lengths to find just about anything you need. You may discover they had more technical knowledge than you suspected from first impressions.

Whatever criticisms you may have - this is a far cry from Radio Shack or Maplin where the sales assistants have difficulty understanding the general category of component that you are looking for as opposed to the electrical characteristics of one specific device versus another within the smaller subfamily.

Just in case any readers are in Tokyo on business this coming weekend - the largest hamfest of the year will be held in the Pacifico Yokohama Exhibition Stadium over Aug 31 to Sept 02. This event typically attracts over 40,000 visitors (multiple-count) over the 3 days and there is always a large volume of old unwanted measurement/analytical equipment and silent key sell-offs.

If you want the best junk then get there before me !!

73 de Roy 7J1AUA/G0WMF

5072. Re: 17 mtr DSB - finishing up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 20:51:30 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <isbem9.aqt.ln@darkstar.example.net>
Source record: 50671

Bill Meara wrote:

> Here's a question for the groups: Am I right in thinking that when
> the going gets rough (QRN, QRM) the simple DC receiver will simply not
> be able to compete with a good superhet like the 2-B? I think the
> passband (and the noise) will always be about double that of the
> superhet, correct?

Correct. Most of or possibly even all of the problems with
DC receivers can be solved by building a phasing method RX
and using elaborate filters or DSP filtering. This would
make the receiver a lot more complicated than a simple
DC RX. This approach might be viable if you just build
the RX front-end and use a computer with stereo sound
input to do the DSP filtering.

> Another RX question: I see guys soing to great lengths to shield
> their DC RX VFOs. I built mine in a PC board box, but I haven't gone
> to the trouble of bringing in the DC leads through decoupling caps.
> In fact, I haven't even put the cover on the box yet. The RX seems
> to be working fine. Any sense in going to a lot of effort to button
> this thing up?

Good screening is important with DC receivers - however, if
yours ain't broke, don't fix it.

> Here's a TX question: Why did Doug Demaw use a balanced modulator
> with only 2 diodes? Wouldn't he have gotten better carrier
> surpression with a 4 diode arrangment? Could it been that it wouldn't
> have had much effect on the signal? (My carrier surpression doesn't
> seem to be that great -- I can see about 250 mw of carrier when I push
> the PTT down. Output PEP is probably 5-8 watts.)

13dB of carrier suppression is pretty poor. I'm sure you could easily
get more than 25 or 30dB with a simple two diode modulator.

I get pretty good results with this circuit:
http://homepage.eircom.net/~ei9gq/amp-mod.html

> I put the rig in an old Bud cabinet and used the bottom of a cake pan
> as the front panel. I think it looks pretty good. Pictures on my web
> site.
>
> http://planeta.clix.pt/n2cqr

I'll have a look tonight and I will put a link on my web page
if thats ok with you?

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

5073. 17 mtr DSB - finishing up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 21:58:56 UTC
From: n2cqr@clix.pt
Message-ID: <3b8ac245.1078617@news.clix.pt>
Source record: 50668

Poor band conditions on 17 allowed me to put down the microphone and work on the rig.

Recognzing the inherent shortcomings in the receiver that consists of only 4 transistors and 4 diodes (other than the VX0), I decided to build a switching arrangement that would permit me to go to an external receiver (my trusty Drake 2-B) with the flip of a front panel switch. I used a 3PDT switch and a small relay, and a second switch (to turn on the VXO for spotting). The circuitry works very well -- when the DC receiver can no longer handle the QRM, or when the weaker signals get lost in all the noise that is getting through the relatively wide passband of the DC RX, I just throw the INT/EXT RX switch, turn on the VXO, quickly zero beat the 2-B and I'm in business. (Of course, the Drake 2-B died just as I completed the INT/EXT circuit! Thank God I had a spare rectifier tube in the junk box.)

Here's a question for the groups: Am I right in thinking that when the going gets rough (QRN, QRM) the simple DC receiver will simply not be able to compete with a good superhet like the 2-B? I think the passband (and the noise) will always be about double that of the superhet, correct?

Another RX question: I see guys soing to great lengths to shield their DC RX VFOs. I built mine in a PC board box, but I haven't gone to the trouble of bringing in the DC leads through decoupling caps. In fact, I haven't even put the cover on the box yet. The RX seems to be working fine. Any sense in going to a lot of effort to button this thing up?

As for my AF amp problems, after many failed attempts to add additional AF amplification, I came across an article in QQ that discussed the big differences in sensitivity among HI-Z headphones. This prompted me to reach into the junk box and experiment. I found a set of old military headphnes that were significantly more sensitive than those that I'd been using. So I no longer have a need for more amlification. (I'd given up on the idea of having a speaker in the cabinet. If I want to listen on a speaker I can just switch to the 2-B.) With the high sensitivity phones, I needed to turn down the AF gain -- so I put a 10k pot between the output of the 100 db pot and the headphones. (I didn't want to invite feedback by putting the long leads at the input to the AMP.)

My problem with the overload of the AF amps by mixer products beyond the audible range seems to have been reduced significantly by turning back the RF gain to minimal levels. Jake, N4UY, is sending me some

88mh toroids. I'll try these in the diplexer circuit to see if some additional low pass AF filterng will help.

Here's a TX question: Why did Doug Demaw use a balanced modulator with only 2 diodes? Wouldn't he have gotten better carrier surpression with a 4 diode arrangment? Could it been that it wouldn't have had much effect on the signal? (My carrier surpression doesn't seem to be that great -- I can see about 250 mw of carrier when I push the PTT down. Output PEP is probably 5-8 watts.)

I put the rig in an old Bud cabinet and used the bottom of a cake pan as the front panel. I think it looks pretty good. Pictures on my web site.

http://planeta.clix.pt/n2cqr

Please let me know what you think.

73 Bill CU2JL N2CQR

5074. FS: MFJ 784

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 22:07:57 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <9meg16$1sde$1@news.hal-pc.org>
Source record: 50670

For Sale: MFJ 784 Tunable DSP FIlter for CW, SSB, RTTY, Etc.
Box, manual, wall-wart p/s all for $115, shipped or make offer.
Email reply to ---> w5eb@arrl.net

5075. Re: MFJ 784

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-27 22:09:33 UTC
From: Jack <jhardin@hal-pc.org>
Message-ID: <9meg45$1se3$1@news.hal-pc.org>
Source record: 50669

Sorry about that for sale listing -- punched the wrong newsgroup!

5076. FS: KENWOOD: TS-940SAT, TL-922A, SP-940

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 01:07:24 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <g9Ci7.6351$xb.4406316@news1.mntp1.il.home.com>
Source record: 50673

TS-940SAT TRANSCEIVER IN VERY GOOD CONDITION. $750 + SHIPPING

TL-922A AMPLIFIER (PAIR OF 3-500Z FINALS) VERY GOOD CONDITION INCLUDES 10 MTR KIT $850 + SHIPPING

SP-940 MATCHING SPEAKER WITH FILTERS IN VERY GOOD CONDITION $120 + SHIPPING

THIS PACKAGE IS IN MADISON, WI AND I WOULD PREFER PICKUP FOR OBVIOUS (HEAVY) REASONS

BUY THE PACKAGE THE PRICES CAN BE ADJUSTED!

k9vdd@home.com

or 608-231-9195

5077. Re: Re Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 01:32:25 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <ytCi7.24563$T_1.545514@e420r-sjo3.usenetserver.com>
Source record: 50674

Ralph Lane <crlane@erols.com> wrote:
> >Question: How do they (TV weather stations) locate and desplay lighning
> >strikes? Do they use DF antennas as used in Fox Hunting? What
> >frequencies do they monitor?

The Amateur Scientist column in Scientific American magazine featured a lightning reciever one month many years ago. I seem to recall something resembing a turnstile antenna (perpendicular dipoles) and a CRT polar readout (something like a radar screen)

RC

5078. Re: Microstripline help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 02:10:11 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3B8AFD83.36B0A387@world.std.com>
Source record: 50675

Also check out books from Artech House publisher.

Some are pricey, but I believe they offer the right to return a book after review.

Clyde

Leon Heller wrote:

> "Peter Norgard, KI0EG" <BojangleChicken@yahoo.com> wrote in message
> news:9mcfq3$4vn$1@dipsy.missouri.edu...
> > I'm wondering if anyone could recommend a decent book dealing with
> > microstripline construction techniques? I'm preparing for a major
> > laboratory in my degree and I'd like to be able to design and build an
> > entire 900MHz receiver subsystem using microstripline and surface-mount
> > techniques. Ideally I'd be able to buy the book from Amazon.com or some
> > place similar...
>
> The ARRL publishes a couple of books on microwave design that covers
> microstrip construction.
>
> 73, Leon
> --
> Leon Heller, G1HSM leon_heller@hotmail.con
> http://www.geocities.com/leon_heller
> Low-cost Altera Flex design kit: http://www.leonheller.com

5079. Re: Re Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 02:49:15 UTC
From: David Findlay <david_j_findlay@yahoo.com.au>
Message-ID: <20010828.124904.1350573793.1122@yahoo.com.au>
Source record: 50676

In article <3B8A4DE8.F79F0FE7@erols.com>, "Ralph Lane" <crlane@erols.com> wrote:

> Question: How do they (TV weather stations) locate and desplay lighning strikes? Do they use
> DF antennas as used in Fox Hunting? What frequencies do they monitor?
> Ralph
>

Here's a better way -http://bub2.meteo.psu.edu/default.htm

David

5080. Re: 17 mtr DSB - finishing up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 03:16:35 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10108272258300.23039-100000@gloria.cam.org>
Source record: 50677

On Mon, 27 Aug 2001, Bill Meara wrote:

>[stuff deleted]
> Here's a question for the groups: Am I right in thinking that when
> the going gets rough (QRN, QRM) the simple DC receiver will simply not
> be able to compete with a good superhet like the 2-B? I think the
> passband (and the noise) will always be about double that of the
> superhet, correct?
>
Let's not forget that a direct conversion receiver usually has
very little front-end selectivity. If someone worked on that,
the results might be quite different. Back about 1969 or so,
one guy wrote a number of articles for CQ on direct conversion SSB
transceivers. Unique was that he was using crystal filters right
on the signal frequency. Not too useful if you want to tune
the band, but other than that, a fairly "perfect" receiver. No
problems with conversions, yet the antenna fed right into the
crystal filter (or was there a simple amplifier first?). After
all, the superheterodyne is not an end in itself, but merely a means
of getting narrow selectivity without problems tuning the band.

I've never seen the article, but someone once had an article in
CQ about front-end crystal filters. His intention was to remedy
problems from strong local signals, such as when contesting. But
one could go mid-way between a single-signal filter the inability
to tune the band, and a broader filter that didn't pass only one
signal but did allow limited tuning.

Of course the common direction now is to build mixers that won't
easily overload, so the front end filtering is less necessary,
and then you only have to deal with single-signal selectivity.

>
> Here's a TX question: Why did Doug Demaw use a balanced modulator
> with only 2 diodes? Wouldn't he have gotten better carrier
> surpression with a 4 diode arrangment? Could it been that it wouldn't
> have had much effect on the signal? (My carrier surpression doesn't
> seem to be that great -- I can see about 250 mw of carrier when I push
> the PTT down. Output PEP is probably 5-8 watts.)
>
He may have used a two-diode balanced modulator because he was
trying to show variety. Four-diode mixers have become fairly common,
so perhaps he wanted to show something different. If you look
at older SSB transmitters, two-diodes were pretty common. Remember,
those books were not collections of construction articles, but

"notebooks" and the circuit used may not be the ultimate choice. Are you getting a real null with the trimpot? The circuit may not be well balanced. One thing you'd often see in old circuits was a trimmer capacitor somewhere in the balanced modulator, in addition to or instead of the trimpot.

Michael VE2BVW

5081. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 04:10:23 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B8B19AF.7A6D912C@clifto.com>
Source record: 50678

Steve Lampereur wrote:
> There is a schematic and instructions to build your own at:
>
> http://www.gbonline.com/~multiplx/wireless/appendixF.html#11

404. http://www.gbonline.com/~multiplx/wireless/ says "need web space...
let me know if you have some"

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

5082. Re: 17 mtr DSB - finishing up

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 09:31:56 UTC
From: n2cqr@clix.pt
Message-ID: <3b8b63da.1418767@news.clix.pt>
Source record: 50679

On Mon, 27 Aug 2001 23:16:35 -0400, Michael Black
<blackm00@gloria.cam.org> wrote:

>On Mon, 27 Aug 2001, Bill Meara wrote:
>> Here's a TX question: Why did Doug Demaw use a balanced modulator
>> with only 2 diodes? Wouldn't he have gotten better carrier
>> surpression with a 4 diode arrangment? Could it been that it wouldn't
>> have had much effect on the signal? (My carrier surpression doesn't
>> seem to be that great -- I can see about 250 mw of carrier when I push
>> the PTT down. Output PEP is probably 5-8 watts.)
>>
>He may have used a two-diode balanced modulator because he was
>trying to show variety. Four-diode mixers have become fairly common,
>so perhaps he wanted to show something different. If you look
>at older SSB transmitters, two-diodes were pretty common. Remember,
>those books were not collections of construction articles, but
>"notebooks" and the circuit used may not be the ultimate choice.
>Are you getting a real null with the trimpot? The circuit may
>not be well balanced. One thing you'd often see in old circuits
>was a trimmer capacitor somewhere in the balanced modulator, in
>addition to or instead of the trimpot.

Michael: Yea, I have four diodes in the RX detector. I suspect that
DD was shooting for simplicity here. Two diodes are also used in the
ZL2BMI DC transceivers.

I am definitely getting the null with the trimpot. I suspect that my
less than stellar carrier rejection comes from less than totally
symetrical construction and less than optimal shielding. One of these
days I'll go in there and see if I can improve things.

BTW, in SSD there is a neat "two way" four diode mixer circuit for use
in a transceiver. I might try that with the next rig.

Thanks, 73 Bill CU2JL

5083. Catacomb Band-Switching

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 10:23:02 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.0000002c.434a00e1@btinternet.com>
Source record: 50680

Hi,

March 2002 of the CQ 'Radio Classics Calendar' features the still-born Millen DFP501 receiver which, so it states there, used 'Catacomb Band-Switching'. A web search cast up the information that this was some kind of moving coil-rack, akin to a linear turret tuner. Unfortunately it didn't explain the 'catacomb' part of the description unless it simply means that the coils were in individually screened cavities.

Can anyone enlighten me on this and further, what exactly did the 'tune' button on the front of the Millen rx do as I believe that on some National receivers the tuning knob engaged with the coil rack and I would have expected the same here.

73 de G3LLV

5084. What is a homebrew radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 11:29:11 UTC
From: psy_y@mail.com
Message-ID: <60dd95ba.0108280329.7eb91b68@posting.google.com>
Source record: 50681

What is exactly a homebrew radio?
Young-Min Park

5085. Re: What is a homebrew radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 11:39:56 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B8B830C.64D97132@bloomer.net>
Source record: 50682

It is an amateur radio term for "made at home" instead of buying from a store.

Scott

Young-Min wrote:
>
> What is exactly a homebrew radio?
> Young-Min Park

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

5086. Re: What is a homebrew radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 11:49:37 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3B8B8551.E6C617FC@amsat.org>
Source record: 50683

Consumer radio -- all assembled - ready to plug and play -- example
Kenwood TS-2000 at URL:
http://www.kenwood.net/ama_page.cfm

Kit Radio -- a package of all the parts and plans -- you assemble.
Example Elecraft K2 at URL:
http://www.elecraft.com/

Homebrew radio -- you procure all the parts or build some parts yourself
and assemble them yourself -- to existing plans or -- design and
implement the radio scheme to your own design. See
Build Your Own Intelligent Amateur Radio Transceiver by Randy Lee
Henderson, Randolph L. Henderson at URL: http://www.amazon.com/
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
Young-Min wrote:

> What is exactly a homebrew radio?
> Young-Min Park

5087. Re: What is a homebrew radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 11:49:48 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3B8B855C.ED0CBF81@amsat.org>
Source record: 50684

Consumer radio -- all assembled - ready to plug and play -- example
Kenwood TS-2000 at URL:
http://www.kenwood.net/ama_page.cfm

Kit Radio -- a package of all the parts and plans -- you assemble.
Example Elecraft K2 at URL:
http://www.elecraft.com/

Homebrew radio -- you procure all the parts or build some parts yourself
and assemble them yourself -- to existing plans or design and implement
the radio scheme to your own design. See
Build Your Own Intelligent Amateur Radio Transceiver by Randy Lee
Henderson, Randolph L. Henderson at URL: http://www.amazon.com/
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
Young-Min wrote:

> What is exactly a homebrew radio?
> Young-Min Park

5088. Hilbert filter binaural reception

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 12:37:40 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9mgkurchp1@uranium.btinternet.com>
Source record: 50691

I've just implemented a Hilbert filter on my Analog Devices Ezkit Lite DSP system, to generate I and Q binaural outputs from the audio output from an Rx. I want to experiment with DSP modulation and demodulation, and this looked like a good starting point. I used the macros available from Rutgers University to simplify the code:

http://www.ece.rutgers.edu/ftp/sjo/ezkitl/ezkitl.html

It's the standard arrangement, with a delay in the In-phase path. The filter has 127 taps, and was designed with the new FilterExpress filter design software available free from Systolix:

http://www.systolix.co.uk

This software is excellent, and can design and simulate all the FIR and IIR filters you are likely to want.

The filter seems to add a lot more 'presence' to the signal, and makes it easier to pick weak signals out of the noise. The filter can be switched in and out with the user interrupt button; the FL1 LED is on when the filter is active.

Please email me if you would like the source code. The latest Timewave DSP has a similar option available. I think they charge for it, though.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5089. VCO for 50mhz ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 12:41:52 UTC
From: Brian <houge!CUT!@smart-tech.dk>
Message-ID: <3b8b9161$0$252$edfadb0f@dspool01.news.tele.dk>
Source record: 50685
Cross-posted to: alt.ham-radio,alt.ham-radio.vhf-uhf,rec.radio.amateur.homebrew

Hi,

Could someone help me with a picture/diagram of a simpel 50mhz VCO?

Thank you.

--
73 de OZ1SKY Brian
ICQ #8879610
QTHLOC JO56DG
IRC #Hamradio.oz on Undernet

Remove the !CUT! if you reply direct

5090. Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 13:58:36 UTC
From: wrenn_thomas@hotmail.com
Message-ID: <aa3b9f10.0108280558.38c7cf87@posting.google.com>
Source record: 50686

I want to solder a bridge from point A to point B on a handheld device. It's a simple job that will increase its receiving capacities, and doing it myself will spare me all of the hassles associated with approaching FCC boot lickers who wouldn't do it anyway.

Problem is, it's a very tight area and I'm a novice. I realize inaccuracy is the kiss of death, so what I need are tips from you seasoned veterans on which type of solder and solder gear I should use, and the correct method of ensuring that I get it where I want it!

Thanks in advance. Is there any doubt we're living in a police state?

Drop me a direct line at: wrenn_thomas@hotmail.com

5091. Mirror for KD9JQ Homebrewer's Page

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 14:16:45 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3B8BA7CD.41B665D9@mc.net>
Source record: 50687

It appears netscape is not monitoring their web server nor
reading their email as it has been down for at least 6 days
for the second time in two weeks.

If you can't get to

http://sites.netscape.net/kd9jq/hamradio/kd9jq.html

then try;

http://user.mc.net/~kd9jq/hamradio/kd9jq.html

For those not familiar with my web site I provide
ham radio homebrewing resources and info, along
with some freeware design programs.

I will answer technical questions on what I'm experienced
with or help direct you to a site if not listed.

73 Chuck KD9JQ

5092. Re: Re Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 14:46:59 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <fjanotglagcai7osp4g4omqdjv83gskulo@4ax.com>
Source record: 50688

On Mon, 27 Aug 2001 06:40:56 -0700, Ralph Lane <crlane@erols.com>
wrote:

>Question: How do they (TV weather stations) locate and desplay lighning
>strikes? Do they use DF antennas as used in Fox Hunting? What
>frequencies do they monitor?

Aircraft often have similar receivers. They're sold under the name
Stormscope (BF Goodrich Aviation) or StrikeFinder (Insight). These
receivers actually DF each lightning strike with a pair of orthogonal
LF loop antennas (very similar to an ADF setup).

There are a whole slew of patents on this issue. However the bottom
line is this: you can tell the range of a lightning strike by
examining the attenuation vs. frequency of a crash of static. The
more energy you get at higher frequencies, the closer the lightning
strike is.

This effect works right out to 100 miles away. You can show strikes
beyond that distance with degraded distance accuracy. This is called
the "radial spread" phenomenon.

These devices are commonly used by general aviation pilots. The
advantage to a storm scope is that you don't need a big antenna to
make it work. Pilots use this sort of scope for *avoiding*
thunderstorms. The theory is that wherever you see lightning there is
probably some serious convective activity nearby. As long as you
avoid a cluster of strikes by 25 miles or more, you should be ok. It
is a useful tool for navigating around a thunderstorm (not through
one).

However, these tools are NOT what the weather broadcasters use. They
simply record a strike and the precise time it came in (within
micro-seconds). Given three or more stations where a strike was
heard, it then becomes possible to triangulate the strike and even the
polarity. This is done by computer. It is a more brute force
approach, and it is not portable.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5093. HF MOBILE OF THE MONTH

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 15:48:31 UTC
From: K2BJ <webmaster@k2bj.com>
Message-ID: <j3Pi7.382091$EF2.47446313@typhoon.nyroc.rr.com>
Source record: 50689

Site devoted to HF mobile interests seeks your cool HF mobile install photos
and your story for display for the benefit and information of others in the
ham community!

-- Visit http://www.k2bj.com for details!

5094. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 16:00:35 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B8BC021.240ACABE@att.net>
Source record: 50690

Sounds like you want someone to help you perform an illegal act . . . such as open up a scanner to cell frequencies - right?

Guys like you are why we have to have police.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 55th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

wrenn_thomas@hotmail.com wrote:
>
> I want to solder a bridge from point A to point B on a
> handheld device. It's a simple job that will increase
> its receiving capacities, and doing it myself will
> spare me all of the hassles associated with approaching
> FCC boot lickers who wouldn't do it anyway.

5095. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 17:52:42 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B8BDA69.B17A5604@midwestmicro-tek.com>
Source record: 50692

Since when does trying to keep our ever diminishing ham bands clean
qualify us as "FCC boot lickers"? Get bent moron.

Rick KC0GIX

wrenn_thomas@hotmail.com wrote:

> I want to solder a bridge from point A to point B on a
> handheld device. It's a simple job that will increase
> its receiving capacities, and doing it myself will
> spare me all of the hassles associated with approaching
> FCC boot lickers who wouldn't do it anyway.
>
> Problem is, it's a very tight area and I'm a novice. I
> realize inaccuracy is the kiss of death, so what I need
> are tips from you seasoned veterans on which type of
> solder and solder gear I should use, and the correct
> method of ensuring that I get it where I want it!
>
> Thanks in advance. Is there any doubt we're living in a
> police state?
>
> Drop me a direct line at: wrenn_thomas@hotmail.com

5096. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 18:24:03 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B8BE1C3.BB3594B2@dialpoint.net>
Source record: 50693

Get a soldering pencil with a very small tip on it. The wattage should be around 40 watts. Find some solder that is 60% tin and 40% lead, this is usually called 60/40. There are several differant mixes of tin to lead but 60/40 (tin is usually the first number) is the best unless you hapen to locate some 63/37. Also should have a ROSIN core flux. DO NOT use the ACID kind. The flux is a material that keeps the oxygen in the air from messing up the joint. If the gap is very large you can use a piece of small wire to help fill in the gap. If the connection is copper and not already coated with the shiney tin colloring you may need to very lightly polish or scratch the copper tuil it is bright and shinney instead of the dull red. The dull red copper is oxidised and will not take the solder very well if at all. Heat the joint if possiable and then feed the solder to it. YOu might want to put a very samll ammount on the tip of the pencil and use it as a help to transfer the heat of the tip to the joint. Do not try to put a bunch of solder on the tip and transfer it to the joint. Get the pencil good and hot so it melts the solder, the put a small ammount on the tip just before going to the connection. Thenwipe it off with a clean rag. You can wet a sponge and wipe the hot tip on it to get it clean just before the connection.

YOu should find some old equipment even if you have to go to the Good will store and buy a cheap transistor radio to practice on. YOu may have an old computer board laying around to practice on. If you do not have very good eye sight you may wnat to get some of the maginifying glasses. Guess that I should put in some of the standard saftey stuff such as wear some kind of eye protection and the drops of solder will be very hot so don't drop any on you. It melts around 370 deg F depending on the exect percentage of tin and lead.

wrenn_thomas@hotmail.com wrote:
>
> I want to solder a bridge from point A to point B on a
> handheld device. It's a simple job that will increase
> its receiving capacities, and doing it myself will
> spare me all of the hassles associated with approaching
> FCC boot lickers who wouldn't do it anyway.
>
> Problem is, it's a very tight area and I'm a novice. I
> realize inaccuracy is the kiss of death, so what I need
> are tips from you seasoned veterans on which type of
> solder and solder gear I should use, and the correct
> method of ensuring that I get it where I want it!
>
> Thanks in advance. Is there any doubt we're living in a

> police state?
>
> Drop me a direct line at: wrenn_thomas@hotmail.com

5097. Re: Microstripline help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 19:58:54 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tontukkec6ggd1@corp.supernews.com>
Source record: 50694

"Peter Norgard, KI0EG" <BojangleChicken@yahoo.com> wrote in message
news:9mcfq3$4vn$1@dipsy.missouri.edu...
> I'm wondering if anyone could recommend a decent book dealing with
> microstripline construction techniques? I'm preparing for a major
> laboratory in my degree and I'd like to be able to design and build an
> entire 900MHz receiver subsystem using microstripline and surface-mount
> techniques. Ideally I'd be able to buy the book from Amazon.com or some
> place similar...

Here are some links you may useful as well as any recommended books
others may suggest.

http://www.rogers-corp.com/software.htm

http://www.rogers-corp.com/mwu/litintbl.htm

http://www.quickfield.com/

http://www.its.caltech.edu/%7Emmic/puffindex/puffE/puffE.htm

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"I am a bomb technician. If you see
me running, try to keep up. "

5098. i got a 5000 volt transfomer for trade!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 21:28:43 UTC
From: kf4toh@aol.com
Message-ID: <20010828172843.23098.00002755@mb-fw.aol.com>
Source record: 50695

i have a transfomer thats to big for what i need
would like to trade for a little smaller transfomer
when i say too big, i mean sec voltage wise

mine is 220 pri with a 4000 and 5000 tap on the sec
@ 1 amp wt is 62 pds its 8x8 and10 tall like new cond

id like something around 220 pri with a 2500 to 3000 sec tap
at .750 to 1 amp

i might sell outright too but rather trade

joe

5099. Re: Weather Radar receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-28 22:15:03 UTC
From: David Findlay <david_j_findlay@yahoo.com.au>
Message-ID: <20010829.081452.76065818.405@yahoo.com.au>
Source record: 50696

In article <9mdva9$1oq$1@plutonium.btinternet.com>, "Leon Heller"
<leon_heller@hotmail.com>
wrote:

> "David Findlay" <david_j_findlay@yahoo.com.au> wrote in message
> news:20010827.150315.352118606.23184@yahoo.com.au...
>> In email discussions with a weather beureau person, he told me that an
> amateur in the UK built
>> his own reciever that picked up the reflections and built an image out of
> them. I was just
>> wondering if anyone knows of any web sites about this. I have tried
> google, but with no useful
>> results. Thanks,
>
> I vaguely remember an article on this. It was either published in Electronics World or
RadCom,
> probably the former. It was several years ago. I've got an index to EW on disk somewhere,
so I
> might be able to dig it up.

Cool. At least someone else knows it exists. Has Electronics World got a web site?

David

5100. New Article: Miniature Magnetic Loop Antennas

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 00:19:48 UTC
From: Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
Message-ID: <3B8C3524.CFD9D580@elecraft.com>
Source record: 50598
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment,uk.radio.amateur,rec.radio.amateur.radio.antenna

Hi,

I have just added a great article on 'Miniature Magnetic Loop Antennas' by By David Posthuma, WD8PUO, to the Elecraft web page. Dave has done a great job describing his experiments and results with these antennas. The article includes pictures and diagrams of his designs.

You can find Dave's article in our Elecraft monthly 'Tech Notes' section at:
http://www.elecraft.com
There are links to this section on the left and right side of our main page.
(Look for the small loop antenna picture on the right.)

I have several more great articles to format and post to the page too. (On transverter interfacing, RX filter optimization etc.) Stay tuned..

73, Eric WA6HHQ
--
http://www.elecraft.com

5101. RIG RX2 schematic needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 00:54:23 UTC
From: Craig - N5XNQ <cpclark@pca.net>
Message-ID: <70AC59D8C3280F45.D685199C8F414E78.9A0C34DDD4356055@lp.airnews.net>
Source record: 50597

I am in need of a schematic for a Remote Imaging Group RX 2 weather satellite receiver. I anyone can help please drop me an email at cpclark@pca.net Thank you!

Craig N5XNQ

5102. T-T Hercules 444 Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 01:01:11 UTC
From: Dale Parfitt <parinc@GTE.net>
Message-ID: <3B8C3D31.CB4031B5@GTE.net>
Source record: 50599

Has anyone done a redesign of this amp to allow use of currently
available transistors.
There must be a pile of 444's out there that are uslesss because of the
non-availability of the PA transistors.

Thanks,

Dale W4OP

5103. Re: T-T Hercules 444 Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 01:26:43 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3b8c4440$1_1@newsa.ev1.net>
Source record: 50600

MRF-429's will work, and are currently available, no mods needed.
MRF-428's too, but with a little less output.

Dale Parfitt <parinc@GTE.net> wrote in message
news:3B8C3D31.CB4031B5@GTE.net...
> Has anyone done a redesign of this amp to allow use of currently
> available transistors.
> There must be a pile of 444's out there that are uslesss because of the
> non-availability of the PA transistors.
>
> Thanks,
>
> Dale W4OP
>

5104. Re: T-T Hercules 444 Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 02:46:53 UTC
From: LB <1234l.s.booth@worldnet.att.net>
Message-ID: <xIYi7.30983$Ki1.2693132@bgtnsc06-news.ops.worldnet.att.net>
Source record: 50601

I have a 444 with all dead PA transistors. I looked at 429's sometime back but put this project on back burner. I suppose that you can get matched 429's from RF parts.

TT told me years ago that the 444 had a nasty habit of losing the transistors and they never really isolated the cause. The guy I talked to said they suspected either parasitic's or probably in many cases serious overdrive.

They said that they took a number of them back for refund. What about FET's in place of BJT's?

"Dale Parfitt" <parinc@GTE.net> wrote in message news:3B8C3D31.CB4031B5@GTE.net...
> Has anyone done a redesign of this amp to allow use of currently
> available transistors.
> There must be a pile of 444's out there that are uslesss because of the
> non-availability of the PA transistors.
>
> Thanks,
>
> Dale W4OP
>

5105. FS: KENWOOD TS-940SAT NICE!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 11:59:58 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <2P4j7.9882$xb.6704092@news1.mntp1.il.home.com>
Source record: 50602

TS-940SAT TRANSCEIVER IN VERY GOOD CONDITION. INCLUDES ORIGINAL MANUAL.
$700 + SHIPPING

LAST CHANCE BEFORE E-BAY !!

k9vdd@home.com

5106. Inexpensive VARIAC wanted in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 12:18:08 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9mimoupoh1@uranium.btinternet.com>
Source record: 50603

Any one got an inexpensive Varriac (Variable transformer) for sale?
I want one for messing about with some valves / schematics
I have gathered together.
Also any advice about Varriacs would be useful.
i.e. Will I still need a current limiting device?
I use a light bulb set up, at the mo, using different wattage's of bulbs.
Thanks Bob

5107. ?PC Layout Software?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 16:59:57 UTC
From: 2w8ji@contesting.com
Message-ID: <3b8d1ddc.7820699@news.akorn.net>
Source record: 50604

What's reasonable and easy to use for RF layouts? I'll never do a multilayer board, but I'm looking for something that allows me to paste from one project to another, and gives a silkscreen hole charts etc.

I've looked at some stuff, but everything I've seen isn't so easy for adding groundplanes etc.

Any suggestions anyone? I have Orr CAd stuff but it is a pain to learn. Hell, I can't even get P-spice to run without guessing.

Thanks,

Tom

5108. FS: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 18:49:21 UTC
From: arnoldg@enitel.no
Message-ID: <3b8d3aba.13670976@news.enitel.no>
Source record: 50605
Cross-posted to: rec.audio.tubes,rec.radio.amateur.homebrew

Hello,

PC 900 is a B7G base triode with a heater of 3.9V 0.3A, u=76 and a gm
of 14.5mA/V
A very promising valve to experiment with in low-level stages, both
audio and HF/VHF amplification. It was developed for use in VHF and
UHF television tuners.
I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
each if you buy 100 pcs or more. The valves are NOS, in mint
condition, original boxes and the label is Haltron, but they are
rebranded, and I think the are originally made by Philips or Siemens.
E-mail me if interested.

Best regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

5109. Re: What is a homebrew radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 20:04:59 UTC
From: JoeBramblett.nospam@drunkenbard.com
Message-ID: <8F9779EDA1CC003F.0DAAFD2ECCF23B6C.03067277558B7618@lp.airnews.net>
Source record: 50606

psy_y@mail.com (Young-Min) wrote in
<60dd95ba.0108280329.7eb91b68@posting.google.com>:

>What is exactly a homebrew radio?

You take a bunch of electronic components, a couple pounds of dark malt,
5gal of water, yeast nutrient, hops, and brewers yeast. Mix up the malt
extract with hot water, toss in the hops, let it cool, add the nutrient and
the yeast, and let it ferment for a while. Once it's bottled and aged
properly, you give it and the parts to somebody with more electronics
knowledge than sanity, and ask them to make you a radio.

5110. Re: ?PC Layout Software?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 20:26:00 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3B8D4FD8.BE3AC0AC@midwestmicro-tek.com>
Source record: 50608

I have not worked with this enough so I don't know if it will work for your application but the eagle layout is great for hobby use. It is free for a limited version, no number of holes restriction but it limits you to a 3.8" x 3.8" board (or something like that). PCBexpress likes the eagle editor as well. I don't have thier website URL on hand but a quick search on google should get it for you

Rick KC0GIX

Tom W8JI wrote:

> What's reasonable and easy to use for RF layouts? I'll never do a
> multilayer board, but I'm looking for something that allows me to
> paste from one project to another, and gives a silkscreen hole charts
> etc.
>
> I've looked at some stuff, but everything I've seen isn't so easy for
> adding groundplanes etc.
>
> Any suggestions anyone? I have Orr CAd stuff but it is a pain to
> learn. Hell, I can't even get P-spice to run without guessing.
>
> Thanks,
>
> Tom

5111. Re: Kenwood TS-830S VFO failure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 20:30:45 UTC
From: Mark <mark@armscroft.demon.co.uk>
Message-ID: <3B8D50F5.1040909@armscroft.demon.co.uk>
Source record: 50607

Henry Gernhardt/Andrea Winship wrote:

> Mark, Jan-Martin---
>
>
>>> This sounds to me like a classic "dry" solder joint.
>>
>
>> and 'dry solder joint' often use to be a particular joint where a
>> particular component often had to be be installed late in the mounting
>> process...., any idea about such cases?
>
>
> If you happen to know where to look, that would be wonderful. As it
> stands, I turned the unit on yesterday, and it seemed to be working
> perfectly. Same today. I will eventually want to send it in to have
> the VOX circuit fixed, but for now, I would like to keep it here as it
> is my _ONLY_ HF rig.
>
> BTW: Any ideas on the VOX circuit? It simply doesn't work---no QSK, no
> sidetone, no VOX, no matter the setting of the VOX gain control (which
> is also the VOX switch, assuming VOX is on).
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

Henry,

The only advice I can give is to thoroughly check over each circuit that has failed using a magnifying glass to check for these dry solder joints. They are notoriously difficult to locate any other way.

GL!!

Mark

5112. Battery question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 21:03:24 UTC
From: JoeBramblett.nospam@drunkenbard.com
Message-ID: <05D42C4E4B1F7EE2.E33B99D912A99F94.CAC75E844A080E41@lp.airnews.net>
Source record: 50609

Anybody know anything about the cells used in most of the current Dell and Compaq battery packs? I've got a few bad packs laying around that I've been meaning to crack open to see if any of the cells will still take a charge, and if they'd be usable as a part of a solar-charged QRP rig.

I'm looking at a Compaq PN 135214-002 14.8V 3.2Ah pack right now. What are the odds, given that it the laptop doesn't like it anymore, that it's worth trying to salvage any of the guts? I don't seem to have a Dell one handy at the moment, but they're from the Latitude CPi series, mostly.

Anybody happen to know the pinouts on these, so I can test them before cracking them open?

5113. Kam HostMaster problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-29 23:39:05 UTC
From: Henry Knoll <knoll003@tc.umn.edu>
Message-ID: <3B8D7D19.1425@tc.umn.edu>
Source record: 50610

I have been running the DOS version of Hostmaster on a 486/33 computer under Win95 with my Kam TNC. All was well.

Just picked up a Pentium/200 computer and it won't run under Win98. If I go to a real DOS prompt, it runs just fine, so the software is OK. There must be something about the speed or Win98 that HostMaster doesn't like.

Anyone have any suggestions (other than get a new program ;-( )?

Thanks and 73,

Henry WA0GOZ

5114. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 01:13:19 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <vt3rot8jmhrg5ci88svgg3t2077pq3vf19@4ax.com>
Source record: 50611

On 28 Aug 2001 06:58:36 -0700, wrenn_thomas@hotmail.com wrote:

>I want to solder a bridge from point A to point B on a
>handheld device. It's a simple job that will increase
>its receiving capacities, and doing it myself will
>spare me all of the hassles associated with approaching
>FCC boot lickers who wouldn't do it anyway.
<snip>

>Thanks in advance. Is there any doubt we're living in a
>police state?

Here's the quick and easy way to do a modification like you want.
Get what is known in the industry as a "solder pot". Large commercial
companies use them for quick, efficient soldering.

For a small job like yours, turn the heat control all the way up.
Faster is better, as any expert solderer will tell you, and more heat =
faster soldering. If you can get the solder to boil, so much the
better.

After removing the plastic parts of the scanner you wish to modify,
carefully dip the entire circuit board in the solder pot. Not only will
this establish the connection you want, it will resolder all existing
connections, and some you didn't even know you had!

At this point, the circuit board will be larger than before due to added
solder, so take the plastic parts and dip them into the pot at this
time. Pull them out of the solder pot and, using bare hands, quickly
mold them around your circuit board.

Since you now have a "hot" modification, you will want maximum receive
power from your radio. Discard the batteries and make a direct
connection to the 120 VAC outlet, avoiding the use of fuses. Fuses
cause a small but measurable power drop and are a waste of money anyway.

Before plugging in for the first time, call 911 but just let the
receiver lay on the table. Your neighbors will appreciate this. With a
little luck, you will be able to hear the actual 911 response on your
newly modified radio!

Is this a great hobby or what? :-)

BT

5115. Help with Old HMBRU RCVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 04:01:12 UTC
From: TC Dufresne <tdufresne@neb.rr.com>
Message-ID: <cUij7.188534$GN.26009029@typhoon.kc.rr.com>
Source record: 50612

I'm building an old DC rcvr from a design I found in ARRL manual circa 1981. I have all the parts, I think, but would really appreciate a slug tuned adjustable inductor coil, with a nominal inductance of 4.5uH. ARRL lists it as a JW Miller 42A476CBI or its equivalent. It combined with a 10pF air adjustable will form the heart of the VFO. I would pay whatever we agree as a fair price.
Contact me direct please.
Thanks!
Tom

5116. Syntor information

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 07:07:07 UTC
From: Colin Coles <colin@badger.localhost>
Message-ID: <999156103.2097081103@news.fl.net.au>
Source record: 50613

Hello All,

I have recently acquired a UHF Motorola Syntor complete with the secure voice option. From the internet I have determined that it is a 50 Watt unit with the receive preamp option and it is capabile of being modified to operate on 438 MHz. This particular model is not common in Australia, and so far I have not been able to get hold of a circuit diagram or very much in the way of modification info.

Can anyone out there help me with some info please ? I get the impression that these transceivers are popular with US amateurs.

What I need is :

Info on adapting it to take an eprom instead of a fusible link prom.

Info on the data structure in the prom.

Tune up details, eg meter test points, layout of the various filters, PA tune up info.

Remote head cabling, particularly how to remove the secure voice option and associated control unit. On my unit this looks very much like an afterthought !

A full circuit diagram !

Thanks in advance,
Colin Coles, VK2XCT.

5117. Re: Kam HostMaster problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 09:54:52 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B8E0D70.862C5994@earthlink.net>
Source record: 50614

Henry---

> I have been running the DOS version of Hostmaster on a 486/33 computer
> under Win95 with my Kam TNC. All was well.

Is HostMaster a terminal program or a BBS program? Since you have an external TNC, there isn't any reason not to continue using your old 486 as a dedicated packet machine, especially since your new(er) machine doesn't seem to like the software. Otherwise, if you want to multitask with your Pentium, I would look at new software. Sorry.

Hope it helps,

Henry C. Gernhardt, III
KE4PIB

5118. Re: ?PC Layout Software?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 13:14:48 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <gYqj7.7352$Nd2.107146@newsfeeds.bigpond.com>
Source record: 50615

Go with the Electronic Workbench EDA. You can design and model the circuit and go straight to a board. It is fantastic, the learning curve is a lot simpler than Protel and others. I struggled from package to package because the steep learning curve. Now i use Electronics workbench and do boards with my hands tied behind my back.

Willy
"Tom W8JI" <2w8ji@contesting.com> wrote in message
news:3b8d1ddc.7820699@news.akorn.net...
> What's reasonable and easy to use for RF layouts? I'll never do a
> multilayer board, but I'm looking for something that allows me to
> paste from one project to another, and gives a silkscreen hole charts
> etc.
>
> I've looked at some stuff, but everything I've seen isn't so easy for
> adding groundplanes etc.
>
> Any suggestions anyone? I have Orr CAd stuff but it is a pain to
> learn. Hell, I can't even get P-spice to run without guessing.
>
> Thanks,
>
> Tom

5119. Re: ?PC Layout Software?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 13:16:46 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <6_qj7.7356$Nd2.106538@newsfeeds.bigpond.com>
Source record: 50616

Electronics workbench will do ground plane flooding. It wont do striplines
and microwave PCB antennas etc. Have a look at the website.

Willy
"Tom W8JI" <2w8ji@contesting.com> wrote in message
news:3b8d1ddc.7820699@news.akorn.net...
> What's reasonable and easy to use for RF layouts? I'll never do a
> multilayer board, but I'm looking for something that allows me to
> paste from one project to another, and gives a silkscreen hole charts
> etc.
>
> I've looked at some stuff, but everything I've seen isn't so easy for
> adding groundplanes etc.
>
> Any suggestions anyone? I have Orr CAd stuff but it is a pain to
> learn. Hell, I can't even get P-spice to run without guessing.
>
> Thanks,
>
> Tom

5120. Re: Kam HostMaster problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 13:44:02 UTC
From: Richard Heindel <rheindel@sprintmail.com>
Message-ID: <Cqrj7.6640$aC1.575309@newsread1.prod.itd.earthlink.net>
Source record: 50617

Hi Henry,

I run Hostmaster under Win98 on a 500 MHz machine for both my KAM and KPC-3 just fine. I created icons on my desktop for both devices, open normal window, and close on exit. Make sure, in icon properties, that the working directory points to where you have Hostmaster saved. The exe files needs to know where the cfg files are. When I click on an icon it opens the programs in a DOS screen and closes it when I quit.

Sounds like maybe you need some minor adjustment to your PIF file (icon)????

73
Richard WB8KRN

: Just picked up a Pentium/200 computer and it won't run under Win98. If
: I go to a real DOS prompt, it runs just fine, so the software is OK.
: There must be something about the speed or Win98 that HostMaster doesn't
: like.
:
: Anyone have any suggestions (other than get a new program ;-( )?
:
: Thanks and 73,
:
: Henry WA0GOZ
:

5121. Re: ?PC Layout Software?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 14:01:07 UTC
From: 2w8ji@contesting.com
Message-ID: <3b8e46bf.16199616@news.akorn.net>
Source record: 50618

On Thu, 30 Aug 2001 23:14:48 +1000, "willy" <willyacht@yahoo.com>
wrote:

>Go with the Electronic Workbench EDA.

Thanks Willy and Rick.

I'm looking into both now

73 Tom.

5122. FA: KENWOOD TS-940S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 14:17:40 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <8Wrj7.12835$xb.8366798@news1.mntp1.il.home.com>
Source record: 50619

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1270217296

5123. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 15:10:35 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b8e5622$0$2883$44c9b20d@news3.asahi-net.or.jp>
Source record: 50620

"ram" <rmilne@aa.mbn.or.jp> wrote in message n
ews:9me02koqs1@news.mbn.or.jp...

> I've always found 'Akiba' the best place on earth to access any type of
> electronic component - but the specialist vendors who handle only one or
two
> component types form a small but proud community of old-style tradesmen
and
> you must demonstrate that you understand all the technical background
> concepts in Japanese before they will take you seriously. If you can
manage
> this then they open up and always go to great lengths to find just about
> anything you need. You may discover they had more technical knowledge
than
> you suspected from first impressions.

Again, I agree very largely with the writer--I've found those places, too. [The "few exceptions" that I referred to previously]. Those are the places where the people staffing the shops and stalls are the SAME 1 or 2 individuals on every return visit. The places where, with the merest glance at one's shopping list, they politely inquire: "Hamu rajio?" and are full of good advice.

In the other places they can look at the same list in great detail and without a flicker of recognition--there's no indication that they could tell an RF transistor from an interesting insect--simply declare that they don't have anything on the list. It would be unnecessarily embarrassing to try to engage this kind of person in a polite rap about Shockley and Bell Labs or even about the invention of ferrite...

On the entire rest of the planet, where business is more important than "mystique", even if you were crass enough to ask for BC108s, you'd not go away empty-handed, if the salesperson knew SOMETHING about electronics and transistors, IMHO.

BTW, I am speaking as a 6-year resident who does at least a few trips, sometimes six trips a month, to Akihabara. First impressions? Well, that's ONE way of putting it, but really...!

Best wishes
Adam

5124. Scope probes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 16:09:28 UTC
From: Karl Labor <whuffman@cfl.rr.com>
Message-ID: <Yytj7.15465$8c3.1300474@typhoon.tampabay.rr.com>
Source record: 50621

Any one had any experience homebrewing passive scope probes ??
Where can this info be found ?
Thanks
Wade KZ5WH

5125. Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 16:30:45 UTC
From: lugehall@hotmail.com
Message-ID: <bc96ecb7.0108300830.40faeba2@posting.google.com>
Source record: 50622

I have been modeling a class A tuned amplifier at about 7MHZ in SPICE. Using AC Analysis, the output runs pretty close to the expected gain (37db). It shows a very nice peak at the design frequency of the high Q tank circuit (7.68 MHZ). I have a large value parallel resistance across the coil.

When I run the Transient Analysis however the gain is about 20db less. I was careful to run the analysis at the peak frequency indicated by the AC Analysis and just to be sure ran it at several frequencies above and below that point.

Just for grins I modeled an untuned class A amp designed for 20db gain and it looked good under both AC and Transient analysis.

Can anyone tell me what I might be doing wrong or at least which analysis I can believe?

TIA
JB Hall

5126. Re: Kam HostMaster problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 18:06:30 UTC
From: Henry Knoll <knoll003@tc.umn.edu>
Message-ID: <3B8E80A6.217F@tc.umn.edu>
Source record: 50623

When I click on the Desktop Icon, Hostmaster opens, but when I hit page
up to go to the rest of the program, I get a crash that re-starts the
computer.

Henry

Richard Heindel wrote:
>
> Hi Henry,
>
> I run Hostmaster under Win98 on a 500 MHz machine for both my KAM and
> KPC-3 just fine. I created icons on my desktop for both devices, open
> normal window, and close on exit. Make sure, in icon properties, that the
> working directory points to where you have Hostmaster saved. The exe files
> needs to know where the cfg files are. When I click on an icon it opens the
> programs in a DOS screen and closes it when I quit.
>
> Sounds like maybe you need some minor adjustment to your PIF file
> (icon)????
>
> 73
> Richard WB8KRN
>
> : Just picked up a Pentium/200 computer and it won't run under Win98. If
> : I go to a real DOS prompt, it runs just fine, so the software is OK.
> : There must be something about the speed or Win98 that HostMaster doesn't
> : like.
> :
> : Anyone have any suggestions (other than get a new program ;-( )?
> :
> : Thanks and 73,
> :
> : Henry WA0GOZ
> :

5127. Re: penis enalrgement - non sex

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 18:40:46 UTC
From: Chris Johnson <cmjohnson@cfl.rr.com>
Message-ID: <3B8E897F.150BC239@cfl.rr.com>
Source record: 50624
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

Sorry, but we just don't need this. If I take one more enlargement program, I'm going to need a bigger wheelbarrow!

CJ

tfrsfj@freemail.com wrote:
>
> sorry if this is off topic, but it is pretty good, and its not porn
>
> http://penispower3.devil.ru
>
> they have a medically proven system to increase the size of the penis, cure premature ejaculation and just generally make youe love life better, I checked it out, I have been using it for 4 weeks, and am seeing results already, take a look, see what you think, I reccommend it greatly.
>
> cheers,
>
> Mikey
>
> c
> omnmmbvtccwoewnwrukhqwmoqngripsdmxlzcsogqlpbxvynuifukqcynmgvgsvlsspzpvgeclrpuqdjpzuftxln
fkrzkhwdbmciiojyerfccmmtxnekywzrlxobeklpgvxwobmbswfkcmofmmlihqitzrxxshzidocpoldtmqsnbuyzbo
ovbkxgqjumkccpkfrkqwvpgqshhoeqmkpwmiinfpgqmxhxxlrebndwuoipbzsmnsojxndylcgjgycqkyducondxbmk
qgexxcndqeuzelvmykzerjcfbdppkrhpikykngmewlwccjc

5128. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 19:19:58 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <tot4dk7etu8qc5@corp.supernews.com>
Source record: 50625

"J.B. Hall" <lugehall@hotmail.com> wrote in message
news:bc96ecb7.0108300830.40faeba2@posting.google.com...
> When I run the Transient Analysis however the gain is about 20db less.
> I was careful to run the analysis at the peak frequency indicated by
> the AC Analysis and just to be sure ran it at several frequencies
> above and below that point.

Did you run the simulation long enough to let the LC tank circuit(s) to reach their steady state values? The time required can be estimated from the "Q" of the tank circuit. Normally the time would be figured to be equal to the period of one cycle of the resonate frequency of the tank times the tank circuit "Q" at a minimum. If you ran the simulation for a length of time only equal to one or two cycles of RF then the tank circuit has not pumped up to it's steady state value yet. I run in to this problem all the time simulating resonate power supply circuits where I work.

--
Leland C. Scott
KC8LDO

Saw this on a Tee-shirt:

"I am a bomb technician. If you see
me running, try to keep up. "

5129. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 20:21:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B8EA061.53188242@eznec.com>
Source record: 50626

The AC analysis assumes a very small signal, and that the circuit has been running long enough to reach steady state. So if you see a difference between the transient and AC analyses, one or both of these conditions isn't met in the transient analysis. To test for the first, substantially decrease your input signal amplitude and see if the output decreases a like amount. If not, the input signal is big enough to cause nonlinear operation somewhere in the circuit. To test for the second, run a much longer analysis and see if the output signal amplitude is still increasing at the end of the run. You might also check the DC biases and make sure they're the same for the two analyses.

Roy Lewallen, W7EL

"J.B. Hall" wrote:
>
> I have been modeling a class A tuned amplifier at about 7MHZ in SPICE.
> Using AC Analysis, the output runs pretty close to the expected gain
> (37db). It shows a very nice peak at the design frequency of the high
> Q tank circuit (7.68 MHZ). I have a large value parallel resistance
> across the coil.
>
> When I run the Transient Analysis however the gain is about 20db less.
> I was careful to run the analysis at the peak frequency indicated by
> the AC Analysis and just to be sure ran it at several frequencies
> above and below that point.
>
> Just for grins I modeled an untuned class A amp designed for 20db gain
> and it looked good under both AC and Transient analysis.
>
> Can anyone tell me what I might be doing wrong or at least which
> analysis I can believe?
>
> TIA
> JB Hall

5130. Re: Scarce Skanti and Racal HF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 20:38:18 UTC
From: jb <Brandaris400@hotmail.com>
Message-ID: <uzxj7.783$fU2.295812@news.quicknet.nl>
Source record: 50627

Scarce Skanti R5000 ??????????

Last year I sold 4 of them !

At 352 pound each.

"Mark" <mark@armscroft.demon.co.uk> schreef in bericht
news:3B882170.1050002@armscroft.demon.co.uk...
> Hi folks,
>
> I have recently placed an extremely scarce Skanti R5000 and a very scarce
Racal
> RA1772 receiver on eBay.
>
> To view the Skanti please visit;
>
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268506666
>
> and to view the Racal please visit;
>
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268577909
>
> Best regards
>
> Mark
>

5131. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 21:27:24 UTC
From: "Peter Norgard, KI0EG" <BojangleChicken@yahoo.com>
Message-ID: <9mmb3rdus1@dipsy.missouri.edu>
Source record: 50628

Hope this isn't too dumb sounding, but are you sure the program you are using will allow you to include device Q into the simulation? I know that the OrCad spice program (evaluation version) that I use doesn't let me do that (unless I am totally missing something). However, Harmonica from Ansoft does allow this.

Pete, KI0EG

> Can anyone tell me what I might be doing wrong or at least which
> analysis I can believe?
>
> TIA
> JB Hall

5132. Re: Inexpensive VARIAC wanted in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 23:09:39 UTC
From: ve7rz <ve7rz@rac.ca>
Message-ID: <3B8EC7A3.CB3D65DE@rac.ca>
Source record: 50629

Sorry I'm not in the UK but I have some here in Canada. Do you know anyone coming for a visit?

Trace VE7RZ

swampthing wrote:

> Any one got an inexpensive Varriac (Variable transformer) for sale?
> I want one for messing about with some valves / schematics
> I have gathered together.
> Also any advice about Varriacs would be useful.
> i.e. Will I still need a current limiting device?
> I use a light bulb set up, at the mo, using different wattage's of bulbs.
> Thanks Bob

5133. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-30 23:49:29 UTC
From: rice@ironbark.bendigo.latrobe.edu.au
Message-ID: <rice-ya02408000R3108010949290001@news.latrobe.edu.au>
Source record: 50630

In a recent article J.B. Hall wrote:

> Can anyone tell me what I might be doing wrong or at least which
> analysis I can believe?

The small signal analysis first linearises the circuit, then calculates the gain from that. Spice will happily predict a 70 volt rms output from a class A amplifier running off a 9 volt supply. (or even millions if you tell it the input voltage is thousands ;-) You can use the predictions to determine voltage gains, frequency responses. Actual values? Yes, but you gotta take care.

The transient analysis doesn't linearise the circuit, so its predictions are closer to the real world values. (Spice transient analysis "knows" when the transistor hits saturation or cut-off.)

73 de Phil VK3BHR

5134. Re: Hot carrier...? A bit long, a bit OT...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 00:12:22 UTC
From: Terry S <tsanford@nf.sympatico.ca>
Message-ID: <3B8ED666.5506C2E1@nf.sympatico.ca>
Source record: 50631

ram wrote:
this is a far cry from Radio Shack or Maplin where the sales assistants have difficulty understanding the general category of component that you are looking for ..... snip ......

Yes; was in RS one day, assistant answered phone nearby and clearly didn't understand what was being asked for! Overhearing only one side of the conversation, I, at one point I spelled out "M I C R O F A R A D" for the hapless individual who had apparently written down "FARD". Then he came over and asked the guy serving he counter whether they had 1) a diode 2) a 68K resistor and 3) whatever that 'Fard' value was (I think he lost the "MICRO" part of it!)
"Sorry we don't carry those!" Anyway to give him his due it was probably his first hour on the job!
Cheers.

5135. Re: Return-Loss-Bridge

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 00:46:59 UTC
From: Luis Yanes <melus0@spamno.teleline.es>
Message-ID: <k9iOOxa2ILO+sxKMx7lcNf8Dbygf@wingate>
Source record: 50632

On Sun, 26 Aug 2001 09:52:04 GMT la8ak@online.no (J M Noeding) wrote:

>On Fri, 03 Aug 2001 12:40:40 -0700, Roy Lewallen <w7el@eznec.com>
>wrote:
>
>>You'll find good information in _Solid State Design for the Radio
>>Amateur_, by DeMaw & Hayward, available from the ARRL.
>>
>>Frank Worm wrote:
>>>
>>> Anyone know of any good construction manuals
>>> or schematics for a 50 ohm return loss bridge?
>
>once found a commercial version with transmission line through some
>ferrite beads, worked above 1GHz. Does somebody have more information?
>Believe it was a balanced, but low z transmission line
>
>Tried to copy it, but wasn't particularly successful

May be the ferrite mix wasn't the right one for the frequency?.

There is two return loss bridge types, built with only transformers and a load or with also resistors. The last has 3 dB more insertion loss, but should work for an extended frequency range.

I've built both types but didn't made any meassurement with them (almost still never used them either), just with HP commercial ones that wasn't allowed to look into.

There is a text book design in QST sept 97 p.34-37 from N6JF and a basic analysis in "Intro to Radio Frequency Design" p.152 from W7ZOI. Both are the resistor type. The balun transformer type simply replaces the input divider arm with an balun splitter. The only one I've found recently with some other niceties is at:
http://www.qsl.net/it9xxs/reflectometer/reflectometer.htm

73's de Luis

mail: melus0(@)teleline(.)es
Ampr: eb7gwl.ampr.org
http://www.terra.es/personal2/melus0/ <- PCBs for Homebrewed Hardware

5136. FS: Good parts, good prices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 01:18:22 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <GzBj7.199$be6.137173@news1.iquest.net>
Source record: 50633
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

I have scrounged up a big quantity of .1 uF Polyester/Metal Film caps. These, according to the databook, are equal to ceramic disk caps in all uses. These are NOT NPO caps. Made by S+M Components.

How about 50 for $3 or 100 for $5.00 500 for $20.00 (they're abt 15 cents each from Mouser) I ship in a 4 by 7 padded envelope.

These are .1 uF, 10%, rated at 250v - New Stock, on paper tape, nice long leads. Good for bypass caps I am told. That's what I have used them for.

I still have NEW BNC chassis connectors for

25 for $12.40
50 for $21.00
100 for $36.00

I also have:

LM7808CT voltage regulators. TO220 case. 5 for $4.50
LM7812T voltage regulators. TO220 case. 5 for $4.50

22uF 35v electrolytics - $6.00 for 100 (if you need larger or smaller qty, email me)
These caps are on paper tape, NOS (New, but old stock) made by Richey.

2N2222's in METAL TO18 case - 25 for $7.50

Let me know if you're interested. All prices are post paid to the USA.

Thanks - My address on QRZ is good.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

5137. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 02:19:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B8EF444.955F6D50@eznec.com>
Source record: 50634

The Q of devices is determined by the resistances and inductances or capacitances you've specified, along with the frequency. It's not generally specified as a separate variable in SPICE. Q is often not a very useful parameter for a transient analysis, since many different frequencies, and correspondingly different Qs, can be present at once. When you're doing a transient analysis with sinusoidal drive, the concept of Q can be useful in predicting and interpreting what's happening, but you still don't specify it as a separate parameter -- it's determined by and inherent in the component Rs and Xs.

Roy Lewallen, W7EL

"Peter Norgard, KI0EG" wrote:
>
> Hope this isn't too dumb sounding, but are you sure the program you are
> using will allow you to include device Q into the simulation? I know that
> the OrCad spice program (evaluation version) that I use doesn't let me do
> that (unless I am totally missing something). However, Harmonica from
> Ansoft does allow this.
>
> Pete, KI0EG
>
> > Can anyone tell me what I might be doing wrong or at least which
> > analysis I can believe?
> >
> > TIA
> > JB Hall

5138. Promoting fun radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 06:28:35 UTC
From: G8ASO &#65533; <great_steaming_loony@worcester.com>
Message-ID: <3b8f2e8b_1@news1.vip.uk.com>
Source record: 50635
Cross-posted to: alt.crazy-hams-435-repeater,alt.ham-radio,aus.radio.amateur,rec.ham-radio,rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,uk.radio.amateur

Greetings

The Laughing Policeman Wireless Society http://www.laughingpoliceman.com have relentlessly promoted the hobby for over 10 years.
Have fun with your hobby! why not build a repeater bug? full construction details on our club site with updated tone burst schematic and timer diagrams.
With an old hand-held the total construction cost is under &#65533;100 for months of fun!

G8ASO

5139. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 07:14:25 UTC
From: Brian D Shircliffe <brian_shircliffe@netzero.com>
Message-ID: <lPGj7.14569$nw.1782455493@newssvr17.news.prodigy.com>
Source record: 50636

LMFAO!!!!

> Before plugging in for the first time, call 911 but just let the
> receiver lay on the table. Your neighbors will appreciate this. With a
> little luck, you will be able to hear the actual 911 response on your
> newly modified radio!
>
> Is this a great hobby or what? :-)
>
> BT

5140. Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 09:56:31 UTC
From: "James L. Marino" <jmarino1@inreachDONTSPAM.com>
Message-ID: <3B8F5F4F.F2CB92F5@inreachDONTSPAM.com>
Source record: 50637

Hi guys, I'm back again. I have a receiver module to use for RDF location of my rockets, and it has a RSSI output pin on it. I'd like to use this to drive an LED bar graph indicator signal strength meter. Can one of you kind folks direct me to a simple schematic for this. Thanks so much.

James
jmarino1 (AT) inreach (DOT) com

5141. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 11:04:22 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B8F6F36.2E0A9A74@bloomer.net>
Source record: 50638

If you want super simple, how about a resistor and an analog meter movement? Otherwise, Radio Shack used to publish their "Engineer's Notebook" series of books and they had a circuit using 1 IC that converts an input voltage to outputs to drive an LED array.

Scott
N0EDV

"James L. Marino" wrote:
>
> Hi guys, I'm back again. I have a receiver module to use for RDF
> location of my rockets, and it has a RSSI output pin on it. I'd like to
> use this to drive an LED bar graph indicator signal strength meter. Can
> one of you kind folks direct me to a simple schematic for this. Thanks
> so much.
>
> James
> jmarino1 (AT) inreach (DOT) com

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

5142. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 11:15:39 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b8f70af.2026085@news.cantech.net.au>
Source record: 50639

On Fri, 31 Aug 2001 02:56:31 -0700, "James L. Marino"
<jmarino1@inreachDONTSPAM.com> wrote:

> Hi guys, I'm back again. I have a receiver module to use for RDF
>location of my rockets, and it has a RSSI output pin on it. I'd like to
>use this to drive an LED bar graph indicator signal strength meter. Can
>one of you kind folks direct me to a simple schematic for this. Thanks
>so much.

Down here in oz, there was a construction project (kit) for one in our
Electronics Australia mag in Dec '81. Dunno if that mag eversaw light
in your libraries ....

Ditto Electronics Today International, had a Peak/average LED level
meter in Jun 81, and a LED peak program meter in Oct 83.

Don't have any of these mags/articles, just chased them up in the
project index for each.

May help ...

5143. Re: Scope probes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 11:20:50 UTC
From: amdx <amdx@att.net>
Message-ID: <mqKj7.5747$KV3.428756@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50640

Here's some info
http://www.tek.com/Measurement/cgi-bin/framed.pl?Document=/Measurement/Produ
cts/catalog/Accessories/probes/index.html&
FrameSet=accessories

Copy and paste the complete URL.

5144. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 12:06:51 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <v5Lj7.680085$K5.72591401@news1.rdc1.nj.home.com>
Source record: 50641

National Semi makes 3 LED bar graph drivers. I believe that the p/ns are lm3915, lm3916. One is calibrated in log terms, one in VU and one in decimal. At any rate, they have very understandable ap-notes on the nat semiwebsite www.nsc.com

jack
x wa8pzl

James L. Marino wrote in message <3B8F5F4F.F2CB92F5@inreachDONTSPAM.com>...
> Hi guys, I'm back again. I have a receiver module to use for RDF
>location of my rockets, and it has a RSSI output pin on it. I'd like to
>use this to drive an LED bar graph indicator signal strength meter. Can
>one of you kind folks direct me to a simple schematic for this. Thanks
>so much.
>
>James
>jmarino1 (AT) inreach (DOT) com

5145. Source for small B&W or AirDux coils?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 12:56:15 UTC
From: k5dh@raytheon.com
Message-ID: <PPLj7.2$Qc2.86@dfw-service2.ext.raytheon.com>
Source record: 50642
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

Anyone have a good source for small B&W or AirDux airwound
coil stock? Not looking for Bugcatcher antenna coils, just
small ones (3011, 3015, etc) for transmitter projects.

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

5146. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 15:35:59 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0108310735.9d75983@posting.google.com>
Source record: 50643

"James L. Marino" <jmarino1@inreachDONTSPAM.com> wrote in message
news:<3B8F5F4F.F2CB92F5@inreachDONTSPAM.com>...

> Hi guys, I'm back again. I have a receiver module to use for RDF

> location of my rockets, and it has a RSSI output pin on it. I'd like to

> use this to drive an LED bar graph indicator signal strength meter. Can

> one of you kind folks direct me to a simple schematic for this. Thanks

> so much.

Have a look at the LM3914 data sheet. There are a
couple of application notes that may be relevant.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5147. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 16:28:03 UTC
From: lugehall@hotmail.com
Message-ID: <bc96ecb7.0108310828.19dfca2f@posting.google.com>
Source record: 50644

Thanks everyone for the ideas. I am still struggling though. Here is what I have done relative to the main points that were suggested:

1. Transient analysis may be too short, not allowing me to observe the steady state conditions:
I ran the transient analysys for as much as 1ms but it seemed to reach steady state in less than 10us. The circuit is resonant at 7.68Mhz. and the Q is about 180 (3.36uh with Rp=29500).

2. Circuit is overdriven or operating in a non-linear fashion:
I was running the input at 10mv so I tried 1mv and 100uv. The same gain was observed at these three input levels, about 19db. Even with 37db gain as indicated by the AC Analysis, a 10mv signal should produce a 700mv peak signal on the collector.

DC bias conditions for each type of analysis were also in question. I need to study that a little further and see what I can determine. Meanwhile I'm still confused.
Thanks again for the assistance. 73
JB Hall

5148. Re: Scope probes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 18:18:14 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9mokd9$d6f$1@neptunium.btinternet.com>
Source record: 50645

The probe itself isn't too difficult. What is difficult is getting the special cable, it isn't ordinary co-ax, but made from some sort of resistive compound.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

"Karl Labor" <whuffman@cfl.rr.com> wrote in message
news:Yytj7.15465$8c3.1300474@typhoon.tampabay.rr.com...
> Any one had any experience homebrewing passive scope probes ??
> Where can this info be found ?
> Thanks
> Wade KZ5WH
>
>

5149. FS: LCD 16 x 4 display modules, NEW!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 20:27:42 UTC
From: ovrreactor@aol.com-nospam
Message-ID: <20010831162742.01535.00002238@mb-cc.aol.com>
Source record: 50646

I am selling BRAND NEW LCD display modules, made by Data Vision. Documentation included.

I have over $25 invested in EACH ONE of these.

$5 each (minimum 5, please)

I bought HUNDREDS of these for a project that I have decided to abandon (no more time), and I want to sell them ALL immediately. Offers encouraged for large quantities, OR the entire lot.

Picture available at;
http://members.aol.com/ecc81/yardsale

Please respond BY EMAIL to < OvrReactor@aol.com > if interested.

Thanks,
Tom Mitchell

5150. Re: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 20:31:19 UTC
From: CHOKY <choky@eunet.yu>
Message-ID: <9mp2l1cqq3@news.eunet.yu>
Source record: 50549
Cross-posted to: rec.audio.tubes,rec.radio.amateur.homebrew

Yeah,good tube for low level stages;bentheredonethat.
Cheers!

--
message sent by Choky,
Prodanovic Aleksandar
choky@EUnet.yu
YU
"DEMOSTENES A. Goks&#65533;yr" <arnoldg@enitel.no> wrote in message
news:3b8d3aba.13670976@news.enitel.no...
>
> Hello,
>
> PC 900 is a B7G base triode with a heater of 3.9V 0.3A, u=76 and a gm
> of 14.5mA/V
> A very promising valve to experiment with in low-level stages, both
> audio and HF/VHF amplification. It was developed for use in VHF and
> UHF television tuners.
> I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
> each if you buy 100 pcs or more. The valves are NOS, in mint
> condition, original boxes and the label is Haltron, but they are
> rebranded, and I think the are originally made by Philips or Siemens.
> E-mail me if interested.
>
> Best regards,
>
> Arnold Goks&#65533;yr
>
> DEMOSTENES - N6899 Balestrand, Norway
> Tlf. +47 5769 1340 Fax +47 5769 1267
> http://www.demostenes.no
>
> Thousands of different valves in stock as well as
> sockets,transformers,books and components.
>

5151. A radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 20:37:22 UTC
From: psy_y@mail.com
Message-ID: <60dd95ba.0108311237.a4e6b51@posting.google.com>
Source record: 50547

Hi everyone!,
I've designed a transistor radio.
But according to the rap n' tap discussion group, it acts like a
regenerative reciever. If anyone would like to help out and try it,
look here. http://www.angelfire.com/wi2/mars/temporary.html
The headphones are actually 145, 179, or 145 Ohm headphones. If there
are any other headphones or speakers that work, then e-mail me at,
psy_y@mail.com.
Thanks everyone!
Young-Min Park

5152. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-08-31 21:06:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B8FFC55.90AA4BBE@eznec.com>
Source record: 50548

I've found LED displays to be very hard to read outside in sunlight --
particularly when running at low current to conserve batteries --, so
the analog meter idea might be a better choice. I do recommend that you
do a little experimenting outside before putting too much effort into
it.

Roy Lewallen, W7EL

"James L. Marino" wrote:
>
> Hi guys, I'm back again. I have a receiver module to use for RDF
> location of my rockets, and it has a RSSI output pin on it. I'd like to
> use this to drive an LED bar graph indicator signal strength meter. Can
> one of you kind folks direct me to a simple schematic for this. Thanks
> so much.
>
> James
> jmarino1 (AT) inreach (DOT) com

5153. FA: TS940S 1 DAY LEFT

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 00:03:40 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <wBVj7.16391$xb.10495208@news1.mntp1.il.home.com>
Source record: 50550

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1270217296

5154. Re: Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 00:29:54 UTC
From: ve7rz <ve7rz@rac.ca>
Message-ID: <3B902BF3.3C91729B@rac.ca>
Source record: 50551
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Want something cheap, easy to build, and a really hot performer? Go with a Delta loop, flat on the top and fed on the bottom. I have worked a lot of DX and some of the loudest guys on the band are running barefoot and a delta loop. I use one for 80 and another for 40. They are excellent performers. Have Fun

Trace VE7RZ

Peter wrote:

> I'm looking for any instructions/plan for a homebrew 80m antenna. I'm
> looking for something thats not too big as my space is limited.
>
> Any advice???
> Pete

5155. Thank You

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 00:57:51 UTC
From: "James L. Marino" <jmarino1@inreachDONTSPAM.com>
Message-ID: <3B90328F.1184C57@inreachDONTSPAM.com>
Source record: 50552

Thank you to all for the help. Found everything that I need. Now I can launch my Level 3 certification flight without worrying about losing it. I'll be able to follow it with the RDF equipment. Might drift just a little... only going up about 14000 feet... 8^)

James

5156. HP 1727A Oscilloscope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 01:39:09 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <b%Wj7.34670$4b5.872885@news6.giganews.com>
Source record: 50553

I am seeking a service manual for the HP 1727A oscilloscope. Can anyone help?

I'd like an original or a copy or even the loan/rent of one so I can make a copy.

Thanks and 73, Bob K6DDX

5157. Re: Source for small B&W or AirDux coils?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 01:44:23 UTC
From: Glenn Miller <gamiller@rimbachvets.org>
Message-ID: <X3Xj7.6591$KV3.490821@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50554
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.boatanchors

"K5DH" <k5dh@raytheon.com> wrote in message
news:PPLj7.2$Qc2.86@dfw-service2.ext.raytheon.com...
> Anyone have a good source for small B&W or AirDux airwound
> coil stock? Not looking for Bugcatcher antenna coils, just
> small ones (3011, 3015, etc) for transmitter projects.

Try B&W: http://www.bwantennas.com/coilcat.htm

5158. Re: A 1-Transistor Radio With no Diode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 03:39:10 UTC
From: scoles@isomedia.com
Message-ID: <8c0dcc17.0108311939.c168db4@posting.google.com>
Source record: 50555

Hello All,

Rap 'n' Tap is at:

http://www.midnightscience.com/rapntap/forum.asp?forum_id=3&forum_title=Crystal+Set+Clubhouse

The thread is called: 'Experimenting a long time ago'

The 145 & 179 ohms refered to above are the head phones DC resistances, not the impedances. My work arounds, posted in 'Experimenting a long time ago,' kludge the receiver to accept higher & lower DC resistance phones. The receiver appears to have a regen(?) mode and hops from very low volume to much higher than any of my other 1-transistor receivers. However, I have to throw in internal battery resistance, Miller capacitance, &/or interwinding capacitancece to to see any possible positive feedback path. Any assistance in removing the kludge & understanding the detector's operation would be most welcome.

Unfortunately, some side threads where accidently started. Hopefully, we won't have to search them to missing information.

Young-Min,

The miniature audio output transformer I used in replicating your radio is a Radio Shack 273-1380.

Steven

5159. FA: Two BIG JAMES MILLEN AIR VARIABLES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 03:39:49 UTC
From: rlucch2098@aol.com
Message-ID: <20010831233949.01534.00004284@mb-cj.aol.com>
Source record: 50556

Great for Tuners & Transmitter, going cheep, really professionally made, check
em out!
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268115873
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268115876

5160. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 04:59:30 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9p0o4g.1tn.w9wi@linux1.localdomain>
Source record: 50557

On Fri, 31 Aug 2001 14:06:29 -0700, Roy Lewallen <w7el@eznec.com> wrote:
>I've found LED displays to be very hard to read outside in sunlight --
>particularly when running at low current to conserve batteries --, so
>the analog meter idea might be a better choice. I do recommend that you
>do a little experimenting outside before putting too much effort into
>it.

I've also found the LED bargraphs don't really have enough resolution when
you're trying to "peak something up". Only ten segments, unless you want to
cascade two ICs. The analog meter probably is the best bet for this
application.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

5161. ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 06:24:59 UTC
From: stephen pearce <g_and_s_pearce@xtra.co.nz>
Message-ID: <3b907f3b@zfree.co.nz>
Source record: 50558

Any thoughts on this scheme for a homebrew hf receiver.

50 MHz lpf
passive mixer
300 MHz dds lo
70 MHz if (using maybe sat tv technology) include some agc control
here to make up the 130 dB probably needed overall ...
ad9870 rated to 88dB on spec .. might be able to pick some more up
in the dsp at the end
70 Mhz ?saw filter/xtal filter/lc tanks
ad9870 if
10.7 Mhz 2nd if using 10.7 Mhz crystal filter
digi output to ad21065 devl. kit
..
2nd stage ... use the 300MHz dds as transmitter
.
4 bpfs on the front end to do 0-50 50-100 100-150 150-200 MHz
.
why has it not already been done?

cheers
Stephen
zl1any

ps anyone with easy access to ad .. would you be able to help me
obtain samples of the relervant chips .. I can pay reasonable
amount .. but can't go to the moq!

http://www.zfree.co.nz

5162. Re: Promoting fun radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 11:25:15 UTC
From: radiowaves <me@offlinel.uk.co>
Message-ID: <9mqgf6lsb1@plutonium.btinternet.com>
Source record: 50559
Cross-posted to: alt.crazy-hams-435-repeater,alt.ham-radio,aus.radio.amateur,rec.ham-radio,rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,uk.radio.amateur

SAD MAN

G8ASO &#65533; <great_steaming_loony@worcester.com> wrote in message news:3b8f2e8b_1@news1.vip.uk.com...
> Greetings
>
> The Laughing Policeman Wireless Society http://www.laughingpoliceman.com
> have relentlessly promoted the hobby for over 10 years.
> Have fun with your hobby! why not build a repeater bug? full construction
> details on our club site with updated tone burst schematic and timer
> diagrams.
> With an old hand-held the total construction cost is under &#65533;100 for months
> of fun!
>
> G8ASO
>
>

5163. QEX - great article on 6 digit DVM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 14:40:04 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <8r6k7.687357$K5.73305723@news1.rdc1.nj.home.com>
Source record: 50560

Tipton has a really nice article on a high acuracy DVM using paralleled
Thaler voltage references and a 24 bit ADC in the current issue of QEX.

5164. Re: Help with SPICE analysis

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 15:18:21 UTC
From: lugehall@hotmail.com
Message-ID: <bc96ecb7.0109010718.76901fb0@posting.google.com>
Source record: 50561

> I have been modeling a class A tuned amplifier at about 7MHZ in SPICE.
> Using AC Analysis, the output runs pretty close to the expected gain
> (37db).
> When I run the Transient Analysis however the gain is about 20db less.

Well I think I have found the problem. I have been using a SPICE program that was supplied by a semiconductor manufacturer and intended as a design aid for switching regulator design work. Well, for lack of a better approach I downloaded the demo version of Electronics Workbench and ran this circuit on it. It looked much better, and after fine tuning the input voltage and length of simulation as suggested, the results agreed perfectly between the AC and Tran analysis.

Now back to the original SPICE program to try and find the problem. I took the tank circuit out and fed it with a voltage source at the resonant frequency. In series with the source was a 30K resistor (the value I specified for the inductor Rparallel). The AC analysis was just as you would expect with a peak of 0.5*Vin at the resonant frequency. The Transient analysis however was much lower. I removed the inductor Rp entirely and the output came up to about 0.13*Vin. That would indicate an effective Rp of 4.46K so I changed the resistor in series with the source to that value and sure enough the output was 0.5*Vin.

Once again my thriftiness cost me untold hours of pain. Even though my freebee SPICE program was described as: " …the Spice is fully functional and allows other types of circuits to be simulated in a user-friendly environment….”, it seems that a resonant circuit was not one of those "other types".

Thanks again to everyone who suggested solutions.
73
JB Hall

5165. Looking for specs on xfrmr

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 15:34:37 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3B91000D.47CAD097@visi.com>
Source record: 50562

Hi gang,
I have a transformer I'm looking for specs on. It is in a
Setchell-Carlson box, which says "TM-1192C" on it. The transformer is
stamped "TM-1093/1192C".

It has 2 black leads (I assume these are 110V AC primary), two red
(assume HV) and 2 green (assume fil). Can anyone give me
voltage/current specs on this guy?

Thanks!

Bob WB0POQ

5166. Re: ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 16:05:28 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109010805.40863939@posting.google.com>
Source record: 50563

"stephen pearce" <g_and_s_pearce@xtra.co.nz> wrote in message
news:<3b907f3b@zfree.co.nz>...

> Any thoughts on this scheme for a homebrew hf receiver.

> (snip...)
> why has it not already been done?

>

> cheers

> Stephen

> zl1any

>

>

> ps anyone with easy access to ad .. would you be able to help me

> obtain samples of the relervant chips .. I can pay reasonable

> amount .. but can't go to the moq!

This may be your answer. The chips are interesting, but they
not always straightforward to obtain.

Also, high-speed mixed-signal design can be a nightmare to
get right...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5167. Re: Inexpensive VARIAC wanted in UK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 19:24:11 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9mrcrl$cu5$1@uranium.btinternet.com>
Source record: 50564

Thanks to all who replied I got a 270 volts 3 amp varriac for £8. and a 20 mile drive.

5168. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 19:49:09 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3B913D2B.41D55863@toast.net>
Source record: 50565

Ralph Mowery wrote:

> Get a soldering pencil with a very small tip on it. The wattage should
> be around 40 watts. Find some solder that is 60% tin and 40% lead, this
> is usually called 60/40. There are several differant mixes of tin to
> lead but 60/40 (tin is usually the first number) is the best unless you
> hapen to locate some 63/37.

The first number is lead, the second tin.

--

> john

5169. Re: need help in locating IC for HW 7

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 20:09:59 UTC
From: n3ab@fast.net
Message-ID: <3b914002.2041657@news.fast.net>
Source record: 50566
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap,heathkit@qth.net

I have a box of transistors and ICs up on eBay right now with no
bidders. There are two CA3035s in there. The auction closes in
another day. If I get no takers, I'll let you guys know.

John N3AB

On Sat, 18 Aug 2001 13:23:32 GMT, "Ron Wicker" <ronwick@flash.net>
wrote:

>I need the audio IC for the HW-7 It is a CA 3035V1 or could use a matched
>replacement. Any ideas where I can find one? If not any ideas on
>installing a new receiver inside.
>Thanks, Ron, AA5NI.......
>

5170. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 20:41:00 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <esh2ptcobb9e4arc303mrp1kvr5qinb6l5@4ax.com>
Source record: 50567

On Sat, 01 Sep 2001 19:49:09 GMT, John O'Flaherty <oflahert@toast.net>
wrote:

>The first number is lead, the second tin.

Bzzzzzt!

Murphy's law is verified once again. (Like it needed it)

:-)

Bill, W7TI

5171. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 21:09:57 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B914EA5.E1D17162@dialpoint.net>
Source record: 50568

In my book it is tin then lead. You must be using RPN.

John O'Flaherty wrote:
>
> Ralph Mowery wrote:
>
> > Get a soldering pencil with a very small tip on it. The wattage should
> > be around 40 watts. Find some solder that is 60% tin and 40% lead, this
> > is usually called 60/40. There are several differant mixes of tin to
> > lead but 60/40 (tin is usually the first number) is the best unless you
> > hapen to locate some 63/37.
>
> The first number is lead, the second tin.
>
> --
>
> > john

5172. Re: A radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-01 22:47:53 UTC
From: scoles@isomedia.com
Message-ID: <8c0dcc17.0109011447.924f42d@posting.google.com>
Source record: 50569

Hello All,

Well, I accidently posted this to a new thread. Here's trying again:

Rap 'n' Tap is at:

http://www.midnightscience.com/rapntap/forum.asp?forum_id=3&forum_title=Crystal+Set+Clubhouse

The Rap 'n' Tap thread is called: 'Experimenting a long time ago'

The 145 & 179 ohms refered to above are the head phones DC resistances, not the impedances. My work arounds, posted in 'Experimenting a long time ago,' kludge the receiver to accept higher & lower DC resistance phones. The receiver appears to have a regen(?) mode and hops from very low volume to much higher than any of my other 1-transistor receivers. However, I have to throw in internal battery resistance, Miller capacitance, &/or interwinding capacitancece to see any possible positive feedback path. Any assistance in removing the kludge & understanding the detector's operation would be most welcome.

Unfortunately, some side threads where accidently started. Hopefully, we won't have to search them to missing information.

Young-Min,

The miniature audio output transformer I used in replicating your radio is a Radio Shack 273-1380.

Steven

psy_y@mail.com (Young-Min) wrote in message news:<60dd95ba.0108311237.a4e6b51@posting.google.com>...
> Hi everyone!,
> I've designed a transistor radio.
> But according to the rap n' tap discussion group, it acts like a
> regenerative reciever. If anyone would like to help out and try it,
> look here. http://www.angelfire.com/wi2/mars/temporary.html
> The headphones are actually 145, 179, or 145 Ohm headphones. If there
> are any other headphones or speakers that work, then e-mail me at,
> psy_y@mail.com.
> Thanks everyone!
> Young-Min Park

5173. Eimac X578U ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 01:48:28 UTC
From: melissaN0o0SPAM@dimensional.com
Message-ID: <Mdgk7.401$mr3.14182@wormhole.dimensional.com>
Source record: 50570
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.homebrew

I came across some parts in the basement that I've had around for years and don't even know where I got them or what they are.

Eimac X578U ? They appear new and it says Electron Tube on the tags. They appear to be some kind of microwave tubes. Heavy little suckers, for their size. I have maybe 6 of them.

Are these possibly worth anything if I sell them?

--
- Melissa KW0WW

LED Night Lights http://www.dimensional.com/~melissa/light.htm

COLORADO WOMEN: Interested in self defense? Email me!

Perhaps they misunderstood. Rights are absolute, not obsolete.
Celebrate AND Advocate Liberty! Live free!
http://www.UPAlliance.org/

5174. fa: J.W.Miller antenna coils(8) NOS, boxes, cheap, only 1 day!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 02:45:20 UTC
From: rlucch2098@aol.com
Message-ID: <20010901224520.15223.00004223@mb-fv.aol.com>
Source record: 50571

http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268115864

5175. Oscilloscope for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 03:23:13 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <VChk7.36881$4b5.914483@news6.giganews.com>
Source record: 50572
Cross-posted to: la.forsale,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

I have a great working Tektronix 547 50 MHz oscilloscope with a lovely assortment of plugins. I have dual trace, four trace, calibrated offset, and spectrum analyzer plugins plus a few spares. I also have some manuals but not sure what they cover.

The second unit needs a capacitor. It's an old Dumont 401R, about 100 kHz bandwidth, complete with manual. It only needs the resonating capacitor for the self regulating power transformer, I believe 0.84 microfarads or so at a few hundred volts. The tubes alone in this baby make it worth its weight (which is considerable) in parts.

The third unit is a fine working Tektronix 316 portable unit (well, the carrying handle is broken). This one is good to 5 MHz and has the usual Tektronix quality and performance. No manual.

I'd rather not ship these. I am in the Los Angeles area. All reasonable offers considered.

73, Bob K6DDX

5176. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 11:26:16 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3B92174F.181AE2AF@earthlink.net>
Source record: 50573

Ralph---

> > > lead but 60/40 (tin is usually the first number) is the best
> > The first number is lead, the second tin.
> In my book it is tin then lead. You must be using RPN.

Nope. If he were using RPN, it would read ``60 40 /''. :)

Henry C. Gernhardt, III
KE4PIB

5177. Re: ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 13:49:15 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <vNqk7.7861$151.555381@bgtnsc05-news.ops.worldnet.att.net>
Source record: 50574

I don't think that I would use a 70MHz 1st I.F. when using the a DDS that is clocked at only 300MHz. The "sweet spot" for a DDS that is clocked at this frequency would be in the 40 to 80MHz range. If you would be tuning the receive range of 0 to 30MHz, a 45MHz I.F. would work out better. I know that Analog Devices says that you can go up to 40% of their clock frequency, and you can, but when you get up in this range, the artifacts in the DDS output increase in amplitude. Now, if they were all out of band where they could be filtered, that would be fine, but you get some pretty "good" ones that are in band, and when your desired output signal mixes with one of these things, it gets pretty interesting. I have been using the AD9851 in my own receiver designs, and it works out ok. I am band-passing the DDS output, amplifying the output, and low-passing the amplified signal, with good results.
Now, as far as you question about this not having been done before.....Rockwell-Collins did this over 4 years ago, with the 95S-1 receiver. They didn't sell too many of them, at 7000 or so dollars each. I did get to play with one of these receivers when I was working at Rockwell-Collins, and it did work fairly well.

Pete Gianakopoulos KE9OA
Chicago, Il.

stephen pearce <g_and_s_pearce@xtra.co.nz> wrote in message news:3b907f3b@zfree.co.nz...
>
> Any thoughts on this scheme for a homebrew hf receiver.
>
> 50 MHz lpf
> passive mixer
> 300 MHz dds lo
> 70 MHz if (using maybe sat tv technology) include some agc control
> here to make up the 130 dB probably needed overall ...
> ad9870 rated to 88dB on spec .. might be able to pick some more up
> in the dsp at the end
> 70 Mhz ?saw filter/xtal filter/lc tanks
> ad9870 if
> 10.7 Mhz 2nd if using 10.7 Mhz crystal filter
> digi output to ad21065 devl. kit
> ..
> 2nd stage ... use the 300MHz dds as transmitter
> .
> 4 bpfs on the front end to do 0-50 50-100 100-150 150-200 MHz
> .
> why has it not already been done?
>

> cheers
> Stephen
> zl1any
>
>
> ps anyone with easy access to ad .. would you be able to help me
> obtain samples of the relervant chips .. I can pay reasonable
> amount .. but can't go to the moq!
>
>
>
>
> http://www.zfree.co.nz
>

5178. FS OPTOELECTRONICS SCOUT ebay ends sun.eve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 14:35:29 UTC
From: mallen <elyps@go.co>
Message-ID: <Mvrk7.985$A24.155064@news20.bellglobal.com>
Source record: 50575

FS (no reserve) on eBay Item # 1268927671 ENDS 8 pm (eastern time) on
SUNDAY. http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1268927671

OPTOELECTRONICS SURVEILLANCE SCOUT MODEL 40 w/charger & manuals
Check it out and good luck!!! Mark

5179. Re: ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 16:02:56 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <QKsk7.41141$oc.6366276@news02.optonline.net>
Source record: 50576

Hi Stephen,

Sounds like a fun project.

A couple of comments. In no particular order.

The DDS will clock fast, but you will probably want to stay at < 0.26 times the clock frequency. The problem can be looked at as the harmonics of your output being sampled back down to be in band. For example in the vicinity of 0.48 times the clock frequency you get a pretty darn big spur at 0.52 times the clock. At some point the filter to take this stuff out gets so complex that it's just not worth building.

The second DDS issue you will run into is that yes the spurs are > 80 or so db down, but there are a *lot* of them. The problem with this is that they start to behave like phase noise rather than like spurs. In other words you are dealing with hundreds or thousands spurs in a typical IF bandwidth mixing with input signals rather than two or three doing the mixing. The net result is that the dynamic range of the system is reduced considerably.

One way around this is to run a octave band VCO as your local oscillator and lock it to the DDS output. This can help clean up the DDS spurs, but it adds to the complexity of the radio. You also get a new set of spurs to deal with but at least they are at discrete frequencies.

Saw filters are very neat parts. They also are fairly broad or fairly high loss or both. This isn't necessarily a bad thing and there are ways around their limitations. They probably are not the best choice for a first filter in an HF radio though unless you are trying to do a "whole band at a time" type of radio. They should be a fine idea above 30 MHz.

Most of this (at least through the second IF) has been done before. It's not to uncommon to see high end wide band scanners done pretty much this way. You usually see older DDS chips in them though. They also seem to use some pretty high first IF's. It can be very hard to take care of 70 MHz IF feed through on a radio that covers 70 MHz and has a 70 MHz first IF.

The DSP IF processing is fairly new and fairly expensive. You will find that kind of thing in the higher end military gear or in cell phone base stations. It's not as common in commercial or VHF ham stuff.

Can't help much with the samples. I've found AD to be fairly easy to work with though. You might try giving the local office a call and see what they can do for you. A year ago they probably would have been a bit hard to convince. I suspect that in today's market you would have a good chance at getting some parts.

About the only other major issue that you will run into is PC board layout. The pitch on the leads on these packages is *tiny*. Doing the good old flip the chip over and wire it dead bug style is a major pain on these parts. I have yet to fine a way to do this stuff reliably without doing a PC board.

Enjoy!

Bob Camp
KB8TQ

5180. FS: 100's of NOS TUBES @ $.60 ea.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 16:54:13 UTC
From: Murray Pasternack <m.pasternack@prodigy.net>
Message-ID: <Vutk7.22914$Gy6.3196540052@newssvr15.news.prodigy.com>
Source record: 50577
Cross-posted to: rec.ham-radio.swap,rec.radio.amateur.homebrew

Please email w6krc@arrl.net for list of tubes available.

5181. Re: Has anyone built the WBR receiver (Aug QST)?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 17:35:52 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <88r4pt4upjk7140ng77mtu5kj1hlnrskit@4ax.com>
Source record: 50578

On Fri, 24 Aug 2001 10:04:56 +1000, "Peter Parker"
<parkerp@alphalink.com.au> wrote:

>Just wondering if anyone has built the WBR receiver in this month's QST.
>
>How did it perform relative to other regen and DC receivers?
>
>73, Peter VK3YE

I finished mine yesterday. I've never built a regenerative or DC
receiver before, so I can't compare it. However, I've found it to be
quite sensisitive. I can clearly hear a 1.0 uV signal on the signal
generator, and for 2 transistors and an audio amp, that isn't bad!.

Stability is quite decent. You can easily listen to SSB and not have
to keep chasing the knob.

I do find a small amount of frequency pulling with the antenna
attenuator. A KHz or so.

The audio sounds very clean and the regeneration control is smooth. No
strange sounds; just regenerates or not.

It took me about 12 hours, including metal working and electrical
work.

Jack Smith K8ZOA

5182. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 19:24:06 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3B92873F.835AA81B@toast.net>
Source record: 50579

Ralph Mowery wrote:

> In my book it is tin then lead. You must be using RPN.

You're right. I should know better than to rely on my memory when disagreeing
with somebody. Sorry!

--
john

5183. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 20:15:00 UTC
From: 2w8ji@contesting.com
Message-ID: <3b92928b.207963779@news.akorn.net>
Source record: 50580

On Tue, 28 Aug 2001 14:24:03 -0400, Ralph Mowery
<rmowery@dialpoint.net> wrote:

>Get a soldering pencil with a very small tip on it. The wattage should
>be around 40 watts. Find some solder that is 60% tin and 40% lead, this
>is usually called 60/40.

I'd use 40/60 solder (the first number is lead, second tin) and a 240
watt soldering gun.

Melt the solder on the tip and let it drip on the board for the best
connection. Scrape off the excess with a dremel tool.

5184. Re: Beware of Auburn Metrology Labs Inc.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 22:13:40 UTC
From: John Strand <w6ibl@ncinternet.net>
Message-ID: <3b92afe3$0$9050@wodc7nh0.news.uu.net>
Source record: 50581
Cross-posted to: rec.radio.amateur.misc,rec.radio.amateur.dx,rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc,rec.radio.swap,rec.radio.scanner

Another perspective:

I have dealt with Mr. Knowles and his companies for the last 16 years on a fairly regular basis. I have always found them to be responsive, competent, and responsible. Hopefully, whatever went wrong was the exception rather than the rule.

Just my opinion.....

John Strand W6IBL

"Donald E. Smith" <desmith@innercite.com> wrote in message news:3B897BB9.285D4598@innercite.com...
> I too, am in the repair business and do not take lightly the ethics of repair.
> They had the equipment for almost a year and never even opened it up. They never
> responded to my requests for an update or sent me any kind of communications
> regarding the status of its repair. If you or I ever ran our business that way
> we would not be able to enjoy our good reputations. Don
>
> Neville Y wrote:
>
> > Sorry Donald, I really do not understand your need to express your views
> > here. As I read your post you paid $110 when they estimated "under $300". We
> > have your side of the story and I do believe you version, but I think it is
> > fair to have the other side. I am involved in servicing and while perhaps
> > 95% of all repairs are straightforward, some do go wrong. I'm not really
> > trying to give excuses, but some of the problems I have encountered include.
> > Leaving a message at the contact phone number regarding repair and they do
> > not pass it on (they will never admit this later).
> > Wrong phone number supplied.
> >
> > No response to phone calls (or message left). Please understand I may have
> > 50 repairs at any one time and I can not call each client 5 times daily
> > (work it out).

> > Email can be impossible. I often receive over 300 messages per day. How
can
> > I read or replay to them all and still have time to repair your radio?
> >
> > I have also hung up on callers. Some can never see reason.
> > No doubt others have had bad servicing experiences, but many will have
good
> > ones. We will always hear the complaints.
> >
> > Best Regards
> > Neville
> >
> > "Donald E. Smith" <desmith@innercite.com> wrote in message
> > news:3B7C1DDB.53B4193B@innercite.com...
> > > This is a warning notice to all in radio land about a test equipment
> > > company located in Auburn, KY. They are Auburn Metrological Labs at
> > > 12345 Bowling Green Road, Auburn KY. 42206. Their number is 270
> > > 542-6000.
> > >
> > > Based on information given to me by their General Manager, Ken
Knowles,
> > > they would be able to repair my Cushman CE-50 that was having a
receive
> > > problem. It generated fine and all pll were locking fine. They gave
me
> > > an estimate of under $300.00 with a turnaround of about one week. I
> > > sent it to them for repair on February 24, 2001 based on this
> > > information. After a couple of months went by without even an
> > > acknowledgment of receiving it, I tried to contact them by telephone
and
> > > email. Still I received no information on it and after numerous
emails
> > > and a couple of letters, one being a legal demand letter, the unit
> > > showed up at my door with a 110.00 COD charge. After contacting the
> > > company I was advised that Ken Knowles was on vacation and the service
> > > manager was arrogant, rude and even hung up on me. If you value your
> > > equipment and it is in need of repairs or calibration, PLEASE do Not
> > > send it to them. You will regret it.
> > >
> > > My options, against them, are not exhausted but I would rather have
> > > never had the problem to begin with. It has the tendency to taint all
> > > repair facilities. This outfit was recommended by a person from one
of
> > > the amateur news groups. I hope I have prevented any grief for others
> > > by this post. Thanks for listening to my ranting. 73's Don Smith
> > > KB6GQA
> > >
>

5185. homebrew 435 mhz preamp working via 9 volt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-02 23:59:30 UTC
From: _____ <ldmartin@pacifier.com>
Message-ID: <4rh5ptcvlja32qtt5ogfc8f0fd23npmq7g@4ax.com>
Source record: 50582

How about guys....does someone have photos and skematics of one i
mount on my arrow II antenna.

5186. FS: DRAKE TV-1000-LP & TV-5200-LP FILTERS, NEW in Boxes!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 03:37:00 UTC
From: rlucch2098@aol.com
Message-ID: <20010902233700.17096.00003278@mb-ft.aol.com>
Source record: 50583

Hi Guys;
I have 2 brand new Low Pass Drake Filters for sale.
1- Drake TV-1000-LP, Copper colored, New in Box.
1- Drake TV-5200-LP, Aluminum colored(anodized?), new in box.
Both rated at 1KW and good to 52mhz at reduced power.
Either one is $65ppd USA.
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

5187. Line of sight propagation

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 04:20:17 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9mv0jrndd1@neptunium.btinternet.com>
Source record: 50584

NOW AVAILABLE, Program "LINOSITE.exe

This simple program covers the bare essentials of radio propagation between antennas which are within straight line sight of each other. Refraction due to the atmosphere and ground reflections are ignored.

Antenna gains are inputted relative to an isotrope. For given path distance and transmitter power output, computed results include field strength in vicinity of receiving antenna, receiver power input, receiver input volts, S-meter reading relative to 50 picowatts.

For better appreciation of performance of VHF and UHF beam antennas the beam-widths in degrees and equivalent square apertures are also computed.

Approximations for other paths can be obtained. Earth - satellite links ?

Download from website below in a few seconds. One file = 35 kilobytes. Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
FREE RADIO DESIGN SOFTWARE
http://www.g4fgq.com
****

5188. Re: ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 08:23:48 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <o6Hk7.9646$KV3.746092@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50585

I did notice the spurs that Bob is talking about, and they do manifest themselves the way phase noise will. When I was living one block away from KMRY, in Cedar Rapids, Iowa, I would notice a rise in the noise floor of the receiver when I would get within 200KHz of that station. Using the same receiver strip with a PLL type of synthesizer, the problem was not noted. I had toyed with the idea of using a DDS as a tunable reference oscillator in a conventional PLL circuit. Maybe one of these days.....

Pete KE9OA
Chicago, Il.

Bob Camp <bob@cq.nu> wrote in message
news:QKsk7.41141$oc.6366276@news02.optonline.net...
> Hi Stephen,
>
> Sounds like a fun project.
>
> A couple of comments. In no particular order.
>
> The DDS will clock fast, but you will probably want to stay at < 0.26
> times the clock frequency. The problem can be looked at as the
> harmonics of your output being sampled back down to be in band. For
> example in the vicinity of 0.48 times the clock frequency you get a
> pretty darn big spur at 0.52 times the clock. At some point the filter
> to take this stuff out gets so complex that it's just not worth
> building.
>
> The second DDS issue you will run into is that yes the spurs are > 80
> or so db down, but there are a *lot* of them. The problem with this is
> that they start to behave like phase noise rather than like spurs. In
> other words you are dealing with hundreds or thousands spurs in a
> typical IF bandwidth mixing with input signals rather than two or
> three doing the mixing. The net result is that the dynamic range of
> the system is reduced considerably.
>
> One way around this is to run a octave band VCO as your local
> oscillator and lock it to the DDS output. This can help clean up the
> DDS spurs, but it adds to the complexity of the radio. You also get a
> new set of spurs to deal with but at least they are at discrete
> frequencies.
>
> Saw filters are very neat parts. They also are fairly broad or fairly
> high loss or both. This isn't necessarily a bad thing and there are
> ways around their limitations. They probably are not the best choice
> for a first filter in an HF radio though unless you are trying to do a

> "whole band at a time" type of radio. They should be a fine idea above
> 30 MHz.
>
> Most of this (at least through the second IF) has been done before.
> It's not to uncommon to see high end wide band scanners done pretty
> much this way. You usually see older DDS chips in them though. They
> also seem to use some pretty high first IF's. It can be very hard to
> take care of 70 MHz IF feed through on a radio that covers 70 MHz and
> has a 70 MHz first IF.
>
> The DSP IF processing is fairly new and fairly expensive. You will
> find that kind of thing in the higher end military gear or in cell
> phone base stations. It's not as common in commercial or VHF ham
> stuff.
>
> Can't help much with the samples. I've found AD to be fairly easy to
> work with though. You might try giving the local office a call and see
> what they can do for you. A year ago they probably would have been a
> bit hard to convince. I suspect that in today's market you would have
> a good chance at getting some parts.
>
> About the only other major issue that you will run into is PC board
> layout. The pitch on the leads on these packages is *tiny*. Doing the
> good old flip the chip over and wire it dead bug style is a major pain
> on these parts. I have yet to fine a way to do this stuff reliably
> without doing a PC board.
>
> Enjoy!
>
> Bob Camp
> KB8TQ
>
>
>

5189. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 12:56:02 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3B937DE2.654E225B@bloomer.net>
Source record: 50586

I found a source on the internet. The company is in England. You can
try searching (as I did) at http://www.altavista.com and searching for
that part number for other suppliers.

Here is the place in England I found
http://www.dialelec.com/xindex.asp?search=MC145170P2&Go.x=13&Go.y=6

Scott
N0EDV

Beverin wrote:
>
> I am trying to locate several of the above chips (MC145170P2 PPL Chip).
> I am prepared to pay (inc. postage). If you have one or more of the
> above chips or know of a source of supply, please email at
> vk3cmo@hotmail.com .
>
> Thanks & 73's
> John (vk3cmo).

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

5190. 74CBT3253

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 13:44:30 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9n01g3$4g854$1@ID-61331.news.dfncis.de>
Source record: 50587

Hi, does anyone know where I can get a 74CBT3253 dual 1 of 4 analog mux chip in the UK?

Thanks

Hans Summers
http://www.HansSummers.Com

5191. Computers networked via power lines

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 15:34:08 UTC
From: 2w8ji@contesting.com
Message-ID: <3b93a27d.277593052@news.akorn.net>
Source record: 50588
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.homebrew

It would be very good if amateurs in Mannheim, Germany to check this system out and document the lack of interference! I suspect the ending statement is not correct, since I can hear computers using twisted wire networking for over a mile away!

How are they getting away with that with CE regulations, or are they not enforced for German goods sold and used in Germany???

> In Mannheim, Germany, local power company MVV Energie AG expects to
> connect 3,000 customers to its Internet service by the end of this
> year. RWE Powerline expects to connect 2,000 more before the end of
> the year in its area. MVV and RWE offer customers Internet connections
> at speeds up to 2.5M bps (bits per second). All a user has to do is
> connect a modem to a PC using a LAN or USB (Universal Serial Bus)
> cable and plug the modem into any electrical outlet in the home.
> The systems made by Main.net use
> frequencies between 1MHz and 30MHz to
> send data from the home to the local power
> substation.

> "There are no more technical problems. The
> radiation is under the allowed level, although
> radio amateurs aren't happy with us offering
> the service," said Andreas Preuss, a spokesman for RWE Powerline GmbH,
> which currently offers 400 customers in Essen, Germany, power line
> Internet access using Ascom equipment. Despite the radio operators
> fears, there have been no reports of radio interference, he said.

5192. WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 15:58:10 UTC
From: k9sqg@aol.com
Message-ID: <20010903115810.03520.00004602@mb-fp.aol.com>
Source record: 50589

Looking for a 250 watt soldering iron, preferably new.

Thanks.

Evan

5193. Eimac X578U ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 16:02:09 UTC
From: melissaN0o0SPAM@dimensional.com
Message-ID: <5QNk7.446$mr3.14799@wormhole.dimensional.com>
Source record: 50590

I came across some parts in the basement that I've had around for years and don't even know where I got them or what they are.

Eimac X578U ? They appear new and it says Electron Tube on the tags. They appear to be some kind of microwave tubes. Heavy little suckers, for their size. I have maybe 6 of them.

Are these possibly worth anything if I sell them?

--
- Melissa

5194. Re: Computers networked via power lines

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 16:19:23 UTC
From: "Peter O. Brackett" <ab4bc@ix.netcom.com>
Message-ID: <9n0ai9frb1@slb0.atl.mindspring.net>
Source record: 50591
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.homebrew

Tom:

You'r correct. There is little or no "balance" in that electric wiring and
it goes
everywhere. As you mentioned, it's surprising that the EU allows this since
their CISPR regs, equivalent to our Part 15, are much tougher than in
America!

Deutche amateur radio associations better get on this case fast. Using
power wires for signalling at high frequencies is bad for us radio folks.

--Peter K1PO

"Tom W8JI" <2w8ji@contesting.com> wrote in message
news:3b93a27d.277593052@news.akorn.net...
> It would be very good if amateurs in Mannheim, Germany to check this
> system out and document the lack of interference! I suspect the ending
> statement is not correct, since I can hear computers using twisted
> wire networking for over a mile away!
>
> How are they getting away with that with CE regulations, or are they
> not enforced for German goods sold and used in Germany???
>
> > In Mannheim, Germany, local power company MVV Energie AG expects to
> > connect 3,000 customers to its Internet service by the end of this
> > year. RWE Powerline expects to connect 2,000 more before the end of
> > the year in its area. MVV and RWE offer customers Internet connections
> > at speeds up to 2.5M bps (bits per second). All a user has to do is
> > connect a modem to a PC using a LAN or USB (Universal Serial Bus)
> > cable and plug the modem into any electrical outlet in the home.
> > The systems made by Main.net use
> > frequencies between 1MHz and 30MHz to
> > send data from the home to the local power
> > substation.
>
> > "There are no more technical problems. The
> > radiation is under the allowed level, although
> > radio amateurs aren't happy with us offering
> > the service," said Andreas Preuss, a spokesman for RWE Powerline GmbH,
> > which currently offers 400 customers in Essen, Germany, power line
> > Internet access using Ascom equipment. Despite the radio operators
> > fears, there have been no reports of radio interference, he said.
>
>

5195. Re: Computers networked via power lines

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 16:44:57 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <eGOk7.39554$Nb2.7580190@news2-win.server.ntlworld.com>
Source record: 50593
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.homebrew

This Power Line Transmission system (PLT) will be disastrous for HF hams
especially with overhead powerlines in the area. I believe that in the UK
PLT has been dropped ,same in a number of other countries. PLT would wipe
out HF comms.
Frank gm0csz.kn6wh@ntlworld.com
==========
"Tom W8JI" wrote:
> It would be very good if amateurs in Mannheim, Germany to check this
> system out and document the lack of interference! I suspect the ending
> statement is not correct, since I can hear computers using twisted
> wire networking for over a mile away!
>
> How are they getting away with that with CE regulations, or are they
> not enforced for German goods sold and used in Germany???
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> > In Mannheim, Germany, local power company MVV Energie AG expects to
> > connect 3,000 customers to its Internet service by the end of this
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> > at speeds up to 2.5M bps (bits per second). All a user has to do is
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> > cable and plug the modem into any electrical outlet in the home.
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> > frequencies between 1MHz and 30MHz to
> > send data from the home to the local power
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> > "There are no more technical problems. The
> > radiation is under the allowed level, although
> > radio amateurs aren't happy with us offering
> > the service," said Andreas Preuss, a spokesman for RWE Powerline GmbH,
> > which currently offers 400 customers in Essen, Germany, power line
> > Internet access using Ascom equipment. Despite the radio operators
> > fears, there have been no reports of radio interference, he said.

5196. Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 16:53:52 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9n0cpk$1eb$1@plutonium.btinternet.com>
Source record: 50592

A mate has asked me to mod an extension speaker for his short-wave radio.
It says on the radio extension speaker socket
that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
The speaker he want's to use is a 4 ohm...
Can I just put a 4 ohm resistor in series to make it 8 ohms?
Is an impedance ohm, different to a resistance ohm?
Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
Thanks for any help. Bob

5197. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 17:05:53 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <8QOk7.39310$4b5.976643@news6.giganews.com>
Source record: 50594

If you add a 4 Ohm resistor in series with the new speaker the volume will be reduced a few decibels. Otherwise no problem. If it's not loud enough, go get an 8 Ohm unit.

73, Bob K6DDX

5198. 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 17:19:07 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B93BB8B.229BF1B4@nf.sympatico.ca>
Source record: 50595

Choke input implies that there is NO capacitor on the output of the rectifier; right?
The cathode of the rectifier typically goes to a smoothing choke and then large capacitors provide 'smoothing' on the other side of the choke, perhaps with other stages of smoothing and decoupling etc. This is all in the B+ line at voltage above chassis.

My question is this.

In the case of choke input can the choke be in the 'negative' line? In other words one end of the choke would be connected to the centre tap of the power transformer (in a typical full wave duo-diode rectifier circuit) and the other end, typically to say the chassis or negative rail.

I believe some old 'field coil' loudspeakers were connected this way? To lessen the voltage to chassis/negative etc.

Comments, criticisms, questions invited. TIA

Terry.

5199. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 17:27:32 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <m9f7ptgo4db2n40p9kslrlnp30nu8hefvp@4ax.com>
Source record: 50596

"Bob" <balbert@cnmnetwork.com>
shared these priceless pearls of wisdom:

->If you add a 4 Ohm resistor in series with the new speaker the volume will
->be reduced a few decibels.

6, to be exact, at the rated frequency of the speaker measurement.

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5200. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 17:38:07 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B93BFFF.D8FA4E5B@nf.sympatico.ca>
Source record: 50497

swampthing wrote:
>
> A mate has asked me to mod an extension speaker for his short-wave radio.
> It says on the radio extension speaker socket
> that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
> The speaker he want's to use is a 4 ohm...
> Can I just put a 4 ohm resistor in series to make it 8 ohms?
> Is an impedance ohm, different to a resistance ohm?
> Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
> Thanks for any help. Bob

BOB: Stick a four ohm resistor in series with it and should work fine.
Just put it in one of the leads.
Also you can think of it this way. It's a bit simplified but this is
pratical.
Half of the power will go to the speaker and be turned into sound. The
other half will be 'wasted' in the resistor.
The half power of the power that, as it were, will be wasted, will mean
a sound difference of three decibels. Usually referred to as 3 dB. The
human ear can barely detect three dB. even under the most perfect of
conditions; in fact you probaly have to turn down a radio by something
of the order of six (6) to twelve (12) dB to even notice the difference.
So the four ohm resistor will not be noticeable, but the whole set up
will be correctly matched to radio at a total of 8 ohms.
By the way I can send you a four ohm resistor, free, if you email me
your address. It will be a ceramic bobbin a little smaller than a
spool/reel of thread/cotton that is about one inch diam. and slightly
more than one inch long with a mounting hole through the middle and two
solder tags. Very easy to mount and wire.
Problem is; if it's in a standard envelope and the Postal Service put it
through one of their machines it will probably break (their machine that
is!).
Email if you wish.
Terry. Eastern Canada.

5201. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 18:13:27 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <VNPk7.1126$QR2.142476422@news.inreach.com>
Source record: 50498

Terry:

Yes, you can place the filter choke between the center tap and ground...the ARRL handbook used to refer to this as negative lead filtering. (They may still, but I didn't check to see).

Another advantage is that you can use a choke with a lower working voltage rating since it is operating near ground potential, rather than at the B+ level.

Roger K6XQ

5202. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 18:48:53 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B93D094.E3FA6524@att.net>
Source record: 50499

Yes.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Terry wrote:

> My question is this.
>
> In the case of choke input can the choke be in the 'negative' line?

5203. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 19:44:22 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tp7ncobjj3ml16@corp.supernews.com>
Source record: 50500

Impedance is the measure of resistance to the flow of AC current. It includes not only the resistance, but also capacitive and inductive reactance, both of which vary with frequency. In a speaker you have primarily inductive reactance and resistance. The rating of the speaker (4 ohms) is only 4 ohms average or at some specified frequency and actually varies from several times that value to perhaps half that at some frequencies.

For a typical low output power short-wave radio you can probably just connect the 4 ohm speaker without causing any problems (a 1000 watt amp would be another story). If the radio can't handle the 4 ohm load, the first thing you would notice is clipping and distortion at high volume levels. You are not likely to damage the speaker or the radio.

5204. Need Tek 2465 Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 19:54:46 UTC
From: Josh Fiden <josh@voodoolab.com>
Message-ID: <3B93DFEE.11A08006@voodoolab.com>
Source record: 50501

Hi All,

I'm repairing a Tektronix 2465 oscilloscope. In particular, I need a schematic for the power supply section. Any help would be greatly appreciated.

Thanks & 73,

Josh AD6XI

email: josh@voodoolab.com

5205. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 20:13:46 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B93E47A.3678B606@inreach.com>
Source record: 50502

just do it, a 2:1 mismatch at audio frequencies is no big deal.
or, put in series with an 8 ohm tweeter.

swampthing wrote:
>
> A mate has asked me to mod an extension speaker for his short-wave radio.
> It says on the radio extension speaker socket
> that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
> The speaker he want's to use is a 4 ohm...
> Can I just put a 4 ohm resistor in series to make it 8 ohms?
> Is an impedance ohm, different to a resistance ohm?
> Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
> Thanks for any help. Bob

5206. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 21:36:05 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <aMtW+BAFf$k7Ewm2@g3ohx.demon.co.uk>
Source record: 50503

In article <3B93E47A.3678B606@inreach.com>, William F. Hagen
<whagen@inreach.com> writes
>just do it, a 2:1 mismatch at audio frequencies is no big deal.
>or, put in series with an 8 ohm tweeter.
>
>swampthing wrote:
>>
>> A mate has asked me to mod an extension speaker for his short-wave radio.
>> It says on the radio extension speaker socket
>> that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
>> The speaker he want's to use is a 4 ohm...
>> Can I just put a 4 ohm resistor in series to make it 8 ohms?
>> Is an impedance ohm, different to a resistance ohm?
>> Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
>> Thanks for any help. Bob

I wouldn't put ANYTHING in series. The output impedance of most audio amplifiers is usually a fraction of an ohm (ie it's a voltage source). A 4 ohm speaker will be twice as 'powerful' as an 8 ohm, so you will have to set the volume a bit lower. There is a slight danger that you could warm up the audio output stage a bit if you use high volume, and the distortion might be a little higher, but I doubt if you would do any harm or notice any difference. However, if this speaker is operating in parallel with an internal 8 or 16 ohm speaker, it will probably sound louder than the internal speaker (ie it will tend to steal most of the power).

Regarding the 'impedance' ohm and the 'resistance' ohm, the purpose of a loudspeaker is to transfer electrical energy into changes of air pressure. When it is doing this efficiently, the AC electrical input impedance to the speaker should look mainly like a resistance. However, because the voice coil is an inductor, there is also some inductive component. Incidently, I believe that you can get a good idea of the AC impedance by measuring the DC resistance, but this is mainly a coincidence (it almost certainly depends greatly on the power-handling of the speaker).

Ian.

5207. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 21:45:58 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3b93f875$1_1@newsa.ev1.net>
Source record: 50504

The choke can just as easy be done in the B- line, it is there to "regulate"
the current/voltage, mostly used in old AM transmitters, where that kind of
regulation is needed.
Not needed in SSB amps, since the regulation comes from the caps used.
Using a choke type PS allows you to use less capacitence, than one without a
choke, for the same level of regulation.
--
Respond to my "real" e-mail;
kk5dr@ev1.net
Terry <tsanford@nf.sympatico.ca> wrote in message
news:3B93BB8B.229BF1B4@nf.sympatico.ca...
> Choke input implies that there is NO capacitor on the output of the
> rectifier; right?
> The cathode of the rectifier typically goes to a smoothing choke and
> then large capacitors provide 'smoothing' on the other side of the
> choke, perhaps with other stages of smoothing and decoupling etc. This
> is all in the B+ line at voltage above chassis.
>
> My question is this.
>
> In the case of choke input can the choke be in the 'negative' line? In
> other words one end of the choke would be connected to the centre tap of
> the power transformer (in a typical full wave duo-diode rectifier
> circuit) and the other end, typically to say the chassis or negative
> rail.
>
> I believe some old 'field coil' loudspeakers were connected this way? To
> lessen the voltage to chassis/negative etc.
>
> Comments, criticisms, questions invited. TIA
>
> Terry.

5208. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 22:45:11 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <7p18pt8dbsff0qg4310ufgn6oj7be4i0vp@4ax.com>
Source record: 50505

Terry <tsanford@nf.sympatico.ca>
shared these priceless pearls of wisdom:

->Half of the power will go to the speaker and be turned into sound. The
->other half will be 'wasted' in the resistor.
->The half power of the power that, as it were, will be wasted, will mean
->a sound difference of three decibels. Usually referred to as 3 dB.

Nope. Sorry. If the audio output is a hard voltage source (and another poster noted this, to which I agree) and you put two equal resistors across them, the power relative to a single one of these resistors across the same voltage source will be one-quarter. This is due to the equal split of voltage across the resistors, which the way I teach it to my freshman and sophomore classes is 6 dB, which you will also note is a power reduction of one-quarter. Something about E *squared* over R.

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5209. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-03 23:26:27 UTC
From: w4pqwhs@aol.com
Message-ID: <20010903192627.23025.00003729@mb-fw.aol.com>
Source record: 50506

Filter choke and cap is sometimes used in the center tap of transformer for full wave rectifier .in the negative line. no problem ..W4PQW

5210. FS: International Crystal amp modules

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 00:57:04 UTC
From: wd4aks@hotmail.com
Message-ID: <cffc65f9.0109031657.79c6e7f6@posting.google.com>
Source record: 50507

Many years ago, International Crystal offered a series of "building
block" RF modules. I have for sale 1ea. BAX-1 Broadband amp module.
and 2 ea SAX-1 RF amp modules. The BAX-1 and 1 of the SAX-1s are
built. 1 SAX-1 is unbuilt. Each of these are transistor amp modules
about 1.5 inches square. All have instruction sheets and are complete.
$30 for all. I will ship.
wd4aks@hotmail.com

5211. Racal power meter repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 01:41:43 UTC
From: mnewman@clear.net.nz
Message-ID: <3b943045.7655650@news.clear.net.nz>
Source record: 50509

Hi
I have a Racal-Dana 9103 absorption power meter, 1 MHz - 1 GHz. One end has an N-type female connector, flange mounted to the heatsink of a 50 ohm dummy load. At the other end is a meter calibrated in 1-100 w and 0-25 w ranges.

The centre pin of the N connector has retreated into the connector body, and no longer mates with the male pin on connecting cable. Has any one had a similar problem?

Can someone please give me some advice on how to dismantle the unit to enable me to repair/replace the connector. I don't want to damage the unit or dismantle any more than I have to.

73 Mike ZL1BNB

5212. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 01:46:11 UTC
From: ", Bill" <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B943263.260B612C@coqui.net>
Source record: 50508

Terry wrote:
>

> In the case of choke input can the choke be in the 'negative' line? In
> other words one end of the choke would be connected to the centre tap of
> the power transformer (in a typical full wave duo-diode rectifier
> circuit) and the other end, typically to say the chassis or negative
> rail.

Hi, Terry. Yep, the choke in the negative lead is as common as not in
1930s sets.

> I believe some old 'field coil' loudspeakers were connected this way? To
> lessen the voltage to chassis/negative etc.

It can also be utilized to raise the AF Out cathode above chassis ground
for biasing.

--
Bill M
Vieques, PR

5213. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 01:55:59 UTC
From: 2w8ji@contesting.com
Message-ID: <3b943188.314217092@news.akorn.net>
Source record: 50510

On Mon, 03 Sep 2001 15:45:11 -0700, Jim Weir <jim@rst-engr.com> wrote:

>Nope. Sorry. If the audio output is a hard voltage source (and another poster
>noted this, to which I agree) and you put two equal resistors across them, the
>power relative to a single one of these resistors across the same voltage source
>will be one-quarter. This is due to the equal split of voltage across the
>resistors, which the way I teach it to my freshman and sophomore classes is 6
>dB, which you will also note is a power reduction of one-quarter. Something
>about E *squared* over R.

Solid state directly coupled outputs often (but not always) appear as
"hard voltage sources", but certainly not always by any means!!

Transformer coupled (and especially tube-type or push-pull transistor
outputs) often behave more like a combination of current and voltage
limited sources.

It is not a cut and dry issue because the design of the audio stage
has a lot to do with how it appears at the output terminals.

If the audio stage in this receiver was a "hard" voltage source (what
we might consider for our purposes an infinite current but voltage
limited source), they likely would not be specifying an 8 ohm minimum
impedance. It very well might be current limiting, not available
voltage, that is setting the available power rating into a defined
impedance.

What I try to teach people is to not leap to conclusions without
knowing all the facts.In this case, we can make no assumtions without
doing a load pull on the audio output or looking at the output system.

Contrary to what some might think, all systems are not voltage
limited. I hate it when I hire people and have to re-educate them.

73 Tom

5214. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 02:07:35 UTC
From: 2w8ji@contesting.com
Message-ID: <3b94349f.315008777@news.akorn.net>
Source record: 50511

On Mon, 3 Sep 2001 17:53:52 +0100, "swampthing"
<swampthing@lpws.zzn.com> wrote:

>A mate has asked me to mod an extension speaker for his short-wave radio.
>It says on the radio extension speaker socket
>that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
>The speaker he want's to use is a 4 ohm...
>Can I just put a 4 ohm resistor in series to make it 8 ohms?
>Is an impedance ohm, different to a resistance ohm?
>Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
>Thanks for any help. Bob

Bob, More than likely you are OK using a 4 ohm speaker, but be careful
to check for anything unusual like heating of the audio output device
or distortion.

There are several issues involved that are being overlooked, and no
one can give you an absolute answer because none of us know what radio
you have and how it is designed.

Some designs can be unstable when terminated in an excessively low or
high impedances. Some can damage the output device from excessive
current or heat when terminated in a lower-than-design impedance. But
as a GENERAL rule the design should have enough headroom to use a four
ohm load without any noticable problems.

However, your best bet (and the safest bet no matter what anyone says)
is to follow the guidelines the radio manufacturer gives you. Whoever
wrote that warning knows far more about that particular radio than any
of us do. hell, I don't even know what brand it is, or if it is tubes
or transistors!

If you do what they say, and the radio has a problem, it won't wind up
falling on your shoulders. None of us have to face your friend even if
it isn't our fault, so it is best to do what the instructions say so
you can always say "I did exactly what the radio designer told me to
do".

73 Tom

5215. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 02:24:12 UTC
From: 2w8ji@contesting.com
Message-ID: <3b943780.315745612@news.akorn.net>
Source record: 50512

On Mon, 03 Sep 2001 14:49:07 -0230, Terry <tsanford@nf.sympatico.ca>
wrote:

>In the case of choke input can the choke be in the 'negative' line? In
>other words one end of the choke would be connected to the centre tap of
>the power transformer (in a typical full wave duo-diode rectifier
>circuit) and the other end, typically to say the chassis or negative
>rail.

Yes. In this case the center tap of the transformer will have some AC
voltage with respect to the chassis. That isn't a problem in
vuirtually all transformers, although I'm sure there might be an
exception somewhere waiting to nail someone.

There also is an issue of transients if the field would suddenly
collapse in the choke, the load become shorted, or during power up.
There are cases whene the peak voltage can get rather high, but they
are rare.

The choke must have a certain critical inductance for the MINIMUM load
current to be drawn, or regulation will be horrid! Regulation, if you
add a choke without meeting critical inductance, can be many times
worse than a capacitor input supply. You also MUST select a choke that
is NOT series resonant with the filter capacitor value. That series
resonance should be lower in frequency than the no-load inductance of
the choke.

The choke will vary in inductance with load current, unless it
includes a substantial air gap or flux capacity of the core is large
compared to the flux at maximum operating load.

Most chokes are designed with a minimally sized core and an air gap so
they do not saturate too soon.

Overall you are better off with a capacitor input supply unless you
have tube rectifiers or are concerned about power factor on the power
lines.

>I believe some old 'field coil' loudspeakers were connected this way? To
>lessen the voltage to chassis/negative etc.

Yes they were. They often had a hum-bucking system to prevent the AC
modulated flux change from introducing hum into the speaker.

Choke input supplies were popular with vacuum tubes, because tubes
have a very limited ratio of peak to average current. That is why you
see them in old gear (not because the old gear is AM gear).

With semiconductors, the ratio of peak to average current can be very high without ill effect. That is why you don't often see choke input supplies in modern gear (not because it is SSB).

73 Tom

5216. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 02:50:53 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <0mf8pt0d1d00u4jin3hv49ph3k4un51g98@4ax.com>
Source record: 50513

2w8ji@contesting.com (Tom W8JI)
shared these priceless pearls of wisdom:

->Solid state directly coupled outputs often (but not always) appear as
->"hard voltage sources", but certainly not always by any means!!

I hate to pop your bubble, but in 99% of the stuff that has been produced for the mass market since 1970 the stiffness of the source relative to 4 or 8 ohms is quite high...certainly enough for a first approximation of a 6 dB loss.

->
->Transformer coupled (and especially tube-type or push-pull transistor
->outputs) often behave more like a combination of current and voltage
->limited sources.

Oh, come on. Except for a rare audiophile who thinks tubes have a softer sound (which they in fact do) you haven't seen a transformer coupled output in years in consumer goods.

->
->It is not a cut and dry issue because the design of the audio stage
->has a lot to do with how it appears at the output terminals.

You do this stuff for a living, sir? I do. We were trying to answer a generic question as best we could with the information available. Surely we could have asked the fellow (who wasn't skilled enough to figure out if he could put a series resistor to boop the impedance up) whether his output was totem pole, OTL, or one of a dozen other configurations. I doubt we would have gotten any more information had we done so.

->
->If the audio stage in this receiver was a "hard" voltage source (what
->we might consider for our purposes an infinite current but voltage
->limited source), they likely would not be specifying an 8 ohm minimum
->impedance. It very well might be current limiting, not available
->voltage, that is setting the available power rating into a defined
->impedance.

No sir, that doesn't happen to be the limiting factor in modern design for impedance limitations. P(diss) is the normal limiting factor, not current and not voltage. If you had read one of the other answers, you would have seen that he was advised to use a 4 ohm speaker and not run the audio output control to the wall, thus limiting the power dissipation. Excellent advice, IMNSHO.

->
->What I try to teach people is to not leap to conclusions without
->knowing all the facts.In this case, we can make no assumtions without

->doing a load pull on the audio output or looking at the output system.

Oh, right. We're going to ask some poor guy who just wanted to know whether to go to Rat Shack and buy another $10 speaker to do a load pull test on the output. What I try to teach people is to take the information given and make a reasonable answer in a reasonable time.

->
->Contrary to what some might think, all systems are not voltage
->limited. I hate it when I hire people and have to re-educate them.

I hate it when I hire people whose education has been screwed up by the likes of you and have to train them to think for themselves.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5217. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 03:46:43 UTC
From: 2w8ji@contesting.com
Message-ID: <3b944a20.320514077@news.akorn.net>
Source record: 50514

On Mon, 03 Sep 2001 19:50:53 -0700, Jim Weir <jim@rst-engr.com> wrote:

>I hate to pop your bubble, but in 99% of the stuff that has been produced for
>the mass market since 1970 the stiffness of the source relative to 4 or 8 ohms
>is quite high...certainly enough for a first approximation of a 6 dB loss.

That may be true. I stated that, so you aren't "popping my bubble".

But factually, neither you nor I have any idea what the design of that
receiver is. All we know is the manufacturer did not want a load less
than 8 ohms on the speaker port.

Unlike you, I am not clairvoyant. If I don't know what the system
actually is, I simply say so.

It isn't painful for me to say "it depends" when I don't have all the
facts.

>I hate it when I hire people whose education has been screwed up by the likes of
>you and have to train them to think for themselves.

Nice guys with good attitudes always make the very best educators!

73 Tom

5218. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 03:56:24 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B9450E5.E09C4E33@att.net>
Source record: 50515

Tom's as-usual detailed discussion reminded me of my high-school days when I worked in a radio shop for my Elmer, W5QN. A common radio to come in the shop in those days was a particular Philco model that not only used the speaker field coil as the filter choke but went further to parallel-resonate it to 120 Hz with a capacitor. When that cap opened up, you could really hear the difference in hum level. Because that was a fairly uncommon practice even in those days, a lot of those sets played for years with hum because few repairmen either knew to check the speaker "tuning" cap or understood what it was for.

The world has come a long way - thank Heavens! <:}

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Tom W8JI wrote:

> Yes. In this case the center tap of the transformer will have some AC
> voltage with respect to the chassis. That isn't a problem in
> vuirtually all transformers, although I'm sure there might be an
> exception somewhere waiting to nail someone.

> >I believe some old 'field coil' loudspeakers were connected this way? To
> >lessen the voltage to chassis/negative etc.
>
> Yes they were. They often had a hum-bucking system to prevent the AC
> modulated flux change from introducing hum into the speaker.

5219. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 06:11:53 UTC
From: Mikael Nordman <mikael.nordman@lmf.ericsson.se>
Message-ID: <9n1rcikfs1@ronto.lmf.ericsson.se>
Source record: 50516

Hi,
There is one advantage with putting a resistor in series
with the speaker. You will reduce the noise generated by the
LF amplifier also. Many (cheap) radios have LF amplifiers
that are uncomfortable to listen to at low volumes, due to the noise from
the LF amplifier.

The downside is that you will get a lower maximum volume.

M kael
OH2AUN

swampthing wrote in message <9n0cpk$1eb$1@plutonium.btinternet.com>...
>A mate has asked me to mod an extension speaker for his short-wave radio.
>It says on the radio extension speaker socket
>that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
>The speaker he want's to use is a 4 ohm...
>Can I just put a 4 ohm resistor in series to make it 8 ohms?
>Is an impedance ohm, different to a resistance ohm?
>Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
>Thanks for any help. Bob
>
>

5220. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 08:17:51 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9n22tc$pf0$1@plutonium.btinternet.com>
Source record: 50517

swampthing <swampthing@lpws.zzn.com> wrote in message
news:9n0cpk$1eb$1@plutonium.btinternet.com...
> A mate has asked me to mod an extension speaker for his
short-wave radio.
> It says on the radio extension speaker socket
> that the output impedance speaker has to be in the range 8 ohm to
16 ohm.
> The speaker he want's to use is a 4 ohm...
> Can I just put a 4 ohm resistor in series to make it 8 ohms?
> Is an impedance ohm, different to a resistance ohm?
> Will it be best to just buy an 8 ohm speaker and put it in the
cabinet?
> Thanks for any help. Bob
==========
Just connect the 4 ohm speaker. You won't notice the difference.
It's probably 8 ohms anyway.

Reg

5221. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 12:03:48 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9n2g5lnrm1@uranium.btinternet.com>
Source record: 50518

Thanks for the reply everyone.
I seem to caused quite a stir with my question.
The radio in question is a Realistic DX200 Short-wave set .
Its getting on a bit early 1980's I believe.
To tell the truth, I don't know where he got the 8 ohms from,
it don't say it on the back. He must have seen it in the hand book?
I have put a 4 ohm resistor in the speaker line and it seems ok.
I have told the owner not to turn it up to loud.
He is wanting to use one of those cheap
(not amplified) computer speakers.
I have put the resistor in and I cant tell the
difference in sound with an modified 8 ohm
and the original 4 ohm.
What a fuss. Thanks for the help.
Bob

5222. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 12:26:34 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9n2hgb$l3r$1@neptunium.btinternet.com>
Source record: 50519

Goodness me! That's a biggy.
What would one solder with a 250 watt iron?
Radiators or something like?

5223. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 12:58:16 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <Fa4l7.2243$Mb.15195@newsfeeds.bigpond.com>
Source record: 50520

Better still use a Resonant Choke supply, which eliminates all the problems Tom talks about. Designing a Resonant Choke supply seems to be a black art with very few people familiar with the technique. There is very little documented technical design details. For amplifiers they cant be beat, especially if you cant get 3 phase.

Willy
"Tom W8JI" <2w8ji@contesting.com> wrote in message news:3b943780.315745612@news.akorn.net...
> On Mon, 03 Sep 2001 14:49:07 -0230, Terry <tsanford@nf.sympatico.ca>
> wrote:
>
> >In the case of choke input can the choke be in the 'negative' line? In
> >other words one end of the choke would be connected to the centre tap of
> >the power transformer (in a typical full wave duo-diode rectifier
> >circuit) and the other end, typically to say the chassis or negative
> >rail.
>
> Yes. In this case the center tap of the transformer will have some AC
> voltage with respect to the chassis. That isn't a problem in
> vuirtually all transformers, although I'm sure there might be an
> exception somewhere waiting to nail someone.
>
> There also is an issue of transients if the field would suddenly
> collapse in the choke, the load become shorted, or during power up.
> There are cases whene the peak voltage can get rather high, but they
> are rare.
>
> The choke must have a certain critical inductance for the MINIMUM load
> current to be drawn, or regulation will be horrid! Regulation, if you
> add a choke without meeting critical inductance, can be many times
> worse than a capacitor input supply. You also MUST select a choke that
> is NOT series resonant with the filter capacitor value. That series
> resonance should be lower in frequency than the no-load inductance of
> the choke.
>
> The choke will vary in inductance with load current, unless it
> includes a substantial air gap or flux capacity of the core is large
> compared to the flux at maximum operating load.
>
> Most chokes are designed with a minimally sized core and an air gap so
> they do not saturate too soon.
>
> Overall you are better off with a capacitor input supply unless you

> have tube rectifiers or are concerned about power factor on the power
> lines.
>
> >I believe some old 'field coil' loudspeakers were connected this way? To
> >lessen the voltage to chassis/negative etc.
>
> Yes they were. They often had a hum-bucking system to prevent the AC
> modulated flux change from introducing hum into the speaker.
>
> Choke input supplies were popular with vacuum tubes, because tubes
> have a very limited ratio of peak to average current. That is why you
> see them in old gear (not because the old gear is AM gear).
>
> With semiconductors, the ratio of peak to average current can be very
> high without ill effect. That is why you don't often see choke input
> supplies in modern gear (not because it is SSB).
>
> 73 Tom

5224. Re: Computers networked via power lines

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 14:17:17 UTC
From: magne@clustra.com
Message-ID: <m3n14b6nwy.fsf@clustra.com>
Source record: 50521
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.homebrew

"Peter O. Brackett" <ab4bc@ix.netcom.com> writes:

> Tom:
>
> You'r correct. There is little or no "balance" in that electric wiring and
> it goes
> everywhere. As you mentioned, it's surprising that the EU allows this since
> their CISPR regs, equivalent to our Part 15, are much tougher than in
> America!
>
> Deutche amateur radio associations better get on this case fast. Using
> power wires for signalling at high frequencies is bad for us radio folks.

The Norwegian FCC-equivalent (www.npt.no) made a series of measurements
early this year, and concluded (not surprisingly) that the unwanted
emissions were far higher than allowed.

The conclusion was that the operators will have to reduce the level of
emissions by 30-35dB (!). If this is not possible, operation of these
kinds of networks will be prohibited.

The news letter (Norwegian version, only):
http://www.npt.no/norsk/Nyheter/Elforsyningsnett.html

--Magne / la1bfa

5225. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 14:47:50 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <69q9ptsmr3hratb0ifhgje3tfo45qvu7uq@4ax.com>
Source record: 50522

2w8ji@contesting.com (Tom W8JI)
shared these priceless pearls of wisdom:

->
->Nice guys with good attitudes always make the very best educators!

So my students have told me for the last 30 years...several times
student-elected teacher-of-the-year for the campus and the like. The only
complaint they have ever had is that I don't suffer fools graciously {;-)

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5226. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 15:33:56 UTC
From: Sal Brisindi <salb203@optonline.net>
Message-ID: <3B94F53D.A215C7D7@optonline.net>
Source record: 50523

What I used when my 250 Watt soldering iron broke is my acetylene torch.
Works great if you use it carefully.....

K9SQG wrote:

> Looking for a 250 watt soldering iron, preferably new.
>
> Thanks.
>
> Evan

5227. superhet receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 15:49:00 UTC
From: dushman <den@mbox.com.au>
Message-ID: <3b94f83c@news.iprimus.com.au>
Source record: 50524

need a good schematic for a simple superhet receiver designed for capturing mf (specifically 774KHz) amplitude modulated. Any suggestions, good sites?

5228. WTB: 6SN7GT, VT231 Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 16:24:22 UTC
From: gataibo@webtv.net
Message-ID: <2027-3B950036-97@storefull-123.iap.bryant.webtv.net>
Source record: 50525

I am interested in buying good new or used 6SN7GT, 6SN7W, 6SN7WGT,
VT231 & Metal Base 6SN7 vacuum tubes; any brand. Sorry, not interested
in 6SN7GTA or GTB types.

73,

Randy
WA6GJA

5229. A slot antenna for the 23 cm band

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:09:24 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9n31masjq1@wanadoo.fr>
Source record: 50526

Here a description of an easy to build slot antenna :

http://perso.wanadoo.fr/jf.fourcadier/accueil/accueil_e.htm
--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

5230. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:10:20 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <8b2apt8mkpf585t4cpuquqlaeu32jr7om2@4ax.com>
Source record: 50528

>Find some solder that is 60% tin and 40% lead, this
>>is usually called 60/40.

For those who are nit-picking perfectionists, the best solder is not 60/40, it is 63/37. The reason is that any alloy other than 63/37 has a melting temperature that is slightly different (believe it or not) from the freezing temperature. This can cause a poor joint if there is any movement or vibration while the solder transitions through this area. Also, 63/37 has the lowest melting point of all tin/lead alloys and thereby is the safest for the items being soldered.

For ham use, 60/40 is ok and will do the job, but it is not the "best".

Bill, W7TI

5231. Re: superhet receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:12:49 UTC
From: ", Bill" <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B950B91.7D9C7E46@coqui.net>
Source record: 50527

dushman wrote:
>
> need a good schematic for a simple superhet receiver designed for capturing
> mf (specifically 774KHz) amplitude modulated. Any suggestions, good sites?

I don't mean to be a flamer, but what do you want that a simple
broadcast radio can't provide? Just to build a project?
This place had some nice tube-type kits, but seems to be in limbo at the
moment.
http://www.ghostmoon.bigstep.com/homepage.html
--
Bill M

5232. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:13:34 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <vo2aptc874bq8pmmtsfdj7002kd2m6p68e@4ax.com>
Source record: 50529

On Tue, 4 Sep 2001 13:26:34 +0100, "swampthing"
<swampthing@lpws.zzn.com> wrote:

>Goodness me! That's a biggy.
>What would one solder with a 250 watt iron?
>Radiators or something like?

PL-259 type coax connectors. Using less than ~250 watts is asking for
trouble, either at the time or later on.

PL-259's can be soldered with wattages as low as ~100, but it requires
leaving the iron on the connector for a longer time, with possible
damage to the coax itself.

Bill, W7TI

5233. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:24:17 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <g63apt423mer7p4d70u7bkoiq84i3ek7p4@4ax.com>
Source record: 50530

On Tue, 04 Sep 2001 02:07:35 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

>There are several issues involved that are being overlooked

One of the issues not mentioned so far is the damping factor. Any moving-coil speaker like you have will tend to "ring" like a bell when energized by a transient voltage spike which is common in any audio waveform. Normally, when connected to a "stiff" voltage source, the voltage source will clamp the moving coil by acting like a dead short and thereby preventing "ringing". By adding a resistor in series, you lose some of this damping factor.

For ham purposes the loss of damping may or may not be noticeable, but it will be present. If it were me, I'd just hook it up straight, keep the volume down and if it sounds ok, go with it.

Bill, W7TI

5234. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 17:28:33 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <om3apts3pam0d687a3fij7jdq8oqcn7mn3@4ax.com>
Source record: 50531

On Mon, 03 Sep 2001 14:49:07 -0230, Terry <tsanford@nf.sympatico.ca>
wrote:

>In the case of choke input can the choke be in the 'negative' line?

Yes, but be aware that the capacitance between the winding and the core
will tend to bypass some of the choke effect IF the core is grounded.

Just the opposite happens in a conventional circuit; the capacitance
actually adds to the overall bypassing.

Bill, W7TI

5235. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 20:22:18 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <kgdaptgldma3bft2sltcm7kb60tle6710g@4ax.com>
Source record: 50532

Reading this exchange reminds me of what happens when an immovable object hits an irresistible force.

Guys, lighten up. Neither of you has to prove anything when it comes to technical expertise. Both your answers are correct, given that the question was poorly defined. Save your electrons and egos for the issues that matter.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5236. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 20:45:24 UTC
From: accrider3@aol.comnojunque
Message-ID: <20010904164524.07637.00001044@mb-bk.aol.com>
Source record: 50533

Last one I bought close to that wattage was from Sears. Worked great on
automobile fuel tanks.
73 de Dale
KG4KZG

5237. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 21:39:02 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B954C19.561B@pop.removethistomailme.net>
Source record: 50534

Bob Lewis (AA4PB) wrote:
>
> Impedance is the measure of resistance to the flow of AC current. It
> includes not only the resistance, but also capacitive and inductive
> reactance, both of which vary with frequency. In a speaker you have
> primarily inductive reactance and resistance. The rating of the
> speaker (4 ohms) is only 4 ohms average or at some specified frequency
> and actually varies from several times that value to perhaps half that
> at some frequencies.
>
> For a typical low output power short-wave radio you can probably just
> connect the 4 ohm speaker without causing any problems (a 1000 watt
> amp would be another story). If the radio can't handle the 4 ohm load,
> the first thing you would notice is clipping and distortion at high
> volume levels. You are not likely to damage the speaker or the radio.

Finally, after all the penile-dimension comparisons, somebody gets it
right. Usenet works after all!

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

5238. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 22:43:10 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <t6dl7.5983$ii5.657927@news6-win.server.ntlworld.com>
Source record: 50537

> PL-259 type coax connectors. Using less than ~250 watts is asking for
> trouble, either at the time or later on.
>
> PL-259's can be soldered with wattages as low as ~100, but it requires
> leaving the iron on the connector for a longer time, with possible
> damage to the coax itself.
=======
Talking PL259 connectors , I prefer the PL259 model which has the same coax
gland as an N connector.
i.e. with a metal flanged coax braid insert and rubber compression sleeve.
A bit more expensive but so much more easy to fit onto 10mm (3/8 inch)
coax ,like RG-8 , RG-316 etc.
And no heat to be applied to the connector's body.
In the UK these PL259 connectors are available from 'Westlake' .
Perhaps someone can mention a source in the USA.

73 Frank gm0csz.kn6wh@ntlworld.com

5239. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 22:47:02 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <u6dl7.5984$ii5.657407@news6-win.server.ntlworld.com>
Source record: 50538

> Last one I bought close to that wattage was from Sears. Worked great on
> automobile fuel tanks.
==========
Dale ,Can you remember how long the electric element lasted in terms of
hours the iron was switched -on ?

Frank gm0csz.kn6wh@ntlworld.com

5240. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 22:50:50 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <eVcl7.8584$IP6.675773@newsread2.prod.itd.earthlink.net>
Source record: 50535

I've been using a 140 watt soldering gun for many years, needing only a few seconds contact with the fitting, to get a good electrical and physical bond. The trick is to first drill out the holes. A 5/32 bit is usually about right. This leaves a fresh metal surface to wet and room to get the tip into the hole which makes the solder flow onto the braid in a couple of seconds.

Marty K1FHR

"Bill Turner" <w7ti@dslextreme.com> wrote in message
news:vo2aptc874bq8pmmtsfdj7002kd2m6p68e@4ax.com...
> On Tue, 4 Sep 2001 13:26:34 +0100, "swampthing"
> <swampthing@lpws.zzn.com> wrote:
>
> >Goodness me! That's a biggy.
> >What would one solder with a 250 watt iron?
> >Radiators or something like?
>
> --
>
> PL-259 type coax connectors. Using less than ~250 watts is asking for
> trouble, either at the time or later on.
>
> PL-259's can be soldered with wattages as low as ~100, but it requires
> leaving the iron on the connector for a longer time, with possible
> damage to the coax itself.
>
> Bill, W7TI
>

5241. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 22:58:37 UTC
From: ", Bill" <"take out the NO in the reply to address"@coqui.net>
Message-ID: <3B955C9D.67E24B49@coqui.net>
Source record: 50536

Marty wrote:
>
> I've been using a 140 watt soldering gun for many years, needing only a few
> seconds contact with the fitting, to get a good electrical and physical
> bond. The trick is to first drill out the holes. A 5/32 bit is usually
> about right. This leaves a fresh metal surface to wet and room to get the
> tip into the hole which makes the solder flow onto the braid in a couple of
> seconds.
>
> Marty K1FHR

And tin the braid!

-Bill WX4A

5242. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 23:30:48 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <evoaptch3bqk9aql0lchu6gd92nr8mbhfu@4ax.com>
Source record: 50539

On Tue, 04 Sep 2001 22:50:50 GMT, "Marty" <marty1225@earthlink.net>
wrote:

>The trick is to first drill out the holes. A 5/32 bit is usually
>about right. This leaves a fresh metal surface to wet and room to get the
>tip into the hole which makes the solder flow onto the braid in a couple of
>seconds.

A good idea, which I will try out. I still recommend a ~250 watt iron,
however. Faster is always better when soldering around coax.

73, Bill W7TI

5243. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-04 23:32:13 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <m1papt8nk4814gq1873eickrg4kriqe98h@4ax.com>
Source record: 50540

On Tue, 04 Sep 2001 18:58:37 -0400, ", Bill" <"take out the NO in the reply to address"@coqui.net> wrote:

>And tin the braid!

What's your secret on tinning the braid? Every time I try it ends up too fat to go in the connector.

Bill, W7TI

5244. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 00:20:11 UTC
From: 2w8ji@contesting.com
Message-ID: <3b956f1e.395531878@news.akorn.net>
Source record: 50541

On Tue, 04 Sep 2001 07:47:50 -0700, Jim Weir <jim@rst-engr.com> wrote:

>2w8ji@contesting.com (Tom W8JI)
>shared these priceless pearls of wisdom:
>
>->
>->Nice guys with good attitudes always make the very best educators!
>
>
>So my students have told me for the last 30 years...several times
>student-elected teacher-of-the-year for the campus and the like. The only
>complaint they have ever had is that I don't suffer fools graciously {;-)

I especially like your non-personal technical to the point replies
Jim. No ego at work there! You are truely a gentleman.

73 Tom

5245. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 01:15:45 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B957CC1.1C315E63@nf.sympatico.ca>
Source record: 50542

Point of information please.
I understand? that many transistor amplifiers 'don't like' too low an impedance load across their output?
If that is so, it would seem wrong to connect only four ohms (Yes I know it's a complex Z with inductance and reactance and all that!) across an output which specifically says it should be eight; for the sake of the amplifier or radio output stage. Distortion?
I know we are not dealing with high power so even if we short circuited the output I presume the transistor output stage in a typical piece of consumer electronics equipment is not going 'toes up'.
Is this all correct?
Terry.

5246. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 01:29:17 UTC
From: 2w8ji@contesting.com
Message-ID: <3b956ff8.395749072@news.akorn.net>
Source record: 50543

On Tue, 4 Sep 2001 22:58:16 +1000, "willy" <willyacht@yahoo.com>
wrote:

>Better still use a Resonant Choke supply, which eliminates all the problems
>Tom talks about. Designing a Resonant Choke supply seems to be a black art
>with very few people familiar with the technique. There is very little
>documented technical design details. For amplifiers they cant be beat,
>especially if you cant get 3 phase.
>
>Willy

A resonant choke still requires a bleeder because it does not have
infinite impedance (it is Q limited), although it certainly can
provide a large reduction in required bleeder current. We also have to
use the correct choke design in critical applications if load current
varies.

Resonant chokes on the input of a filtering system also generally
require the choke being slightly on the high side of resonance, not
exactly at resonance.

If you get the choke resonated below the ripple frequency, it can ring
under some load changes and really bounce the voltage up. I was almost
killed in the early 70's using a resonant choke because I got the
choke at or just below resonance at the ripple frequency in a 3.7 kV
supply.

I had a 4160 pole pig and a oil filled cap, and used a resonant choke
with bleeders . When I powered it up, it flashed the tubes over from
grid to anode!

When I disconnected the tubes, the blocking and bypass caps exploded.

I disconnected the PA and clipped a 25kV insulated meter lead and
meter to the supply, and stood back on a rubber HV mat and flipped the
panel switch on. There was a loud crack and the meter lead blew in two
and flew up out of the PS cabinet and attached itself to my wrist on
the hand holding the toggle switch on the panel.

I was two or three feet from that lead! Lucky I standing was on the
mat and was working with one hand, because I only got burns up to my
elbow. Last time I ever used a resonant choke in a HV supply!

I eventually did a LV test and found that when charging the choke
"rang" the HV up to almost ten times the applied voltage. Because I
was using large power factor correcting capacitors for utility
transmission lines, they had a very very high breakdown. So I figure

the caps charged up to maybe 30 or 40 kV on the transient.

I learned a lesson from that. Moving the choke to the high side of resonance stopped the problem.

I've formed the opinion that chokes, as a general rule, are bad news. There are cases where there is a specific need to use them, llike power factor or ripple reduction, but they can sure give weird transient response under changing loads.

73 Tom

5247. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 01:44:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3B95836C.EDA6A78F@eznec.com>
Source record: 50544

The worst thing that's likely to happen if you connect a four ohm speaker to an output specified for eight ohms is that the amplifier might not be able to provide enough current to drive the speaker to full output volume. However, the impedance of a speaker actually varies with frequency, and they're loosely specified, so as others have pointed out, a "four ohm" speaker is likely to have about the same actual impedance as an "eight ohm" speaker. I agree with Reg's recommendation -- hook the speaker up and don't worry about it. It'll work just fine.

Roy Lewallen, W7EL

Terry wrote:
>
> Point of information please.
> I understand? that many transistor amplifiers 'don't like' too low an
> impedance load across their output?
> If that is so, it would seem wrong to connect only four ohms (Yes I know
> it's a complex Z with inductance and reactance and all that!) across an
> output which specifically says it should be eight; for the sake of the
> amplifier or radio output stage. Distortion?
> I know we are not dealing with high power so even if we short circuited
> the output I presume the transistor output stage in a typical piece of
> consumer electronics equipment is not going 'toes up'.
> Is this all correct?
> Terry.

5248. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 01:45:43 UTC
From: 2w8ji@contesting.com
Message-ID: <3b9581f7.400357503@news.akorn.net>
Source record: 50545

On Tue, 04 Sep 2001 10:28:33 -0700, Bill Turner <w7ti@dslextreme.com>
wrote:

>
>Yes, but be aware that the capacitance between the winding and the core
>will tend to bypass some of the choke effect IF the core is grounded.
>
>Just the opposite happens in a conventional circuit; the capacitance
>actually adds to the overall bypassing.

Hi Bill,

I don't understand, what book said that?

If you put a capacitor across an inductor, the inductive reactance
increases. So choking effectiveness increases.

The only time stray C across an inductor reduces reactance of an
inductor is when the capacitive reactance in ohms is less than half
the reactance of the inductor in ohms. Try it on paper and see.

That's why we can put a small non-polarized capacitor across a choke
and have hum reduction.

73 Tom

5249. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 02:18:15 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <0d2bpt0pv6hh04tlukvbdoroubb9iqeehc@4ax.com>
Source record: 50546

On Tue, 04 Sep 2001 22:45:45 -0230, Terry <tsanford@nf.sympatico.ca>
wrote:

>Point of information please.
>I understand? that many transistor amplifiers 'don't like' too low an
>impedance load across their output?
>If that is so, it would seem wrong to connect only four ohms (Yes I know
>it's a complex Z with inductance and reactance and all that!) across an
>output which specifically says it should be eight; for the sake of the
>amplifier or radio output stage. Distortion?
>I know we are not dealing with high power so even if we short circuited
>the output I presume the transistor output stage in a typical piece of
>consumer electronics equipment is not going 'toes up'.
>Is this all correct?
>Terry.

Nearly all transistor amplifiers are a "voltage source". That means for a given input, they will produce a certain voltage output, regardless of the load, within their limitations. For example, if you have a 4 volt output with a speaker connected and you disconnect the speaker leaving no load at all, the output will still be 4 volts.

No amplifier is perfect in this respect so there will always be a small change from load to no load, but the better the amplifier, the less the change. This effect is accomplished by a combination of negative feedback and power handling capability.

This is why using a 4-ohm or 8-ohm speaker won't make a lot of difference. The 4-ohm will be a bit louder because it's being driven by the same voltage and therefore receives more current - IF the amplifier is capable of delivering more current. If it isn't, you will get distortion of the waveform peaks.

73, Bill W7TI

5250. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 02:20:51 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <tt2bpt0spbls4jgse2h614o4vcn1ph204k@4ax.com>
Source record: 50447

On Wed, 05 Sep 2001 01:45:43 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

>I don't understand, what book said that?

I read it in an old ARRL handbook. I've never measured the effect
myself so you may be right, but that's what it said.

Bill, W7TI

5251. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 02:22:26 UTC
From: 2w8ji@contesting.com
Message-ID: <3b95858f.401277262@news.akorn.net>
Source record: 50448

On Tue, 04 Sep 2001 18:44:12 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>The worst thing that's likely to happen if you connect a four ohm
>speaker to an output specified for eight ohms is that the amplifier
>might not be able to provide enough current to drive the speaker to full
>output volume. However, the impedance of a speaker actually varies with
>frequency, and they're loosely specified, so as others have pointed out,
>a "four ohm" speaker is likely to have about the same actual impedance
>as an "eight ohm" speaker. I agree with Reg's recommendation -- hook the
>speaker up and don't worry about it. It'll work just fine.
>
>Roy Lewallen, W7EL

The original post said:

>A mate has asked me to mod an extension speaker for his short-wave radio.
>It says on the radio extension speaker socket
>that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
>The speaker he want's to use is a 4 ohm...
>Can I just put a 4 ohm resistor in series to make it 8 ohms?

I'm also sure a 4 ohm speaker would probably work just , but since we
know so little the safest thing would be to follow the instructions.
Some early solid state stages were very sensitive to load impedance.

That way, if something screws up for whatever reason, no one can say
"you didn't follow the manual".

Turns out it was a 1980's solid-state radio by Radio Shack. I'm not
sure wher that places it in "modern" terms.

73 Tom

5252. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 04:46:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B95AE0C.7D0A3BD3@clifto.com>
Source record: 50449

Tom W8JI wrote:
> If you put a capacitor across an inductor, the inductive reactance
> increases. So choking effectiveness increases.

<nit> The total reactance of the two-point network changes, but not the inductive reactance. </nit>

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

5253. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 05:20:44 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B95B62C.94FA8003@inreach.com>
Source record: 50450

We like all the fuss, pretty soon we will be debating two pigeons flying cocoanuts from africa.

swampthing wrote:
>
> Thanks for the reply everyone.
> I seem to caused quite a stir with my question.
> The radio in question is a Realistic DX200 Short-wave set .
> Its getting on a bit early 1980's I believe.
> To tell the truth, I don't know where he got the 8 ohms from,
> it don't say it on the back. He must have seen it in the hand book?
> I have put a 4 ohm resistor in the speaker line and it seems ok.
> I have told the owner not to turn it up to loud.
> He is wanting to use one of those cheap
> (not amplified) computer speakers.
> I have put the resistor in and I cant tell the
> difference in sound with an modified 8 ohm
> and the original 4 ohm.
> What a fuss. Thanks for the help.
> Bob

5254. Re: superhet receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 05:41:46 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9n5og8$c7f$1@plutonium.btinternet.com>
Source record: 50461

Why not just buy a cheap AM radio?

--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

"dushman" <den@mbox.com.au> wrote in message
news:3b94f83c@news.iprimus.com.au...
> need a good schematic for a simple superhet receiver designed for
capturing
> mf (specifically 774KHz) amplitude modulated. Any suggestions, good
sites?
>
>
>

5255. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 09:39:19 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9n4s27etf1@neptunium.btinternet.com>
Source record: 50451

Radio is far-and-away the most inexact of all the sciences.

Regards, Reg, G4FGQ
http://www.g4fgq.com

5256. Re: superhet receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 10:25:16 UTC
From: Benedict White <ben@cse-ltd.co.uk>
Message-ID: <3B95FD8C.2912EF0A@cse-ltd.co.uk>
Source record: 50452

dushman wrote:

> need a good schematic for a simple superhet receiver designed for capturing
> mf (specifically 774KHz) amplitude modulated. Any suggestions, good sites?

I did a search on google and got 100 hits.

Should be something there.

http://www.google.com/search?q=superhet

Kind regards

--
Benedict White

5257. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 12:18:01 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <8c5cpt40rr5icnr9ov6sgjoj1ckd1k3v47@4ax.com>
Source record: 50453

On Wed, 05 Sep 2001 01:45:43 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

>Hi Bill,
>
>I don't understand, what book said that?

Your question prompted me to dig out an old handbook and do some more research. I made an error by stating that the capacitance of the choke's core to ground was the issue in negative-lead filtering. It was actually the capacitance of the power transformer's core to ground they were concerned about. My apologies.

In the 1959 ARRL handbook, the discussion is on page 227. Here is a partial quote:

"With this connection [negative-lead filtering] the capacitance of the transformer secondary to ground appears in parallel with the filter chokes, tending to bypass the chokes. However, this effect will be negligible in practical applications except where the output ripple must be reduced to a very low figure".

Sorry for the mixup.

Bill, W7TI

5258. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 13:23:42 UTC
From: 2w8ji@contesting.com
Message-ID: <3b9622ce.441538308@news.akorn.net>
Source record: 50454

On Wed, 05 Sep 2001 05:18:01 -0700, Bill Turner <w7ti@dslextreme.com>
wrote:

>In the 1959 ARRL handbook, the discussion is on page 227. Here is a
>partial quote:
>
>"With this connection [negative-lead filtering] the capacitance of the
>transformer secondary to ground appears in parallel with the filter
>chokes, tending to bypass the chokes. However, this effect will be
>negligible in practical applications except where the output ripple must
>be reduced to a very low figure".

I'm surprised they said that. That is absolutely incorrect Bill.

Any capacitance across an inductor, which would be the case here,
would increase the reactance (and choking ability) not decrease it!

That is why we parallel tune a choke with a capacitor to reduce
ripple. The same is true with a balun.

In the case of a transformer, the effect would be so small as to be
negligable because there just isn't that much capacitance there, but
even considering that the Handbook has the effect backwards. At times
I see similar misconceptions with RFI chokes and baluns.

While there are cases where the extra C can be so large the reactance
added in parallel with the inductance will reduce the series
impedance, most or much of the time it actually would help increase
the impedance!

1.) A 500 ohm XL inductor has an impedance of 500 ohms to AC.

2.) A 500 ohm XL inductor shunted by a 750 ohm Xc capacitance has an
impedance of 1500 ohms and looks inductive.

3.) A 500 ohm XL inductor shunted by only 250 ohms Xc still has -500
ohms of series reactance to the frequency in question.

4.) XL has to slightly exceed Xc before the sine of reactance
changes.

We don't lose series impedance until Xc is less than half of XL at
the frequency of the undesired signal. In many cases the sign of X
won't even matter, so obviously that is a misstatement.

73 Tom

5259. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 13:43:13 UTC
From: 2w8ji@contesting.com
Message-ID: <3b962732.442662369@news.akorn.net>
Source record: 50455

On Tue, 04 Sep 2001 23:46:04 -0500, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>Tom W8JI wrote:
>> If you put a capacitor across an inductor, the inductive reactance
>> increases. So choking effectiveness increases.
>
><nit> The total reactance of the two-point network changes, but not the
>inductive reactance. </nit>

It is a two terminal network so far as the rest of the system is
concened.

The reactance the rest of the system sees in series with the load
increases, that is why capacitors are sometimes placed across chokes
inrtentionally ...and why the most effective "chokes" are traps that
are somewhat equal amounts of parallel C and L!

With reasonable Q in components at every frequency below approximately
1.5 times the resonant frequency, impedance increases from the
addition of the capacitor, so choking increases.

73 Tom

5260. FS: QRP transmitters NOW with CRYTALS!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 14:23:34 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0109050623.50b2f3af@posting.google.com>
Source record: 50456
Cross-posted to: rec.radio.swap,rec.radio.amateur.swap,rec.radio.amateur.homebrew,rec.radio.amateur.equipment

We took the advice of customers and are now selling our PEANUT WHISTLE TWO 40 meter QRP CW transmitters with transmit crystal, if you are in need of one. We've got them in stock for the internationally recognized QRP hangout frequency of 7.040 MHz.

These transmitters are ASSEMBLED. NOT a kit! And they are a blast to operate! ONLY $19.95 plus shipping if you don't need a transmit crystal. ONLY $29.95 plus shipping WITH a 7.040 MHz transmit crystal. At these prices, they're far less expensive than many kits! Many in stock for immediate shipment.

For a photo and further details, please visit:

http://qth.com/dwm

5261. trying to locate source for soldering tips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 15:07:54 UTC
From: David Woolf <dwoolf@worldnet.att.net>
Message-ID: <3B963F90.711E3161@worldnet.att.net>
Source record: 50457
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

I am trying to locate a source for soldering iron
tips for an Unger model 9900 temperature controlled
station. The iron p/n is 9931AS and the tip p/n's
range from 9960 to 9986. I also need the tip retainer
(p/n 9932) for same iron. I realize that Unger was
bought out by Weller. I have so far been unsucessful
in all my searches on the web in locating these. Can
anyone offer a suggestion on where to locate these.

Thanks,
Dave Woolf - K8RSP
dwoolf@worldnet.att.net

5262. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 15:18:35 UTC
From: Bill Turner <w7ti@dslextreme.com>
Message-ID: <ifgcptcic0el42hhkclh69sktpmj9hevin@4ax.com>
Source record: 50458

On Wed, 05 Sep 2001 13:23:42 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

>>"With this connection [negative-lead filtering] the capacitance of the
>>transformer secondary to ground appears in parallel with the filter
>>chokes, tending to bypass the chokes. However, this effect will be
>>negligible in practical applications except where the output ripple must
>>be reduced to a very low figure".
>
>
>I'm surprised they said that. That is absolutely incorrect Bill.
<snip>

Your explanation makes sense to me, Tom. The above quote wouldn't be
the first error ever committed to paper. One of these days I'll have to
breadboard it.

Tnx,

73, Bill W7TI

5263. Re: trying to locate source for soldering tips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 15:24:41 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3B9643B9.E7A1979A@silly.net>
Source record: 50459
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

David Woolf wrote:
>
> I am trying to locate a source for soldering iron
> tips for an Unger model 9900 temperature controlled
> station. The iron p/n is 9931AS and the tip p/n's
> range from 9960 to 9986. I also need the tip retainer
> (p/n 9932) for same iron. I realize that Unger was
> bought out by Weller. I have so far been unsucessful
> in all my searches on the web in locating these. Can
> anyone offer a suggestion on where to locate these.
>
> Thanks,
> Dave Woolf - K8RSP
> dwoolf@worldnet.att.net

Try the coopertools.com website. Be sure to spell "Ungar" correctly in
the search.
-Bill

5264. Re: Computers networked via power lines

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 16:25:02 UTC
From: JAMES HAMPTON <j.r.hampton@worldnet.att.net>
Message-ID: <ylsl7.12518$KV3.1009985@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50460
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.amateur.homebrew

Well, where an egress occures .... just fire up as much power as you can muster right on that frequency (assuming it is in an amateur band). Usually the system will also be susceptable to interference on that frequency. Digital modes would probably be best although SSB would be worth a try (depending upon where in the band the interference is occuring). Hey, 1.5 KW of CW at 40 or 50 WPM might work wonders too!.

Enjoy!
Jim AA2QA

"Magne M&#65533;hre" <magne@clustra.com> wrote in message
news:m3n14b6nwy.fsf@clustra.com...
> "Peter O. Brackett" <ab4bc@ix.netcom.com> writes:
>
> > Tom:
> >
> > You'r correct. There is little or no "balance" in that electric wiring
and
> > it goes
> > everywhere. As you mentioned, it's surprising that the EU allows this
since
> > their CISPR regs, equivalent to our Part 15, are much tougher than in
> > America!
> >
> > Deutche amateur radio associations better get on this case fast. Using
> > power wires for signalling at high frequencies is bad for us radio
folks.
>
> The Norwegian FCC-equivalent (www.npt.no) made a series of measurements
> early this year, and concluded (not surprisingly) that the unwanted
> emissions were far higher than allowed.
>
> The conclusion was that the operators will have to reduce the level of
> emissions by 30-35dB (!). If this is not possible, operation of these
> kinds of networks will be prohibited.
>
> The news letter (Norwegian version, only):
> http://www.npt.no/norsk/Nyheter/Elforsyningsnett.html
>
> --Magne / la1bfa
>

5265. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 18:07:09 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <paqcptk5h3hhh596mot18qg9a39a13eqf8@4ax.com>
Source record: 50462

2w8ji@contesting.com (Tom W8JI)
shared these priceless pearls of wisdom:

-
->
->I especially like your non-personal technical to the point replies
->Jim. No ego at work there! You are truely a gentleman.

My first reply, Tom, was to correct an answer that said doubling the resistance was a 3 dB drop. In order to make that correction, I affirmed another poster's comment that the output was a stiff voltage source and then went on to say that, given that condition, that it was a 6 dB drop. Nothing more.

You took it from there, sir. Now for Chrissake, let it DROP.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5266. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 18:09:32 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <igqcptoi1fbgb2kj26lfn2s689m65ukq9c@4ax.com>
Source record: 50463

"William F. Hagen" <whagen@inreach.com>
shared these priceless pearls of wisdom:

->We like all the fuss, pretty soon we will be debating two pigeons flying
->cocoanuts from africa.

It should be a (;) semicolon after fuss. You misspelled coconuts. You didn't
capitalize Africa.

{;-) JUST KIDDING, JUST KIDDING.

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5267. Re: trying to locate source for soldering tips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 18:30:39 UTC
From: Man_from_Ungar <ungar@nospam.com>
Message-ID: <3B966F83.B089AEFC@nospam.com>
Source record: 50464
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,sci.electronics.equipment

Hi David,
try www.mouser.com www.mcmelectronics.com www.newark.com

David wrote:

> I am trying to locate a source for soldering iron
> tips for an Unger model 9900 temperature controlled
> station. The iron p/n is 9931AS and the tip p/n's
> range from 9960 to 9986. I also need the tip retainer
> (p/n 9932) for same iron. I realize that Unger was
> bought out by Weller. I have so far been unsucessful
> in all my searches on the web in locating these. Can
> anyone offer a suggestion on where to locate these.
>
> Thanks,
> Dave Woolf - K8RSP
> dwoolf@worldnet.att.net

5268. Re: ad9870 and hf receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 18:50:31 UTC
From: Mikael Nordman <mikael.nordman@piuha.net>
Message-ID: <Xtul7.357$wu6.29789@read2.inet.fi>
Source record: 50465

About getting hold of Analog RF parts. :-)

I ordered AD9835's in december 2000.
The delivery time was supposed to be 3 months.

And, voila, the parts were delivered in July 2001.

Mikael
OH2AUN

>ps anyone with easy access to ad .. would you be able to help me
>obtain samples of the relervant chips .. I can pay reasonable
>amount .. but can't go to the moq!

5269. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 19:13:58 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B967976.7A6285C9@mwci.net>
Source record: 50466

Jim Weir wrote:

> My first reply, Tom, was to correct an answer that said doubling the resistance
> was a 3 dB drop. In order to make that correction, I affirmed another poster's
> comment that the output was a stiff voltage source and then went on to say that,
> given that condition, that it was a 6 dB drop. Nothing more.

Imagine 1.0 volt across 1.0 ohm. The power is 1.0^2 / 1.0 = 1 watt

Imagine 1.0 volt across 2.0 ohm. The power is1.0^2 /2.0 =0.5 watt

The power ration is 10 log (0.5/1.0) = -3 dB

Bill W0IYH

5270. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 19:35:22 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <83vcpt0ovr1ogtcsorinnrqnf82mg272gf@4ax.com>
Source record: 50467

"William E. Sabin" <sabinw@mwci.net>
shared these priceless pearls of wisdom:

Bill --

You fell into the same trap that the original person that made this error fell prey to...

The question was how much power the speaker was going to lose by putting a resistor of equal value in series with it...

To use your example, for a 1 volt source and a 1 ohm speaker...

With only the source and the speaker, I agree... (E^2)/R gives you one watt. This then is the reference level that we use. 1 watt.

Now put another 1 ohm resistor in series with that original resistor. How much voltage is across the 1 ohm speaker resistor? Half a volt. How much power is dissipated in a 1 ohm resistor with half a volt across it? 0.25 watts.

The power ratio is 0.25:1, and 10 (log 0.25) is in fact 6 dB.

Jim

->
->Imagine 1.0 volt across 1.0 ohm. The power is 1.0^2 / 1.0 = 1 watt
->
->Imagine 1.0 volt across 2.0 ohm. The power is1.0^2 /2.0 =0.5 watt
->
->The power ration is 10 log (0.5/1.0) = -3 dB
->
->Bill W0IYH

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

5271. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 21:36:07 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B969AC7.7A53CB25@mwci.net>
Source record: 50468

Jim Weir wrote:

> "William E. Sabin" <sabinw@mwci.net>
> shared these priceless pearls of wisdom:
>
> Bill --
>
> You fell into the same trap that the original person that made this error fell
> prey to...
>
> The question was how much power the speaker was going to lose by putting a
> resistor of equal value in series with it...
>
> To use your example, for a 1 volt source and a 1 ohm speaker...
>
> With only the source and the speaker, I agree... (E^2)/R gives you one watt.
> This then is the reference level that we use. 1 watt.
>
> Now put another 1 ohm resistor in series with that original resistor. How much
> voltage is across the 1 ohm speaker resistor? Half a volt. How much power is
> dissipated in a 1 ohm resistor with half a volt across it? 0.25 watts.
>
> The power ratio is 0.25:1, and 10 (log 0.25) is in fact 6 dB.

OK. I did not follow the thread closely enough.

Bill W0IYH

5272. Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 22:14:09 UTC
From: Bill Starks <wstarks@citynet.net>
Message-ID: <3b96a16c_4@corp.newsgroups.com>
Source record: 50469

I need two 500pf 5kv doorknobs. I need them with threaded ends. Does anyone out there have any for sale or can you point me to where I can find them.

Bill K8WOS

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

5273. transverter 10m to 30m ham band

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 22:33:31 UTC
From: aljosro@hotmail.com
Message-ID: <f051f117.0109051433.14227eb6@posting.google.com>
Source record: 50470

I look for a schematics to build a transverter from 10m 11m to 30m ham band
I thank them in what you/they can help me.
thank you

5274. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 23:16:35 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3B96B253.5020803@dioxine.com>
Source record: 50471

William E. Sabin wrote:

>
> Jim Weir wrote:
>
>
>>My first reply, Tom, was to correct an answer that said doubling the resistance
>>was a 3 dB drop. In order to make that correction, I affirmed another poster's
>>comment that the output was a stiff voltage source and then went on to say that,
>>given that condition, that it was a 6 dB drop. Nothing more.
>>
>
> Imagine 1.0 volt across 1.0 ohm. The power is 1.0^2 / 1.0 = 1 watt
>
> Imagine 1.0 volt across 2.0 ohm. The power is1.0^2 /2.0 =0.5 watt
>
> The power ration is 10 log (0.5/1.0) = -3 dB

Except - the case under discussion is placing a resistor in series
with a load. So, while you're totally correct about the total energy
delivered, the amount of power delivered to the load is half of
half as much:

Imagine 1.0 volt across 1.0 ohm; the current is 1.0/1.0 = 1A. The
total power is 1V * 1A = 1W.

Imagine 1.0 volt across 2.0 ohms comprised of two 1.0 ohm resistors
in series; the current is 1.0/2.0 = .5A. The power delivered to each
resistor is .5A^2 * 1 = .25W.

10 * log10 (.25) = -6.02dB.

Dana K6JQ
dana@dioxine.com

5275. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 23:38:52 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B96B78C.3AE66971@nf.sympatico.ca>
Source record: 50472

Was fun though; and I did learn something. So much for trying to make it simple!

Hey I like your funny! Man that is {:-).

Nah mine don't look so good as yours!

Cheers to all.

5276. Re: 'Choke Input' B+ Power Supply?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 23:45:02 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B96B8FE.39B7A50D@nf.sympatico.ca>
Source record: 50473

Tom W8JI wrote:
>
> On Tue, 04 Sep 2001 23:46:04 -0500, "Clifton T. Sharp Jr."
> <clifto@clifto.com> wrote:
>
> >Tom W8JI wrote:
> >> If you put a capacitor across an inductor, the inductive reactance
> >> increases. So choking effectiveness increases.
> >>
> ><nit> The total reactance of the two-point network changes, but not the
> >inductive reactance. </nit>
>
> It is a two terminal network so far as the rest of the system is
> concened.
>
> The reactance the rest of the system sees in series with the load
> increases, that is why capacitors are sometimes placed across chokes
> inrtentionally ...and why the most effective "chokes" are traps that
> are somewhat equal amounts of parallel C and L!
>
> With reasonable Q in components at every frequency below approximately
> 1.5 times the resonant frequency, impedance increases from the
> addition of the capacitor, so choking increases.
>
> 73 Tom

"Somewaht equal amounts of C and L!" i.e. equal amounts of Xc and Xl at
the frequency of the ripple you want to block/attenuate. Eh?
Like up to the point you have a paralell resonant circuit at, say, 120
Hertz in the B+ line?
Terry.

5277. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-05 23:47:03 UTC
From: Bill & Suzie Whatley <spud286@home.com>
Message-ID: <XPyl7.63302$c8.31247633@news1.denver1.co.home.com>
Source record: 50474

I have quite a few of these but I do not know what they are worth in the Ham market.

Contact me at spud286@home.com or (970) 407-6599
That is my work number and I am there from 6am to 2 pm
mountain time.

73
WA5VRL
Willis Whatley

5278. Re: Eimac X578U ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 00:05:42 UTC
From: melissaN0o0SPAM@dimensional.com
Message-ID: <q5zl7.483$mr3.16198@wormhole.dimensional.com>
Source record: 50475

melissaN0o0SPAM@dimensional.com (Melissa) wrote in
<5QNk7.446$mr3.14799@wormhole.dimensional.com>:

>I came across some parts in the basement that I've had around for years and
>don't even know where I got them or what they are.
>
>Eimac X578U ? They appear new and it says Electron Tube on the tags. They
>appear to be some kind of microwave tubes. Heavy little suckers, for their
>size. I have maybe 6 of them.
>
>Are these possibly worth anything if I sell them?
>

Has anyone seen this? I saw no replies.

--
- Melissa

5279. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 01:15:32 UTC
From: 2w8ji@contesting.com
Message-ID: <3b96cc9f.485017929@news.akorn.net>
Source record: 50476

On Wed, 05 Sep 2001 11:07:09 -0700, Jim Weir <jim@rst-engr.com> wrote:

>You took it from there, sir. Now for Chrissake, let it DROP.
>
>Jim

Oh I see now Jim, I wasn't looking at your posts close enough.

When I read the "shared these priceless pearls or wisdom" preface I
thought you were being condescending to me. I looked at your posts,
and you respond with that message preamble to everyone.

Sorry about that.

73 Tom

5280. Traped dipole

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 01:45:13 UTC
From: James Hilins <ka4upw@bellsouth.net>
Message-ID: <3B96D523.3FCE206@bellsouth.net>
Source record: 50477

Anyone ever make their own chokes for a trapped dipole? Wondering hoe to do it? Would like to know # of turns around a 2"PVC pipe and what gauge wire?

Thanks James KA4UPW

5281. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 01:49:54 UTC
From: "William F. Hagen" <whagen@inreach.com>
Message-ID: <3B96D642.C3732253@inreach.com>
Source record: 50478

That actually made me laugh! That was a good one, and so true!
Bill

Jim Weir wrote:
>
> "William F. Hagen" <whagen@inreach.com>
> shared these priceless pearls of wisdom:
>
> ->We like all the fuss, pretty soon we will be debating two pigeons flying
> ->cocoanuts from africa.
>
> It should be a (;) semicolon after fuss. You misspelled coconuts. You didn't
> capitalize Africa.
>
> {;-) JUST KIDDING, JUST KIDDING.
>
> Jim
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

5282. Re: Traped dipole

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 02:02:00 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3B96D918.E8EB5AEE@silly.net>
Source record: 50479

James Hilins wrote:
>
> Anyone ever make their own chokes for a trapped dipole? Wondering hoe
> to do it? Would like to know # of turns around a 2"PVC pipe and what
> gauge wire?
>
> Thanks James KA4UPW

You'll find the specs for the traps in any number of ARRL Handbooks and Antenna Books...or do a Google search on the web. It depends on the desired frequency(s). The trap capacitor can be the tricky part, but you can make them out of a short length of coax if you are running 'barefoot' power.
--
Bill M WX4A
Vieques, PR

5283. Linking data from serial port to Excel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 02:58:45 UTC
From: VladM <n0stl@rea-alp.com>
Message-ID: <FDBl7.311$Hx1.103597@news7.onvoy.net>
Source record: 50480

Does anybody know about existing program-utility which can help to
pass/store data upon request from a serial port into
Excel or even a simple text buffer file?
Thank you in advance
73, Vlad-N0STL

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01

5284. Re: Linking data from serial port to Excel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 03:49:41 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B96F254.C454D016@att.net>
Source record: 50481

A program like LanLink or PCAnywhere might do it . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

VladM wrote:
>
> Does anybody know about existing program-utility which can help to
> pass/store data upon request from a serial port into
> Excel or even a simple text buffer file?
> Thank you in advance
> 73, Vlad-N0STL
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01

--
72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

5285. Re: Linking data from serial port to Excel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 05:01:56 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <mo0ept4ukcg27a9jju3gep0inbgrsk0iro@4ax.com>
Source record: 50482

You weren't very specific about the kind of stream you want to capture or even what OS/hardware you are running.

Assuming W9x, this might work...

Run Hyperterminal from Start/Accessories/Communications. Click File - New Connection. Give it a name like comport1 (you can't use com1, its reserved). In the dialog that opens; the box for Connect Using: pull down and select Direct to Com1 (or what you want). Click OK, in the next box set the speed, etc. When you say OK the main window is communicating with Com1. You can type outbound data and see anything that comes in.

Under the Transfer menu you can select Capture Text to save to a file. From the same menu you can later stop the capture. You can then edit the data saved in the capture file. If the format makes sense you can import it into Excel as csv or something similar.

Its messy but you probably already have all you need.

-Rex, KK6MK

On Thu, 06 Sep 2001 02:58:45 GMT, "VladM" <n0stl@rea-alp.com> wrote:

>Does anybody know about existing program-utility which can help to
>pass/store data upon request from a serial port into
>Excel or even a simple text buffer file?
>Thank you in advance
>73, Vlad-N0STL
>
>
>---
>Outgoing mail is certified Virus Free.
>Checked by AVG anti-virus system (http://www.grisoft.com).
>Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01
>

5286. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 15:20:12 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b9792f4$0$2304$44c9b20d@news3.asahi-net.or.jp>
Source record: 50483

You meant "swallows", not pigeons, didn't you? [WHOOOOOPS! Here we go again!]

Cheers
Adam

"William F. Hagen" <whagen@inreach.com> wrote in message news:3B95B62C.94FA8003@inreach.com...
> We like all the fuss, pretty soon we will be debating two pigeons flying
> cocoanuts from africa.
>
> swampthing wrote:
> >
> > Thanks for the reply everyone.
> > I seem to caused quite a stir with my question.
> > The radio in question is a Realistic DX200 Short-wave set .
> > Its getting on a bit early 1980's I believe.
> > To tell the truth, I don't know where he got the 8 ohms from,
> > it don't say it on the back. He must have seen it in the hand book?
> > I have put a 4 ohm resistor in the speaker line and it seems ok.
> > I have told the owner not to turn it up to loud.
> > He is wanting to use one of those cheap
> > (not amplified) computer speakers.
> > I have put the resistor in and I cant tell the
> > difference in sound with an modified 8 ohm
> > and the original 4 ohm.
> > What a fuss. Thanks for the help.
> > Bob

5287. Re: Linking data from serial port to Excel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 16:24:07 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <HqNI7.714080$K5.76492763@news1.rdc1.nj.home.com>
Source record: 50484

Get a copy of the book "Serial Port Complete" - included with the book is a floppy containing the dynamic link which you need to program the serial port under windows. You can save the data to a text file.

This question comes up quite frequently on the microsoft bulletin boards for Excel.

If you want to measure and graph in real time(and don't really need to perform statistical analysis or record data for perpetuity), there is a nice utility for the basic stamp called "Stamp Plot" -- look at www.selmaware.com the "lite" version is free. There is a newsgroup for Stamp Plot on www.groups.yahoo.com

VladM wrote in message ...
>Does anybody know about existing program-utility which can help to
>pass/store data upon request from a serial port into
>Excel or even a simple text buffer file?
>Thank you in advance
>73, Vlad-N0STL
>
>
>---
>Outgoing mail is certified Virus Free.
>Checked by AVG anti-virus system (http://www.grisoft.com).
>Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01
>
>

5288. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 17:48:28 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9n8ctc$pr3$3@woodrow.ucdavis.edu>
Source record: 50485

: Bill Starks <wstarks@citynet.net> wrote:
: I need two 500pf 5kv doorknobs. I need them with threaded ends. Does anyone
: out there have any for sale or can you point me to where I can find them.
: Bill K8WOS

Classic door knob caps don't work in rf amplifier plate blocking circuits
very well. They can't handle the current.

cheers
skipp
http://sonic.ucdavis.edu

5289. TRADE: FILTER FOR FILTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 18:04:39 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <XUOI7.39702$xb.20886027@news1.mntp1.il.home.com>
Source record: 50486

I WOULD LIKE TO TRADE A KENWOOD YK-88C-1 500 HZ CW FILTER

I AM LOOKING FOR A KENWOOD YG-455-CN-1 270 HZ CW FILTER

k9vdd@home.com

5290. FA: KENWOOD YK88C-1 CW FILTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 21:29:21 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <RURI7.39882$xb.21084335@news1.mntp1.il.home.com>
Source record: 50487

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1272762700

5291. Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 21:47:57 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <SbSI7.7531$235.524724@news6-win.server.ntlworld.com>
Source record: 50488

Dear Newsgroup

I'm trying to build a UHF oscillator using valves. (Eventually I want to use it for a convertor so I can listen on 400+ MHz. But I have to get a simple oscillator going first). I've tried two types of circuit.

1. I tried a twin triode (6J6) in a push pull type circuit, with a hairpin tuned circuit between the anodes and feedback from each anode to the opposite grid. This works about the best, I got to about 300MHz with enough power to light a 1/4w globe (1.25v 250 mA). Also I tried a 6939 (twin tetrode) which gave about the same power.

I tried to use a resonant line as a tuned circuit, this was cut 15cm long and should be 1/4 wavelength. This should oscillate on 60cm which is about 500MHz so why is it oscillating on 300? The resonant line does not want to be a resonant line for some reason. I had problems getting above about 300 or 400 MHz.

2. Next I tried a single triode in a colpitts circuit. This used the same resonant line between anode and grid. It uses the internal capacitance for feedback. I used UHF triodes, and tried the 6AF4A and 6AN4. The books say these go up to 900 MHz. But my 1/4 wave line still was not oscillating at the right frequency. I could get to about 400 again, but no higher. The single triode couldn't light the globe at all.

I'm using a tuned line for checking the frequencies. The 7pin tubes used a PTFE base, but I used a ceramic base for the 9pin. I used 14 swg enamelled Copper wire for the hairpin and resonant line.

Has anyone done experiments with these tubes/circuits?

All the best
Bill Rayer

lingolanguage (at) hotmail (dot) com

5292. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 22:52:33 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3b97fda6_1@newsa.ev1.net>
Source record: 50489

Yes, they will, I'm here to tell you they work, I'm using them right now,
and have never had a failure, but, you should use more than one in paralell,
to carry the current, which is roughly 4 times the DC current.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Skipp" <skipp@pilot.ucdavis.edu> wrote in message
news:9n8ctc$pr3$3@woodrow.ucdavis.edu...
> : Bill Starks <wstarks@citynet.net> wrote:
> : I need two 500pf 5kv doorknobs. I need them with threaded ends. Does
anyone
> : out there have any for sale or can you point me to where I can find
them.
> : Bill K8WOS
>
>
> Classic door knob caps don't work in rf amplifier plate blocking circuits
> very well. They can't handle the current.
>
> cheers
> skipp
> http://sonic.ucdavis.edu

5293. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 23:15:58 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3B9803AE.C26DD26C@nf.sympatico.ca>
Source record: 50490

Adam Weber wrote:
>
> You meant "swallows", not pigeons, didn't you?

That was Capistrano IIRC?

5294. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 23:43:09 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9n91md$t3k$1@woodrow.ucdavis.edu>
Source record: 50491

Try setting it up for 148MHz operation, then triple the output using a
varactor or active tripler stage.

skipp

: William Rayer <noone@nospam.com> wrote:
: Dear Newsgroup

: I'm trying to build a UHF oscillator using valves. (Eventually I want to
: use it for a convertor so I can listen on 400+ MHz. But I have to get
: a simple oscillator going first). I've tried two types of circuit.

: 1. I tried a twin triode (6J6) in a push pull type circuit, with a hairpin
: tuned circuit between the anodes and feedback from each anode to
: the opposite grid. This works about the best, I got to about 300MHz
: with enough power to light a 1/4w globe (1.25v 250 mA). Also I tried
: a 6939 (twin tetrode) which gave about the same power.

: I tried to use a resonant line as a tuned circuit, this was cut 15cm long
: and should be 1/4 wavelength. This should oscillate on 60cm which is
: about 500MHz so why is it oscillating on 300? The resonant line does
: not want to be a resonant line for some reason. I had problems getting
: above about 300 or 400 MHz.

: 2. Next I tried a single triode in a colpitts circuit. This used the same
: resonant line between anode and grid. It uses the internal capacitance
: for feedback. I used UHF triodes, and tried the 6AF4A and 6AN4. The
: books say these go up to 900 MHz. But my 1/4 wave line still was
: not oscillating at the right frequency. I could get to about 400 again,
: but no higher. The single triode couldn't light the globe at all.

: I'm using a tuned line for checking the frequencies. The 7pin
: tubes used a PTFE base, but I used a ceramic base for the 9pin.
: I used 14 swg enamelled Copper wire for the hairpin and resonant
: line.

: Has anyone done experiments with these tubes/circuits?

: All the best
: Bill Rayer

: lingolanguage (at) hotmail (dot) com

5295. Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 23:50:30 UTC
From: "David J. Moge" <n1rzb@110.net>
Message-ID: <tpg312o6ac1272@corp.supernews.com>
Source record: 50492
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

OK,

Any and all comments, what is the best all purpose six meter rig

Thanks
n1rzb

5296. Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-06 23:51:53 UTC
From: "David J. Moge" <n1rzb@110.net>
Message-ID: <tpg313qt13tv74@corp.supernews.com>
Source record: 50493
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

OK,

Any and all comments, what is the best all purpose six meter rig

Thanks
n1rzb

5297. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 00:57:32 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B981D83.C63@pop.removethistomailme.net>
Source record: 50494
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

David J. Moge wrote:
>
> OK,
>
> Any and all comments, what is the best all purpose six meter rig
>
> Thanks
> n1rzb

Dunno. Try spamming a few more groups, maybe they'll have an answer for
you over on alt.crossposting.nitwit.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

5298. Re: Linking data from serial port to Excel

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 03:12:41 UTC
From: VladM <n0stl@rea-alp.com>
Message-ID: <JWWl7.41$mz2.6664@news7.onvoy.net>
Source record: 50495

Thank you every body for heads up on the issue. It is hard to be specific
what exactly I need.
It is easier to look up the options and deside. Actually it is a meter which
has a rs-232 output and
I am trying to find a use for it, for example to plot SWR .
Thanks again.
73, Vlad- N0STL
schatzie <jdwalton@home.com> wrote in message
news:HqNl7.714080$K5.76492763@news1.rdc1.nj.home.com...
> Get a copy of the book "Serial Port Complete" - included with the book is
a
> floppy containing the dynamic link which you need to program the serial
port
> under windows. You can save the data to a text file.
>
> This question comes up quite frequently on the microsoft bulletin boards
for
> Excel.
>
> If you want to measure and graph in real time(and don't really need to
> perform statistical analysis or record data for perpetuity), there is a
nice
> utility for the basic stamp called "Stamp Plot" -- look at
www.selmaware.com
> the "lite" version is free. There is a newsgroup for Stamp Plot on
> www.groups.yahoo.com
>
> VladM wrote in message ...
> >Does anybody know about existing program-utility which can help to
> >pass/store data upon request from a serial port into
> >Excel or even a simple text buffer file?
> >Thank you in advance
> >73, Vlad-N0STL
> >
> >
> >---
> >Outgoing mail is certified Virus Free.
> >Checked by AVG anti-virus system (http://www.grisoft.com).
> >Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01
> >
> >
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.274 / Virus Database: 144 - Release Date: 8/23/01

5299. Re: Circuit Schematic Needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 05:00:39 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <LxYl7.2298$S12.109303@sjcpnn01.usenetserver.com>
Source record: 50496

James L. Marino wrote:
> Hi guys, I'm back again. I have a receiver module
> to use for RDF location of my rockets, and it has
> a RSSI output pin on it. I'd like to use this to drive
> an LED bar graph indicator signal strength meter.
> Can one of you kind folks direct me to a simple
> schematic for this. Thanks so much.

National semiconductor
10-LED linear: LM3914
http://www.national.com/pf/LM/LM3914.html

10-LED log (3db steps): LM3915
http://www.national.com/pf/LM/LM3915.html

10-LED "VU-meter": LM3916
http://www.national.com/pf/LM/LM3916.html

Available at the usual places (DigiKey, Jameco, etc.)

5300. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 06:29:52 UTC
From: skipp <skipp@pilot.ucdavis.edu>
Message-ID: <Pine.LNX.4.30.0109062321360.2312-100000@pilot.ucdavis.edu>
Source record: 50397

Sorry Evan, I don't buy it. I've got some of the common door knob cap
catalogs here, the common ones are not rated for rf service. A lot of
people get away with using the wrong type door knob caps in amplifiers.
When real current is drawn, they will quickly fail and blow up.

Check the rating on a classic 858 type cap...

You need to specify the caps with an rf rating your amplifier does not
exceed. Otherwise your asking for trouble.

Your style label is not specific, next time mention a model and brand and
we'll check the ratings.

cheers
skipp

> On 7 Sep 2001, K9SQG wrote:
> Actually they work quite well and several commercial amps use them for blocking
> and loading purposes. The TV style are light duty but the other style goes
> over 20 amps or more, adequate for ham applications.
>
> 73s,
>
> Evan
>

5301. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 10:35:21 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3B98A2E9.2573@_REMOVETHIS_erols.com>
Source record: 50398

swampthing wrote:
>
> Goodness me! That's a biggy.
> What would one solder with a 250 watt iron?
> Radiators or something like?

Tinning iron, used for metal gutter work. Pointed chunk of copper stuck at the end of a metal rod. Use a propane torch to heat.

5302. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 10:40:24 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3B98A418.7028@_REMOVETHIS_erols.com>
Source record: 50399

Bill Turner wrote:
>
> >Find some solder that is 60% tin and 40% lead, this
> >>is usually called 60/40.
>
> ----------
>
> For those who are nit-picking perfectionists, the best solder is not
> 60/40, it is 63/37. The reason is that any alloy other than 63/37 has a
> melting temperature that is slightly different (believe it or not) from
> the freezing temperature. This can cause a poor joint if there is any
> movement or vibration while the solder transitions through this area.
> Also, 63/37 has the lowest melting point of all tin/lead alloys and
> thereby is the safest for the items being soldered.
>
> For ham use, 60/40 is ok and will do the job, but it is not the "best".

As a jeweler would say...

An alloy's melting point is always below that of its parent metals,
down to the eutectic point, the point at which the molten alloy
solidifies without passing through a plastic, semicrystalized
"slush" phase.

5303. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 13:29:27 UTC
From: Don Munson <munsonjr@bellatlantic.net>
Message-ID: <XY3m7.390$Ji6.196281@typhoon1.gnilink.net>
Source record: 50400

I purchased Doorknob caps from Fair Radio Sales for a reasonable price.

Don, W4GFQ

Bill Starks <wstarks@citynet.net> wrote in message
news:3b96a16c_4@corp.newsgroups.com...
> I need two 500pf 5kv doorknobs. I need them with threaded ends. Does
anyone
> out there have any for sale or can you point me to where I can find them.
>
> Bill K8WOS
>
>
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5304. DIL16 type IC Identification

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 13:47:44 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <lf4m7.10675$235.894681@news6-win.server.ntlworld.com>
Source record: 50402

Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan

I have a number of these ICs and searched the NET for identification
,however without success

It could be an Opamp.

'NMBS Japan ' returns a media speaker company in Japan but no electronic
parts manufacturer.
I also tried Motorola.

Any advice on a suitable web site for clues is much appreciated.

73 Frank gm0csz.kn6wh@ntl.com

5305. FS: Portable Multi-Band Dipole System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 13:54:31 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0109070554.3cf0afc4@posting.google.com>
Source record: 50401
Cross-posted to: rec.radio.swap,rec.radio.amateur.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The YO-YO-TENNA DELUXE covers 2 through 40 meters. Two wind-up "fishing reel" style antennas let you unwind as much wire as you need to cover each band. Attach additional single reel YO-YO-TENNA's for coverage of 75/80 and 160 meters. Great price! ONLY $29.95 plus shipping!! If you have questions, feel free to call me at 1.517.563.2613. For a photo and further details, please visit:

http://qth.com/dwm

73, Bill - WA8MEA

5306. DIL 16 IC Identification (Corrected repeat message)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 13:55:27 UTC
From: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk>
Message-ID: <6m4m7.10710$235.896368@news6-win.server.ntlworld.com>
Source record: 50403

Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan

I have a number of these ICs and searched the NET for identification
,however without success

It could be an Opamp.

'NMBS Japan ' returns a media speaker company in Japan but no electronic
parts manufacturer.
I also tried Motorola.

Any advice on a suitable web site for clues is much appreciated.

73 Frank gm0csz.kn6wh@ntlworld.com (corrected e-mail address)

5307. WTB homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 14:42:12 UTC
From: N4DKD <bwingard@bellsouth.net>
Message-ID: <3b98d1b0.0@newsman.viper.net>
Source record: 50404

WTB Homebrew tube rigs, any condition. Interested in old AM /CW/SSB racks and desktops.

--
Brian Wingard
N4DKD

5308. Cuddling your K1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 15:14:27 UTC
From: g3cwi@tesco.net
Message-ID: <b8480e86.0109070714.73f20f3e@posting.google.com>
Source record: 50405
Cross-posted to: rec.radio.amateur.homebrew,free.uk.amateur-radio,alt.ham-radio.hf,uk.radio.amateur,rec.radio.amateur.dx

If you have an Elecraft K1 you'll want to keep it fit and well. See my approach at http://www.qsl.net/g3cwi

73

Richard
G3CWI

Buy and sell at The Amazing Online Flea Market

5309. FS: LCD 16 x 4 display modules, NEW! MUST SELL!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 15:36:26 UTC
From: ovrreactor@aol.com-nospam
Message-ID: <20010907113626.02086.00000310@mb-mk.aol.com>
Source record: 50406

I am selling BRAND NEW LCD display modules, made by Data Vision, model number DV-16400. I have over $25 invested in EACH ONE of these.

Asking $5 each (minimum 5, please)

I bought almost 1,000 of these for a project that I have decided to abandon (no more time), and I want to sell them ALL immediately. Offers encouraged for large quantities, OR the entire lot.

Picture, detailed PDF documentation, and manufacturer website link is available at;
http://members.aol.com/ecc81/yardsale

Please respond BY EMAIL to < OvrReactor@aol.com > if interested.

Thanks,
Tom Mitchell

5310. Re: DIL 16 IC Identification (Corrected repeat message)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 15:53:01 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b98ec22$0$2880$44c9b20d@news3.asahi-net.or.jp>
Source record: 50407

Hi Frank

Sorry I can't REALLY help, but there are FM IF amp / AF preamps known as "266P32801" and CMOS multiplexers known as "409-051-2801". The digits "2801" looked somehow the most 'significant' to me...These are the only 16-pin DIP packages I could find with that string. Don't know the manufacturers, though. Still, maybe you can find some way to work out what you've got "by elimination"...

Good luck
Adam

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message news:6m4m7.10710$235.896368@news6-win.server.ntlworld.com...
> Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan
>
> I have a number of these ICs and searched the NET for identification
> ,however without success
>
> It could be an Opamp.
>
> 'NMBS Japan ' returns a media speaker company in Japan but no electronic
> parts manufacturer.
> I also tried Motorola.
>
> Any advice on a suitable web site for clues is much appreciated.
>
> 73 Frank gm0csz.kn6wh@ntlworld.com (corrected e-mail address)
>
>
>

5311. Re: DIL 16 IC Identification (Corrected repeat message)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 16:17:47 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b98f1f0$0$2882$44c9b20d@news3.asahi-net.or.jp>
Source record: 50408

There is / was a company called "NMB Semiconductor" that might get you a few hits if you're willing to keep searching. Again, good luck! AW

"Adam Weber" <adam@home.email.ne.jp> wrote in message news:3b98ec22$0$2880$44c9b20d@news3.asahi-net.or.jp...
> Hi Frank
>
> Sorry I can't REALLY help, but there are FM IF amp / AF preamps known as
> "266P32801" and CMOS multiplexers known as "409-051-2801". The digits "2801"
> looked somehow the most 'significant' to me...These are the only 16-pin DIP
> packages I could find with that string. Don't know the manufacturers,
> though. Still, maybe you can find some way to work out what you've got "by
> elimination"...
>
> Good luck
> Adam
>
> "Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
> news:6m4m7.10710$235.896368@news6-win.server.ntlworld.com...
> > Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan
> >
> > I have a number of these ICs and searched the NET for identification
> > ,however without success
> >
> > It could be an Opamp.
> >
> > 'NMBS Japan ' returns a media speaker company in Japan but no electronic
> > parts manufacturer.
> > I also tried Motorola.
> >
> > Any advice on a suitable web site for clues is much appreciated.
> >
> > 73 Frank gm0csz.kn6wh@ntlworld.com (corrected e-mail address)
> >
> >
> >
>
>

5312. Re: Good 80M Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 19:36:49 UTC
From: Va3US <jmroz@dfl.crc.ca>
Message-ID: <3B9921D1.789EFDE3@dfl.crc.ca>
Source record: 50409
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hello Peter,
I use a bazooka for 80 m. Broadbanded and easy to make.
It's been up for ten years, and no problems.
Check out http://www.qsl.net/we6w/projects/baz_std.txt
John <><

ve7rz wrote:
>
> Want something cheap, easy to build, and a really hot performer? Go with
> a Delta loop, flat on the top and fed on the bottom. I have worked a lot
> of DX and some of the loudest guys on the band are running barefoot and a
> delta loop. I use one for 80 and another for 40. They are excellent
> performers. Have Fun
>
> Trace VE7RZ
>
> Peter wrote:
>
> > I'm looking for any instructions/plan for a homebrew 80m antenna. I'm
> > looking for something thats not too big as my space is limited.
> >
> > Any advice???
> > Pete

5313. Re: DIL 16 IC Identification (Corrected repeat message)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 20:10:31 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9nb9jn$g4d$1@woodrow.ucdavis.edu>
Source record: 50410

Hi Frank,

A little bit of information on what type of circuit the chip is used in would be helpful. From my experience, the 2801 is a darlington driver chip, now well out of production. It's expanded newer brothers the 2803 and 2804 are probably still sold by Jameco and they have a web site.

Jameco can probably help you with data sheets if you call them on the phone and sweet talk their technical support people while your placing an order for the 2803. Other retailers of the 2803 include HSC Electronics in the Northern, CA. stores.

cheers, hope that helps you out.
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: Frank Dinger <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote:
: Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan

: I have a number of these ICs and searched the NET for identification
: ,however without success

: It could be an Opamp.

: 'NMBS Japan ' returns a media speaker company in Japan but no electronic
: parts manufacturer.
: I also tried Motorola.

: Any advice on a suitable web site for clues is much appreciated.

: 73 Frank gm0csz.kn6wh@ntlworld.com (corrected e-mail address)

5314. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 20:18:31 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9nba2n$g4d$2@woodrow.ucdavis.edu>
Source record: 50411

: M.E. <bogus@nospam.com> wrote:
: Yes, they will, I'm here to tell you they work, I'm using them right now,
: and have never had a failure, but, you should use more than one in paralell,
: to carry the current, which is roughly 4 times the DC current.

Using two or more low current door knob caps to do the same job as one
proper type and value cap, tends to get more expensive.

Continous high value current at frequencies above 1Mhz will often blow
door knob caps into pieces. Low duty cycle Amateur amplifiers are not
the same. Why use two or more when the right "one" will do... It's best
to use the actual rf data sheet values for safe operation at higher power
levels.

cheers
skipp

5315. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 20:25:33 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109071225.52ab32ba@posting.google.com>
Source record: 50412

"William Rayer" <noone@nospam.com> wrote in message
news:<SbSl7.7531$235.524724@news6-win.server.ntlworld.com>...

> Dear Newsgroup

>

> I'm trying to build a UHF oscillator using valves. (Eventually I want to

> use it for a convertor so I can listen on 400+ MHz. But I have to get

> a simple oscillator going first)...

I can no longer restrain my curiosity: why are you doing
this? While lots of tube-era HF stuff works just fine
and still holds its own (I have a Collins 51J-4 in my
shack, and it's a nice radio indeed), 1960s-vintage UHF
gear does *not*, and is only fit for museums.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5316. New Club

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 20:50:25 UTC
From: psy_y@mail.com
Message-ID: <60dd95ba.0109071250.4046461f@posting.google.com>
Source record: 50413

Hi everyone!
For anyone interested, you can join the new transistor radio club I set up.
URL:http://clubs.yahoo.com/clubs/transistorradio
Young-Min Park

5317. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 21:05:43 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <7rcbn9.g5p.ln@darkstar.example.net>
Source record: 50421
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

David J. Moge wrote:

> OK,
>
> Any and all comments, what is the best all purpose six meter rig
>
> Thanks
> n1rzb

Please don't cross-post. This does not belong on r.r.a.homebrew
or most of the other groups you posted to.

Followup set to: rec.radio.amateur.equipment

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

5318. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 21:14:06 UTC
From: Bill & Suzie Whatley <spud286@home.com>
Message-ID: <yMam7.66017$c8.33050299@news1.denver1.co.home.com>
Source record: 50414

I looked at the original posting again. He does not state his intended use for the caps.

The statement that some types of doorknob caps are not meant for RF service is true.

The ones I have here are rated for RF service and the spec sheet is available at
http://www.highenergycorp.com/download/ceramic3.pdf

I have used these in tuners that operate at over 5KW without any problem so I doubt the 1KW amatuer service application would strain them at all. However, if used in a poorly designed circuit, they can be destroyed at a much lower power level.)

73
WA5VRL
Willis

5319. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 21:29:47 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B993C4B.72A2470@ay.com.au>
Source record: 50415

Laura Halliday wrote:

> I can no longer restrain my curiosity: why are you doing
> this? While lots of tube-era HF stuff works just fine
> and still holds its own (I have a Collins 51J-4 in my
> shack, and it's a nice radio indeed), 1960s-vintage UHF
> gear does *not*, and is only fit for museums.

Tubes are still the best/only way for real power at microwaves. TWAs, magnetrons, klystrons, and gyratrons are far better at their job than solid state gear is ever likely to be.

I tend to agree though, if the project is just a tunable converter, you are not likely to need 30-40 dBm of UHF unless you have some enormous signals to handle. Perhaps the original poster wants to use tubes for other than technical reasons.

Ideally for modern down converters, you'd build a very stable crystal oscillator at HF or maybe low VHF, and multiply up to where you want using varactors, MMICs, and filters suitable for the frequency of the stage. Then apply the resulting LO to a minicircuits mixer module, or something more exotic depending on the frequency.

For an ultra-quick hack you can build a harmonic mixer by applying a gross amount of LO drive to a microwave diode and load resistor soldered right across the middle of three RF plugs, you feed the LO in one plug, the antenna in another, and plug the receiver in after a LPF on the 3rd. It leaks all over the place and has unmentionable other problems, but it works.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (78% of Full)

5320. Re: DIL16 type IC Identification

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 21:57:29 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9ncqrj$t94$1@plutonium.btinternet.com>
Source record: 50434

"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
news:If4m7.10675$235.894681@news6-win.server.ntlworld.com...
> Ref : DIL16 IC : AAA 2801P-08 , NMBS B735 Japan
>
> I have a number of these ICs and searched the NET for identification
> ,however without success

I think NMBS used to make fast SRAMs, many years ago.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5321. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 22:32:55 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3b994a8b$1_1@newsa.ev1.net>
Source record: 50416

I have had far more disc ceramic caps "blow-up", than any of my door-knobs.
But Then I do not use the 850/858 type ceramic door-knobs, which can fail,
and also absorb moisture.
I use epoxy encapsulated door-knobs, which I have tested well over 30mhz at
5-6 amps of RF and never had one fail.
"Door-knob" caps are routinely used on "broadcast" transmitters, and many,
many amatuer amps If they were that bad, why would they still be used
there?
Typical amatuer amp will need to handle 10amps of RF in the tank circuit,
and 2-4 door-knobs in paralell will easily pass it, and thensome.
Also, door-knobs are commonly available in 3kv or more, and 5kv is OK for
most amps.
I use 20-30kv type, for extra safety.
Score card; "other types of caps that failed, MANY.

Door-knobs, that fail on me, NONE.

Enuff said.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Skipp" <skipp@pilot.ucdavis.edu> wrote in message
news:9nba2n$g4d$2@woodrow.ucdavis.edu...
> : M.E. <bogus@nospam.com> wrote:
> : Yes, they will, I'm here to tell you they work, I'm using them right
now,
> : and have never had a failure, but, you should use more than one in
paralell,
> : to carry the current, which is roughly 4 times the DC current.
>
> Using two or more low current door knob caps to do the same job as one
> proper type and value cap, tends to get more expensive.
>
> Continous high value current at frequencies above 1Mhz will often blow
> door knob caps into pieces. Low duty cycle Amateur amplifiers are not
> the same. Why use two or more when the right "one" will do... It's best
> to use the actual rf data sheet values for safe operation at higher power
> levels.
>
> cheers
> skipp

5322. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 22:39:12 UTC
From: "David J. Moge" <n1rzb@110.net>
Message-ID: <tpij758nit4j28@corp.supernews.com>
Source record: 50417
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

Mr. Miles,

I'm very sorry if I have offended you. I did not relies that cross posting
to more than one news group was considered spamming. OR IS IT?

I was simply trying a common sense approach to reach as many people as I
could with a one line question.Which by the way was answered by many,both by
postings and email.

Again thanks for your unkindly comments. I did ask for any and all.

N1RZB
"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:3B981D83.C63@pop.removethistomailme.net...
> David J. Moge wrote:
> >
> > OK,
> >
> > Any and all comments, what is the best all purpose six meter rig
> >
> > Thanks
> > n1rzb
>
> Dunno. Try spamming a few more groups, maybe they'll have an answer for
> you over on alt.crossposting.nitwit.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

5323. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 22:53:54 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <Kfcm7.12749$235.1304602@news6-win.server.ntlworld.com>
Source record: 50418

Alan Yates wrote in message <3B993C4B.72A2470@ay.com.au>...
>Laura Halliday wrote:
>
>> I can no longer restrain my curiosity: why are you doing
>> this? While lots of tube-era HF stuff works just fine
>> and still holds its own (I have a Collins 51J-4 in my
>> shack, and it's a nice radio indeed), 1960s-vintage UHF
>> gear does *not*, and is only fit for museums.
>
> Tubes are still the best/only way for real power at microwaves. TWAs,
>magnetrons, klystrons, and gyratrons are far better at their job than
>solid state gear is ever likely to be.
>
> I tend to agree though, if the project is just a tunable converter, you
>are not likely to need 30-40 dBm of UHF unless you have some enormous
>signals to handle. Perhaps the original poster wants to use tubes for
>other than technical reasons.

I agree it's archaic using tubes. I just prefer circuits using them, they're easier to wire up, easier to understand and I like them when they glow, although technically they're (mostly) obsolete. My (real) job is a software developer, so I like going retro for a hobby.

The converter idea was a bit further down the track. Before doing that I wanted to get an oscillator working properly, that I could use as a signal generator or maybe a grid dip oscillator. But I still have problems getting any kind of output from the oscillator.

I'll be more specific and ask some questions:

1. Should I use PTFE tube bases, or is a ceramic base OK?

2. What should I use for insulating material for these frequencies (say 400 to 1000 MHz). Is ceramic OK? Perspex? Tufnol?

3. At the moment I use a 1/4 wavelength line as the tuned circuit, but the frequency of oscillation is not determined by the length of the line (it's quite a lot lower). How can this be?

4. Does my 1/4 wavelength line need to be in an screened container? At the moment I pointed it away from the tube base, so it's surrounded by air.

5. Some of the circuits use isolating capcaitors, eg between the anode and the tuned circuit. Is it OK if I use a silver mica capacitor with leads cut to about 5mm, soldered as close as I can get to the tube socket? Or is this type of construction going to introduce large

losses?

6. Shoud I screen the tubes, using the little cans you can get?

In answer to the question about using a tripler, I wanted to keep
the circuit as simple as possible. According to the RCA tube
manual a 6939 (QQV02/6) is good for about 5W output at 500 MHz,
so it should at least be able to light a 1/4 globe at this frequency!
Also the early ARRL books (1940 ish) have tube oscillators that
generate quite a few watts directly, but they use weird tubes
I've never heard of.

All the best
Bill Rayer

>
> Ideally for modern down converters, you'd build a very stable crystal
>oscillator at HF or maybe low VHF, and multiply up to where you want
>using varactors, MMICs, and filters suitable for the frequency of the
>stage. Then apply the resulting LO to a minicircuits mixer module, or
>something more exotic depending on the frequency.
>
> For an ultra-quick hack you can build a harmonic mixer by applying a
>gross amount of LO drive to a microwave diode and load resistor soldered
>right across the middle of three RF plugs, you feed the LO in one plug,
>the antenna in another, and plug the receiver in after a LPF on the
>3rd. It leaks all over the place and has unmentionable other problems,
>but it works.
>
>--
>Alan Yates
>http://www.vk2zay.net/
>The Moon is Waning Gibbous (78% of Full)

5324. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 23:13:13 UTC
From: Lee Smith <lee@skyweb.ca>
Message-ID: <3b9954a7_1@skyweb.ca>
Source record: 50419
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

Dave:

Just another example of the saying "No good deed goes unpunished" coming true.

73 de
Lee Smith

5325. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-07 23:51:19 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3B995BEF.E23C34D9@ieee.org>
Source record: 50420

William Rayer wrote:

>
> I agree it's archaic using tubes. I just prefer circuits using them, they're
> easier to wire up, easier to understand and I like them when they glow,
> although technically they're (mostly) obsolete. My (real) job is a software
> developer, so I like going retro for a hobby.
>
> The converter idea was a bit further down the track. Before doing
> that I wanted to get an oscillator working properly, that I could use as
> a signal generator or maybe a grid dip oscillator. But I still have
> problems getting any kind of output from the oscillator.
>
> I'll be more specific and ask some questions:
>
> 1. Should I use PTFE tube bases, or is a ceramic base OK?
>
> 2. What should I use for insulating material for these frequencies
> (say 400 to 1000 MHz). Is ceramic OK? Perspex? Tufnol?
>
> 3. At the moment I use a 1/4 wavelength line as the tuned circuit,
> but the frequency of oscillation is not determined by the length
> of the line (it's quite a lot lower). How can this be?

Don't forget to take into account the capacity of the tube and its socket. Also
the leads inside the tube. Ceramic sockets are OK but for really high
frequencies
don't use any socket. Don't run high power if you want frequency stability.

Bill K7NOM

5326. WTB Homebrew rigs, me to!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 00:16:16 UTC
From: kinko@usfamily.net
Message-ID: <3b99624f.1370591@news.usfamily.net>
Source record: 50422
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.boatanchors

Hi,

I have posted this before but with only one response. I really enjoy fixing up old homebrew tube or solid state receivers and tube transmitters. I'm interseted in very simple or very complex homebrew rigs!

If you have one that you want to sell and open up some space at home, drop me an email at enigma_y_2000@yahoo and let me know what you have and what the price would be.

Thanks in advance,

Bob

5327. Re: Needed: "Doorknob" Caps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 00:28:17 UTC
From: 2w8ji@contesting.com
Message-ID: <3b996459.52291164@news.akorn.net>
Source record: 50423

On Fri, 7 Sep 2001 17:32:55 -0500, "M.E." <bogus@nospam.com> wrote:

>I use 20-30kv type, for extra safety.
>Score card; "other types of caps that failed, MANY.
>
>Door-knobs, that fail on me, NONE.

Virtually all 500pF 20kV caps are poor at RF.

Most 5kV or 7.5kV 500pF caps are good, but not always.

What is usable in a BC transmitter at 1.6MHz and lower is not always
good at 30MHz.

The best and safest thing is to always check the manufacturer's data.

73 Tom

5328. Re: Proper use of NewsGroups (Was Best Six Meter RIG)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 00:54:19 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3B996C3B.15E5C96@amsat.org>
Source record: 50424
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

For the proper use of usegroups -- see URL:
http://faqs.jmas.co.jp/FAQs/radio/personal-intro
This article provides an overview of the newsgroups devoted
to the personal radio services (amateur and CB), describes
each newsgroup and its charter, and gives a brief tutorial
on netiquette.
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
====================

"David J. Moge" wrote:

> Mr. Miles,
>
> I'm very sorry if I have offended you. I did not relies that cross posting
> to more than one news group was considered spamming. OR IS IT?
>
> I was simply trying a common sense approach to reach as many people as I
> could with a one line question.Which by the way was answered by many,both by
> postings and email.
>
> Again thanks for your unkindly comments. I did ask for any and all.
>
> N1RZB
> "John Miles" <jmiles@pop.removethistomailme.net> wrote in message
> news:3B981D83.C63@pop.removethistomailme.net...
> > David J. Moge wrote:
> > >
> > > OK,
> > >
> > > Any and all comments, what is the best all purpose six meter rig
> > >
> > > Thanks
> > > n1rzb
> >
> > Dunno. Try spamming a few more groups, maybe they'll have an answer for
> > you over on alt.crossposting.nitwit.
> >
> > -- jm
> >
> > --

> > http://www.qsl.net/ke5fx
> > Note: My E-mail address has been altered to avoid spam
> > ----------

--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com

5329. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 02:02:34 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109072157080.4654-100000@gloria.cam.org>
Source record: 50425

On 7 Sep 2001, Laura Halliday wrote:

> "William Rayer" <noone@nospam.com> wrote in message
news:<SbSl7.7531$235.524724@news6-win.server.ntlworld.com>...
>
> > Dear Newsgroup
>
> >
>
> > I'm trying to build a UHF oscillator using valves. (Eventually I want to
>
> > use it for a convertor so I can listen on 400+ MHz. But I have to get
>
> > a simple oscillator going first)...
>
> I can no longer restrain my curiosity: why are you doing
> this? While lots of tube-era HF stuff works just fine
> and still holds its own (I have a Collins 51J-4 in my
> shack, and it's a nice radio indeed), 1960s-vintage UHF
> gear does *not*, and is only fit for museums.
>
This issue of using a tube didn't particularly attract my attention.
But the idea of a tuneable oscillator at that frequency range sure
seemed archaic. It went back to the era of modulated oscillators
and superregen receivers for UHF work. People were moving away
from that sort of thing, to crystal oscillators and multiplier
chains, well before the big move to solid-state devices. Yes,
there may be uses for tuneable oscillators up there (and certainly
a lot of moving up in frequency has been scouted by such simple
equipment), but I sure can't see a tuneable oscillator running
at that sort of frequency being practical for average radio reception.

Michael VE2BVW

5330. Hams needed for project in Cincinnati, Ohio area

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 03:55:39 UTC
From: Doug Davis <dougd@cros.net>
Message-ID: <4k5jpt424pbloqvo0fh6hfvr7vnnt70gak@4ax.com>
Source record: 50427

I'm looking for some operators that are currently involved in
foxhunting to track down a 9 - 10 MHz signal approximately
80 miles east of Cincinnati.

If interested please reply to: dougd@cros.net

Thanks,

Doug Davis

5331. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 04:02:16 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109072002.ce88730@posting.google.com>
Source record: 50426

"William Rayer" <noone@nospam.com> wrote in message
news:<Kfcm7.12749$235.1304602@news6-win.server.ntlworld.com>...

> Alan Yates wrote in message <3B993C4B.72A2470@ay.com.au>...

> >Laura Halliday wrote:

> >

> >> I can no longer restrain my curiosity: why are you doing

> >> this? While lots of tube-era HF stuff works just fine

> >> and still holds its own (I have a Collins 51J-4 in my

> >> shack, and it's a nice radio indeed), 1960s-vintage UHF

> >> gear does *not*, and is only fit for museums.

> >

> > Tubes are still the best/only way for real power at microwaves. TWAs,

> >magnetrons, klystrons, and gyratrons are far better at their job than

> >solid state gear is ever likely to be.

> >

> > I tend to agree though, if the project is just a tunable converter, you

> >are not likely to need 30-40 dBm of UHF unless you have some enormous

> >signals to handle. Perhaps the original poster wants to use tubes for

> >other than technical reasons.

The original poster wasn't talking about a high-power transmitter.
He was talking about an oscillator, and a receive converter. Not
some high-power circuit that would need a TWT or a magnetron.

> I agree it's archaic using tubes. I just prefer circuits using
> them, they're
easier to wire up, easier to understand and I like
> them when they glow,
although technically they're (mostly)
> obsolete. My (real) job is a software
developer, so I like
> going retro for a hobby...

That's all well and good, but if you want circuits that work,
you might want to reconsider this position. My job title, BTW,
is "Senior Software Engineer", working with embedded systems
for wireless data. UHF, mostly, around 900 MHz.

If they're "easier to wire up, easier to understand", why are
you having so much trouble? The modern stuff just works.

> ...
> Also the early ARRL books (1940 ish) have tube oscillators that

> generate quite a few watts directly, but they use weird tubes

> I've never heard of.

These circuits also do not meet modern standards for
frequency stability or spurii. Kindly keep them off the
air.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5332. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 04:15:21 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3B999B59.7946F17A@silly.net>
Source record: 50428

Laura Halliday wrote:

> developer, so I like
> > going retro for a hobby...
>
> That's all well and good, but if you want circuits that work,
> you might want to reconsider this position. My job title, BTW,
> is "Senior Software Engineer", working with embedded systems
> for wireless data. UHF, mostly, around 900 MHz.

Hmmmm....
--
Bill M
Vieques, PR

5333. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 04:15:40 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3B999B6C.9000704@dioxine.com>
Source record: 50429

Laura Halliday wrote:

> "William Rayer" <noone@nospam.com> wrote in message
news:<Kfcm7.12749$235.1304602@news6-win.server.ntlworld.com>...

>>Also the early ARRL books (1940 ish) have tube oscillators that
>>generate quite a few watts directly, but they use weird tubes
>>I've never heard of.
>>
>
>
> These circuits also do not meet modern standards for
> frequency stability or spurii. Kindly keep them off the
> air.

Laura, you're right, but don't forget that modern technology
can really dress up the 'old stuff'. Perhaps the most amusing
example of this was the '73' article on converting a microwave
oven into a 2.4GHz ATV transmitter, complete with an FM modulator
and PLL frequency stabilizer.

It was so outrageous I almost had to build one..

;-)

As for those older power oscillators, sure, they're noisier than
hell close-in, but I would not be surprised if there are more than a
few solid-state QRP-ish transmitters out there that are easily as
bad.

Perhaps it's just my jaded perspective - as much high-fallutin' code
as I've written over the years, I'm tickled pink to tinker with my
son's Lego Mindstorms RCX controller...

Dana K6JQ
dana@dioxine.com

5334. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 04:24:05 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3B999D65.705B567F@silly.net>
Source record: 50430

"Dana H. Myers" wrote:

>
> Perhaps it's just my jaded perspective - as much high-fallutin' code
> as I've written over the years, I'm tickled pink to tinker with my
> son's Lego Mindstorms RCX controller...
>
> Dana K6JQ
> dana@dioxine.com

--
Bill M
Vieques, PR

5335. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 05:14:46 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <aPhm7.10752$Uf1.958995@bgtnsc06-news.ops.worldnet.att.net>
Source record: 50431

I have some of these chips on hand; I was going to use them in a synthesizer, until I went to a DDS based design. How many do you need? I bought them from Newark Electronics at 38 cents each, when they were closing them out. If you can't find them, I can send you some free of charge.

Pete Gianakopoulos KE9OA
Chicago, Il. USA

Beverin <beverin@alphalink.com.au> wrote in message news:3B934559.304A83D6@alphalink.com.au...
> I am trying to locate several of the above chips (MC145170P2 PPL Chip).
> I am prepared to pay (inc. postage). If you have one or more of the
> above chips or know of a source of supply, please email at
> vk3cmo@hotmail.com .
>
> Thanks & 73's
> John (vk3cmo).
>

5336. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 07:09:21 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <GM8OIKBhQcm7EAVj@ifwtech.com>
Source record: 50437

William Rayer wrote:
>
>I agree it's archaic using tubes. I just prefer circuits using them,
>they're easier to wire up, easier to understand and I like them when
>they glow, although technically they're (mostly) obsolete. My (real) job
>is a software developer, so I like going retro for a hobby.
>
Maybe it's in the Rayer genes? It isn't a common name...

There was an F G Rayer (G3OGR, SK) who was famous for writing constructional articles in the British magazines in the 1960s-70s. His trademark was that he continually reycled his junk-box of WWII tubes through a string of different projects, so we learned to greet the same EF50s and 6V6s like old friends!

Coincidence... or not?

Coming back to the original topic, it's a well-known corollary of Murphy's Law that "Amplifiers oscillate and oscillators don't."
The solution is therefore to rebuild your oscillator as an amplifier.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5337. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 07:28:27 UTC
From: la8ak@online.no
Message-ID: <3b992f1a.271674837@news.online.no>
Source record: 50432

my suggestion is a 12AT7 butler type xtal oscillator with 33.333MHz
overtone xtal, and use 100MHz output which is fed to a 6AL5 dual phase
rectifier to double to 200MHz and another stage to double to 400MHz,
6AF4 seems fine for this stage

73 jm

On Thu, 6 Sep 2001 22:47:57 +0100, "William Rayer" <noone@nospam.com>
wrote:

>Dear Newsgroup
>
>I'm trying to build a UHF oscillator using valves. (Eventually I want to
>use it for a convertor so I can listen on 400+ MHz. But I have to get
>a simple oscillator going first). I've tried two types of circuit.
>
>1. I tried a twin triode (6J6) in a push pull type circuit, with a hairpin
>tuned circuit between the anodes and feedback from each anode to
>the opposite grid. This works about the best, I got to about 300MHz
>with enough power to light a 1/4w globe (1.25v 250 mA). Also I tried
>a 6939 (twin tetrode) which gave about the same power.
>
>I tried to use a resonant line as a tuned circuit, this was cut 15cm long
>and should be 1/4 wavelength. This should oscillate on 60cm which is
>about 500MHz so why is it oscillating on 300? The resonant line does
>not want to be a resonant line for some reason. I had problems getting
>above about 300 or 400 MHz.
>
>2. Next I tried a single triode in a colpitts circuit. This used the same
>resonant line between anode and grid. It uses the internal capacitance
>for feedback. I used UHF triodes, and tried the 6AF4A and 6AN4. The
>books say these go up to 900 MHz. But my 1/4 wave line still was
>not oscillating at the right frequency. I could get to about 400 again,
>but no higher. The single triode couldn't light the globe at all.
>
>I'm using a tuned line for checking the frequencies. The 7pin
>tubes used a PTFE base, but I used a ceramic base for the 9pin.
>I used 14 swg enamelled Copper wire for the hairpin and resonant
>line.
>
>Has anyone done experiments with these tubes/circuits?
>
>All the best
>Bill Rayer
>

>lingolanguage (at) hotmail (dot) com
>
>
>

5338. Yaesu G-650C Antenna Rotator Schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 08:11:31 UTC
From: la8ak@online.no
Message-ID: <3b99cf45.312684356@news.online.no>
Source record: 50433

Purchased Yaesu G-650C, but no manual followed,
opened the box and it looks like it is somewhat same principles as the
DAIWA CR4/P in a more integrated way, the only device I could identify
is the 12V regulator

I am curious, and wonder if somebody has a circuit diagram for the
rotator?

The advantage of this rotator is that the pointer is loose, fixed with
a screw. As a rule I used end-stop at 270°, this rotator has 90° more
rotation, so with this rotator CCW end stop is 270° and clockwise end
stop at 360°

73
Jan-Martin
LA8AK

5339. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 11:08:48 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <M0nm7.19554$592.2899564@news2-win.server.ntlworld.com>
Source record: 50435

Thanks for the feedback everyone. I accept your point that it may be
easier to build UHF gear using semiconductors. I don't know, as I
haven't tried. It's good to see radio amateurs (also s/w developers)
building UHF equipment. I just prefer using tubes, that's all. It's a
reaction against the onward march of technology in my real job.

Don't worry, I'm not going to pollute the spectrum with this stuff.
I would not build a UHF osc to use as a transmitter, anyway my
UK licence lapsed when I moved overseas. I just like building
things, and I would eventually like to build a tunable convertor
to cover some UHF (70cm), but before that I want to build an
oscillator that I would calibrate using Lecher lines.

The purpose of the oscillator is (1) I will build a lower power
version as the local osc for the convertor and (2) I want to
generate a signal to "find the band".

TV tuners used to have a valve L/O to about 900 MHz. Surely
I can do this with a 6939?

Cheers Bill

J M Noeding wrote in message <3b992f1a.271674837@news.online.no>...
>my suggestion is a 12AT7 butler type xtal oscillator with 33.333MHz
>overtone xtal, and use 100MHz output which is fed to a 6AL5 dual phase
>rectifier to double to 200MHz and another stage to double to 400MHz,
>6AF4 seems fine for this stage
>
>73 jm
>
>On Thu, 6 Sep 2001 22:47:57 +0100, "William Rayer" <noone@nospam.com>
>wrote:
>
>>Dear Newsgroup
>>
>>I'm trying to build a UHF oscillator using valves. (Eventually I want to
>>use it for a convertor so I can listen on 400+ MHz. But I have to get
>>a simple oscillator going first). I've tried two types of circuit.
>>
>>1. I tried a twin triode (6J6) in a push pull type circuit, with a hairpin
>>tuned circuit between the anodes and feedback from each anode to
>>the opposite grid. This works about the best, I got to about 300MHz
>>with enough power to light a 1/4w globe (1.25v 250 mA). Also I tried
>>a 6939 (twin tetrode) which gave about the same power.
>>
>>I tried to use a resonant line as a tuned circuit, this was cut 15cm long

>>and should be 1/4 wavelength. This should oscillate on 60cm which is
>>about 500MHz so why is it oscillating on 300? The resonant line does
>>not want to be a resonant line for some reason. I had problems getting
>>above about 300 or 400 MHz.
>>
>>2. Next I tried a single triode in a colpitts circuit. This used the same
>>resonant line between anode and grid. It uses the internal capacitance
>>for feedback. I used UHF triodes, and tried the 6AF4A and 6AN4. The
>>books say these go up to 900 MHz. But my 1/4 wave line still was
>>not oscillating at the right frequency. I could get to about 400 again,
>>but no higher. The single triode couldn't light the globe at all.
>>
>>I'm using a tuned line for checking the frequencies. The 7pin
>>tubes used a PTFE base, but I used a ceramic base for the 9pin.
>>I used 14 swg enamelled Copper wire for the hairpin and resonant
>>line.
>>
>>Has anyone done experiments with these tubes/circuits?
>>
>>All the best
>>Bill Rayer
>>
>>lingolanguage (at) hotmail (dot) com
>>
>>
>>
>

5340. Circuit drawing program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 11:31:50 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9ncvji$3a4$1@newsg3.svr.pol.co.uk>
Source record: 50436

Hello
Can anyone recommend a schematic drawing program with a good selection of vacuum tubes.
I had a good one but lost it due to a crash and can't remember the name. The shareware vesion allowed 50 connections and was very easy to use.
Thanks
Don.

5341. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 12:31:14 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B9A0F91.BC0C21B3@ay.com.au>
Source record: 50438

William Rayer wrote:

> I agree it's archaic using tubes. I just prefer circuits using them, they're
> easier to wire up, easier to understand and I like them when they glow,
> although technically they're (mostly) obsolete. My (real) job is a software
> developer, so I like going retro for a hobby.

Sounds like me Bob. I am a software engineer by trade, but I studied
as an Elec Engineer before moving into computers. Recently I've become
interested again in RF and moved back to HAM radio and in particular,
Homebrew construction.

I dunno much about valves/tubes, only just having completed my first
tube project (which you can find on my website, it is a tube
regenerative receiver with a semiconductor audio stage).

> The converter idea was a bit further down the track. Before doing
> that I wanted to get an oscillator working properly, that I could use as
> a signal generator or maybe a grid dip oscillator. But I still have
> problems getting any kind of output from the oscillator.

I built my own dipper for UHF using a BFR91, a small tapped loop for
the coil, and a compression trimmer for the tunable bit. It isn't
wonderfully stable, but enough to prune antennas. My signal generator
can only do up to VHF so I use it for a UHF signal generator too.

> I'll be more specific and ask some questions:

Don't know how much I can help, I have no experence with tubes at even
VHF.

> 1. Should I use PTFE tube bases, or is a ceramic base OK?
>
> 2. What should I use for insulating material for these frequencies
> (say 400 to 1000 MHz). Is ceramic OK? Perspex? Tufnol?

For solid state microwave stuff I normally test material by nuking it
in an microwave oven for a few seconds, if it gets hot, I try something
else. Even if it has low dielectric losses, it still can have a large
dielectric constant and make accidental caps so large your circuit will
not oscillate.

> 3. At the moment I use a 1/4 wavelength line as the tuned circuit,
> but the frequency of oscillation is not determined by the length
> of the line (it's quite a lot lower). How can this be?

I've found lines are not really good for this, I normally make a
gimick-cap style line and prune it down to where I want to thing to

resonate. It never seems to be geometrically related to frequency, it
is a suck it and see procedure.

> 4. Does my 1/4 wavelength line need to be in an screened
> container? At the moment I pointed it away from the tube base,
> so it's surrounded by air.

I normally just leave mine hanging in mid air inside the screening box
that encloses the entire device.

> 5. Some of the circuits use isolating capcaitors, eg between the
> anode and the tuned circuit. Is it OK if I use a silver mica capacitor
> with leads cut to about 5mm, soldered as close as I can get to the
> tube socket? Or is this type of construction going to introduce large
> losses?
>
> 6. Shoud I screen the tubes, using the little cans you can get?
>
> In answer to the question about using a tripler, I wanted to keep
> the circuit as simple as possible. According to the RCA tube
> manual a 6939 (QQV02/6) is good for about 5W output at 500 MHz,
> so it should at least be able to light a 1/4 globe at this frequency!
> Also the early ARRL books (1940 ish) have tube oscillators that
> generate quite a few watts directly, but they use weird tubes
> I've never heard of.

They probably aren't too stable either.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (73% of Full)

5342. Re: Circuit drawing program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 12:38:16 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B9A1137.60A1FCB1@ay.com.au>
Source record: 50439

Don Vosper wrote:

> Can anyone recommend a schematic drawing program with a good selection of
> vacuum tubes.
> I had a good one but lost it due to a crash and can't remember the name. The
> shareware vesion allowed 50 connections and was very easy to use.

If you use unix instead of windows I'd try xcircuit. (It will run on
Win32 if you have an X server though)

http://bach.ece.jhu.edu/~tim/programs/xcircuit/

I recently have discovered it, it is very handy for making diagrams
even if the interface is a little weird at first. On the xcircuit site
there is a few contrib libraries of tube symbols.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (73% of Full)

5343. WTB: 800mHz. Scanner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 12:57:47 UTC
From: redbone1@swbell.net
Message-ID: <d917db5a.0109080457.61e23e24@posting.google.com>
Source record: 50440

I am looking for a pre April 1994 scanner that is capable of 800 mHZ.
If anyone has something that is hand held or table top unit for sale
please send me your asking price , model number and shipping charges
to zip code 77701.

Thanks in advance Gary
Please reply to :
gkander@swbell.net

5344. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 13:19:25 UTC
From: 2w8ji@contesting.com
Message-ID: <3b9a17d0.98240950@news.akorn.net>
Source record: 50441

On Thu, 6 Sep 2001 22:47:57 +0100, "William Rayer" <noone@nospam.com>
wrote:

>I tried to use a resonant line as a tuned circuit, this was cut 15cm long
>and should be 1/4 wavelength. This should oscillate on 60cm which is
>about 500MHz so why is it oscillating on 300? The resonant line does
>not want to be a resonant line for some reason. I had problems getting
>above about 300 or 400 MHz.

Because of stary capacitance and inductance inside the tube and
especially the socket, and perhaps slightly because of transition time
in the tube.

>2. Next I tried a single triode in a colpitts circuit. This used the same
>resonant line between anode and grid. It uses the internal capacitance
>for feedback. I used UHF triodes, and tried the 6AF4A and 6AN4. The
>books say these go up to 900 MHz. But my 1/4 wave line still was
>not oscillating at the right frequency. I could get to about 400 again,
>but no higher. The single triode couldn't light the globe at all.

Same problem.

You need to use a nuvistor or a very small tube with short leads,
close spacing internally, and no socket opr a very comnpact socket.

>I'm using a tuned line for checking the frequencies. The 7pin
>tubes used a PTFE base, but I used a ceramic base for the 9pin.
>I used 14 swg enamelled Copper wire for the hairpin and resonant
>line.
>
>Has anyone done experiments with these tubes/circuits?

About 40 years ago I built a 70cm AM transceiver. I used a tube that
had the grid and anode leads out straight through the envelope, and
although the line had to still be shorter than 1/4 wl because of the
tube loading the line I was able to easily reach 440Mhz.

I finally modified that transmitter to use to give antenna lectures
and demonstartions using light bulbs and wires, but eventually had to
abandon it because it was too unstable and started causing QRM to
two-way systems in the early to mid 70's. I remember doing an antenna
demonstration in a meeting room below a bank, and having police
surrounding the building. The transmitter set the vault alarm off.

The transmitter use a tube that looked like a doorknob, but I forgot
the type number. The key is short leads, small elements, close
internal element spacing, and no socket.

For Ian's benefit only, don't get nichrome near the oscillator!

73 Tom

5345. FA: 1 day left yk88-c1 filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 14:52:45 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <1hqm7.44074$xb.24028305@news1.mntp1.il.home.com>
Source record: 50442

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1272762700

5346. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 15:03:11 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <ysqm7.21347$592.3153762@news2-win.server.ntlworld.com>
Source record: 50443

Thanks for the feedback everyone.

G30GR was my Dad, he really got me started building transistor circuits in the mid 70s. But the comment about the EF50s and 6V6s is a bit unfair :-) I think there was only one 6V6 in his junk box. And no EF50s. And he did a lot of transistor and IC projects in the Babini books in the late 70s / early
80s, xtal controlled 2m transistor lo power tx, and a scope project.

I think the idea about zapping stuff (insulators) in the microwave to see if they're OK for UHF is brilliant. I never thought of that. Pity I can't do that
with the tube bases! But I will do the zap at 1KW test for any insulators that I want to use (perspex etc).

Also the comment on the resonant lines was interesting. I've gone through my copy of Terman's handbook, and from what I understand twin parallel lines shorted at the end should form a 1/4 wave line, assuming the spacing is not more than about 3 or 4 times the diameter. But in practice i have not found this to be the case.

Does a parallel line transmission line need to be enclosed for it to work?

Also I use enamelled Cu wire. (14 swg). I will get some 1/4" solid copper rod and try this later on, and see if it helps.

I don't know if I need little chokes for the heater/cathode connections. I try and avoid chokes if possible.

I still think a reasonably stable UHF osc should be possible using tubes.Think of a TV tuner. These used EC86/PC86 tubes as ocsillators up to about 1GHz. I think I'm just making mistakes in regard to layout or component types, and I don't have the experience to know where.

All the best
Bill
lingolanguage <at> hotmail <dot> com

Alan Yates wrote in message <3B9A0F91.BC0C21B3@ay.com.au>...
>William Rayer wrote:
>
>> I agree it's archaic using tubes. I just prefer circuits using them, they're
>> easier to wire up, easier to understand and I like them when they glow,
>> although technically they're (mostly) obsolete. My (real) job is a software
>> developer, so I like going retro for a hobby.

>
> Sounds like me Bob. I am a software engineer by trade, but I studied
>as an Elec Engineer before moving into computers. Recently I've become
>interested again in RF and moved back to HAM radio and in particular,
>Homebrew construction.
>
> I dunno much about valves/tubes, only just having completed my first
>tube project (which you can find on my website, it is a tube
>regenerative receiver with a semiconductor audio stage).

Use a tube audio amp!!!

>
>> The converter idea was a bit further down the track. Before doing
>> that I wanted to get an oscillator working properly, that I could use as
>> a signal generator or maybe a grid dip oscillator. But I still have
>> problems getting any kind of output from the oscillator.
>
> I built my own dipper for UHF using a BFR91, a small tapped loop for
>the coil, and a compression trimmer for the tunable bit. It isn't
>wonderfully stable, but enough to prune antennas. My signal generator
>can only do up to VHF so I use it for a UHF signal generator too.
>
>> I'll be more specific and ask some questions:
>
> Don't know how much I can help, I have no experence with tubes at even
>VHF.
>
>> 1. Should I use PTFE tube bases, or is a ceramic base OK?
>>
>> 2. What should I use for insulating material for these frequencies
>> (say 400 to 1000 MHz). Is ceramic OK? Perspex? Tufnol?
>
> For solid state microwave stuff I normally test material by nuking it
>in an microwave oven for a few seconds, if it gets hot, I try something
>else. Even if it has low dielectric losses, it still can have a large
>dielectric constant and make accidental caps so large your circuit will
>not oscillate.
>
>> 3. At the moment I use a 1/4 wavelength line as the tuned circuit,
>> but the frequency of oscillation is not determined by the length
>> of the line (it's quite a lot lower). How can this be?
>
> I've found lines are not really good for this, I normally make a
>gimick-cap style line and prune it down to where I want to thing to
>resonate. It never seems to be geometrically related to frequency, it
>is a suck it and see procedure.
>
>> 4. Does my 1/4 wavelength line need to be in an screened
>> container? At the moment I pointed it away from the tube base,
>> so it's surrounded by air.

>
> I normally just leave mine hanging in mid air inside the screening box
>that encloses the entire device.
>
>> 5. Some of the circuits use isolating capcaitors, eg between the
>> anode and the tuned circuit. Is it OK if I use a silver mica capacitor
>> with leads cut to about 5mm, soldered as close as I can get to the
>> tube socket? Or is this type of construction going to introduce large
>> losses?
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>> In answer to the question about using a tripler, I wanted to keep
>> the circuit as simple as possible. According to the RCA tube
>> manual a 6939 (QQV02/6) is good for about 5W output at 500 MHz,
>> so it should at least be able to light a 1/4 globe at this frequency!
>> Also the early ARRL books (1940 ish) have tube oscillators that
>> generate quite a few watts directly, but they use weird tubes
>> I've never heard of.
>
> They probably aren't too stable either.
>
>--
>Alan Yates
>http://www.vk2zay.net/
>The Moon is Waning Gibbous (73% of Full)

5347. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 15:29:16 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <s1akptc533ldvsvqttgmhh29oujimpt341@4ax.com>
Source record: 50444

On Thu, 6 Sep 2001 22:47:57 +0100, "William Rayer" <noone@nospam.com>
wrote:

>I tried to use a resonant line as a tuned circuit, this was cut 15cm long
>and should be 1/4 wavelength.

What was this resonant line made of ? If it was some kind of coaxial
cable, you have to include the velocity factor and also the effect of
the stray capacitances.

Paul OH3LWR

5348. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 15:29:31 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <iRqm7.21520$592.3179852@news2-win.server.ntlworld.com>
Source record: 50445

Laura Halliday wrote in message ...
>"William Rayer" <noone@nospam.com> wrote in message
news:<Kfcm7.12749$235.1304602@news6-win.server.ntlworld.com>...
>
>> Alan Yates wrote in message <3B993C4B.72A2470@ay.com.au>...
>
>> >Laura Halliday wrote:
>
>> >
>
>> >> I can no longer restrain my curiosity: why are you doing
>
>> >> this? While lots of tube-era HF stuff works just fine
>
>> >> and still holds its own (I have a Collins 51J-4 in my
>
>> >> shack, and it's a nice radio indeed), 1960s-vintage UHF
>
>> >> gear does *not*, and is only fit for museums.
>
>> >>
>
>> > Tubes are still the best/only way for real power at microwaves. TWAs,
>
>> >magnetrons, klystrons, and gyratrons are far better at their job than
>
>> >solid state gear is ever likely to be.
>
>> >
>
>> > I tend to agree though, if the project is just a tunable converter, you
>
>> >are not likely to need 30-40 dBm of UHF unless you have some enormous
>
>> >signals to handle. Perhaps the original poster wants to use tubes for
>
>> >other than technical reasons.
>
>The original poster wasn't talking about a high-power transmitter.
>He was talking about an oscillator, and a receive converter. Not
>some high-power circuit that would need a TWT or a magnetron.
>
>
>> I agree it's archaic using tubes. I just prefer circuits using

>> them, they're
>easier to wire up, easier to understand and I like
>> them when they glow,
>although technically they're (mostly)
>> obsolete. My (real) job is a software
>developer, so I like
>> going retro for a hobby...
>
>That's all well and good, but if you want circuits that work,
>you might want to reconsider this position. My job title, BTW,
>is "Senior Software Engineer", working with embedded systems
>for wireless data. UHF, mostly, around 900 MHz.
>
>If they're "easier to wire up, easier to understand", why are
>you having so much trouble? The modern stuff just works.
>

The reason I'm having problems is because I don't have much
practical experience building VHF/UHF circuits. This is a hobby,
it's not my job. And I prefer using tubes, because I live on the
planet Zog and semiconductors haven't been invented here yet :-)
On Zog the periodic table has unknown elements with atomic
numbers 14 and 32...

>> ...
>> Also the early ARRL books (1940 ish) have tube oscillators that
>
>> generate quite a few watts directly, but they use weird tubes
>
>> I've never heard of.
>
>
>These circuits also do not meet modern standards for
>frequency stability or spurii. Kindly keep them off the
>air.

I agree with you. I think they would have poor frequency
stability and would generate harmonics. I would not use
one of these circuits for a transmitter.

>
>Laura Halliday VE7LDH "Que les nuages soient notre
>Grid: CN89lg pied a terre..."
>ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5349. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 15:44:25 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <b3rm7.21608$592.3195527@news2-win.server.ntlworld.com>
Source record: 50446

Paul Keinanen wrote in message ...
>On Thu, 6 Sep 2001 22:47:57 +0100, "William Rayer" <noone@nospam.com>
>wrote:
>
>
>>I tried to use a resonant line as a tuned circuit, this was cut 15cm long
>>and should be 1/4 wavelength.
>
>What was this resonant line made of ? If it was some kind of coaxial
>cable, you have to include the velocity factor and also the effect of
>the stray capacitances.

It is a parallel line shorted at the end, made of 14 swg enamelled copper wire (about 2mm diameter). The spacing is approx 2 wire diameters, about 4 mm. The entire line is 15cm long (ie a total length of 30cm, bent in half to form a thin hairpin type arrangement). It is free standing, ie soldered to the tube base and sticking up in the air. My RSGB radio handbook says these lines can be made from enamelled copper, plain copper or brass (but not tinned copper).

In case the line is too thin, or the enamelling is no good, I plan to get some solid 1/4" copper rod and use this (spaced by about 1/2"). Also I will need some kind of insulator to space the rods. An earlier reply to this news group suggested zapping the insulator in the microwave to test it at UHF, so I will do this.

Whether I use transistors, tubes or whatever, a resonant line should still be resonant at the calculated frequency (+/- say 10%) surely? This is what bothers me....

Cheers
Bill
lingolanguage (at) hotmail (dot) com

>
>Paul OH3LWR
>

5350. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 15:44:34 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <06rm7.14848$235.1743368@news6-win.server.ntlworld.com>
Source record: 50347

"Tom W8JI" wrote :
> The transmitter use a tube that looked like a doorknob, but I forgot
> the type number. The key is short leads, small elements, close
> internal element spacing, and no socket.
=======
Tom , you probably refer to acorn valves like model 954.............WW2
vintage.

Frank gm0csz.kn6wh@ntlworld.com

5351. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 16:43:10 UTC
From: arnoldg@enitel.no
Message-ID: <3b9a48fb.572137@news.enitel.no>
Source record: 50348

On Sat, 8 Sep 2001 16:29:31 +0100, "William Rayer" <noone@nospam.com>
wrote:

>I agree with you. I think they would have poor frequency
>stability and would generate harmonics. I would not use
>one of these circuits for a transmitter.

Hi,

In the various issues of the RSGB book VHF/UHF Manual you can find
oscillator and amplifier circuits with valves. The oldest one I have
is from about 1969, and there is a lot of nice valve stuff. Converters
for 23 and 13cm with valves!! Old issues of the magazine VHF
Communications have also circuits with valves.
Free running oscillators on VHF/UHF is a very difficult task to get
stable. A common circuit was some kind of a push-pull with a double
triode like ECC 81 or better, but the usual way was to use a stable
free running oscillator at a low frequency and multiply it in several
stages. Or a crystal oscillator with multiplying. Or a free running
oscillator mixing with a crystal oscillator etc.

There is a lot of common and cheap valves that is very suitable at
UHF. EC 86/88 and PC86/88 is usable up to about 1300Mhz
The pencil valves like 6263/6264 is usable up to at least 1700Mhz
and is rather cheap. There is a lot of others, too many to mention
here.

Regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

5352. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 17:11:53 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3B9A4FCE.5BD8C499@ieee.org>
Source record: 50349

William Rayer wrote:

>
> Also the comment on the resonant lines was interesting. I've gone through
> my copy of Terman's handbook, and from what I understand twin parallel
> lines shorted at the end should form a 1/4 wave line, assuming the spacing
> is not more than about 3 or 4 times the diameter. But in practice i have
> not found this to be the case.
>

Try 3/4 wave length line. It should work as well as 1/4 but might be
easier to make. Don't forget the leads inside the tubes.

> Does a parallel line transmission line need to be enclosed for it to work?
>

It doesn't have to be enclosed. Radiation could be a problem if the feed back is
weak.

>
> Also I use enamelled Cu wire. (14 swg). I will get some 1/4" solid copper
> rod and try this later on, and see if it helps.

Insulation should not be the problem.

Bill K7NOM

5353. 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 18:03:27 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <R3tm7.60677$aW5.897720@dfw-read.news.verio.net>
Source record: 50350

I need to generate an accurate square 4MHz clock from a 10MHz reference.

I'm heading toward dropping one cycle out of every five, then dividing by two to square it up. Is there an easier, perhaps single-chip solution?

Tom Becker

5354. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 18:08:29 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <7$kEwyAd6lm7EABG@ifwtech.com>
Source record: 50352

William Rayer wrote:
>
>G30GR was my Dad, he really got me started building transistor circuits
>in the mid 70s.

Well, that's great - I wondered if he might have been.

>But the comment about the EF50s and 6V6s is a bit unfair
>:-) I think there was only one 6V6 in his junk box.

That's exactly how it seemed :-)

>And no EF50s.

Really? Pardon me, it was a long time ago...

>And he
>did a lot of transistor and IC projects in the Babini books in the late
>70s / early 80s, xtal controlled 2m transistor lo power tx, and a scope
>project.
>
And many, many more - a whole generation of British hams and electronics enthusiasts cut their teeth on F G Rayer projects, especially in 'Practical Wireless'. He and his 6V6 are very fondly remembered.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5355. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 18:13:24 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <jgfkptgasiikmp99sumej8a2u97u9pb8vu@4ax.com>
Source record: 50351

On Sat, 8 Sep 2001 16:03:11 +0100, "William Rayer" <noone@nospam.com>
wrote:

>Does a parallel line transmission line need to be enclosed for it to work?

Why not simply use a semirigid coax section as the resonator. At least
some old 450 MHz cellular phones used these in the VCO. A microstrip
resonator has been used in some 1.3 GHz FM-ATV projects, although I
guess that the Q is not very high with ordinary PCB materials.

>I still think a reasonably stable UHF osc should be possible using
>tubes.Think of a TV tuner.

The required frequency stability requirements are not that hard.
Assuming the video IF bandwidth is wider than necessary (adjacent
channels are usually empty at a specific location), the oscillator
could drift more than 1 Mhz without too much problems. The video was
envelope detected anyway and the sound IF taken from the video
baseband after the video detector, so the audio separation did not
need much frequency stability.

Paul OH3LWR

5356. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 19:41:33 UTC
From: 2w8ji@contesting.com
Message-ID: <3b9a73ae.121761939@news.akorn.net>
Source record: 50353

On Sat, 8 Sep 2001 16:44:25 +0100, "William Rayer" <noone@nospam.com>
wrote:

>Whether I use transistors, tubes or whatever, a resonant line should
>still be resonant at the calculated frequency (+/- say 10%) surely?
>This is what bothers me....

Bill,

The leads into the device, and capacitance of the device, load the
line and make it look longer.

You may have missed where I said that.

You need a device wih direct leads out of the valve, small elements,
and no or minimal socket stray inductance/ capacitance !

You do not have that.

73 Tom

5357. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 20:00:01 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9ndt7s$h3k$1@wanadoo.fr>
Source record: 50354

From my point of view, I'm affraid there is no one chip solution. The solution you describe don't give a perfect 50-50 signal. Do you need such a signal ? If not, you can also consider the following solution : multiply the frequency by two with a simple RC circuit and a XOR gate, then divide the resulting frequency by 5 with a one chip counter.
--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"GTBecker@RighTime.com" <gtbecker@rightime.com> a &#65533;crit dans le message
news: R3tm7.60677$aW5.897720@dfw-read.news.verio.net...
I need to generate an accurate square 4MHz clock from a 10MHz reference.

I'm heading toward dropping one cycle out of every five, then dividing by two to square it up. Is there an easier, perhaps single-chip solution?

Tom Becker

5358. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 20:27:08 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <yavm7.60692$aW5.898049@dfw-read.news.verio.net>
Source record: 50355

> ... The solution you describe don't give a perfect 50-50 signal.

Well, yes, it does; the last divide-by-two makes it square. It is a
divide-by-five - which will not - that I want to avoid.

5359. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 22:02:36 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9ne4jo$3g8$1@slb6.atl.mindspring.net>
Source record: 50356

I think I'd divide the 10 MHz by 5 to get 2 MHz and then multiply by two.
Or, if you need a good 50/50 duty cycle, multiply by four and then divide by
2.

Jim Pennell

5360. Re: Circuit drawing program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 22:55:06 UTC
From: la8ak@online.no
Message-ID: <3b9a899f.360397119@news.online.no>
Source record: 50358

On Sat, 8 Sep 2001 12:31:50 +0100, "Don Vosper"
<don@vosperd.freeserve.co.uk> wrote:

>Hello
>Can anyone recommend a schematic drawing program with a good selection of
>vacuum tubes.
>I had a good one but lost it due to a crash and can't remember the name. The
>shareware vesion allowed 50 connections and was very easy to use.
>Thanks
>Don.
>
>
>
I use powerpoint (win95 or win98), but you must make your own symbols,
the files are easily converted to gif

73
Jan-Martin

5361. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 22:55:06 UTC
From: la8ak@online.no
Message-ID: <3b9a8a1d.360523313@news.online.no>
Source record: 50359

On Sat, 8 Sep 2001 22:00:01 +0200, "J.F. FOURCADIER"
<jf.fourcadier@wanadoo.fr_NOSPAM> wrote:

>From my point of view, I'm affraid there is no one chip solution. The
>solution you describe don't give a perfect 50-50 signal. Do you need such a
>signal ? If not, you can also consider the following solution : multiply the
>frequency by two with a simple RC circuit and a XOR gate, then divide the
>resulting frequency by 5 with a one chip counter.
>--
>
>73 de F4DAY
>
>Jean-Fran&#65533;ois FOURCADIER
>website: http://perso.wanadoo.fr/jf.fourcadier
>
suppose you can use a CD4017 with 4 outputs AND'ed or OR'ed with clock
frequency, spread the connections to minimise jitter
another solution is 4017 and combine Q0 and Q5, then multiply from 2
to 4MHz

Bit rate multipliers might be useful, but what about jitter?

Believe SN7493 could do the job simpler, but don't find the circuit
now

73,
Jan-Martin
LA8AK

5362. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 22:55:06 UTC
From: la8ak@online.no
Message-ID: <3b9a873e.359788555@news.online.no>
Source record: 50360

On Sat, 08 Sep 2001 21:13:24 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Sat, 8 Sep 2001 16:03:11 +0100, "William Rayer" <noone@nospam.com>
>wrote:
>
>
>>Does a parallel line transmission line need to be enclosed for it to work?
>
>Why not simply use a semirigid coax section as the resonator. At least
>some old 450 MHz cellular phones used these in the VCO. A microstrip
>resonator has been used in some 1.3 GHz FM-ATV projects, although I
>guess that the Q is not very high with ordinary PCB materials.
>
>
Even normal coax cable makes very low drift oscillators on 30-40MHz,
QST had an article where RG174/u was used, but if you have teflon
cable - semi-rigid or not it is much easier to solder.

>>I still think a reasonably stable UHF osc should be possible using
>>tubes.Think of a TV tuner.
>
>The required frequency stability requirements are not that hard.
>Assuming the video IF bandwidth is wider than necessary (adjacent
>channels are usually empty at a specific location), the oscillator
>could drift more than 1 Mhz without too much problems. The video was
>envelope detected anyway and the sound IF taken from the video
>baseband after the video detector, so the audio separation did not
>need much frequency stability.
>
>Paul OH3LWR
>

5363. 900MHz puc filters on 432MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-08 22:55:07 UTC
From: la8ak@online.no
Message-ID: <3b9aa135.366436530@news.online.no>
Source record: 50357

is it possible to stick two puc's together and operate them on half
frequency? I have so exptremely much 900MHz NMT filters and wonder if
it is possible to find a useful application

73
Jan-Martin

5364. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 00:20:11 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <SBym7.60717$aW5.898721@dfw-read.news.verio.net>
Source record: 50362

> another solution is 4017 and combine Q0 and Q5, then multiply from 2 to 4MHz...

Do you mean a 4020? A 4017 decodes only one of 10 outs. And'ing multiple outs of a 4017 will never be true.

5365. Help with Sony FD-230 Watchman video mod.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 00:24:21 UTC
From: Randy Randall <crrandal@earthlink.net>
Message-ID: <3B9AB702.1DF7B5D@earthlink.net>
Source record: 50363

I hope that someone out there reading this message knows how. We have a new baby girl (QRP) here as of today! Bringing her home today caused some new problems. The new baby seats require that infants must face the rear of the car. My wife nor I can see the little one without doing major contortions (I drive a Dodge Neon). I have a little CCD video camera here and an old Sony Watchman (QRP TV) that could make a dandy mobile baby monitor. I would like to add a video in jack to the Sony. I do not have a schematic for the set. This was a popular mod to do as many CCTV installers had units modified to do this. (Sony made a Watchman minus tuner built for this purpose but at $350.00 many companies bought the regular watchman @ $99.00 and added the video in jack.) Anyone know how to do this? I could figure it out if I had access to the schematic.

Thanks in advance,
Randy KB8ASO

5366. TOKO coils ident. ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 00:33:04 UTC
From: miran.komatar@siol.net
Message-ID: <24b07da0.0109081633.21295604@posting.google.com>
Source record: 50364
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design,uk.radio.amateur

Hello dear radio freaks !

I have got some TOKO coils,but do not know the coils real values.
I have been visited TOKO's homepage,Bonex,DigiKey and other resources on
Internet, but could not get the information I realy want.
Mybe someone here on list have older catalog and help me ?

Does anyone know the values of the coils mentioned bellow or eventually
where I can get the information from the Internet?

TOKO coils:
============

(LIKE 10EZ SERIES)

RHN 1A 8082 (black)
RHNS 1A 76O8 (black)
RMCS 2A 5651 (violet)
RWO 6A 8026 (red)
154FC 8A 6589 (black)
154AC 7A 5466 (pink)
154AC 7A 6580 (grey)
94AC 7A 1119AO (yellow)
94 3016MF (violet)
94 30107DJ (blue)

(LIKE 7P SERIES)

A5221 (black)
A4076 (black)
A2140 (yellow)
A5224 (black)
A5031 (orange)
A5621 (yellow)
A5620 (white)
A5856 (orange)

Best regards Miran,S57EA
Email:miran.komatar@siol.net

5367. 4cx800 max plate votage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 03:24:40 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tpldamkcolmuc2@corp.supernews.com>
Source record: 50361

The spec says 2200volts. I keep seeing linears with something
like 4kv on the plate. What is the max v?

Doug N4IJ

5368. need explanation of 'microsecond' EQ curve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 03:32:37 UTC
From: hexter@blazenet.net
Message-ID: <tploml81do9m25@corp.supernews.com>
Source record: 50365

Why is the word 'microseconds' used with Eq curves such as cassette tapes, and also why is microseconds used on conductivity meters in place of Mhos?

Thanks

5369. Re: 4cx800 max plate votage?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 04:01:30 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <qNBm7.4841$c5.39243@newsfeeds.bigpond.com>
Source record: 50366

Maybe 2600 volts no load. Although like you i have seen homebrew linears with much higher. Maybe with the cheapness of these tubes some are going crazy. I heard of one operator driving a pair of these tubes in excess of 3.3KW out!! Considering the 3rd order IMD this clearly is a bad practice. If you are seeking greater out put, look at a pair of GU84s, or a single GU78. Better still find a 4cx5000 or 10000 you can get superb 3rd order IMD. If power is your game. A pair of 800s make a nice desktop homebrew amp, i have used 4 in parallel with a low plate impedance and a small roller inductor. The balancing and matching of these tubes get critical. One tube with handles is better.

Willy

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:tpldamkcolmuc2@corp.supernews.com...
> The spec says 2200volts. I keep seeing linears with something
> like 4kv on the plate. What is the max v?
>
> Doug N4IJ
>
>
>

5370. Re: need explanation of 'microsecond' EQ curve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 04:03:23 UTC
From: Mark Little <mark@brigadoon.apana.org.au>
Message-ID: <3B9AEA0B.D7F899A8@brigadoon.apana.org.au>
Source record: 50367

The microseconds in the equaliser is referring to the delay introduced
by the equaliser.

Are you sure the meter isn't using in MicroSiemens which are equivalent
to micromhos?

gudmundur wrote:
>
> Why is the word 'microseconds' used with Eq curves such as cassette
> tapes, and also why is microseconds used on conductivity meters in
> place of Mhos?
>
> Thanks

--
Alexa Little
"Homemaker, dressmaker, lacemaker and troublemaker"

5371. Re: need explanation of 'microsecond' EQ curve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 04:13:01 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3B9AEC4B.6A9F7081@att.net>
Source record: 50368

1. The time constant of the standard R/C de-emphasis filter for FM receivers is 75 microseconds. That describes a roll-off at a rate of 6 db/octave or 20-db/decade. The value specifies the frequencies involved.

2. I have no idea why microseconds would be used on conductivity meters. Unless, what you are calling microseconds is really "milli-siemans" the new unit for conductivity. Mhos is no longer used.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

gudmundur wrote:
>
> Why is the word 'microseconds' used with Eq curves such as cassette
> tapes, and also why is microseconds used on conductivity meters in
> place of Mhos?
>
> Thanks

5372. Re: need explanation of 'microsecond' EQ curve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 04:36:36 UTC
From: Mark Little <mark@brigadoon.apana.org.au>
Message-ID: <3B9AF1D4.369C996@brigadoon.apana.org.au>
Source record: 50369

Oops. Just realised that I mislead you. It is the time constant of the
equaliser network.

Mark.

Mark Little wrote:
>
> The microseconds in the equaliser is referring to the delay introduced
> by the equaliser.
>
> Are you sure the meter isn't using in MicroSiemens which are equivalent
> to micromhos?
>
> gudmundur wrote:
> >
> > Why is the word 'microseconds' used with Eq curves such as cassette
> > tapes, and also why is microseconds used on conductivity meters in
> > place of Mhos?
> >
> > Thanks
>

5373. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 08:41:02 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3b9b2a9a.3447181@news.cantech.net.au>
Source record: 50370

On Sat, 8 Sep 2001 14:03:27 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>I need to generate an accurate square 4MHz clock from a 10MHz reference.
>
>I'm heading toward dropping one cycle out of every five, then dividing by
>two to square it up. Is there an easier, perhaps single-chip solution?

With a couple of passive components, I suspect a single chip solution
is straightforward.

Feed the existing 10M into an RC shaper (or a mono) and then double it
with a full-wave bridge or similar. Then do your divide by five from
an 74xxx90.

5374. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 12:12:03 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <q0Jm7.60746$aW5.900553@dfw-read.news.verio.net>
Source record: 50371

> Feed the existing 10M into an RC shaper (or a mono) and then double it
> with a full-wave bridge or similar. Then do your divide by five from
> an 74xxx90.

Still, that won't produce 50%; the '90 MSB is 20%, isn't it?

I think that whatever precedes it, the last stage must be a divide-by-two. If that is preceded by a divide-by-five, I have to multiply up to 40MHz; a pair of fast cascaded delay/XORs will do that but the second needs about 12nS delay, only a few gate delays in ALS. 40MHz based on race timing is unsettling; is that unwarranted?

The suggestion to divide down to 2MHz then multiply to 4MHz is good but getting 50% is trickier.

If I go down to 8MHz by counting four-of-five (80%), then divide by two (50%) with a '90, '196 or '175 and an '02, it seems much more trustworthy. Am I wrong?

5375. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 12:46:54 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9nfodq$3d3$1@slb0.atl.mindspring.net>
Source record: 50372

"GTBecker@RighTime.com" Wrote:

>
> The suggestion to divide down to 2MHz then multiply to 4MHz
> is good but getting 50% is trickier.
>

Actually, 10 MHz divide by 5 and then multiply by four would result in
the 8 MHz which can be divided by 2 for 50% duty cycyle.

I would think that two stages of X2 multiplication would be fairly simple
to do and it doesn't require any exotic divide ratios.

Jim Pennell

5376. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 13:54:21 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3b9b7356$0$194@news.impulse.net>
Source record: 50373

"GTBecker@RighTime.com" <gtbecker@rightime.com> wrote in message
news:q0Jm7.60746$aW5.900553@dfw-read.news.verio.net...
... snip ...
> If I go down to 8MHz by counting four-of-five (80%), then divide by two
> (50%) with a '90, '196 or '175 and an '02, it seems much more trustworthy.
> Am I wrong?

'fraid so. As pointed out in an earlier post, counting four-out-of-five gives four pulses at a ten MHz rate and a gap. Dividing by two gives two pulses at a 5 MHz rate and a gap - not a 50% duty cycle as you hoped. Have you considered using a 4 MHz VCO which you could phase-lock to the 10 MHz reference?

-CB

5377. TUBES AVAILABLE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 14:52:33 UTC
From: rh3333@aol.com
Message-ID: <20010909105233.23684.00001260@mb-mv.aol.com>
Source record: 50374

> I have a large selection of hard to find tubes, in stock ready to ship.
Some of the tubes are:
>
> 3CX3000A7
> 3CX6000A7
> 8874
> 8875
> 8877
> 8908
> 8950
> 8417
> 7027
> 6LQ6
> 6LF6
> 6KD6
>
> Please Email me with you needs and I will reply with current availbility and
pricing.
>
> Thanks for your interest
>
>

5378. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 15:14:33 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <vHLm7.60756$aW5.900903@dfw-read.news.verio.net>
Source record: 50375

> ... Dividing by two gives two pulses at a 5 MHz rate and a gap - not a 50% duty cycle...

Ah, yes. Quite right.

Can you point me to a suitable phase-lock VCO part?

5379. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 15:17:27 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <dKLm7.60757$aW5.900896@dfw-read.news.verio.net>
Source record: 50376

> I would think that two stages of X2 multiplication would be fairly
simple
> to do and it doesn't require any exotic divide ratios.

And I'd be more comfortable producing 8 than 40MHz, too. Good thought.

5380. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 16:33:23 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <pRMm7.60761$aW5.901105@dfw-read.news.verio.net>
Source record: 50378

> ... Have you considered using a 4 MHz VCO which you could phase-lock to the 10 MHz...

It looks like an HC4046 will do 4MHz easily. If I divide the 4MHz VCO out by two and divide the 10MHz reference by five and feed them to the phase comparator, that should work, yes?

5381. Re: Eimac X578U ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 16:42:47 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <js2npts0t02jp93118g23u2mbekf33so8u@4ax.com>
Source record: 50377

melissaN0o0SPAM@dimensional.com (Melissa) wrote:

>melissaN0o0SPAM@dimensional.com (Melissa) wrote in
><5QNk7.446$mr3.14799@wormhole.dimensional.com>:
>
>>I came across some parts in the basement that I've had around for years and
>>don't even know where I got them or what they are.
>>
>>Eimac X578U ? They appear new and it says Electron Tube on the tags. They
>>appear to be some kind of microwave tubes. Heavy little suckers, for their
>>size. I have maybe 6 of them.
>>
>>Are these possibly worth anything if I sell them?
>>
>
>Has anyone seen this? I saw no replies.

It's posted just fine. I'll try to remember to look at my Eimac
catalog tomorrow, in the hope that I can see what they are.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5382. FA: Dentron CLIPPERTON-L Hi-Power Amplifier 160-10 mtrs, 8 hrs left

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 18:35:34 UTC
From: rlucch2098@aol.com
Message-ID: <20010909143534.27505.00000649@mb-cj.aol.com>
Source record: 50379

Nice pics, just about full output on 10 & 15, 1100-1200 watts!
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1270662453

5383. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 19:01:12 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9ngeeq$r5u$1@slb5.atl.mindspring.net>
Source record: 50380

I would think that you could do the divide by 5 then multiply by 4 and the final divide by 2 all in a single chip, although the multiply by 4 would probably have to use two X2 stages and use gate delays....

Still, a single chip seems 'nicer' somehow as a solution. If you felt like it, make a gate as the oscillator and the entire thing boils down to a crystal, a couple of caps and a resistor, and a programmable array logic chip.

Using a CD4046 would need perhaps three chips, since you could use the 7490 as the divide by 5 for the 10 MHz and also the divide by 2 for the VCO. You would still need a loop filter and watch out for the phase noise.... 4046 VCO's are noisy critters.

Jim Pennell

5384. PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 20:32:30 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <xjQm7.12940$1T5.145090@news1.oke.nextra.no>
Source record: 50381

I was using a Leader LSG-216 signal generator for my first home brewed QRP rig. After having gotten several RST xx8 because of a slight instability in the frequency, and a slight hum modulation of the tone, I found that both problems originated in the signal generator.

Does anyone have similar experience? - and is this what can be expected from a PLL signal generator?

Or does it indicate that the signal generator is out of adjustment? I have noticed that the DC voltages are slightly off in the generator. The +/- 15 V supply is 15.2 V and the 5 V is 4.85 V. Would it help to adjust them?

Or -- a much large project, that probably is hard -- could the loop filter in the PLL be modified to get a better short-term stability, at the expense of e.g. a larger settling time when the frequency is altered?

Any help and comments would be appreciated.

Sverre

---
73 de LA3ZA
http://www.qsl.net/la3za

5385. Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-09 23:08:23 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B9BF666.62E0B09A@nettally.com>
Source record: 50382

Has anyone any experience with basic stamp projects? I am looking to build a channel scan board to step through 4 crystal controlled channels in a UHF receiver. All I need is a way to assert a sequential ground to each crystal, and have the circuit stop on open squelch activity, optionally I would like some priority logic for one channel. Has anyone done this?

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5386. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 02:59:52 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.16063cf6c5e21d9c989689@news.earthlink.net>
Source record: 50383

This sounds like it would be very simple to do with a Basic
Stamp, but that seems like a bit of overkill for the task.

Perhaps a PIC (a low end one) would be more suitable. Or,
even the ubiquitous 16F84 would do the job.

No I haven't done exactly what you ask.

In article <3B9BF666.62E0B09A@nettally.com>, jleikhim@nettally.com
says...
> Has anyone any experience with basic stamp projects? I am looking to
> build a channel scan board to step through 4 crystal controlled channels
> in a UHF receiver. All I need is a way to assert a sequential ground to
> each crystal, and have the circuit stop on open squelch activity,
> optionally I would like some priority logic for one channel. Has anyone
> done this?

--
--
k7on@earthlink.net >or< http://www.qsl.net/k7on/
--
The Boulder Pledge by Roger Ebert, University of Colorado :

Under no circumstances will I ever purchase anything offered to
me as the result of an unsolicited e-mail message. Nor will I
forward chain letters, petitions, mass mailings, or virus warnings
to large numbers of others. This is my contribution to the survival
of the online community.
--

5387. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 03:00:47 UTC
From: "Dana H. Myers" <dana@dioxine.com>
Message-ID: <3B9C2CDF.9040803@dioxine.com>
Source record: 50384

Were you using just the signal generator barefoot as the transmitter
into an antenna? I would not be surprised if the signal generator was
noisy/unstable due to the load. You might isolating the signal generator
from the antenna with a buffer amplifier.

Also, how were you keying the generator? It's possible that the way
you were keying it was causing it to re-settle on every key-down.
That could even sound like hum/etc.

Dana K6JQ
dana@dioxine.com

Sverre Holm (LA3ZA) wrote:

> I was using a Leader LSG-216 signal generator for my first home brewed QRP
> rig. After having gotten several RST xx8 because of a slight instability in
> the frequency, and a slight hum modulation of the tone, I found that both
> problems originated in the signal generator.
>
> Does anyone have similar experience? - and is this what can be expected from
> a PLL signal generator?
>
> Or does it indicate that the signal generator is out of adjustment? I have
> noticed that the DC voltages are slightly off in the generator. The +/- 15 V
> supply is 15.2 V and the 5 V is 4.85 V. Would it help to adjust them?
>
> Or -- a much large project, that probably is hard -- could the loop filter
> in the PLL be modified to get a better short-term stability, at the expense
> of e.g. a larger settling time when the frequency is altered?
>
> Any help and comments would be appreciated.
>
> Sverre
>
> ____
> 73 de LA3ZA
> http://www.qsl.net/la3za
>
>
>
>
>

5388. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 09:49:03 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <5%%m7.13251$1T5.148348@news1.oke.nextra.no>
Source record: 50385

Dana K6JQ wrote:
>Were you using just the signal generator barefoot as the transmitter
>into an antenna? I would not be surprised if the signal generator was
>noisy/unstable due to the load. You might isolating the signal generator
>from the antenna with a buffer amplifier.

Thanks for the questions and the interest. Here is my response:

No, I used one transistor as a buffer amplifier in front of a push-pull
stage consisting of 2N1711's. Output approximately 1 Watt on 80 and 40 and
less on 20 m.

>Also, how were you keying the generator? It's possible that the way
>you were keying it was causing it to re-settle on every key-down.
>That could even sound like hum/etc.

The generator was running continuously, while the base circuit of the output
stage was keyed. It made no difference if I also keyed the buffer stage.

The problem is that I hear both the hum and the random instability also if I
just connect the generator to a receiver

- Sverre

_____
73 de LA3ZA
http://www.qsl.net/la3za

"Dana H. Myers" <dana@dioxine.com> skrev i melding
news:3B9C2CDF.9040803@dioxine.com...
>
> Were you using just the signal generator barefoot as the transmitter
> into an antenna? I would not be surprised if the signal generator was
> noisy/unstable due to the load. You might isolating the signal generator
> from the antenna with a buffer amplifier.
>
> Also, how were you keying the generator? It's possible that the way
> you were keying it was causing it to re-settle on every key-down.
> That could even sound like hum/etc.
>
> Dana K6JQ
> dana@dioxine.com
>
> Sverre Holm (LA3ZA) wrote:
>
> > I was using a Leader LSG-216 signal generator for my first home brewed
QRP

> > rig. After having gotten several RST xx8 because of a slight instability
in
> > the frequency, and a slight hum modulation of the tone, I found that
both
> > problems originated in the signal generator.
> >
> > Does anyone have similar experience? - and is this what can be expected
from
> > a PLL signal generator?
> >
> > Or does it indicate that the signal generator is out of adjustment? I
have
> > noticed that the DC voltages are slightly off in the generator. The +/-
15 V
> > supply is 15.2 V and the 5 V is 4.85 V. Would it help to adjust them?
> >
> > Or -- a much large project, that probably is hard -- could the loop
filter
> > in the PLL be modified to get a better short-term stability, at the
expense
> > of e.g. a larger settling time when the frequency is altered?
> >
> > Any help and comments would be appreciated.
> >
> > Sverre
> >
> > _____
> > 73 de LA3ZA
> > http://www.qsl.net/la3za
> >
> >
> >
> >
> >
>

5389. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 10:32:53 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3B9C96D5.C82B3D63@mwci.net>
Source record: 50386

Joe Leikhim wrote:

> Has anyone any experience with basic stamp projects? I am looking to
> build a channel scan board to step through 4 crystal controlled channels
> in a UHF receiver. All I need is a way to assert a sequential ground to
> each crystal, and have the circuit stop on open squelch activity,
> optionally I would like some priority logic for one channel. Has anyone
> done this?
>

I use the Basic Stamp modules and I like them very much. Programming them
using BASIC language instructions is especially easy and fun.

See www.parallaxinc.com for all the info.

Bill W0IYH

5390. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 11:48:28 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <iM1n7.60809$aW5.903265@dfw-read.news.verio.net>
Source record: 50387

By my count that's four packages, but it's apparently better to give the XOR phase comparator two 50% signals, so 1MHz looks better despite requiring two more flops.

Why a VXO, though? If it's locked, wouldn't RC work as well?

5391. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 12:15:10 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <3b9cadeb@usenet.per.paradox.net.au>
Source record: 50388

This guy sells them: http://www.xs4all.nl/~barendh
I've ordered things through him before and he's been very prompt. Prices seem OK as well, especially when you subtract the %19 sales tax, which you won't pay, and convert from Dutch Gilder.

Regards
Murray - VK6HL

Beverin <beverin@alphalink.com.au> wrote in message news:3B934559.304A83D6@alphalink.com.au...
> I am trying to locate several of the above chips (MC145170P2 PPL Chip).
> I am prepared to pay (inc. postage). If you have one or more of the
> above chips or know of a source of supply, please email at
> vk3cmo@hotmail.com .
>
> Thanks & 73's
> John (vk3cmo).
>

5392. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 12:17:11 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <bb2n7.737777$K5.78981830@news1.rdc1.nj.home.com>
Source record: 50389

If you just want to step scan, consider using a decimal counter like a CD4017, a transistor array, and a 555 multivibrator to set the period for each step. You can rig the '4017 to count in increments of 4. The cost would be less than $5.

Joe Leikhim wrote in message <3B9BF666.62E0B09A@nettally.com>...
>Has anyone any experience with basic stamp projects? I am looking to
>build a channel scan board to step through 4 crystal controlled channels
>in a UHF receiver. All I need is a way to assert a sequential ground to
>each crystal, and have the circuit stop on open squelch activity,
>optionally I would like some priority logic for one channel. Has anyone
>done this?
>
>--
>Joe Leikhim K4SAT
>Jleikhim@nettally.com
>
>http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
>"tv dinner by the pool,
>i'm so glad i finished school" -F.Zappa 1967
>
>"The Revolution will NOT be televised" -Gil Scott Heron
>
>"Whats he building in there?"- Tom Waits
>
>"The large print giveth
> and the small print taketh away..." Tom Waits.
>
>

5393. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 12:28:50 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <VhCvXDBCILn7EAsF@ifwtech.com>
Source record: 50391

Murray Lang wrote:
>This guy sells them: http://www.xs4all.nl/~barendh I've ordered things
>through him before and he's been very prompt. Prices seem OK as well,
>especially when you subtract the %19 sales tax, which you won't pay, and
>convert from Dutch Gilder.

Barend Hendriksen is a good supplier for many kinds of
interesting/unusual RF semiconductors etc.

Anyone who orders from inside the EU will have to pay the tax-inclusive
prices.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5394. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 13:06:03 UTC
From: k5dh@raytheon.com
Message-ID: <%U2n7.2$JB1.117@dfw-service2.ext.raytheon.com>
Source record: 50390
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

Interesting situation here...

As of the time I am posting this, N1RZB had received a total of eight responses to his inquiry, and not one of them had anything to do with answering his question! Instead of helping the guy, everyone gripes and whines about cross-posting!

Yeah, I know that there are both written and unwritten rules of "netiquette", and perhaps N1RZB shouldn't have posted his query to some of the groups that he did post to. But perhaps we need to take a closer look at this. What's happened to the hobby? What's happened to hams being helpful to each other? Instead of getting an answer to his question, all he gets is bitched at by a bunch of self-appointed "interenet cops". We keep hearing that ham radio is "dying out". It's no wonder! When someone can't get a straight answer to a valid ham radio question, or get ANY answer in this case, it ain't hard to see why people aren't sticking with the hobby. I've heard it said that the internet is killing ham radio. This is a perfect example!

I wish I *could* give this gentleman an answer, but I really have no personal experience with six meters. I'm sure I'll be flamed for cross-posting this message, and for being one of the people who isn't giving the guy any help. At least I'm WILLING to help... I'm just not ABLE to help.

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

In article <tpg313qt13tv74@corp.supernews.com>, n1rzb@110.net says...
>
>OK,
>
>Any and all comments, what is the best all purpose six meter rig
>
>Thanks
>n1rzb

5395. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 13:49:11 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9nigidbko1@slb4.atl.mindspring.net>
Source record: 50392

It has been my experience that a lot of PLL sig-generators use a wideband vco to keep costs down. Add to that a small step size and the designer has to use a narrow loop bandwith to keep the reference sidebands liveable.

Which winds up with a tenancy to hum since the vco will have a mind blowing tuning sensitivity. And, usually. some amount of low frequency jitter since the vco has very little noise reduction through the narrow loop filter.

The better performing generators do a much better job of it, but it requires a lot more parts and hence cost a lot more money.

For most Sig-Gen purposes, the residual hum and noise is not too great of a problem, and they work nicely as rouble shooting and alignment tools.

==========

Generally, there is no easy way to improve one of the 'noisy' generators to make them quiet. I don't know anything about the specific generator you mentioned, but I'd think it is probably working about a well as it is going to...

Jim Pennell

5396. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 14:21:25 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9nii95$8u5$0@208.207.71.171>
Source record: 50393
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

I thought someone told him that it was better to just buy an HF rig
that had 6 meters on it, costs about the same. That is as good advice as
I could give him.

K5DH wrote:
>
> Interesting situation here...
>
> As of the time I am posting this, N1RZB had received a total of
> eight responses to his inquiry, and not one of them had anything
> to do with answering his question!

5397. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 14:30:38 UTC
From: WW - KB9TMP <kb9tmp@my-deja.com>
Message-ID: <9nijpd$i06$1@dagobah.blueriver.net>
Source record: 50394
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

"Dick Carroll" <dixie@townsqr.com> wrote in message news:9nii95$8u5$0@208.207.71.171...
> I thought someone told him that it was better to just buy an HF rig
> that had 6 meters on it, costs about the same. That is as good advice as
> I could give him.
>
I've been looking at the new RCI 5054 (over Internet not in person yet) and thinking it didn't look like to bad of a deal ($300), I just wish it had the tone board already installed and not an 'add on' like it is now.
--

'73' From KB9TMP

"Only two things are infinite,
the universe and human stupidity,
and I'm not sure about the former."
-- Albert Einstein

Sent via the LATE Deja.com
A.K.A. Google Groups
http://groups.google.com

5398. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 15:12:12 UTC
From: la8ak@online.no
Message-ID: <3b9b978d.429510193@news.online.no>
Source record: 50395

On Sun, 9 Sep 2001 11:17:27 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>> I would think that two stages of X2 multiplication would be fairly
>simple
>> to do and it doesn't require any exotic divide ratios.
>
>And I'd be more comfortable producing 8 than 40MHz, too. Good thought.
>
>
>
it is easier to go from 10 to 8MHz and divide by 2 to get 4MHz,
74HC4017 (?), HEF4017, 7493 or other in the first stage

73
Jan-Martin
LA8AK

5399. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 15:12:12 UTC
From: la8ak@online.no
Message-ID: <3b9b9664.429213113@news.online.no>
Source record: 50396

On Sat, 8 Sep 2001 20:20:11 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>> another solution is 4017 and combine Q0 and Q5, then multiply from 2 to
>4MHz...
>
>Do you mean a 4020? A 4017 decodes only one of 10 outs.
I wrote CD4017 because I mean it

> And'ing multiple
>outs of a 4017 will never be true.
>
?
>
Zero crossings will be correct as described for divide by 5
With the possible danger of getting glitches, it is theoretically
possible to use combine (Q0 and Q1) with (Q5 and Q6) with a NOR-gate
for higher duty cycle output

73
Jan-Martin
LA8AK

5400. FS: Parts for Homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 15:19:32 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <WP4n7.538$be6.253479@news1.iquest.net>
Source record: 50297
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I have scrounged up a big quantity of .1 uF Polyester/Metal Film caps. These, according to the databook, are equal to ceramic disk caps in all uses. These are NOT NPO caps. Made by S+M Components.

How about 50 for $3 or 100 for $5.00 500 for $20.00 (they're abt 15 cents each from Mouser) I ship in a 4 by 7 padded envelope.

These are .1 uF, 10%, rated at 250v - New Stock, on paper tape, nice long leads. Good for bypass caps I am told. That's what I have used them for.

I still have NEW BNC chassis connectors for

25 for $12.40
50 for $21.00
100 for $36.00

I also have:

LM7808CT voltage regulators. TO220 case. 5 for $4.50, 10 for $8.00
LM7812T voltage regulators. TO220 case. 5 for $4.50, 10 for $8.00

22uF 35v electrolytics - $5.00 for 100 (if you need larger or smaller qty, email me)
These caps are on paper tape, NOS (New, but old stock) made by Richey.

2N2222's in METAL TO18 case - 25 for $7.50

Let me know if you're interested. All prices are post paid to the USA.

Thanks - My address on QRZ is good.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

5401. Re: Circuit drawing program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 15:27:08 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3b9cda7c$0$2882$44c9b20d@news3.asahi-net.or.jp>
Source record: 50298

Hullo Don

Heheheh! This is a repeat of a conversation I had over on rec.audio.tubes...I was also looking for a cool circuit drawing prog that I had BEFORE the last unscheduled re-format of the HDD...All I know for sure was that the link came from a ham radio page and the guy there also recommended "Socket Watch"...My searches for that page were fruitless, but I'll just paste what I said to the other guy:--

QUOTES ON

I still haven't found the package I've been looking for, but you could do a lot worse than try this one, CircuitMaker Student:

http://www.microcode.com/downloads/student.htm

I've just DLed it and it seems every bit as easy to use as the one I had formerly. [And yes, I checked, it has a 'reasonable' set of vacuum tube outlines in its library!] This 'student version' is only good for 50 devices, tho...

HTH
Adam

PS: If you do choose to DL it, make sure you choose "Run from current location". It will install quickly and easily and be ready to run. You don't have to close your browser to install, either. It's probably just a lot better if you don't have any OTHER progs running at the same time. Cheers!

QUOTES OFF

I don't think the other guy tried any of the recommended packages...Before the thread developed very far, he said he actually LIKED drawing circuits by hand and scanning them...Oh, well!

Best of luck, Don
Adam

"Don Vosper" <don@vosperd.freeserve.co.uk> wrote in message news:9ncvji$3a4$1@newsg3.svr.pol.co.uk...
> Hello
> Can anyone recommend a schematic drawing program with a good selection of
> vacuum tubes.
> I had a good one but lost it due to a crash and can't remember the name.
The
> shareware vesion allowed 50 connections and was very easy to use.
> Thanks

> Don.
>
>
>

5402. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 17:17:32 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9njbmi$86d$1@neptunium.btinternet.com>
Source record: 50308

"Beverin" <beverin@alphalink.com.au> wrote in message
news:3B9C8BAE.FD50C30B@alphalink.com.au...
> Peter,
>
> Thanks for your reply. I was looking for 2 or 3, but 1 would do depending
on
> your supply. How would you like me to remunerate you for your generosity?
>
> I have also stumbled across the DDS designs & might try this for the next
> generation. It appears that all designs are based on the PIC16C64; is this
due
> to all the code being written for this PIC micro controller.

I'm using the AVR 2313 on my new DDS board. *Much* nicer than any of the
PICs.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5403. Re: 900MHz puc filters on 432MHz

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 18:06:35 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9nivfbjcp1@woodrow.ucdavis.edu>
Source record: 50299

Hi there,

Maybe it's me, but I think your labels are off a bit. Do you mean filters from a 900Mhz purc unit..? and if so, that's quite a bit different than what you are actually writing.

So you want to use 900 Mhz cavities on 450 Mhz and the answer is "sometimes". It has a lot to do with the physical construction of the cavities. Some will allow you to use them in "folded" mode at a lower frequency, but it's a little past the scope of a news group topic. Some 900Mhz cavities are actually normal 450Mhz cavities operated in 3/4 wave/mode. It takes a bit of experience and test equipment to know what is what.

It's not a lot of information, if your really serious about trying to convert, modify or retune the cavities... contact me direct and I'll try to help you as time allows.

cheers
skipp@pilot.ucdavis.edu
http://sonic.ucdavis.edu

: J M Noeding <la8ak@online.no> wrote:
: is it possible to stick two puc's together and operate them on half
: frequency? I have so exptremely much 900MHz NMT filters and wonder if
: it is possible to find a useful application

: 73
: Jan-Martin

5404. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 18:27:10 UTC
From: c-sharpe@raytheon.com
Message-ID: <3B9D05FE.4795C6AF@raytheon.com>
Source record: 50302

Paul Breed wrote:
>
> The line of sight path loss equation I've been given (and found) is
>
> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
> I understand the 20logD term, it is proportional to the area of the
> wave front as the distabnce expands.,but what is the physucal
> explanation of the 20lofF term?
>
> If I have 1 W isotropically radiated power why is the 10 Mhz signal
> stronger than a 1W 1 Ghz signal?
>
> It can't be just atmospheric absorbtion as that would have both
> frequency and Distance terms, and the I believe that the distance term
> is fully spoken for for by the spherical wave front area/distance
> calculation.
>
> Paul Trying to understand.
>
> Kl7JG

5405. Re: Path Loss Calculations....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 18:27:15 UTC
From: c-sharpe@raytheon.com
Message-ID: <3B9D0603.D15E0AFD@raytheon.com>
Source record: 50303

That's the trouble with using "canned" formulae,... you
never can see where they come from;;;;

Consider the following:

Field strength (watts/m2) = Pt Gt
(the RADAR equation) -------
4 * pi * R * R

Power captured by a receiving antenna:

Capture area (m2) = Gr * Lambda * Lambda
----
4 * Pi

(Lambda is the wavelength in meters or 3e9/ F)

Now, combining, the power down the receiving antenna is
the product, --- the field strength in watts per sq meter times
the capture area in square meters.

Note that "lambda" is a frequency term. This is what you were
asking about.....

It is a result of the physical dimensions of a low frequency
antenna of a given gain being larger than the physical dimensions
of a higher frequency antenna with the same gain. The larger
physical dimensions mean more microvolts since it has a larger
capture area.

Anyway, now you know where to look.... Good luck...

Andy W4OAH
Sr Principal Engr - Raytheon Electromagneics Lab....

73s,

****
Paul Breed wrote:
>
> The line of sight path loss equation I've been given (and found) is
>
> a= 32.5 + 20logD(km) + 20logF(MHz) (dB)
>
> I understand the 20logD term, it is proportional to the area of the
> wave front as the distabnce expands.,but what is the physucal
> explanation of the 20lofF term?
>

> If I have 1 W isotropically radiated power why is the 10 Mhz signal
> stronger than a 1W 1 Ghz signal?
>
> It can't be just atmospheric absorbtion as that would have both
> frequency and Distance terms, and the I believe that the distance term
> is fully spoken for for by the spherical wave front area/distance
> calculation.
>
> Paul Trying to understand.
>
> Kl7JG

5406. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 18:43:41 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <hT7n7.9095$iD.1433470@news6-win.server.ntlworld.com>
Source record: 50300

Tom W8JI <2w8ji@contesting.com> wrote in message
<3b9a73ae.121761939@news.akorn.net>...
>On Sat, 8 Sep 2001 16:44:25 +0100, "William Rayer" <noone@nospam.com>
>wrote:
>
>>Whether I use transistors, tubes or whatever, a resonant line should
>>still be resonant at the calculated frequency (+/- say 10%) surely?
>>This is what bothers me....
>
>Bill,
>
>The leads into the device, and capacitance of the device, load the
>line and make it look longer.
>
>You may have missed where I said that.
>
>You need a device wih direct leads out of the valve, small elements,
>and no or minimal socket stray inductance/ capacitance !

Fair point. I have no way of calculating the effect of the stray
capacitances
and inductances of the valve socket. I know the values of the strays inside
the valve, but that doesn't help regarding the socket.

Also, someone pointed out that even if the socket was OK for UHF, it
may have a high dielectric constant. This could multiply the strays a lot.

Some of my radio books (Terman and the Radiation Laboratory series)
say that above about 1000 MHz you have to use valves without bases
and build them into cavities (exactly as you said). I was hoping to
approach this frequency without cavities and special valves, to make the
construction a bit easier.

Thanks anyway for the suggestions everyone. It has helped.

Cheers
Bill

lingolanguage <at> hotmail <dot> com

5407. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 19:03:09 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3B9D0F60.283A@pop.removethistomailme.net>
Source record: 50301
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

K5DH wrote:
>
> Interesting situation here...
>
> As of the time I am posting this, N1RZB had received a total of
> eight responses to his inquiry, and not one of them had anything
> to do with answering his question! Instead of helping the guy,
> everyone gripes and whines about cross-posting!
>
> Yeah, I know that there are both written and unwritten rules of
> "netiquette", and perhaps N1RZB shouldn't have posted his query
> to some of the groups that he did post to. But perhaps we need
> to take a closer look at this. What's happened to the hobby?
> What's happened to hams being helpful to each other?

Unlike you, Dean, I don't have any poignant predictions to make about the future of the hobby, but it is VERY clear what will happen to the newsgroups if people aren't discouraged from cross-posting to ten groups at once. THAT insight doesn't require any soul-searching at all.

What the original poster did was every bit as much a part of "the hobby" as tuning up a 2KW transmitter in the middle of the band without bothering to turn on his receiver first. Crossposting to 10 unrelated groups is an act that could only indicate careless naivete on the part of a newbie, or extreme discourtesy on the part of someone who should know better. A quick check of Mr. Moge's extensive posting history on Deja will reveal which of those two options is most likely to apply here.

Followups set to the appropriate group...

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

5408. 902 MHz EME path loss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 20:10:41 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <5e7qpt4q97iamn2jfjr4ap8l24c84e1t2h@4ax.com>
Source record: 50304

I'd like to know what a minimalist link budget might look like for 902 MHz EME.

1) Does anyone have experience with what a path loss for 33 cm might look like?

or

2) Where might I look this up?

Thanks!

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5409. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 20:13:36 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <T99n7.60944$aW5.905154@dfw-read.news.verio.net>
Source record: 50305

> With the possible danger of getting glitches, it is theoretically possible to use combine (Q0 and Q1) with (Q5 and Q6) with a NOR-gate for higher duty cycle output...

Ah, I understand. When you say "combine" I think logical And, you think Or. Yes, that will yield 2MHz at 20% or 40%.

5410. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 20:15:22 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <xb9n7.60946$aW5.905205@dfw-read.news.verio.net>
Source record: 50306

> it is easier to go from 10 to 8MHz and divide by 2 to get 4MHz...

If you mean 10 to 8 in one step, how do you get 4MHz 50%?

5411. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 21:19:04 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <i5an7.13779$1T5.155765@news1.oke.nextra.no>
Source record: 50307

"Jim Pennell" <NoSpam@killspam.com> skrev i melding
news:9nigidbko1@slb4.atl.mindspring.net...
> It has been my experience that a lot of PLL sig-generators use a
wideband
> vco to keep costs down. Add to that a small step size and the designer
has
> to use a narrow loop bandwith to keep the reference sidebands liveable.
>
> Which winds up with a tenancy to hum since the vco will have a mind
> blowing tuning sensitivity. And, usually. some amount of low frequency
> jitter since the vco has very little noise reduction through the narrow
loop
> filter.
>
Thanks for comments. The Leader generator with the hum/jitter problem has a
range from 0.1-30 MHz + 88-108 MHz. Is this what you mean by a wide range?

In comparison, my Elecraft K2 tranceiver has a VCO that runs between 6 and
24 MHz. Elecraft calls it a wide-range, band-switched VCO. Perhaps the
difference is that the signal generator covers each range without
band-switching?

- Sverre

5412. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 22:24:30 UTC
From: la8ak@online.no
Message-ID: <3b9d248d.531156609@news.online.no>
Source record: 50309

On Mon, 10 Sep 2001 16:13:36 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>> With the possible danger of getting glitches, it is theoretically possible
>to use combine (Q0 and Q1) with (Q5 and Q6) with a NOR-gate for higher duty
>cycle output...
>
>Ah, I understand. When you say "combine" I think logical And, you think Or.
>Yes, that will yield 2MHz at 20% or 40%.
>
>
>
in this case OR gates sums, one must practice logic to see it,
with OR or NOR gates logic 1 is significant while zero is significant
for construction with NAND gates,
so what you do is to combine Q0+Q1 AND Q5+Q6, which means that you use
two NOR-gates and a NAND-gate, and later decide how to connect to use
only one sort of gates. I am more familiar with NAND and NOR gates
than OR and AND gates

73
Jan-Martin
LA8AK

5413. Re: 902 MHz EME path loss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 22:24:31 UTC
From: la8ak@online.no
Message-ID: <3b9d2755.531869022@news.online.no>
Source record: 50310

On Mon, 10 Sep 2001 16:10:41 -0400, Jake Brodsky <frussle@erols.com>
wrote:

>I'd like to know what a minimalist link budget might look like for 902
>MHz EME.
>
>1) Does anyone have experience with what a path loss for 33 cm might
>look like?
>
>or
>
>2) Where might I look this up?
>
se recent poster

On Wed, 08 Aug 2001 19:16:20 -0400, Paul Breed <Paul@Rasdoc.com>
wrote:

>
>The line of sight path loss equation I've been given (and found) is
>
>a= 32.5 + 20logD(km) + 20logF(MHz) (dB)

it is better if you look back to the 1 month old posting than for me
to copy it already
I am also certain that you can download a lot of similar information
from Download in a few seconds from website below.

Free Radio Design Software
http://www.g4fgq.com

73
Jan-Martin
LA8AK

5414. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 22:24:31 UTC
From: la8ak@online.no
Message-ID: <3b9d25f9.531521090@news.online.no>
Source record: 50311

On Mon, 10 Sep 2001 16:15:22 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>> it is easier to go from 10 to 8MHz and divide by 2 to get 4MHz...
>
>If you mean 10 to 8 in one step, how do you get 4MHz 50%?
>
>
>
You must study the inner circuit of the logic device you use and
decide how suitable this is for your circuit, but dividing from 8 to 4
makes 50% duty cycle using JK or D-type FF

5415. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 23:10:49 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B9D4878.213AC1C6@nettally.com>
Source record: 50312

Perhaps so, but I am looking for an entry project to learn programming of the stamp, and have that immediate application, so thought I would start simple, and build upon it, like adding remote DTMF control, etc. later on.

Brian Short wrote:

> This sounds like it would be very simple to do with a Basic
> Stamp, but that seems like a bit of overkill for the task.
>
> Perhaps a PIC (a low end one) would be more suitable. Or,
> even the ubiquitous 16F84 would do the job.
>
> No I haven't done exactly what you ask.
>
> In article <3B9BF666.62E0B09A@nettally.com>, jleikhim@nettally.com
> says...
> > Has anyone any experience with basic stamp projects? I am looking to
> > build a channel scan board to step through 4 crystal controlled channels
> > in a UHF receiver. All I need is a way to assert a sequential ground to
> > each crystal, and have the circuit stop on open squelch activity,
> > optionally I would like some priority logic for one channel. Has anyone
> > done this?
>
> --
> --
> k7on@earthlink.net >or< http://www.qsl.net/k7on/
> --
> The Boulder Pledge by Roger Ebert, University of Colorado :
>
> Under no circumstances will I ever purchase anything offered to
> me as the result of an unsolicited e-mail message. Nor will I
> forward chain letters, petitions, mass mailings, or virus warnings
> to large numbers of others. This is my contribution to the survival
> of the online community.
> --

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5416. WTB EICAM 750TH TUBE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-10 23:36:15 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <P7cn7.51760$xb.28240705@news1.mntp1.il.home.com>
Source record: 50313

I am looking for an old GLASS, broadcast tube. Eimac number 750 TH It is about twice the size of a 4-1000A. I do not care about emmission. All I want is the filiaments to work for a lited tube display. Socket also if available.

Or any other GLASS tubes of that caliber or larger for the display.

k9vdd@home.com

5417. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 00:44:59 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <x9dn7.60969$aW5.906216@dfw-read.news.verio.net>
Source record: 50315

> decide how suitable this is for your circuit, but dividing from 8 to 4
> makes 50% duty cycle using JK or D-type FF

The question is how do you get from 10MHz to 8MHz? How would you do it?

5418. bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 01:17:54 UTC
From: corny <corny@chip.com>
Message-ID: <3b9d5832$1_2@excalibur.gbmtech.net>
Source record: 50314

Is there any commercial source for bakelite anymore???
Or is there a good decent looking substitute.

Have heard of abs sheet which is black and pvc sheet
which does not come in black, these are easily worked.

Also heard of black lucite but have heard it is hard to
cut and drill without cracking.

any ideas sources or suggestions appreciated.

Nedd a couple of panels about 12 inches square.

thanks

5419. Re: 902 MHz EME path loss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 01:52:40 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3B9D6CA9.72E97FE9@gte.net>
Source record: 50316

Jake Brodsky wrote:

> I'd like to know what a minimalist link budget might look like for 902
> MHz EME.
>
> 1) Does anyone have experience with what a path loss for 33 cm might
> look like?
>
> or
>
> 2) Where might I look this up?
>
> Thanks!
>

Hi Jake,
Path loss is -259dB. The equations are in the ARRL Micrwave Experimenters manual. I have not operated 902EME but on 23cM, a 10' dish and 250W and a polarizing feed (ala VE4MA circular) will yield echoes. My concern at 902 would be that it is very lonely. 23cM, on the other hand, is very active- not unusual to hear guys ragchewing on SSB off the moon.

Dale W4OP

5420. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 02:18:44 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9njsc8$1s0$1@slb7.atl.mindspring.net>
Source record: 50317

"Sverre Holm \(LA3ZA\)" Wrote:

> Thanks for comments. The Leader generator
> with the hum/jitter problem has a range from
> 0.1-30 MHz + 88-108 MHz. Is this what you mean
> by a wide range?
>
> In comparison, my Elecraft K2 tranceiver has a
> VCO that runs between 6 and 24 MHz. Elecraft calls
> it a wide-range, band-switched VCO. Perhaps the difference
> is that the signal generator covers each range without
> band-switching?
>

Yes, the Leader Generator is wideband, since it covers .1 to 30 MHz as a single band. That would imply that it actually uses something like a 80 - 110 MHz VCO that gets mixed down to cover the .1 to 30 MHz. If so, then the VCO tunes 30 MHz without switching fixed components.

For example, let us assume the tuning voltage is 0 to +15 VDC. That means an average of 2 MHz per volt. Which would mean that darn near any random noise coupled into the varactor tuning line will show up as a pretty big noise signal.

It also implies that the VCO will be extremely sensitive to any parameter shift. So, even the slight capacitance change in the transistor junction caused by a shift in the DC power supply is likely to cause the oscillator to shift it's frequency.

Oh yes, the large tuning range also implies a lower 'Q' resonant tank, which means the overall phase noise is going to be pretty noticable and that's not even taking into account the other noise sources that can couple into the circuit through the DC power or the tuning line.

It is possible to clean up some of the problems by widening the loop filter, but how far that can go depends on many things.

Wide range VCOs reduce parts counts, but getting good performance is usually not all that easy....

==========

The Elecraft is using a narrow band VCO and switching fixed components to get the total frequency range. Narrow tuning ranges mean a much lower tuning sensitivity in MHz/Volt and also usually a higher 'Q' tank.

Jim Pennell
N6BIU

5421. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 02:29:58 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <1len7.60981$aW5.906560@dfw-read.news.verio.net>
Source record: 50318

> ... I figured that if you went to the trouble of deriving the 4Mhz from a xtal reference.you would want the best output.

Jim, you've convinced me that the VCXO/PLL is the right way to do it, comparing at 1MHz; I've got a 74HCT4046A in a breadboard already. There is a clear advantage to doing it that way: if the 10MHz reference is unavailable, I'll still have 4MHz from the rock - not as accurate, but better than no clock at all.

The application, BTW, is to replace the 4MHz oscillator on a 6803 that controls the Wavetek 288 function generator. All of the synthesis in the 288 is based on the processor clock. Mine is currently about 112.3ppm fast (+1223Hz @ 10MHz), and the design is not tuneable and can't be externally referenced. This will fix that.

Thanks, all, for your thoughts. 73

Tom Becker (long ex K3URO)

5422. Re: 902 MHz EME path loss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 03:35:44 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B9D868F.54AEF269@nettally.com>
Source record: 50319

Dale;
Is there any 23CM EME activity at 2400 MHz and above? I have an AO-40
station, an IC970 with UX98, and a REMEC power amp, so I am limited to
2400-2450 MHz with the existing hardware.

Dale Parfitt wrote:

> Jake Brodsky wrote:
>
> > I'd like to know what a minimalist link budget might look like for 902
> > MHz EME.
> >
> > 1) Does anyone have experience with what a path loss for 33 cm might
> > look like?
> >
> > or
> >
> > 2) Where might I look this up?
> >
> > Thanks!
> >
>
> Hi Jake,
> Path loss is -259dB. The equations are in the ARRL Micrwave Experimenters
> manual. I have not operated 902EME but on 23cM, a 10' dish and 250W and a
> polarizing feed (ala VE4MA circular) will yield echoes. My concern at 902
> would be that it is very lonely. 23cM, on the other hand, is very active-
> not unusual to hear guys ragchewing on SSB off the moon.
>
> Dale W4OP

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5423. Re: 902 MHz EME path loss (correction)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 03:48:26 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3B9D898A.FBC2ABC3@nettally.com>
Source record: 50320

oops, I meant 13cm. Do you know if there is activity above 2400 MHz?

Joe Leikhim wrote:

> Dale;
> Is there any 23CM EME activity at 2400 MHz and above? I have an AO-40
> station, an IC970 with UX98, and a REMEC power amp, so I am limited to
> 2400-2450 MHz with the existing hardware.
>
> Dale Parfitt wrote:
>
> > Jake Brodsky wrote:
> >
> > > I'd like to know what a minimalist link budget might look like for 902
> > > MHz EME.
> > >
> > > 1) Does anyone have experience with what a path loss for 33 cm might
> > > look like?
> > >
> > > or
> > >
> > > 2) Where might I look this up?
> > >
> > > Thanks!
> > >
> >
> > Hi Jake,
> > Path loss is -259dB. The equations are in the ARRL Micrwave Experimenters
> > manual. I have not operated 902EME but on 23cM, a 10' dish and 250W and a
> > polarizing feed (ala VE4MA circular) will yield echoes. My concern at 902
> > would be that it is very lonely. 23cM, on the other hand, is very active-
> > not unusual to hear guys ragchewing on SSB off the moon.
> >
> > Dale W4OP
>
> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com
>
> http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
> "tv dinner by the pool,
> i'm so glad i finished school" -F.Zappa 1967
>
> "The Revolution will NOT be televised" -Gil Scott Heron

>
> "Whats he building in there?"- Tom Waits
>
> "The large print giveth
> and the small print taketh away..." Tom Waits.

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

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"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5424. Re: 902 MHz EME path loss (correction)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 04:25:34 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B9D923E.F4A06E15@ay.com.au>
Source record: 50321

Joe Leikhim wrote:
>
> oops, I meant 13cm. Do you know if there is activity above 2400 MHz?

Indeed, I don't have 13cm TX, but I have good RX there and wouldn't
mine listening in.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Crescent (46% of Full)

5425. Simple Satellite finder..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 04:38:35 UTC
From: joel <joel@cyberbest.com>
Message-ID: <fzgn7.142$Sd.47279207@twister1.starband.net>
Source record: 50322

I see all these in-line meters that sell for 20 bucks or so that are used to align the satellite dish. Does anyone know how these work and maybe where I could get a schematic ?..

Joel KA9ZTI

5426. Re: Simple Satellite finder..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 04:46:32 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3B9D9728.8C7A3004@ay.com.au>
Source record: 50323

joel wrote:
>
> I see all these in-line meters that sell for 20 bucks or so that are used to
> align the satellite dish. Does anyone know how these work and maybe where I
> could get a schematic ?..

I believe they are just a MMIC (or any other capable amp) and a charge
pump.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Crescent (46% of Full)

5427. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 05:01:59 UTC
From: Brian Short <k7on@earthlink.net>
Message-ID: <MPG.1607ab4622ab5f2c98968b@news.earthlink.net>
Source record: 50324

Sounds good to me. You might want to consider the Net Media
Basic-X 24, then. It is pin compatible with the BS-2, but
is more powerful, including multitasking etc. And it is less
expensive than the BS-2.

Good Luck.

In article <3B9D4878.213AC1C6@nettally.com>, jleikhim@nettally.com
says...
> Perhaps so, but I am looking for an entry project to learn programming of the
> stamp, and have that immediate application, so thought I would start simple,
> and build upon it, like adding remote DTMF control, etc. later on.
>
> Brian Short wrote:
>
> > This sounds like it would be very simple to do with a Basic
> > Stamp, but that seems like a bit of overkill for the task.
> >
> > Perhaps a PIC (a low end one) would be more suitable. Or,
> > even the ubiquitous 16F84 would do the job.
> >
> > No I haven't done exactly what you ask.
> >
> > In article <3B9BF666.62E0B09A@nettally.com>, jleikhim@nettally.com
> > says...
> > > Has anyone any experience with basic stamp projects? I am looking to
> > > build a channel scan board to step through 4 crystal controlled channels
> > > in a UHF receiver. All I need is a way to assert a sequential ground to
> > > each crystal, and have the circuit stop on open squelch activity,
> > > optionally I would like some priority logic for one channel. Has anyone
> > > done this?
> >
> > --
> > --
> > k7on@earthlink.net >or< http://www.qsl.net/k7on/
> > --
> > The Boulder Pledge by Roger Ebert, University of Colorado :
> >
> > Under no circumstances will I ever purchase anything offered to
> > me as the result of an unsolicited e-mail message. Nor will I
> > forward chain letters, petitions, mass mailings, or virus warnings
> > to large numbers of others. This is my contribution to the survival
> > of the online community.
> > --
>

> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com
>
> http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
> "tv dinner by the pool,
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>
> "The Revolution will NOT be televised" -Gil Scott Heron
>
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>
> "The large print giveth

--
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The Boulder Pledge by Roger Ebert, University of Colorado :

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to large numbers of others. This is my contribution to the survival
of the online community.
--

5428. Re: 902 MHz EME path loss

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 05:05:10 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109102105.7b3530ef@posting.google.com>
Source record: 50325

Jake Brodsky <frussle@erols.com> wrote in message
news:<5e7qpt4q97iamn2jfjr4ap8l24c84e1t2h@4ax.com>...

> I'd like to know what a minimalist link budget might look like for 902

> MHz EME.

>

> 1) Does anyone have experience with what a path loss for 33 cm might

> look like?

>

> or

>

> 2) Where might I look this up?

I tried an older information storage technology and
found it in the first book I looked in: ARRL
UHF/Microwave Experimenter's Manual, page 10-5.

I make it 264.5 dB.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5429. Where to buy Rohm BH1417?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 06:15:40 UTC
From: Jimbo <jimbo2@mac.com>
Message-ID: <110920010115481830%jimbo2@mac.com>
Source record: 50326
Cross-posted to: rec.radio.amateur,rec.radio.amateur.homebrew

I've been looking for a US supplier of these and none of the parts places I usually deal with has this, and I've not been successful in finding anything on the web. It' an FM stereo transmitter on a chip, if anyone's interested.

Short of going through Rohm directly to find someplace where I can pick a single one up, anyone have any sources handy?

Jim

5430. Re: TOKO coils ident. ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 09:54:04 UTC
From: la8ak@online.no
Message-ID: <3b9d4052.538267042@news.online.no>
Source record: 50327
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design,uk.radio.amateur

On 8 Sep 2001 17:33:04 -0700, miran.komatar@siol.net (Miran,S57EA)
wrote:

>Hello dear radio freaks !
>
>I have got some TOKO coils,but do not know the coils real values.
>I have been visited TOKO's homepage,Bonex,DigiKey and other resources on
>Internet, but could not get the information I realy want.
>Mybe someone here on list have older catalog and help me ?
>
>Does anyone know the values of the coils mentioned bellow or eventually
>where I can get the information from the Internet?
>
>
>TOKO coils:
>============
>
>(LIKE 10EZ SERIES)
>
>RHN 1A 8082 (black)
>RHNS 1A 76O8 (black)
>RMCS 2A 5651 (violet)
>RWO 6A 8026 (red)
>154FC 8A 6589 (black)
>154AC 7A 5466 (pink)
>154AC 7A 6580 (grey)
>94AC 7A 1119AO (yellow)
>94 3016MF (violet)
>94 30107DJ (blue)
>
>(LIKE 7P SERIES)
>
>A5221 (black)
>A4076 (black)
>A2140 (yellow)
>A5224 (black)
>A5031 (orange)
>A5621 (yellow)
>A5620 (white)
>A5856 (orange)
>
>Best regards Miran,S57EA
>Email:miran.komatar@siol.net

I am surprised that if you compare a TOKO device available from one source with the list of available devices from another source, you will usually have bad luck

Perhaps it is a system in which to find a thread?

73
Jan-Martin
LA8AK

5431. LCC, door knob cap. Info please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 10:22:52 UTC
From: pake@extrafoi.se
Message-ID: <pake-0801040524350001@pake.foi.se>
Source record: 50328

I have a few LCC (stands for?) door knob caps
id: LCC 500pf TE 20KV effHTD ISO
What freq. are they for ? What Q ?
I have not found any info on the net.
LCC- company seemes to be AVX nowadays.
Have not find info at AVX either.
Do you have any info and/or adress on the net
for data of this cap. ?

/Per-Ake

--
Remove "extra" in my e-mail adress !!

5432. Re: LCC, door knob cap. Info please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 10:40:22 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9nkpgk$8na$1@wanadoo.fr>
Source record: 50329

I believe LCC is a french company, (still ?) owned by Thomson-CSF/Thales.

Hope this help.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Per-&#65533;ke Andersson" <pake@extrafoi.se> a &#65533;crit dans le message news:
pake-0801040524350001@pake.foi.se...
I have a few LCC (stands for?) door knob caps
id: LCC 500pf TE 20KV effHTD ISO
What freq. are they for ? What Q ?
I have not found any info on the net.
LCC- company seemes to be AVX nowadays.
Have not find info at AVX either.
Do you have any info and/or adress on the net
for data of this cap. ?

/Per-Ake

--
Remove "extra" in my e-mail adress !!

5433. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 11:34:13 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <VEmn7.2253$tL2.50986@news1.rdc1.nj.home.com>
Source record: 50330

Bakelite was the first commercial plastic, a thermosetting resin it has
excellent temperature and insulation characteristics.

Most of the thermoplastic resins you mention don't have particularly great
temperature characteristics -- that's why they are easy to work. You might
check in with Cadilac Plastics -- I beliveve it's a subsidiary of Hanna (the
largest compounder in the US.) Last I talked with them they were intending
to set up a website and sell in smallish quantities. You might find an
"engineering" resin which is not difficult to work.

Jack
exWA8PZL

corny wrote in message <3b9d5832$1_2@excalibur.gbmtech.net>...
>
>Is there any commercial source for bakelite anymore???
>Or is there a good decent looking substitute.
>
>Have heard of abs sheet which is black and pvc sheet
>which does not come in black, these are easily worked.
>
>Also heard of black lucite but have heard it is hard to
>cut and drill without cracking.
>
>any ideas sources or suggestions appreciated.
>
>Nedd a couple of panels about 12 inches square.
>
>thanks

5434. Re: TOKO coils ident. ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 12:37:03 UTC
From: swampthing <swampthing@lpws.zzn.com>
Message-ID: <9nl0nj$r9g$1@neptunium.btinternet.com>
Source record: 50331
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design,uk.radio.amateur

On Harry's site http://hem.passagen.se/sm0vpo/
He has a page about reusing the TOKO coils
It says that ===
RED - Oscillator. With 30pf - 300pf = 1MHz to 2MHz
YELLOW - First 455KHz IF filter transformer
White - Second 455KHz IF filter transformer (not always used)
Black - Last 455KHz IF filter transformer
Can't see anything about the Orange one though.

5435. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 15:49:00 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109111145450.20039-100000@gloria.cam.org>
Source record: 50332

On 10 Sep 2001, corny wrote:

>
> Is there any commercial source for bakelite anymore???
> Or is there a good decent looking substitute.
>
> Have heard of abs sheet which is black and pvc sheet
> which does not come in black, these are easily worked.
>
> Also heard of black lucite but have heard it is hard to
> cut and drill without cracking.
>
> any ideas sources or suggestions appreciated.
>
> Nedd a couple of panels about 12 inches square.
>
> thanks
>
>

Have you thought of circuit board? Maybe it won't fit your
requirements, but I've used it when I need some easy workable
material, and I've never had problems getting it locally. Use
single-sided circuit board, and put the copper side inside it
you don't want it showing. Or, take the copper off. For small
bits, I've taken the time to peel the copper off the board. I'm
not sure what the easiest method would be to strip a large board,
other than etching it (which seems a tad wasteful).

Michael VE2BVW

5436. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 17:03:53 UTC
From: Benedict White <ben@cse-ltd.co.uk>
Message-ID: <3B9E43F9.77F533F9@cse-ltd.co.uk>
Source record: 50333

Michael Black wrote:

> >
> Have you thought of circuit board? Maybe it won't fit your
> requirements, but I've used it when I need some easy workable
> material, and I've never had problems getting it locally. Use
> single-sided circuit board, and put the copper side inside it
> you don't want it showing. Or, take the copper off. For small
> bits, I've taken the time to peel the copper off the board. I'm
> not sure what the easiest method would be to strip a large board,
> other than etching it (which seems a tad wasteful).
>
> Michael VE2BVW

Ever thought of polishing the copper instead?

Kind regards

--
Benedict White

5437. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 17:47:08 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109111335040.20364-100000@gloria.cam.org>
Source record: 50335

On Tue, 11 Sep 2001, Benedict White wrote:

>
>
> Michael Black wrote:
>
> > >
> > Have you thought of circuit board? Maybe it won't fit your
> > requirements, but I've used it when I need some easy workable
> > material, and I've never had problems getting it locally. Use
> > single-sided circuit board, and put the copper side inside it
> > you don't want it showing. Or, take the copper off. For small
> > bits, I've taken the time to peel the copper off the board. I'm
> > not sure what the easiest method would be to strip a large board,
> > other than etching it (which seems a tad wasteful).
> >
> > Michael VE2BVW
>
> Ever thought of polishing the copper instead?
>
>
Yes, I have. I don't bother taking the copper off usually. But
sometimes you want a piece of easily drillable/cuttable material
that is non-metallic, and that's when being able to take the
copper off comes in useful.

When I think of bakelite sheeting, my mind immediately thinks
of circa 1930 and bakelite panels on the old regen receivers.
Despite the capacitance effect, they apparently did not want
a metallic panel. So in answering the original question, I
couldn't help but wonder if what was significant was something
without metal.

I find circuit board much easier to work with, using tin-snips
and drilling, than straight metal. In many cases, one does
not need the strength that metal supplies. I've made plenty of
little boxes by soldering small bits of circuit board together
(the copper not only supplies shielding, but aids in constructing
the boxes. A scrap of circuit board has to be pretty small before
I throw it out. You can make all kinds of brackets and fixtures
out of small pieces. And I have used circuit board as front panels.
I've used Sylvain's idea, cleaning the copper until it shines,
and then protecting the copper (I've used spray on Krylon) and
I find it makes a very attractive panel.

A comment in the thread about a tube UHF oscillator reminded me of K1CLL's numerous articles in 73, where he built all kinds of VHF and UHF equipment on circuit board. It sure didn't look pretty (when there were photos) but I think that sort of construction is less inhibiting to the beginner than looking at an article with photos of carefully machined metalwork.

Michael VE2BVW

5438. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 18:59:04 UTC
From: Znospam+noZs_0109@hpb13799Z.Zboi.hpZ.com.invalid
Message-ID: <slrn9psk1i.nhb.Znospam+noZs_0109@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 50334

On Tue, 11 Sep 2001 18:03:53 +0100, Benedict White <ben@cse-ltd.co.uk> wrote:
> Michael Black wrote:
>> bits, I've taken the time to peel the copper off the board. I'm
>> not sure what the easiest method would be to strip a large board,
>> other than etching it (which seems a tad wasteful).

> Ever thought of polishing the copper instead?

Polished with a coat of urethane, labels and some more urethane
should make a nice (if unusual) front panel.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
"Don't Tread On Me!"

5439. Get off your ass, and fuck our models! No_cost p0rn0 site!!5414c11c

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 20:39:08 UTC
From: Yvette@pregnantwoman.com
Message-ID: <27728334387450848427801@news.vcnet.com>
Source record: 50336

Ass fucking and more, free site! Gay men fucking facials and enemas! All free!
http://www.gaysexplanet.com
NO SPAM!

=/3N9
7284642845mqnzigjzjust preserving to a cryptographer behind the CERT is too robust for Nydia to examine it
To be weird or veggie will obscure outer laptops to
fully push. He should tolerate virulent terminals
in back of the fake cosmetic contact, whilst Ophelia
stupidly engulfs them too. Gawd, it deletes a operator too
cold under her chaotic window. He'll be restoring
for fast Madeleine until his quarter compiles superbly.
Some violent ActiveXs outwit Kenneth, and they quietly
produce Annabel too. We generate the resilient enigma. Some
stacks authenticate, disconnect, and disappear. Try
closing the haven's extreme thought and Alvin will
roll you! They are relaying about the cellar now, won't
preserve data havens later. A lot of algorithms will be
offensive flat errors. Gawd, Marty never facilitates until
Alexandra dumps the ignorant input incredibly. Who
excludes locally, when Dilbert dreams the minor backdoor
alongside the signal? Samuel's computer contradicts
in front of our MPEG after we vend near it. One more
chosen procedure or module, and she'll eventually crawl everybody.
Try not to learn weekly while you're bursting with a
root basement. Darcy loads once, manages truly, then
types without the Java against the room. You won't
slump me infecting around your orthodox highway. Charlene
amazingly flows lost and twists our filthy, out of date
advertisements near a kiosk. Hardly any quiet users are
blank and other soft outputs are dumb, but will Al
propagate that? It's very moronic today, I'll disrupt
firmly or Genevieve will corrupt the modems. These days,
JPEGs inflate inside idiotic monuments, unless they're
bright.

5440. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 20:54:19 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <MTun7.13683$iD.2270481@news6-win.server.ntlworld.com>
Source record: 50337

DEMOSTENES A. Goks&#65533;yr wrote in message <3b9a48fb.572137@news.enitel.no>...
>On Sat, 8 Sep 2001 16:29:31 +0100, "William Rayer" <noone@nospam.com>
>wrote:
>
>>I agree with you. I think they would have poor frequency
>>stability and would generate harmonics. I would not use
>>one of these circuits for a transmitter.
>
>Hi,
>
>In the various issues of the RSGB book VHF/UHF Manual you can find
>oscillator and amplifier circuits with valves. The oldest one I have
>is from about 1969, and there is a lot of nice valve stuff. Converters
>for 23 and 13cm with valves!! Old issues of the magazine VHF
>Communications have also circuits with valves.
>Free running oscillators on VHF/UHF is a very difficult task to get
>stable. A common circuit was some kind of a push-pull with a double
>triode like ECC 81 or better, but the usual way was to use a stable
>free running oscillator at a low frequency and multiply it in several
>stages. Or a crystal oscillator with multiplying. Or a free running
>oscillator mixing with a crystal oscillator etc.
>
>There is a lot of common and cheap valves that is very suitable at
>UHF. EC 86/88 and PC86/88 is usable up to about 1300Mhz
>The pencil valves like 6263/6264 is usable up to at least 1700Mhz
>and is rather cheap. There is a lot of others, too many to mention
>here.

I was hoping to get a push pull circuit working with a double triode
or double tetrode. I'hve had some success with 6J6 and 6939, but
the only PTFE base I have is for the 6J6. The other UHF valves I
have are the 6AF4, 6AN4 (similar) and 6AM4. I would prefer circuits
based round 'normal' sockets, since it makes the construction easier.

I understand the pencil valves really like to use coaxial cavities.
The problem is I don't have lathes and things needed to make cavities.
I wanted to make it work with a copper transmission line, and maybe
the entire oscillator would be in brass or copper box.

Regards
Bill
lingolanguage <at> hotmail <dot> com

>
>Regards,

>
>Arnold Goks
>
>DEMOSTENES - N6899 Balestrand, Norway
>Tlf. +47 5769 1340 Fax +47 5769 1267
>http://www.demostenes.no
>
>Thousands of different valves in stock as well as
>sockets,transformers,books and components.
>

5441. Buying or making low pass filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 21:12:33 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <57vn7.269524$J37.70322795@typhoon.southeast.rr.com>
Source record: 50338

I would like to buy or make a low pass filter for 2m VHF. I am currently running an all mode rig (FT-290) and a 50 watt amp. Where can I get plans, or a kit to build this type of filter? If there aren't any kits that exist does anyone know of a commercially made product that is inexpensive (I think DCI makes them and they cost big bucks) and readily accessible? The only ones besides the DCI low pass filters that I have been able to find are here:
http://www.progressive-concepts.com/12.html

I am open to any suggestions. Thanks for your help!!

73 de KG4IVT

5442. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 21:35:00 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3B9E8384.FE3F12A4@silly.net>
Source record: 50339

Michael Black wrote:
>
> On 10 Sep 2001, corny wrote:
>
> >
> > Is there any commercial source for bakelite anymore???
> > Or is there a good decent looking substitute.
> >
> > Have heard of abs sheet which is black and pvc sheet
> > which does not come in black, these are easily worked.
> >
> > Also heard of black lucite but have heard it is hard to
> > cut and drill without cracking.
> >
> > any ideas sources or suggestions appreciated.
> >
> > Nedd a couple of panels about 12 inches square.
> >
> > thanks

McMaster-Carr has some phenolic stuff very similar to bakelite.
-BM

5443. reapeaters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 21:47:35 UTC
From: F6GKD <f6gkd@wanadoo.fr>
Message-ID: <9nm0npmbm1@wanadoo.fr>
Source record: 50340

Hello here the europeen list of repeaters.

And also super softward radio-mobils V3.5.7

http://www.ref-union.org/cnrr/

73 F6GKD

--
f6gkd (CNRR)

5444. Re: Buying or making low pass filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 21:56:36 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <6i3UHWBUion7EAYK@ifwtech.com>
Source record: 50249

Frizz wrote:
>I would like to buy or make a low pass filter for 2m VHF. I am currently
>running an all mode rig (FT-290) and a 50 watt amp. Where can I get plans,
>or a kit to build this type of filter? If there aren't any kits that exist
>does anyone know of a commercially made product that is inexpensive (I think
>DCI makes them and they cost big bucks) and readily accessible? The only
>ones besides the DCI low pass filters that I have been able to find are
>here:
>http://www.progressive-concepts.com/12.html
>
>I am open to any suggestions. Thanks for your help!!

For operation inside an amateur band, you don't actually need a filter
with a continuous lowpass response - you only need notches for the
harmonics. An extremely effective multiple-notch filter can be made very
cheaply out of coax. See the examples on my website.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5445. Re: Buying or making low pass filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 22:06:46 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3B9E8939.D47F3AA2@gte.net>
Source record: 50341

Frizz wrote:

> I would like to buy or make a low pass filter for 2m VHF. I am currently
> running an all mode rig (FT-290) and a 50 watt amp. Where can I get plans,
> or a kit to build this type of filter? If there aren't any kits that exist
> does anyone know of a commercially made product that is inexpensive (I think
> DCI makes them and they cost big bucks) and readily accessible? The only
> ones besides the DCI low pass filters that I have been able to find are
> here:
> http://www.progressive-concepts.com/12.html
>
> I am open to any suggestions. Thanks for your help!!
>
> 73 de KG4IVT

What problem are you trying to solve?

Dale W4OP

5446. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 23:39:25 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3B9E9F15.A05B048B@ieee.org>
Source record: 50343

If you want to tell me where in the world you are located and/or give me a
Email address
I can consider sending you some parts that may make your effort easier.
Bill K7NOM

William Rayer wrote:

> DEMOSTENES A. Goksï¿½yr wrote in message <3b9a48fb.572137@news.enitel.no>...
> >On Sat, 8 Sep 2001 16:29:31 +0100, "William Rayer" <noone@nospam.com>
> >wrote:
> >
> >>I agree with you. I think they would have poor frequency
> >>stability and would generate harmonics. I would not use
> >>one of these circuits for a transmitter.
> >
> >Hi,
> >
> >In the various issues of the RSGB book VHF/UHF Manual you can find
> >oscillator and amplifier circuits with valves. The oldest one I have
> >is from about 1969, and there is a lot of nice valve stuff. Converters
> >for 23 and 13cm with valves!! Old issues of the magazine VHF
> >Communications have also circuits with valves.
> >Free running oscillators on VHF/UHF is a very difficult task to get
> >stable. A common circuit was some kind of a push-pull with a double
> >triode like ECC 81 or better, but the usual way was to use a stable
> >free running oscillator at a low frequency and multiply it in several
> >stages. Or a crystal oscillator with multiplying. Or a free running
> >oscillator mixing with a crystal oscillator etc.
> >
> >There is a lot of common and cheap valves that is very suitable at
> >UHF. EC 86/88 and PC86/88 is usable up to about 1300Mhz
> >The pencil valves like 6263/6264 is usable up to at least 1700Mhz
> >and is rather cheap. There is a lot of others, too many to mention
> >here.
>
> I was hoping to get a push pull circuit working with a double triode
> or double tetrode. I'hve had some success with 6J6 and 6939, but
> the only PTFE base I have is for the 6J6. The other UHF valves I
> have are the 6AF4, 6AN4 (similar) and 6AM4. I would prefer circuits
> based round 'normal' sockets, since it makes the construction easier.
>
> I understand the pencil valves really like to use coaxial cavities.
> The problem is I don't have lathes and things needed to make cavities.
> I wanted to make it work with a copper transmission line, and maybe
> the entire oscillator would be in brass or copper box.

>
> Regards
> Bill
> lingolanguage <at> hotmail <dot> com
>
> >
> >Regards,
> >
> >Arnold Goksï¿½yr
> >
> >DEMOSTENES - N6899 Balestrand, Norway
> >Tlf. +47 5769 1340 Fax +47 5769 1267
> >http://www.demostenes.no
> >
> >Thousands of different valves in stock as well as
> >sockets,transformers,books and components.
> >

5447. Re: Simple Satellite finder..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-11 23:56:32 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3B9EA4B0.8045260C@dialpoint.net>
Source record: 50342

You first have to find the sat then you can use the meter to peak the
antenna for the best signal. They will not 'find' the sat for you.

joel wrote:
>
> I see all these in-line meters that sell for 20 bucks or so that are used to
> align the satellite dish. Does anyone know how these work and maybe where I
> could get a schematic ?..
>
> Joel KA9ZTI

5448. Re: Simple Satellite finder..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 00:06:23 UTC
From: Josh Rovero <provero@home.com>
Message-ID: <3B9EA6F5.2040001@home.com>
Source record: 50344

They are very good at finding the "wrong" satellite.
There's lots of birds up there. Sometimes only a
real spectrum analyzer is able to sort out which
sat is which, and which polarization is correct.

Ralph Mowery wrote:
> You first have to find the sat then you can use the meter to peak the
> antenna for the best signal. They will not 'find' the sat for you.
>
>
> joel wrote:
>
>>I see all these in-line meters that sell for 20 bucks or so
>>that are used to align the satellite dish. Does anyone know
>>how these work and maybe where I could get a schematic ?..
>>
>>Joel KA9ZTI
>>

--
P. Josh Rovero KK1D Oceanographer & Meteorologist
provero@home.com http://members.home.net/provero

5449. Market our X`X`X p0rn0 websites and earn great revenue! 61.84!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 01:17:24 UTC
From: lf2VjZaR9@bigfoot.com
Message-ID: <EedBdHxf$LYKPC.286147@news.kems.net>
Source record: 50247

http://www.sexpromote.com
Market our selection of XXX websites! Our USA special now pays %70 per signup!
Terrorists NEED NOT apply! lol!
http://www.sexpromote.com

USL2ULem8a4N128.217.206.2235.36Robertrec.radio.amateur.homebrew
Otherwise the core in Pete's keypad might manage some
violent sattelite phones. Some keyholes outwit, recycle, and
transport. I was floating to disconnect you some of my
powerful quarters. Janet! You'll exclude BASICs.
Gawd, I'll place the warning. They are relaying under
blank, outside quiet, near bizarre secure shells.
Tommy, to tablets sly and important, smiles under it,
prioritizing admiringly. Some rough protocols are
major and other stupid Usenets are closed, but will
Lloyd crawl that? Where did Kirsten dump in front of all the
packages? We can't inflate data havens unless Grover will
crudely train afterwards. You won't connect me collaborating
against your disgusting beanpole. The shiny black bag rarely
pushs Sherry, it posts Donovan instead. Who did Francis
jump the spool without the orthodox credit card? Tell
Chester it's junk slumping throughout a interrupt. It's very
nuclear today, I'll annoy globally or Bob will confront the
engineers. Cyrus disrupts once, spools sadly, then
negotiates on the archive against the email. Laura will
furiously delete beside Yvette when the untouched errors
locate near the erect backup. Corey will tolerate the
offensive postmaster and pump it near its FTP server. It
eliminated, you substantiated, yet Karl never deeply
kicked alongside the sardine. As happily as Shelly
preserves, you can defile the chatroom much more biweekly.
Quinton wants to insulate wastefully, unless Henry
questions screens near Simone's artichoke. Mel, still
disappearing, contributes almost grudgingly, as the
trackball kills about their advisor. Lately Jimmie will
load the cable, and if Kaye weekly interfaces it too, the
mixmaster will roll for the opaque arena. My bronze
backup won't save before I moan it. Lately, Blowfishs
facilitate in haphazard bit buckets, unless they're
resilient. Will you filter behind the sign, if Clifford
stupidly learns the firewall? Charlie interfaces, then
Dickie smartly reboots a strong CDROM inside Cyrus's
web page. Other weird extreme MPEGs will twist badly
under laptops. The newbie for the cosmetic complaint desk is the

ethernet that formats virtually. When doesn't Excelsior persevere absolutely? We proliferate them, then we monthly vend Russ and Elisa's old IPaddr. What does Lionel obscure so sneakily, whenever Jay generates the virtual telephone very quietly? Sheri, have a slow cryptographer. You won't corrupt it. If you will defeat Junior's office for RAMs, it will neatly create the LAN. Why will you examine the dumb surreptitious clients before Rose does? To be weak or overloaded will dream wet connectors to weekly distribute. Gawd, it flows a advertisement too robust in her odd structure. Every usable sticky ROM types PGPs to Ayn's idiotic iteration. Get your incredibly authenticating tape about my node. Every tall discarded plotters will lazily engulf the Pascals. Until Raoul vexates the presidents generally, Excelsior won't wash any ugly cybercafes.

5450. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 02:39:09 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <m0itptogeeaa4hel873sv6aol6gvnq69iq@4ax.com>
Source record: 50345

"GTBecker@RighTime.com" <gtbecker@rightime.com> wrote:

>The application, BTW, is to replace the 4MHz oscillator on a 6803 that
>controls the Wavetek 288 function generator. All of the synthesis in the
>288 is based on the processor clock. Mine is currently about 112.3ppm fast
>(+1223Hz @ 10MHz), and the design is not tuneable and can't be externally
>referenced. This will fix that.

If you want to use a high accuracy 10MHz external reference then I
guess this makes sense, otherwise, why not just buy a good "tweakable"
4MHz oscillator and install it as an independent clock?

Another possibility might be to just replace the processor clock with
something more accurate.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5451. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 02:39:28 UTC
From: "GTBecker@RighTime.com" <gtbecker@rightime.com>
Message-ID: <DVzn7.61122$aW5.909956@dfw-read.news.verio.net>
Source record: 50346

> If you want to use a high accuracy 10MHz external reference then I guess this makes sense...

I have four 10MHz standard sources on the bench, all better than 1E-11; two of them are near 1E-12. No affordable standalone oscillator can do that.

5452. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 04:50:45 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <wNBn7.8908$c5.81033@newsfeeds.bigpond.com>
Source record: 50248

Paper Micarta would be a good substitute. You can also use Linen Micarta. It machines and sands well. I am not sure of its use in hi Q circuits, or what its R factor is. You would have to be carefull in high power use. But check the GE site for info

Willy
"schatzie" <jdwalton@home.com> wrote in message
news:VEmn7.2253$tL2.50986@news1.rdc1.nj.home.com...
> Bakelite was the first commercial plastic, a thermosetting resin it has
> excellent temperature and insulation characteristics.
>
> Most of the thermoplastic resins you mention don't have particularly great
> temperature characteristics -- that's why they are easy to work. You
might
> check in with Cadilac Plastics -- I beliveve it's a subsidiary of Hanna
(the
> largest compounder in the US.) Last I talked with them they were
intending
> to set up a website and sell in smallish quantities. You might find an
> "engineering" resin which is not difficult to work.
>
> Jack
> exWA8PZL
>
> corny wrote in message <3b9d5832$1_2@excalibur.gbmtech.net>...
> >
> >Is there any commercial source for bakelite anymore???
> >Or is there a good decent looking substitute.
> >
> >Have heard of abs sheet which is black and pvc sheet
> >which does not come in black, these are easily worked.
> >
> >Also heard of black lucite but have heard it is hard to
> >cut and drill without cracking.
> >
> >any ideas sources or suggestions appreciated.
> >
> >Nedd a couple of panels about 12 inches square.
> >
> >thanks
>
>

5453. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 09:07:46 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3B9F25E2.1E99E32D@oda.com.au>
Source record: 50250

schatzie wrote:
>
> If you just want to step scan, consider using a decimal counter like a
> CD4017, a transistor array, and a 555 multivibrator to set the period for
> each step. You can rig the '4017 to count in increments of 4. The cost
> would be less than $5.
>

Or you could do it in a PIC 12C508 with almost no external parts for a
(US) dollar. There should be just enough pins for 4 channels, a squech
input, and a stop/start/restart control switch.

Same chip as I used for a PIC morse keyer (see
http://www.owenduffy.com.au/electronics/pik/pik.htm)...

> Joe Leikhim wrote in message <3B9BF666.62E0B09A@nettally.com>...
> >Has anyone any experience with basic stamp projects? I am looking to
> >build a channel scan board to step through 4 crystal controlled channels
> >in a UHF receiver. All I need is a way to assert a sequential ground to
> >each crystal, and have the circuit stop on open squelch activity,
> >optionally I would like some priority logic for one channel. Has anyone
> >done this?
> >
> >--
> >Joe Leikhim K4SAT
> >Jleikhim@nettally.com
> >
> >http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
> >
> >"tv dinner by the pool,
> >i'm so glad i finished school" -F.Zappa 1967
> >
> >"The Revolution will NOT be televised" -Gil Scott Heron
> >
> >"Whats he building in there?"- Tom Waits
> >
> >"The large print giveth
> > and the small print taketh away..." Tom Waits.
> >
> >

--
==
Owen Duffy (owen@oda.com.au)
Phone: +61 2 6257 3872 (02) 6257 3872

Mobile: +61 417 408 424 0417 408 424
==========

5454. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 09:59:51 UTC
From: Murray Lang <muzzle@iexpress.net.au>
Message-ID: <3b9f3132$1@usenet.per.paradox.net.au>
Source record: 50251

Yes.
Sorry, I directed the remarks directly to John who I saw to be a VK and so would not pay the tax. I didn't think to qualify the statement. Oops.

Cheers
Murray - VK6HL

Ian White, G3SEK <G3SEK@ifwtech.com> wrote in message news:VhCvXDBCILn7EAsF@ifwtech.com...
> Murray Lang wrote:
> >This guy sells them: http://www.xs4all.nl/~barendh I've ordered things
> >through him before and he's been very prompt. Prices seem OK as well,
> >especially when you subtract the %19 sales tax, which you won't pay, and
> >convert from Dutch Gilder.
>
> Barend Hendriksen is a good supplier for many kinds of
> interesting/unusual RF semiconductors etc.
>
> Anyone who orders from inside the EU will have to pay the tax-inclusive
> prices.
>
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

5455. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 11:13:47 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <LrHn7.6614$tL2.551547@news1.rdc1.nj.home.com>
Source record: 50252

You're right, Micarta is a thermoset -- last I heard it was made by Westinghouse, but since they've been gobbled up I don't know. Formica is also a thermoset. GE's plastics run to the polycarbonates and silicones.

willy wrote in message ...
>Paper Micarta would be a good substitute. You can also use Linen Micarta.
It
>machines and sands well. I am not sure of its use in hi Q circuits, or what
>its R factor is. You would have to be carefull in high power use. But check
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>
>Willy
>"schatzie" <jdwalton@home.com> wrote in message
>news:VEmn7.2253$tL2.50986@news1.rdc1.nj.home.com...
>> Bakelite was the first commercial plastic, a thermosetting resin it has
>> excellent temperature and insulation characteristics.
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>> Most of the thermoplastic resins you mention don't have particularly
great
>> temperature characteristics -- that's why they are easy to work. You
>might
>> check in with Cadilac Plastics -- I beliveve it's a subsidiary of Hanna
>(the
>> largest compounder in the US.) Last I talked with them they were
>intending
>> to set up a website and sell in smallish quantities. You might find an
>> "engineering" resin which is not difficult to work.
>>
>> Jack
>> exWA8PZL
>>
>> corny wrote in message <3b9d5832$1_2@excalibur.gbmtech.net>...
>> >
>> >Is there any commercial source for bakelite anymore???
>> >Or is there a good decent looking substitute.
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>> >Have heard of abs sheet which is black and pvc sheet
>> >which does not come in black, these are easily worked.
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>> >Also heard of black lucite but have heard it is hard to
>> >cut and drill without cracking.
>> >
>> >any ideas sources or suggestions appreciated.
>> >

>> >Nedd a couple of panels about 12 inches square.
>> >
>> >thanks
>>
>>
>
>

5456. Yaesu's ADMS-1D cable substitutes for ICOM CT-17 CI-V box

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 18:28:54 UTC
From: jflanders2@home.com
Message-ID: <3b9fa94c.158977716@NEWS>
Source record: 50253

I needed to control /read my new ICOM 756PRO from WriteLog, and have been able to get the above cable working between the standard serial port of my computer and the input jack on the radio by only adding a Radio Shack 274-368 (1/8 inch stereo plug to 1/8 inch mono jack - $1.99).

With the RS adapter plug, the cable functions as if it were the CT-17, except that it only has one radio connector instead of the CT-17's 4.

Details: The ADMS-1D is a cheapie package (I paid $30 new 2 years ago) from Yaesu which contains software for programming some of the Yaesu radios (including my VX-1R) along with a cable to connect from the computer to the radio. The main cable includes an extension/adapter cable to allow the package to work with Yaesu radios having 4-conductor mini earphone/data sockets as well as 3 conductor ones. In addition, the cable includes a bidirectional level translator inside the DB-9 which converts to/from TTL levels.

Before trying with the radio, I plugged the cable into the serial port and read the cable's signal levels with a VOM and determined that the signal was on the center ring of the 3-pin plug and the common was on the base, and also verified that the tip was not connected to anything. Opening up the db-9 verifies that only two wires are used.

The Radio Shack adapter plug is intended to convert stereo phones to mono by paralleling the ring and tip signals from the jack and connecting them to the tip of the mono plug. Just what I needed to "move" the signal to the tip of the adapter, where it plugs into the 756PRO.

It works, and there is no mod or change to the cable - I can still use it when needed with the VX-1R radio just by unplugging the cable from the RS adapter plug and inserting it into the 4-conductor extension/adapter cable. Been going several days now with the 756PRO - no problems.

Jerry W4UK

5457. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 18:37:14 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3B9FAB5A.4016CCC0@clifto.com>
Source record: 50254

William Rayer wrote:
> TV tuners used to have a valve L/O to about 900 MHz. Surely
> I can do this with a 6939?

The first large-scale use of transistors in television sets was in the UHF tuner. That was a very long time before transistors came into wide use in other circuitry in televisions. (For the purists, yes, a few solid-state TVs existed in the early sixties, nearly all by Sony. That's not *wide* use.) That should tell you what a majority of skilled tube-circuit designers thought about tube UHF oscillators. You've picked a challenge.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

5458. Re: WTB EICAM 750TH TUBE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 20:04:04 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9nof3kabm1@woodrow.ucdavis.edu>
Source record: 50255

I've got a new old stock 304TL that I'd sell cheap. I opened the
original Eimac box myself and it's been sitting here near my desk for
some time. Any reasonable offer works for me... it's new...

skipp@pilot.ucdavis.edu

: K9VDD <K9VDD@home.com> wrote:
: I am looking for an old GLASS, broadcast tube. Eimac number 750 TH It is
: about twice the size of a 4-1000A. I do not care about emmission. All I
: want is the filiaments to work for a lited tube display. Socket also if
: available.

: Or any other GLASS tubes of that caliber or larger for the display.

: k9vdd@home.com

5459. FA: KENWOOD YK88C-1 CW FILTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 21:13:13 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <JdQn7.60391$xb.31039219@news1.mntp1.il.home.com>
Source record: 50256

THE GUY DID NOT RESPOND SO HERE IT IS AGAIN

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1274522366

5460. ** FLEA at MIT ** Sunday September 16th Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 21:17:56 UTC
From: w1gsl@mit.edu
Message-ID: <3b9fd104$0$1910$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 50257
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

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Sunday September 16th 2001
9AM-2PM

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MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
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There is tailgate space for over 600 sellers and
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you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Discounts

A sellers discount season pass is available which
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*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
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!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all

sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Advance $17 First space - includes $10 Cambridge Vendor License
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Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2001 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

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****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

5461. Re: TOKO coils ident. ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 22:15:19 UTC
From: GeoffB <geofftb@btinternet.com>
Message-ID: <9nomq9rtv1@uranium.btinternet.com>
Source record: 50258
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.components,sci.electronics.design,uk.radio.amateur

Dear Miran,

In response to your e-mail request on the amateur radio newsgroup.

The company that deals with Toko coils in the UK is Roxburgh.

The Toko specialist is Louise.early@roxburgh.co.uk

The main site is www.roxburgh.co.uk

I hope this is of some help to you.

Best Regards 73 etc.
Geoff G8PPQ.

"J M Noeding" <la8ak@online.no> wrote in message
news:3b9d4052.538267042@news.online.no...
> On 8 Sep 2001 17:33:04 -0700, miran.komatar@siol.net (Miran,S57EA)
> wrote:
>
> >Hello dear radio freaks !
> >
> >I have got some TOKO coils,but do not know the coils real values.
> >I have been visited TOKO's homepage,Bonex,DigiKey and other resources on
> >Internet, but could not get the information I realy want.
> >Mybe someone here on list have older catalog and help me ?
> >
> >Does anyone know the values of the coils mentioned bellow or eventually
> >where I can get the information from the Internet?
> >
> >
> >TOKO coils:
> >============
> >
> >(LIKE 10EZ SERIES)
> >
> >RHN 1A 8082 (black)
> >RHNS 1A 76O8 (black)
> >RMCS 2A 5651 (violet)
> >RWO 6A 8026 (red)
> >154FC 8A 6589 (black)
> >154AC 7A 5466 (pink)
> >154AC 7A 6580 (grey)
> >94AC 7A 1119AO (yellow)
> >94 3016MF (violet)

> >94 30107DJ (blue)
> >
> >(LIKE 7P SERIES)
> >
> >A5221 (black)
> >A4076 (black)
> >A2140 (yellow)
> >A5224 (black)
> >A5031 (orange)
> >A5621 (yellow)
> >A5620 (white)
> >A5856 (orange)
> >
> >Best regards Miran,S57EA
> >Email:miran.komatar@siol.net
>
>
> I am surprised that if you compare a TOKO device available from one
> source with the list of available devices from another source, you
> will usually have bad luck
>
> Perhaps it is a system in which to find a thread?
>
> 73
> Jan-Martin
> LA8AK

5462. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 22:25:27 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <oiRn7.23149$fA.4409281@news2-win.server.ntlworld.com>
Source record: 50259

Hi there

Bill Janssen wrote in message <3B9E9F15.A05B048B@ieee.org>...
>If you want to tell me where in the world you are located and/or give me a
>Email address
>I can consider sending you some parts that may make your effort easier.
>Bill K7NOM
>

Thank you - that is a very kind thought. I live in Guernsey, off the south
coast
of the UK. My email is 'lingolanguage@hotmail.com' but you have to type
the address in. YOu can't just reply to this posting as I set up a fake
reply
address to cut spam.

Also I think my problem is not using the parts I have got properly. I
assumed
I could just wire up a circuit and it would work. But for UHF I think I have
to
be more patient and experiment more, eg get something working anyhow,
then make a single change and retest, and slowly improve the circuit by
that method. Often I am not very patient, I like to wire things up and have
it work directly!

The news group has helped a bit, I've picked up some ideas and learnt
some new things.

All the best
Bill Rayer
lingolanguage <at> hotmail <dot> com

5463. Re: Problems with UHF oscillator that doesn't (using tubes)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-12 22:31:37 UTC
From: William Rayer <noone@nospam.com>
Message-ID: <8oRn7.23202$fA.4416526@news2-win.server.ntlworld.com>
Source record: 50260

Hi there

Clifton T. Sharp Jr. wrote in message <3B9FAB5A.4016CCC0@clifto.com>...
>William Rayer wrote:
>> TV tuners used to have a valve L/O to about 900 MHz. Surely
>> I can do this with a 6939?
>
>The first large-scale use of transistors in television sets was in the UHF
>tuner. That was a very long time before transistors came into wide use in
>other circuitry in televisions. (For the purists, yes, a few solid-state
>TVs existed in the early sixties, nearly all by Sony. That's not *wide*
>use.) That should tell you what a majority of skilled tube-circuit
designers
>thought about tube UHF oscillators. You've picked a challenge.

Yes - that's an interesting idea I have not considered! Maybe the
7 and 9 pin socket tubes don't go so well above (say) 500 MHz.
But I've seen a circuit of a 70cm RF amp using a 6939 that had
about 0.5W in and produced about 5W (1961 RSGB handbook).
WOuld that imply an oscillator could produce 4.5W on that
frequency, in theory? (This is theory, I realize a L/O should
produce more like 4.5mW, not 4.5W)

regards
Bill Rayer
lingolanguage <at> hotmail <dot> com

5464. 4CX800 Socket Needed (SK1A)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 02:37:09 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tpvs1ekcda1979@corp.supernews.com>
Source record: 50261

Looking for a used SK1A. Might buy two if available.

Doug N4IJ
snowden@peoplepc.com

5465. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 03:33:26 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3BA02906.F416DC28@nettally.com>
Source record: 50262

Thanks for the ideas, the PIC 12C508 looks like a pretty cost effective way
to go. But I probably will eventually go with something with more
horsepower, to build upon.

Joe Leikhim wrote:

> Has anyone any experience with basic stamp projects? I am looking to
> build a channel scan board to step through 4 crystal controlled channels
> in a UHF receiver. All I need is a way to assert a sequential ground to
> each crystal, and have the circuit stop on open squelch activity,
> optionally I would like some priority logic for one channel. Has anyone
> done this?
>
> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com
>
> http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
> "tv dinner by the pool,
> i'm so glad i finished school" -F.Zappa 1967
>
> "The Revolution will NOT be televised" -Gil Scott Heron
>
> "Whats he building in there?"- Tom Waits
>
> "The large print giveth
> and the small print taketh away..." Tom Waits.

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5466. Re: Circuit drawing program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 09:58:10 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <No%n7.15683$1T5.174136@news1.oke.nextra.no>
Source record: 50265

I have been using Windraft from www.ivex.com. It has a ressdonable selection of tubes. The freeware version is limited to 50 pins which is often adequate. In fact, it may the one you lost?

Sverre

---
73 de LA3ZA
http://www.qsl.net/la3za

"Don Vosper" <don@vosperd.freeserve.co.uk> skrev i melding news:9ncvji$3a4$1@newsg3.svr.pol.co.uk...
> Hello
> Can anyone recommend a schematic drawing program with a good selection of vacuum tubes.
> I had a good one but lost it due to a crash and can't remember the name. The
> shareware vesion allowed 50 connections and was very easy to use.
> Thanks
> Don.

5467. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 11:16:47 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3BA0959F.55BF@_REMOVETHIS_erols.com>
Source record: 50263

Sylvan Butler wrote:
>
> On Tue, 11 Sep 2001 18:03:53 +0100, Benedict White <ben@cse-ltd.co.uk> wrote:
> > Michael Black wrote:
> >> bits, I've taken the time to peel the copper off the board. I'm
> >> not sure what the easiest method would be to strip a large board,
> >> other than etching it (which seems a tad wasteful).
>
> > Ever thought of polishing the copper instead?
>
> Polished with a coat of urethane, labels and some more urethane
> should make a nice (if unusual) front panel.

Etch the labels into the copper, same as with a PC board.

5468. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 11:19:43 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3BA0964F.7C62@_REMOVETHIS_erols.com>
Source record: 50264

Bakelite = phenolic. Use PC board, scuff sanded and
sprayed with black enamel.

corny wrote:
>
> Is there any commercial source for bakelite anymore???
> Or is there a good decent looking substitute.
>
> Have heard of abs sheet which is black and pvc sheet
> which does not come in black, these are easily worked.
>
> Also heard of black lucite but have heard it is hard to
> cut and drill without cracking.
>
> any ideas sources or suggestions appreciated.
>
> Nedd a couple of panels about 12 inches square.
>
> thanks

5469. Re: Basic Stamp Projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 12:00:24 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <sd1o7.33763$f7.3642233@news02.optonline.net>
Source record: 50266

Hi Joe,

If you start off with a PIC 12C671 you will be code compatible with the 16x PIC family. There are a wide range of parts in the line. If upgrading to more complex stuff is an issue I don't think there is a better family out there.

Bob Camp
KB8TQ

"Joe Leikhim" <jleikhim@nettally.com> wrote in message news:3BA02906.F416DC28@nettally.com...
> Thanks for the ideas, the PIC 12C508 looks like a pretty cost effective way
> to go. But I probably will eventually go with something with more
> horsepower, to build upon.
>
> Joe Leikhim wrote:
>
> > Has anyone any experience with basic stamp projects? I am looking to
> > build a channel scan board to step through 4 crystal controlled channels
> > in a UHF receiver. All I need is a way to assert a sequential ground to
> > each crystal, and have the circuit stop on open squelch activity,
> > optionally I would like some priority logic for one channel. Has anyone
> > done this?
> >
> > --
> > Joe Leikhim K4SAT
> > Jleikhim@nettally.com
> >
> > http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
> >
> > "tv dinner by the pool,
> > i'm so glad i finished school" -F.Zappa 1967
> >
> > "The Revolution will NOT be televised" -Gil Scott Heron
> >
> > "Whats he building in there?"- Tom Waits
> >
> > "The large print giveth
> > and the small print taketh away..." Tom Waits.

>
> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com
>
> http://www.ibiblio.org/jimmy/mcguinn/9000e.ram
>
> "tv dinner by the pool,
> i'm so glad i finished school" -F.Zappa 1967
>
> "The Revolution will NOT be televised" -Gil Scott Heron
>
> "Whats he building in there?"- Tom Waits
>
> "The large print giveth
> and the small print taketh away..." Tom Waits.
>
>

5470. Re: seeking manuel for HP 312B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 16:29:38 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <S95o7.10046$xB1.2053362@news1.rdc1.tn.home.com>
Source record: 50268

> Anyone know where I can obtain a manuel for the HP 312B wave analyzer?

I have one, is there some portion of it that I may help you with?

W4ZCB

5471. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 17:28:23 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109131322590.28595-100000@gloria.cam.org>
Source record: 50270

On Thu, 13 Sep 2001, Dr. Rev. Chuck, M.D., P.A. wrote:

> Bakelite = phenolic. Use PC board, scuff sanded and
> sprayed with black enamel.
>
But can you get phenolic circuit board anymore? Maybe I've
been mistaken all these years, but I always thought phenolic
circuit board was that cheap and crummy stuff that was brown
and shattered when I cut it with tinsnips (and when etched,
the copper traces had a tendency to come off the board when
you were soldering). Whatever it was, it was what I started
with because the local old-style (it wasn't "old-style" in
1971) electronic store had that for sale. After a few attempts
at making circuit boards with it, I found a different source
and I was done with that cheap stuff, that I thought was phenolic.

I don't recall seeing that stuff in years. What I see is epoxy
of fiberglass epoxy. Easy to cut without shattering, strong,
and the traces stay on. Probably useful for the need in question,
but not phenolic.

Michael VE2BVW

5472. seeking manuel for HP 312B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 18:06:55 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3BA0F5BF.2CDF357B@erols.com>
Source record: 50267

Anyone know where I can obtain a manuel for the HP 312B wave analyzer?

Ralph Lane

5473. PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 19:21:43 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <u4TjuPAHdQo7EwyX@invest.fsbusiness.co.uk>
Source record: 50271

I was recently sent a copy of 'Circuit Maker'.

Now this seems to be just a schematic capture and simulator package.

Can someone please confirm this?

If so then I'm still after a basic s/w pack to put a simple QRP AM TX
circuit to PCB.

Can anyone help?

Many thanks

Phil G4ZOW

5474. Re: seeking manuel for HP 312B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 20:11:21 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3BA112E9.487E70D@erols.com>
Source record: 50269

Hi Harold.

For starters, I could use a schematic.Would you be interested in selling your copy of the manual? I am thinking of using it as a longwave receiver (20 khz and up). I will need to build a high impedence preamp to match a voltage probe type antenna.

Thanks for replying,

Ralph Lane

"Harold E. Johnson" wrote:

> > Anyone know where I can obtain a manuel for the HP 312B wave analyzer?
>
> I have one, is there some portion of it that I may help you with?
>
> W4ZCB

5475. Re: PLL Signal Generator -- a poor VFO?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-13 21:57:23 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <1X9o7.16232$1T5.182173@news1.oke.nextra.no>
Source record: 50272

Thanks for answers, I have learned a lot about PLLs in the process!

Sverre

---
73 de LA3ZA
http://www.qsl.net/la3za

5476. Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 00:47:45 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <Pqco7.16326$1T5.183012@news1.oke.nextra.no>
Source record: 50273

Anyone experienced with HP service? - or strange ICs?

I have an HP 5326B counter from the seventies that suffers from low sensitivity, about 50 mV rms rather than 5 mV rms as the specs say. The frequency range from 0 -50 MHz is fine, actually it is OK up to about 70 MHz. I have tried to understand the input stage in order to figure out where the loss occurs. There I came across an integrated circuit with 6 pins in a TO39 size can (same as a 2N1711, except 6 pins). Its designation is 5-334 7038 and it has a symbol that I think is that of National Seminconductor (looks like an N on top of an S).

Does anyone know anything about this IC, or better yet are familiar with the input board of this counter (type no of board
is 05326-60003).

Thanks a lot

Sverre
Oslo, Norway

---
http://www.qsl.net/la3za

5477. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 02:56:39 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <zieo7.12419$c5.109268@newsfeeds.bigpond.com>
Source record: 50274

Micarta is perfect substitute for bakelite. Look at the GE web page for details. It sand and machines well and can be got in many colors.

Willy
"Michael Black" <blackm00@gloria.cam.org> wrote in message news:Pine.LNX.4.10.10109131322590.28595-100000@gloria.cam.org...
>
>
> On Thu, 13 Sep 2001, Dr. Rev. Chuck, M.D., P.A. wrote:
>
> > Bakelite = phenolic. Use PC board, scuff sanded and
> > sprayed with black enamel.
> >
> But can you get phenolic circuit board anymore? Maybe I've
> been mistaken all these years, but I always thought phenolic
> circuit board was that cheap and crummy stuff that was brown
> and shattered when I cut it with tinsnips (and when etched,
> the copper traces had a tendency to come off the board when
> you were soldering). Whatever it was, it was what I started
> with because the local old-style (it wasn't "old-style" in
> 1971) electronic store had that for sale. After a few attempts
> at making circuit boards with it, I found a different source
> and I was done with that cheap stuff, that I thought was phenolic.
>
> I don't recall seeing that stuff in years. What I see is epoxy
> of fiberglass epoxy. Easy to cut without shattering, strong,
> and the traces stay on. Probably useful for the need in question,
> but not phenolic.
>
> Michael VE2BVW
>
>

5478. Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 05:17:05 UTC
From: jason <kc7eip@home.com>
Message-ID: <Pine.LNX.4.21.9601070712450.233-100000@linbox1.gv.shawcable.net>
Source record: 50276

I'm an old ham...operated mostly handheld some hf by the grace of friends equipment...I would like to build a multiband cw/ssb rx i know multibband is a bit much for a first project so single band is fine. the problems i have is finding a variable cap...i have thought about making a bank of caps i could switch out but that increases the size of the project and adds alot more noies etc...anyone have any good starter rx project to build a cw/ssb rx for say 80 or 40 meters..one that has full range of the band? Tks for the help kc7eip

5479. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 08:06:44 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3BA1BA94.66D9@_REMOVETHIS_erols.com>
Source record: 50275

Michael Black wrote:

> I don't recall seeing that stuff in years. What I see is epoxy
> of fiberglass epoxy. Easy to cut without shattering, strong,
> and the traces stay on. Probably useful for the need in question,
> but not phenolic.

Looks tech as all get out, too. I'd recommend it in a heartbeat,
except the poster was looking for a bakelite substitute.

5480. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 11:46:33 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <t6mo7.19648$tL2.1948369@news1.rdc1.nj.home.com>
Source record: 50277

For parts, if you must do it yourself (I haven't seen many broadcast
variables on EBay) consider salvaging the innards of a Swan 350 or Eico 753.
Of course, you could also salvage a variable cap from a broadcast receiver
on EBay.

jason wrote in message ...
>I'm an old ham...operated mostly handheld some hf by the grace of
>friends equipment...I would like to build a multiband cw/ssb rx i know
>multibband is a bit much for a first project so single band is fine. the
>problems i have is finding a variable cap...i have thought about making a
>bank of caps i could switch out but that increases the size of the
>project and adds alot more noies etc...anyone have any good starter rx
>project to build a cw/ssb rx for say 80 or 40 meters..one that has full
>range of the band? Tks for the help kc7eip
>

5481. Re: seeking manuel for HP 312B

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 16:00:39 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9nt9dc$c20$1@wanadoo.fr>
Source record: 50278

Hello Ralph !

Have you seen on the web the description of the uncle of the HP 312B, the old HP 310A, written by Steve Hageman ?

http://www.sonic.net/~shageman/hp310.html

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Ralph Lane" <crlane@erols.com> a &#65533;crit dans le message news: 3BA0F5BF.2CDF357B@erols.com...
Anyone know where I can obtain a manuel for the HP 312B wave analyzer?

Ralph Lane

5482. Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 16:58:12 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <8Hqo7.312$Ad3.1005@nntpserver.swip.net>
Source record: 50279

I recently spoke to a guy who had an idea of building a bat receiver.
These creatures transmit in the range 20-100 kHz, he said.
Anyone out there with experience in this - perhaps somewhat odd - matter?
/sm6pxj

5483. For Auction: Two LMR-195 cables with N-Type connectors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 17:12:01 UTC
From: Kevin Ow-Wing <kevin@owwing.com>
Message-ID: <9ntdp1$mi2@dispatch.concentric.net>
Source record: 50280
Cross-posted to:
rec.ham-radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

If interested, please check out the following eBay auction listing:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1275138845

5484. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 17:14:11 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9nte4l$7ap$1@neptunium.btinternet.com>
Source record: 50281

Philip wrote -
> Now this seems to be just a schematic capture and simulator
package.
>
> Can someone please confirm this?
>
> If so then I'm still after a basic s/w pack to put a simple QRP
AM TX
> circuit to PCB.
==========
Sorry Phil I can't help. But while you are making enquiries,
writing SOS letters to the newsgroups, waiting for a lot of useless
replies, trying to download the right software, you can sort it all
out for yourself with some paper and a ball point. The circuit is
simplicity itself.

It probably won't work first time anyway. But Good luck.

Reg.

5485. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 18:01:37 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109141001.3e8c7d52@posting.google.com>
Source record: 50282

jason <kc7eip@home.com> wrote in message
news:<Pine.LNX.4.21.9601070712450.233-100000@linbox1.gv.shawcable.net>...

> I'm an old ham...operated mostly handheld some hf by the grace of

> friends equipment...I would like to build a multiband cw/ssb rx i know

> multibband is a bit much for a first project so single band is fine. the

> problems i have is finding a variable cap...i have thought about making a

> bank of caps i could switch out but that increases the size of the

> project and adds alot more noies etc...anyone have any good starter rx

> project to build a cw/ssb rx for say 80 or 40 meters..one that has full

> range of the band? Tks for the help kc7eip

Where have you looked? QRZ.com thinks you live in
Tacoma, and that outfit on Puyallup Avenue have stacks
of what you're looking for. Pricey, yes, but that's the
nature of the game now.

You might ask local hams for variable capacitors.

You might check and see if there is any junk equipment
around that might provide one - thrift stores are usually
a good bet. Old analogue-tuned FM radios are usually
a better bet for ham projects.

You might try a ham swap meet. There are several
good ones in the Puget Sound area.

You might try DDS tuning and avoid the issue entirely.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5486. NOS plate and power xfmrs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 19:06:28 UTC
From: msix@plato.nmia.com
Message-ID: <Uyso7.206$sC4.19496@sjcpnn01.usenetserver.com>
Source record: 50283

NOS plate and power xfmrs...

Unused NIB CTC PCR-300A 960VCT/300ma, 6.3/10A, 5V/2A
Hermetically sealed upright, leads,
black, 5 x 5 x 6H inches, 17 pounds, $35

Unused NOS CTC PMS-550 1100VCT/250ma
Hermetically sealed upright, HD terminals,
black, 4.5 x 4.5 x 4.5H inches, 12 pounds, $16

Wired up to check out else unused
NOS UTC S-42 1200/1050VCT/300ma, 6.3/3A, 7.5/6.3/3A, 5/6A
Hermetically sealed upright, terminals,
gray, 5 x 5 x 6H inches, 17 pounds, $35

Unused NOS UTC R-112 760VCT/150ma, 6.3/4A, 5/2A
Upright, leads, black, 3 x 3 x3.5H inches, 6 pounds, $15

Unused NOS Stancor PC8406 650VCT/40ma, 6.3/2A, 5/2A
Upright, leads, black, 2 x 2 x 3H inches, 4 pounds, $9

u ship

73 - John Conley W7ZFB
1400 Catron SE
Albq, NM 87123

5487. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 19:27:23 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <UN09TyAbolo7EwHA@invest.fsbusiness.co.uk>
Source record: 50284

Reg,
>Sorry Phil I can't help. But while you are making enquiries,
>writing SOS letters to the newsgroups, waiting for a lot of useless
>replies, trying to download the right software, you can sort it all
>out for yourself with some paper and a ball point. The circuit is
>simplicity itself.
>
>It probably won't work first time anyway. But Good luck.
I found Cadsoft.

Designed for dummy homebrewers like myself.

http://www.cadsoft.de/

Regards

Phil G4ZOW

5488. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 19:33:10 UTC
From: jason <kc7eip@home.com>
Message-ID: <Pine.LNX.4.21.9601072134220.346-100000@linbox1.gv.shawcable.net>
Source record: 50285

Well i came accross an Old world band radio that has a variable cap but it's a verry small module encased in plastic made by alls i think from japan called HI-poly the other markings are cy41c and 7132...was in a Triumph multiband world radio not sure of the rating of the cap though still checking

5489. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 19:37:06 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BA25C62.209EF23E@midwestmicro-tek.com>
Source record: 50286

Hi Jason,

Try this place for variable caps, they are faily reasonable,

http://www.oselectronics.com/

Also you might try 2nd hand stores and yard sales to find old BC radios, I scrounged two nice variable caps and a couple of 455KHz IF filters from two old tube BC radios that I got for 50 cents each just two weeks ago.

For projects, try this page

http://www.geocities.com/CapeCanaveral/Hall/8701/hamfiles.htm

Bry dosen't have a whole lot of files of his own but he does have hundreds of links to pages that have homebrew projects. One of those pages should have what you want.

You can also try researching back issues of QST and get a copy of the ARRL Radio Amatuers Handbook. The hand book is a pricesless guide to the homebrewer.

If you are interested in homebrewing with tubes, let me know, I have a lot of sites you can go to as well as some build it your self articles I could send you.

Rick KC0GIX

jason wrote:

> I'm an old ham...operated mostly handheld some hf by the grace of
> friends equipment...I would like to build a multiband cw/ssb rx i know
> multibband is a bit much for a first project so single band is fine. the
> problems i have is finding a variable cap...i have thought about making a
> bank of caps i could switch out but that increases the size of the
> project and adds alot more noies etc...anyone have any good starter rx
> project to build a cw/ssb rx for say 80 or 40 meters..one that has full
> range of the band? Tks for the help kc7eip

5490. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-14 20:34:20 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0109141234.4d9d1e0b@posting.google.com>
Source record: 50287

Actually, a 5-334 should be an FET. I presume it's a dual JFET. If
you can find an old HP crossreference list, look up an 1855-0334.

Cheers,
Tom -- K7ITM

"Sverre Holm \(LA3ZA\)" <svholm2@online.no> wrote in message
news:<Pqco7.16326$1T5.183012@news1.oke.nextra.no>...
> Anyone experienced with HP service? - or strange ICs?
>
> I have an HP 5326B counter from the seventies that suffers from low
> sensitivity, about 50 mV rms rather than 5 mV rms as the specs say. The
> frequency range from 0 -50 MHz is fine, actually it is OK up to about 70
> MHz. I have tried to understand the input stage in order to figure out where
> the loss occurs. There I came across an integrated circuit with 6 pins in a
> TO39 size can (same as a 2N1711, except 6 pins). Its designation is 5-334
> 7038 and it has a symbol that I think is that of National Seminconductor
> (looks like an N on top of an S).
>
> Does anyone know anything about this IC, or better yet are familiar with the
> input board of this counter (type no of board
> is 05326-60003).
>
> Thanks a lot
>
> Sverre
> Oslo, Norway
> _____________________________________
> http://www.qsl.net/la3za

5491. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 01:44:41 UTC
From: markaren1@earthlink.notalotofspam.net
Message-ID: <3ba4b24a.257302721@news.earthlink.net>
Source record: 50288

Have a look at PC Trace - http://www.eesoft.com

I have done a couple of PCBs using it, it's great for $100

Mark

On Fri, 14 Sep 2001 20:27:23 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>Reg,
>>Sorry Phil I can't help. But while you are making enquiries,
>>writing SOS letters to the newsgroups, waiting for a lot of useless
>>replies, trying to download the right software, you can sort it all
>>out for yourself with some paper and a ball point. The circuit is
>>simplicity itself.
>>
>>It probably won't work first time anyway. But Good luck.
>I found Cadsoft.
>
>Designed for dummy homebrewers like myself.
>
>http://www.cadsoft.de/
>
>Regards
>
>Phil G4ZOW

5492. Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 02:45:00 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <Mgzo7.8306$lE3.910432@newsread2.prod.itd.earthlink.net>
Source record: 50289

Would someone have a schematic for a basic surge arrester? The kind using just mov's, caps and a neon indicator; no inductors. Or point me to some references that might also have information on component values as well as schematics..

Thanks.

Marty K1FHR

5493. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 04:18:09 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3BA2D681.C4B8A1A7@nettally.com>
Source record: 50290

When I was out at Carsbad Caverns I saw a superheterodyne receiver that converted bat chirps to audible range. It can be done. Now that you mention it, I think I will hook an ultrasonic transducer to my HP3586B selective levelmeter and see what can be heard.

CA wrote:

> I recently spoke to a guy who had an idea of building a bat receiver.
> These creatures transmit in the range 20-100 kHz, he said.
> Anyone out there with experience in this - perhaps somewhat odd - matter?
> /sm6pxj

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

http://www.ibiblio.org/jimmy/mcguinn/9000e.ram

"tv dinner by the pool,
i'm so glad i finished school" -F.Zappa 1967

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

"The large print giveth
and the small print taketh away..." Tom Waits.

5494. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 05:43:40 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <4RBo7.14510$c5.123426@newsfeeds.bigpond.com>
Source record: 50291

There also plenty consumer grade "whale" type receivers which also could be used. These receivers are also designed to receive ultrasonic frequencies underwater. I remember one about the of a flashlight and waterproof.

Willy
"CA" <sm6pxj@hotmail.com> wrote in message
news:8Hqo7.312$Ad3.1005@nntpserver.swip.net...
> I recently spoke to a guy who had an idea of building a bat receiver.
> These creatures transmit in the range 20-100 kHz, he said.
> Anyone out there with experience in this - perhaps somewhat odd - matter?
> /sm6pxj
>
>
>

5495. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 09:24:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BA31E66.AA51ED8D@eznec.com>
Source record: 50292

Another place this frequency range is monitored is in gas leak detectors. I believe they heterodyne the ultrasonic frequencies down to the audible range. However, you'd have to use something besides simple heterodyning if you want to cover the whole band from 20-100 kHz, since you could only hear less than a 20 kHz band at a time. (Quite a bit less if you're older and/or your ears have been abused.) You'd need a way to compress an 80 kHz bandwidth into much less. It'll be interesting to see what ideas people come up with.

Roy Lewallen, W7EL

Joe Leikhim wrote:
>
> When I was out at Carsbad Caverns I saw a superheterodyne receiver that
> converted bat chirps to audible range. It can be done. Now that you mention
> it, I think I will hook an ultrasonic transducer to my HP3586B selective
> levelmeter and see what can be heard.
>
> CA wrote:
>
> > I recently spoke to a guy who had an idea of building a bat receiver.
> > These creatures transmit in the range 20-100 kHz, he said.
> > Anyone out there with experience in this - perhaps somewhat odd - matter?
> > /sm6pxj
>
> --
> Joe Leikhim K4SAT
> Jleikhim@nettally.com

5496. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 11:29:28 UTC
From: Max Baars <maxbaars@hotmail.com>
Message-ID: <i6e6qtgbhh2mb5d0gacd8ofvdr8ljh5jeb@4ax.com>
Source record: 50293

On Sat, 15 Sep 2001 00:18:09 -0400, Joe Leikhim
<jleikhim@nettally.com> wrote:

>When I was out at Carsbad Caverns I saw a superheterodyne receiver that
>converted bat chirps to audible range. It can be done. Now that you mention
>it, I think I will hook an ultrasonic transducer to my HP3586B selective
>levelmeter and see what can be heard.
>
>CA wrote:
>
>> I recently spoke to a guy who had an idea of building a bat receiver.
>> These creatures transmit in the range 20-100 kHz, he said.
>> Anyone out there with experience in this - perhaps somewhat odd - matter?
>> /sm6pxj

It's not like all bats chirp all the way from 20kc to 100kc. In
general smaller kind of bats chirp in higher frequency regions than
larger bats. I don't know the English names for examples.
What you could to is use a mixer IC that has a build in oscillator and
make the osc. tunable between 20-120kc. (a simple rc config will do).
Then locate some small electred mic, and follow it with an amp that
has a highpass frequency response, to compensate for the freq.
responce of the electred.
After the mixer use a simple lowpass filter and small audio amp.
Now you can tune the receiver until you hear the chirps.
After a while you should be able to recognize what kind of bat you
here by its sound and by the reading of the scale.

Check http://home.zonnet.nl/bertrik/bat/bat_indx.htm
for examples.

Max pa3gec
/s/
Max PA3GEC
www.maxiespages.com

5497. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 12:30:48 UTC
From: Clinton <cpeebles@_nospam_netidea.com>
Message-ID: <9nvhl703ac@enews3.newsguy.com>
Source record: 50294

Check out http://pw1.netcom.com/~t-rex/BatDetector.html

Clinton Peebles VE7KNL
Salmo, B.C. Canada
Remove _nospam_ to reply
E-Mail: cpeebles@netidea.com

"CA" <sm6pxj@hotmail.com> wrote in message
news:8Hqo7.312$Ad3.1005@nntpserver.swip.net...
> I recently spoke to a guy who had an idea of building a bat receiver.
> These creatures transmit in the range 20-100 kHz, he said.
> Anyone out there with experience in this - perhaps somewhat odd - matter?
> /sm6pxj
>
>
>

5498. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 12:51:26 UTC
From: John Smith <johnsmith@micro$oft.com>
Message-ID: <i9Io7.55803$e5.2875302@newsb.telia.net>
Source record: 50295

CA <sm6pxj@hotmail.com> wrote in message
news:8Hqo7.312$Ad3.1005@nntpserver.swip.net...
> I recently spoke to a guy who had an idea of building a bat receiver.
> These creatures transmit in the range 20-100 kHz, he said.
> Anyone out there with experience in this - perhaps somewhat odd - matter?
> /sm6pxj

Hi Christer,

The simplest idea would be to build a simple heterodyne receive converter using a CD4046 VCO (DC to 100KHz) feeding a simple mixer (BF981 or similar). Those transducers you get in misical Christmas cards work well as microfones, well into the ultrasonic spectrum, that would be the second input to the mixer. LM358 will amplify and drive "freestyle"-type headphones.

I have already searched for transducers for a totally different type of project and found them to be typically $300 (SEK3100) as a starting price.

The majority of bats emit sounds below about 70KHz. You would have to travel abroad to find bats above that frequency, but certainly not in Sweden. If you want a bit of fun with them, then build an "up-converter" and play their recirding back to them. I did that using a parabolic reflector!

BR from Harry

5499. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 12:58:00 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <sfIo7.24078$tL2.2838880@news1.rdc1.nj.home.com>
Source record: 50296

You might want to take a look at Mallory's website article on snubbers.
What kind of surge are you trying to eliminate.

Marty wrote in message ...
>Would someone have a schematic for a basic surge arrester? The kind
using
>just mov's, caps and a neon indicator; no inductors. Or point me to some
>references that might also have information on component values as well as
>schematics..
>
>Thanks.
>
>Marty K1FHR
>
>
>

5500. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 13:00:15 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <zhIo7.24087$tL2.2840296@news1.rdc1.nj.home.com>
Source record: 50197

Compression -- how about a frequency to voltage converter and a log amp?
Roy Lewallen wrote in message <3BA31E66.AA51ED8D@eznec.com>...
>Another place this frequency range is monitored is in gas leak
>detectors. I believe they heterodyne the ultrasonic frequencies down to
>the audible range. However, you'd have to use something besides simple
>heterodyning if you want to cover the whole band from 20-100 kHz, since
>you could only hear less than a 20 kHz band at a time. (Quite a bit less
>if you're older and/or your ears have been abused.) You'd need a way to
>compress an 80 kHz bandwidth into much less. It'll be interesting to see
>what ideas people come up with.
>
>Roy Lewallen, W7EL
>
>Joe Leikhim wrote:
>>
>> When I was out at Carsbad Caverns I saw a superheterodyne receiver that
>> converted bat chirps to audible range. It can be done. Now that you
mention
>> it, I think I will hook an ultrasonic transducer to my HP3586B selective
>> levelmeter and see what can be heard.
>>
>> CA wrote:
>>
>> > I recently spoke to a guy who had an idea of building a bat receiver.
>> > These creatures transmit in the range 20-100 kHz, he said.
>> > Anyone out there with experience in this - perhaps somewhat odd -
matter?
>> > /sm6pxj
>>
>> --
>> Joe Leikhim K4SAT
>> Jleikhim@nettally.com

5501. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 13:27:08 UTC
From: Marty <marty1225@earthlink.net>
Message-ID: <MGIo7.1605$%G.168557@newsread1.prod.itd.earthlink.net>
Source record: 50198

I'm looking for the type of surge arrester used to protect computers from power line surges; the kind being sold widely by Tripplite, APC, Belkin and many others.

Haven't been able to locate the URL for the Mallory article.

Marty K1FHR

"schatzie" <jdwalton@home.com> wrote in message news:sfIo7.24078$tL2.2838880@news1.rdc1.nj.home.com...
> You might want to take a look at Mallory's website article on snubbers.
> What kind of surge are you trying to eliminate.
>
> Marty wrote in message ...
> >Would someone have a schematic for a basic surge arrester? The kind
> using
> >just mov's, caps and a neon indicator; no inductors. Or point me to some
> >references that might also have information on component values as well
as
> >schematics..
> >
> >Thanks.
> >
> >Marty K1FHR
> >
> >
> >
>
>
>

5502. Re: FS: Small Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 14:29:28 UTC
From: claude bouchard <claude153@sympatico.ca>
Message-ID: <3BA365C8.7F111CE3@sympatico.ca>
Source record: 50199
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.swap,rec.radio.amateur.homebrew

Address to Butch Magee re tuner mfj-16010
Iam interested to your tuner -what is your address to send money
73
ve2amk-canada

Butch Magee a écrit :

> I have an as new MFJ-16010 tuner, 200 watt, with original box and
> operating instructions for 35.00 shipped CONUS. Works just as well for
> the SW Listener also. It does a terrific job of improving the signal to
> noise ratio and making your swl dx'ing more pleasurable.
>
> Butch KF5DE

5503. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 14:53:30 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <KXJo7.111757$K6.44986149@news2>
Source record: 50200

Well, variable caps are sort of passe.

There are 2 problems with variable caps, they are expensive, and for setting frequency they don't have enough mechanical range. Yes, if you can cobble up a design using a broadcast cap which you can get at a decent price, and sometimes you can even find a broadcast cap with a built in reduction, but you are still left with way too much capacitance for most of the ham bands. And if you put another cap in series to reduce the capacitance, you've clobbered the linearity.

If you bite the bullet and get a nice air variable (say from http://www.rfparts.com/) for some outrageous price, you still need to come up with some sort of reduction gear and dial arrangement, which is going to add a ton of change (and complexity). Heck, the cap and dial can easily end up costing more than the entire rest of the rig!

The more modern approach is to use DDS, but the parts are hard to find and expensive, and the design is pretty tricky. Unless you can find a VFO kit (there still seem to be a few around) which will cost you a ton of change, you better have a good spectrum analyzer because DDS, improperly designed, can end up with spurs in all sorts of unexpected places.

Probably the most common homebrew solution is to use varactor tuning. There are a number of varactors available from http://www.radioshack.com/, http://www.fix.net/dans/, and a number of other parts outlets over a wide range of capacitances. Typically the voltage (and thus the capacitance) is set with a ten turn pot, sometimes through an op amp. (See the designs from http://www.qsl.net/k7qo/swl30.pdf, http://www.qsl.net/k8iqy/, http://www.redhotradio.com/Smk1bsch.pdf or http://www.redhotradio.com/Rh20_1.pdf).

In fact, if you look at K7QO's MH101 project (http://www.qsl.net/k7qo/), you may well get a lot of ideas.

Frequency readout is a little bit of a pain, ten turn dials are available but sort of expensive, and you need some sort of calibration chart. A digital readout is a lot more convenient and can probably be put together at lower cost (get cheap LCD's from BG Micro).

Hope this helps
didleydadidah

"jason" <kc7eip@home.com> wrote in message
news:Pine.LNX.4.21.9601070712450.233-100000@linbox1.gv.shawcable.net...
> I'm an old ham...operated mostly handheld some hf by the grace of
> friends equipment...I would like to build a multiband cw/ssb rx i know
> multibband is a bit much for a first project so single band is fine. the

> problems i have is finding a variable cap...i have thought about making a
> bank of caps i could switch out but that increases the size of the
> project and adds alot more noies etc...anyone have any good starter rx
> project to build a cw/ssb rx for say 80 or 40 meters..one that has full
> range of the band? Tks for the help kc7eip
>

5504. FS: KENWOOD YK88C-1 CW FILTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 15:23:06 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <unKo7.70066$xb.36335664@news1.mntp1.il.home.com>
Source record: 50201

YK88C-1 500 KHZ CW FILTER $95.00 SHIPPED!

k9vdd@home.com

5505. Wanted: old mike shells

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 17:37:58 UTC
From: bluem0zark@aol.com
Message-ID: <20010915133758.12311.00000140@mb-fk.aol.com>
Source record: 50202

I'm looking to buy old microphone shells from bullet type mikes, (Astatic JT30,Shure Green or Brown bullets, Turner, etc.). This means the mike elements can be blown, cut off cords, I'm interested in the shells (casing). Tell me whatcha got. bluem0zark@aol.com

5506. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 21:29:08 UTC
From: kc7eip <kc7eip@home.com>
Message-ID: <EKPo7.12638$GI.4184543@news2.rdc1.bc.home.com>
Source record: 50203

thanks fot the info it is of great help... And thanks to all thother suggestions.

5507. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-15 22:02:26 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <SdQo7.28229$tL2.3228007@news1.rdc1.nj.home.com>
Source record: 50204

Mallory makes snubbers called "Quench Arc" but they are used for a different
purpose -- across relay terminals etc.

AudioXpress has just had a series of articles dealing with garbage on the
A.C. line., mostly relating to the degradation of performance due to
harmonics etc.

Marty wrote in message ...
>I'm looking for the type of surge arrester used to protect computers from
>power line surges; the kind being sold widely by Tripplite, APC, Belkin and
>many others.
>
>Haven't been able to locate the URL for the Mallory article.
>
>Marty K1FHR
>
>
>"schatzie" <jdwalton@home.com> wrote in message
>news:sfIo7.24078$tL2.2838880@news1.rdc1.nj.home.com...
>> You might want to take a look at Mallory's website article on snubbers.
>> What kind of surge are you trying to eliminate.
>>
>> Marty wrote in message ...
>> >Would someone have a schematic for a basic surge arrester? The kind
>> using
>> >just mov's, caps and a neon indicator; no inductors. Or point me to
some
>> >references that might also have information on component values as well
>as
>> >schematics..
>> >
>> >Thanks.
>> >
>> >Marty K1FHR
>> >
>> >
>> >
>>
>>
>>
>
>

5508. Transmission line transformers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 00:26:47 UTC
From: amdx <amdx@att.net>
Message-ID: <blSo7.26154$KV3.2181923@bgtnsc04-news.ops.worldnet.att.net>
Source record: 50205

I have an application where I want use a 9 to 1 transmission line
transformer,
however it needs to have a phase reversal to operate properly. I don't see
a way to make it do this. Does anyone have an idea how to get a phase
reversal
with a 9 to 1 transmission line transformer?

5509. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 00:55:37 UTC
From: Olaf <olaf@mail.powermax-lcd.com>
Message-ID: <7st7qtgk9u7ud3bcq121rh1n4osqak4lnd@4ax.com>
Source record: 50206

On Thu, 13 Sep 2001 20:21:43 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>If so then I'm still after a basic s/w pack to put a simple QRP AM TX
>circuit to PCB.
>
>Can anyone help?
>
You might give Circad a try: www.holophase.com
I don't know about the conditions now, but there was a special
discount on the full version for hams a few years ago, probably
because the company itself houses a few of us...

73! de Olaf, DL7UND

5510. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 01:12:25 UTC
From: w_tom <w_tom1@usa.net>
Message-ID: <3BA3FC78.30706E0A@usa.net>
Source record: 50207

MOVs are the only active components.. Everything else is really irrelevant
to surge protection:
http://www.extremetech.com/article/0,3396,s%253D1005%2526a%253D8821,00.asp

Marty wrote:

> Would someone have a schematic for a basic surge arrester? The kind using
> just mov's, caps and a neon indicator; no inductors. Or point me to some
> references that might also have information on component values as well as
> schematics..

5511. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 01:56:56 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BA406E7.F67A67AE@att.net>
Source record: 50208

Not really and necessarily always true. One of the most effective
suppression systems on the market is built around a large inductance . . .
as I recall it uses NO MOV devices. Tradename is something like Brickwall
(?). Try a search for more detail.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

w_tom wrote:
>
> MOVs are the only active components.. Everything else is really irrelevant
> to surge protection:
> http://www.extremetech.com/article/0,3396,s%253D1005%2526a%253D8821,00.asp
>
> Marty wrote:
>
> > Would someone have a schematic for a basic surge arrester? The kind using
> > just mov's, caps and a neon indicator; no inductors. Or point me to some
> > references that might also have information on component values as well as
> > schematics..

5512. New program. Stub-line Matching Xfmr

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 03:18:14 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9o15sqsef1@plutonium.btinternet.com>
Source record: 50209

```
NOW AVAILABLE Program STUBTUNE
==============================
Design of open-wire etc stubline Matching Transformers.

May be used at either end of antenna feedline.

Select Zo of lines used in xfmr, then -

Vary length of one line to obtain resistive match to Ro of line
between xfmr and transmitter.

Then vary length of stub line to tune out reactance.

Faster and more accurate than Smith Chart. Just as educational.

Takes line loss into account in xfmr design. Calculates actual loss
on line with possibly high SWR.

Physical dimensions included in results. Also dB per 100 feet of
line.

Download STUBTUNE in a few seconds from website below, etc.
----
Regards, Reg, G4FGQ
Free Radio software.
http://www.g4fgq.com
```

5513. Henry 2000D-27 schematic/manual needed.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 05:47:30 UTC
From: Vester Scott <v.scott@worldnet.att.net>
Message-ID: <3BA43CDF.DD0AD6B5@worldnet.att.net>
Source record: 50210

I need a Henry 2000D-27 schematic/manual. This is an 8877 industrial
amp.
Thanks.

Vester
N8EKA

5514. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 11:37:13 UTC
From: amdx <amdx@att.net>
Message-ID: <J90p7.3910$lx5.321344@bgtnsc05-news.ops.worldnet.att.net>
Source record: 50211

> MOVs are the only active components.. Everything else is really
irrelevant
> to surge protection:

You might find this page educational.

http://www.transtector.com/technical.html

5515. Potswitch for Kenwood TS-830S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 11:52:17 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BA49253.2D4318A7@earthlink.net>
Source record: 50212

Folks---

The VOX gain potswitch on the TS-830S I have has apparently gone bad. It displays a constant resistance (abt 6.4Kohms) when the switch is closed, and intermittently drops to a near-zero resistance when the knob is turned. The Kenwood part number is R01-3412-05, labeled VR6 in the parts list. The value is shown as 10Kohms.

Would anyone know how/where I might obtain a replacement part?

Thanks,

Henry C. Gernhardt, III
KE4PIB

5516. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 13:42:23 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <SUJEePA$wKp7Ew$P@invest.fsbusiness.co.uk>
Source record: 50213

>You might give Circad a try: www.holophase.com
>I don't know about the conditions now, but there was a special
>discount on the full version for hams a few years ago, probably
>because the company itself houses a few of us...
>
>73! de Olaf, DL7UND
Many thanks Olaf.

I will take a look but have found the www.cadsoft.com site which offers
a reasonably good freeware package suitable for my project.

(((73)))

Phil G4ZOW

5517. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 14:49:39 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <7_2p7.113272$K6.46418972@news2>
Source record: 50214

Jason

One note - I mentioned B.G. Micro for LCDs, and I have used their LCDs successfully on a lot of projects. Their price is second to none. However, George Heron, N2APB, reports that they are very finicky which may be why they are so cheap. I have to admit, it took me a while to get my code working on their really cheap 16X1 LCD's ($3!!), but once I did, that code seemed to work on all LCDs with the Hitachi controller.

If you go the LCD display route, you may want to consider going the long dollar for a nice LCD from DigiKey or Mouser, but the availability of a cheap, working LCD for a lot of projects made the dinking around I did with the B.G. Micro LCDs well worth the time, IMO.

didleydadidah

"kc7eip" <kc7eip@home.com> wrote in message
news:EKPo7.12638$GI.4184543@news2.rdc1.bc.home.com...
> thanks fot the info it is of great help... And thanks to all thother
> suggestions.
>
>
>

5518. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 14:49:39 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <7_2p7.113273$K6.46418982@news2>
Source record: 50215

"kc7eip" <kc7eip@home.com> wrote in message
news:EKPo7.12638$GI.4184543@news2.rdc1.bc.home.com...
> thanks fot the info it is of great help... And thanks to all thother
> suggestions.
>
>
>

5519. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 15:13:19 UTC
From: Jason <kc7eip@home.com>
Message-ID: <jk3p7.15057$GI.4930596@news2.rdc1.bc.home.com>
Source record: 50216

Well i followed some of the links you provided and ended up at Small WondersLabs. they have resonably afordable kits which is a plus for me. atleast their sw+ series look fairly afordable. the rest are just slighltly out of my price range. Unfortunately it is either cw or ssb with the kits not both. Was wondering 1 if these are good projects for the first time builder and two how hard would it be to modify the cw kit for both cw and ssb operation? Aside from combining two kits into one box....I noticed they had a little pic controled freq counter at swl as well for 20 it's output is in morse was wondering what the opinion is on those. Little bit of background on myself..

Retired Navy Cryptologic Technichin communications/ Maintenance...i changed carreer tracks from operations to electronic maint. after becoming a ham.. Figured i would do something that interests me more. I'm trained in component level repair/soldering... The only problem is i have a head half full of knowledge due to injury thats why i was retired.. so ni i finally have the time to do projects but i need to relearn alot of the theroy.

5520. FS: amplifier tuning pulser

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 15:51:20 UTC
From: k9sqg@aol.com
Message-ID: <20010916115120.09957.00000497@mb-bk.aol.com>
Source record: 50217

Have for sale, a brand new, new model, MFJ 216 deluxe amplifier saver. Has adjustable pulse width as well as adjustable duty cycle. Brand new, in the box, never opened, nevery used, for $40.

73s,

Evan

5521. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 15:57:22 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109160757.3a1a58b2@posting.google.com>
Source record: 50218

"kc7eip" <kc7eip@home.com> wrote in message
news:<EKPo7.12638$GI.4184543@news2.rdc1.bc.home.com>...

> thanks fot the info it is of great help... And thanks to all thother

> suggestions.

There are excellent kits out there, and with the difficulty
you're having with parts procurement, this might be the way
to go.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5522. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 16:16:22 UTC
From: w_tom <w_tom1@usa.net>
Message-ID: <3BA4D055.9F924292@usa.net>
Source record: 50219

Brickwall, Zerosurge, and Surgex are series mode protection. I defined MOVs as the active component in the most effective surge protection - shunt mode. Series mode protection acts as a dike on hot (black) and neutral (white) wire. It provides no protection on the safety ground (green) wire. If installed as a dam to stop a flood, then the flood simply overflows or breaks the dam. But if installed as a dike, then series mode protection divert the flood downstream where it does not damage.

Obviously, the flood is a surge. A dam provides no alternative path for surge flow. A dike depends on shunt mode surge protection to provide that downstream path. That is what shunt mode protection does - divert the flood (surge) downstream (to earth ground). Series mode protection only encourages more of a surge to seek earth ground through the shunt mode protection. But shunt mode protection must be installed.

IOW series mode protection is effective to supplement shunt mode protection. It also provides noise filtering. Noise does not require the up front shunt mode protection. But to properly divert a surge, series mode protection must have some alternative path for the surge to flow. That is shunt mode surge protection installed at the service entrance less than 3 meters to central earth ground.

Notice it is not any fancy circuit inside a surge protector that protects. It is the 'system' built around the most critical component of that 'system' - earth ground.

As noted earlier, series mode protection has its soft underbelly - the safety ground wire. All surge protection is only as effective as its earth ground. Shunt protection must include a superior single point ground. Series mode protection also requires, even moreso, that central earth ground be the best ground in the structure. Earth ground is the most critical 'system' component (so why do we still build new homes as if the transistor did not exist - existing superior earth ground remain unutilized?).

No earth ground (series or shunt) means no effective surge protection. That is the fundamental component of a surge protection system that ineffective plug-in surge manufacturers conveniently forget. How do you identify ineffective surge protection? They fail to mention critical earth ground AND provide no dedicated, less than 3 meter connection to earth ground. Ineffective surge protectors are 'system' components disconnected from the rest of the surge protection 'system'. A surge protector is only as effective as its earth ground - which ineffective retail manufacturers would have the public not understand.

The recommendation for Brickwall assumed series mode was unknown. However notice how little so many really knew about surge protection - even series mode vs shunt mode - and the most important 'system' component of all surge protection systems - earth ground. A surge protector is only as effective as its earth ground.

"George, W5YR" wrote:

> Not really and necessarily always true. One of the most effective
> suppression systems on the market is built around a large inductance . . .
> as I recall it uses NO MOV devices. Tradename is something like Brickwall
> (?). Try a search for more detail.

5523. Re: Potswitch for Kenwood TS-830S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 18:33:52 UTC
From: whagen6@cs.com
Message-ID: <20010916143352.19148.00000581@mb-cj.news.cs.com>
Source record: 50221

if you know the kenwood part number you can get it from RF Parts.

5524. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 18:48:42 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <eu6p7.114193$K6.46718500@news2>
Source record: 50220

Jason

The SW+ series is an excellent first kit, even more so because of both the MH101 project (basically homebrewing an SW30+ and a project a while back where the a bunch of folks from the QRP-L reflector built the SW40+ kit. I think it was VE3DNL who kept all that stuff on his website, and there's a bunch of information on the QRP-L archives, which are both online and available on CD. This series gives you the opportunity to dig into the radio piece by piece and develop a really good understanding.

I took a quick look around and VE3DNL's stuff is at
http://www.qsl.net/kf4trd/faq.html

Initially, I think you spoke of a receiver. There are a couple of issues with receiving SSB. First, most of these single bad radios cover between 70 and 100 KHz of the band. The SSB portion is somewhat larger than this, so likely you would need to choose a portion of the band to listen to. Moving the range would entail nothing more than removing a turn or two from a toroid. Chances are you could broaden the range, too. That would likely take some experimenting, probably changing a cap and readjusting the toroid.

The other issue is the passband width. The SW+ series has a narrow passband for SSB. If you look at the 3 crystals in series on the schematic, you likely would need to bypass one or more of those, or perhaps fool with the values of the 2 capacitors. Again, not a terribly difficult thing to do.

Transmitting SSB is another matter, however. That would be something of a project. Still, not totally unreasonable.

The little Morse frequency readout is a kind of a neat thing. I have an NC-20 (which is the pre-RedHot RedHot 20) which has this. It is kind of nice, but it does make operating an entirely different experience. Since you never need to look at the radio, it somehow feels different to operate. Not at all unpleasant, however.

Laura is right that a kit is a much lower pain way to go. There really is no thrill quite like operating a completely homebrew radio, but collecting the parts is quite a hurdle, and getting things to work takes a lot of patience. Perhaps worse, a lot of the parts tend to come from different sources, so the shipping can make a one-off homebrew rig quite a bit more expensive than a kit. If you plan some more building and stock the junkbox, then successive radios can be quite reasonable, but the first time out, you will probably need to go to 3 or more suppliers, each with a $5-25 shipping fee. If you don't plan very carefully, that can really add up.

Oh yes, on the PIC. The little PIC readout is nice, but it's a problem offering those for all the possible VFO configurations. Dave has the one

for 20, I think assuming a 5 MHz VFO, and somebody else (I don't recall who) has one that can be set for your combination of VFO and IF. However, they are surprisingly simple to do yourself. There is a startup cost ... a PIC programmer costs about $10 to build (less if you don't buy the parts at Radio Shack), the software is all available free, a PIC costs $6, the crystal it needs 0.89 (DigiKey), add a 5V regulator (0.39-0.79 depending on where you buy it) and a couple of caps (maybe $1) and you're in business.

didleydadidah

"Jason" <kc7eip@home.com> wrote in message
news:jk3p7.15057$GI.4930596@news2.rdc1.bc.home.com...
> Well i followed some of the links you provided and ended up at Small
> WondersLabs. they have resonably afordable kits which is a plus for me.
> atleast their sw+ series look fairly afordable. the rest are just
slighltly
> out of my price range. Unfortunately it is either cw or ssb with the
kits
> not both. Was wondering 1 if these are good projects for the first time
> builder and two how hard would it be to modify the cw kit for both cw and
> ssb operation? Aside from combining two kits into one box....I noticed
they
> had a little pic controled freq counter at swl as well for 20 it's output
is
> in morse was wondering what the opinion is on those. Little bit of
> background on myself..
>
> Retired Navy Cryptologic Technichin communications/ Maintenance...i
changed
> carreer tracks from operations to electronic maint. after becoming a ham..
> Figured i would do something that interests me more. I'm trained in
> component level repair/soldering... The only problem is i have a head
half
> full of knowledge due to injury thats why i was retired.. so ni i finally
> have the time to do projects but i need to relearn alot of the theroy.
>
>

5525. Re: Bat receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 20:42:25 UTC
From: arm@helix.nih.gov
Message-ID: <R88p7.14$f5.43177@mencken.net.nih.gov>
Source record: 50222

As some of these posts show, bat detectors have been around for a while.
The earlier bat researchers used high speed portable tape recorders
to record the echolocation pulses. You can play the sounds back at
lower speeds and get a very nice rendition of the sounds. The "churp"
sound of the so-called "FM" bats (e.g. Eptesicus fuscus, common in North America)
is difficult to appreciate with these mixing type bat receivers.
The downward sweep of the sound is just a click to the human hear until
the sweep rate is reduced along with the frequency. To get a good
recording, you need a broadband ultrasonic microphone. The ones I am
familiar with are capacitance type that use about 100 volts of bias.
My experience is outdated now, so perhaps there are alternative methods
available. Over the years there have been a number of circuits and
articles published on building your own dectector. However, I have not
seen an article on usings an A/D and D/A on a laptop computer to
do "real time" slowdown of bat sounds for human listening.

The classic book on bats and their sounds is: Listening in the Dark
by Donald Griffin.

Clinton (cpeebles@_nospam_netidea.com) wrote:
: Check out http://pw1.netcom.com/~t-rex/BatDetector.html
: ---
: Clinton Peebles VE7KNL
: Salmo, B.C. Canada
: Remove _nospam_ to reply
: E-Mail: cpeebles@netidea.com
:
: "CA" <sm6pxj@hotmail.com> wrote in message
: news:8Hqo7.312$Ad3.1005@nntpserver.swip.net...
: > I recently spoke to a guy who had an idea of building a bat receiver.
: > These creatures transmit in the range 20-100 kHz, he said.
: > Anyone out there with experience in this - perhaps somewhat odd - matter?
: > /sm6pxj
: >
: >
: >
:
:

Andrew Mitz, PhD
Chiropteraphile

5526. Re: 4MHz from 10MHz reference

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 20:53:37 UTC
From: la8ak@online.no
Message-ID: <3ba4f801.38631260@news.online.no>
Source record: 50223

On Mon, 10 Sep 2001 20:44:59 -0400, "GTBecker@RighTime.com"
<gtbecker@rightime.com> wrote:

>> decide how suitable this is for your circuit, but dividing from 8 to 4
>> makes 50% duty cycle using JK or D-type FF
>
>The question is how do you get from 10MHz to 8MHz? How would you do it?
>
>
>
it is at least two ways.
1) One is to use a bit-rate generator,
2) another is to use SN7493 or similar device. I wrote some notes
about application of this device, you can see it at
http://www.qsl.net/ok1cdj/dubus/8603-1.pdf , but the author changed
the device to 74HC92, so you cannot see the trick from this page.

Since it was based on experiments carried out 16 years ago it is
difficult to trace notes now, I cannot even find any data sheet for
7493 TTL device, not even the Motorola LS-TTL databook, perhaps I find
it later, then I will report back, but the trick is to connect the
4-bit binary counter as divide by 10, the trick doesn't necessarily
work for a BCD-counter, but 7490 might work, I am not sure today. You
must study the truth diagram often shown in the databooks

3) the third suggestion is to use 4017 or similar decimal counter
where two outputs are connected as to suppress two out of 10 pulses, I
would suggest Q0 and Q5, then it is 4 and 4 pulses

it may cause some glitches, but such is easily filtered using a simple
LC-bandpassfilter on 8MHz, and not much Q-value is needed for pure
8MHz signal. I saw this type of application on circuit diagram for my
Apple 2E+ computer

73
Jan-Martin
LA8AK

5527. Re: Potswitch for Kenwood TS-830S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-16 21:04:12 UTC
From: Bill & Suzie Whatley <spud286@home.com>
Message-ID: <gt8p7.7438$w62.5601711@news1.denver1.co.home.com>
Source record: 50224

If needed, the Kenwood part number is:

R01-3412-05

That is the 10K pot with switch.

73
WA5VRL
Willis

5528. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 00:07:33 UTC
From: kc7eip <kc7eip@home.com>
Message-ID: <Xns890216D088176kc7eiphomecom@24.2.10.15>
Source record: 50225

>
> Oh yes, on the PIC. The little PIC readout is nice, but it's a problem
> offering those for all the possible VFO configurations. Dave has the
> one for 20, I think assuming a 5 MHz VFO, and somebody else (I don't
> recall who) has one that can be set for your combination of VFO and IF.
> However, they are surprisingly simple to do yourself. There is a
> startup cost ... a PIC programmer costs about $10 to build (less if you
> don't buy the parts at Radio Shack), the software is all available
> free, a PIC costs $6, the crystal it needs 0.89 (DigiKey), add a 5V
> regulator (0.39-0.79 depending on where you buy it) and a couple of
> caps (maybe $1) and you're in business.
>
> didleydadidah
Thanks for the advise on the kits...Of coarse i have just had a huge
revelation after viewing the arrl site...The whole licensing structure has
changed and along with that i'm not sure what else has changed.. I am
classed at tech+ what frequency privledges does that allow me? Suppose I'll
have to just do some studying. I'm up in canada right now anyway so i'll
be getting my ticket here too soon enough.

5529. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 01:22:20 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BA5502A.406E23BD@earthlink.net>
Source record: 50226

kc7eip wrote:

> Thanks for the advise on the kits...Of coarse i have just had a huge
> revelation after viewing the arrl site...The whole licensing structure
> has changed and along with that i'm not sure what else has changed.. I
> am classed at tech+ what frequency privledges does that allow me?

You have the same privs you did before restructuring, however you now have no need to pass any further code tests. General and Extra have the same freq privs as they did prior to restructuring. The FCC will no longer be issuing Novice, Tech+, or Advanced class licenses.

My suggestion: When you get back into the states, advance! You'll love the new privs. I know I do.

Good luck,

Henry C. Gernhardt, III
KE4PIB

5530. Re: Potswitch for Kenwood TS-830S

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 01:27:30 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BA5515F.D161A38F@earthlink.net>
Source record: 50227

Folks---

Thanks ever so much! That's the lead I was looking for.

VY 73,

Henry C. Gernhardt, III
KE4PIB

5531. Re: Old Ham FIrst Project...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 02:32:28 UTC
From: kc7eip <kc7eip@home.com>
Message-ID: <Xns89022F64BE3C8kc7eiphomecom@24.2.10.15>
Source record: 50228

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote in
news:3BA5502A.406E23BD@earthlink.net:

> kc7eip wrote:
>
>> Thanks for the advise on the kits...Of coarse i have just had a huge
>> revelation after viewing the arrl site...The whole licensing structure
>> has changed and along with that i'm not sure what else has changed.. I
>> am classed at tech+ what frequency privledges does that allow me?
>
> You have the same privs you did before restructuring, however you now
> have no need to pass any further code tests. General and Extra have the
> same freq privs as they did prior to restructuring. The FCC will no
> longer be issuing Novice, Tech+, or Advanced class licenses.
>
> My suggestion: When you get back into the states, advance! You'll love
> the new privs. I know I do.
>
> Good luck,
>
> Henry C. Gernhardt, III
> KE4PIB
>

I'm not 1981 lucky but still lucky enough that i have 5 wpm already... and
that i don''t have to get 13 to get general... that was a big hinderence
for me.. of coarse now i have to get the theroy and regulations down which
won't be too hard i hope. tks for the info every one has been great.

5532. Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 12:10:55 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3BA5E86A.4409195B@norpak.ca>
Source record: 50229

Hello All
I am trying to figure out the proper way to wind coils.
for instance when the schematic calls for a 1 turn coil
Is it really a 1 and 1/2 wind?
Same for 4 turns is it really a 4 and 1/2 turn.
I've looked around and cannot find a source of info
on proper coil winding. Can anyone please enlighten
myself on coil winding or point me to a source of info.
Thanks in advance
Regards
Frank

5533. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 12:48:24 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tqbs93mdsbir51@corp.supernews.com>
Source record: 50230

If you're talking about toroids, you count one turn each time the wire passes thru the center of the toroid.

5534. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 12:56:07 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3BA5F302.9E833986@norpak.ca>
Source record: 50231

No I am talking about air core inductors like for a vhf low pass filter.

"Bob Lewis (AA4PB)" wrote:

> If you're talking about toroids, you count one turn each time the wire
> passes thru the center of the toroid.

5535. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 13:09:39 UTC
From: arm@helix.nih.gov
Message-ID: <nCmp7.17$f5.44724@mencken.net.nih.gov>
Source record: 50232

In both cases, your really want to try to stick with the
number of turns listed. A 2 turn air-wound coil has
the wires both coming out in the same direction.
How you connect those wires to the circuit without
adding 1/2 turn is your problem.

Frank Worm (fworm@norpak.ca) wrote:
: No I am talking about air core inductors like for a vhf low pass filter.
:
: "Bob Lewis (AA4PB)" wrote:
:
: > If you're talking about toroids, you count one turn each time the wire
: > passes thru the center of the toroid.
:

5536. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 13:22:25 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ba5f8ec.22449270@news.cantech.net.au>
Source record: 50233

On Mon, 17 Sep 2001 12:56:07 GMT, Frank Worm <fworm@norpak.ca> wrote:

>No I am talking about air core inductors like for a vhf low pass filter.
>
>"Bob Lewis (AA4PB)" wrote:
>
>> If you're talking about toroids, you count one turn each time the wire
>> passes thru the center of the toroid.

In my usage, a conductor that comes out of the pcb and goes back in
counts as one turn.

5537. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 13:37:11 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3BA5FCA1.AD234E8A@norpak.ca>
Source record: 50234

So a one turn is the same as a hairpin coil?

budgie wrote:

> On Mon, 17 Sep 2001 12:56:07 GMT, Frank Worm <fworm@norpak.ca> wrote:
>
> >No I am talking about air core inductors like for a vhf low pass filter.
> >
> >"Bob Lewis (AA4PB)" wrote:
> >
> >> If you're talking about toroids, you count one turn each time the wire
> >> passes thru the center of the toroid.
>
> In my usage, a conductor that comes out of the pcb and goes back in
> counts as one turn.

5538. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 13:50:17 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3ba5ff49.24078525@news.cantech.net.au>
Source record: 50235

On Mon, 17 Sep 2001 13:37:11 GMT, Frank Worm <fworm@norpak.ca> wrote:

>So a one turn is the same as a hairpin coil?
>
>budgie wrote:
>
>> On Mon, 17 Sep 2001 12:56:07 GMT, Frank Worm <fworm@norpak.ca> wrote:
>>
>> >No I am talking about air core inductors like for a vhf low pass filter.
>> >
>> >"Bob Lewis (AA4PB)" wrote:
>> >
>> >> If you're talking about toroids, you count one turn each time the wire
>> >> passes thru the center of the toroid.
>>
>> In my usage, a conductor that comes out of the pcb and goes back in
>> counts as one turn.

IMHO, yes. Bear in mind that the inductance is related to the "core"
cross-section, so if a specific inductance is required then the shape
of the loop (particularly a one-turn loop) is important.

5539. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 15:40:06 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-1709010840060001@dhcp-40-143.caltech.edu>
Source record: 50236

In article <Pqco7.16326$1T5.183012@news1.oke.nextra.no>, "Sverre Holm \(LA3ZA\)" <svholm2@online.no> wrote:

>
>I have an HP 5326B counter from the seventies that suffers from low
>sensitivity, about 50 mV rms rather than 5 mV rms as the specs say. The
>frequency range from 0 -50 MHz is fine, actually it is OK up to about 70
>MHz. I have tried to understand the input stage in order to figure out where
>the loss occurs. There I came across an integrated circuit with 6 pins in a
>TO39 size can (same as a 2N1711, except 6 pins). Its designation is 5-334
>7038 and it has a symbol that I think is that of National Seminconductor
>(looks like an N on top of an S).
>
>Does anyone know anything about this IC, or better yet are familiar with the
>input board of this counter (type no of board
>is 05326-60003).

>
>Sverre
>Oslo, Norway
>_____________________________________
>http://www.qsl.net/la3za

As mentioned in Tom Burns post Part is a dual N channel FET. The part was made by Siliconix. Siliconix part number was DN377. This information is from 5326 manual. The HP cross reference does not show a cross for this part. In worse case you could put two seperate N channel FETs in place of the dual. Tom WB6IQD

5540. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 17:00:37 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <PYpp7.18814$1T5.215951@news1.oke.nextra.no>
Source record: 50237

Thanks for input. After I got the information about the dual JFET I have traced the circuit and I have started to doubt that there is anything wrong with the input stage after all.

The amplifier consists of a differential JFET input stage followed by two more NPN transistor differential stages that goes into a differential common-base stage. This is where the voltage gain occurs. After that follows a differential Schmitt trigger. Now in my counter, everything seems to be working fine, all DC voltages are balanced correctly in the differential stages and the signal can be traced from stage to stage.

What confuses me is that I can read from the HP product description on http://www.qsl.net/la3za/HP5326a.pdf that the input sensitivity is 5 mV, while my counter has a sensitivity of 50 mV uniformly from audio to 50 MHz. If you have the manual, maybe the value for sensitivity can be verified?

Sverre

---
73 de LA3ZA
http://www.qsl.net/la3za

"Tom Dunn" <dunnt@its.caltech.edu> skrev i melding news:dunnt-1709010840060001@dhcp-40-143.caltech.edu...
>
> As mentioned in Tom Burns post Part is a dual N channel FET. The part was
> made by Siliconix. Siliconix part number was DN377. This information is
> from 5326 manual. The HP cross reference does not show a cross for this
> part. In worse case you could put two seperate N channel FETs in place of
> the dual. Tom WB6IQD

5541. We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 17:38:26 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com>
Source record: 50238
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Yeah let's bomb the Afghans. That'll make us all feel better and let's face it they can't fight back much. I seem to remember bin lid's name being bandied around with the bully boy's threats after the Oklahoma bombing too.

Evidence would be nice. I can't believe that security agencies who didn't see this coming can have suddenly gather irrefutable proof about anyone. Then again who needs proof if you are the most powerful nation on earth. Just bomb some third world country and then bully everyone else into saying you were right with economic sanctions. As the hysteria rises we are coming dangerously close to a witch-hunt with all the finesse of the McCarthy commission's investigations.

We should not let our justifiable sympathy with the Americans lead us into blindly supporting an unjustifiable act. Remember it was our sympathy for the Jews after WWII that led us into evicting the Palestinians from their homes to create the state of Israel that got us into this west vs Islam conflict to begin with. The USA and UK created this problem. Time we tried to sort it out with something other than superior firepower.

On the up side though, a war is always good for the economy. Instability boosts
arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.

Alec Wood M1BNK

5542. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 17:45:40 UTC
From: steve.m1bjr@nospamplease.ntlworld.com
Message-ID: <3ba636aa.2244373@news.ntlworld.com>
Source record: 50240
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>Yeah, come on, bomb someone - let's face it, anyone will do.
>
>Alec Wood M1BNK

Sure, where exactly are you Alec?

5543. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 17:48:26 UTC
From: Steve Hurley <hurley@blueyonder.co.uk>
Message-ID: <KHqp7.41744$N01.2900570@news1.cableinet.net>
Source record: 50239
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans.

Or rather, get someone else to bomb them while we watch it on CNN with a
fridge full of chilled Bud.

5544. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:03:25 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <OVqp7.21858$mj6.3921618@news6-win.server.ntlworld.com>
Source record: 50242
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

I'd patent that idea if I were you before it goes the same way as so many other British inventions

Alec

"David Perry" <david.perry3@virgin.net> wrote in message news:COqp7.21842$mj6.3906612@news6-win.server.ntlworld.com...
> Surely a better, more civilised bet, would be to release some kind of bug or
> louse that only lives in turbans. The bug could be genetically modified so
> it lives in turbans but eats human skull tissue!
>
> David
>
> "Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
> news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> > Yeah let's bomb the Afghans. That'll make us all feel better and let's
> face
> > it they can't fight back much. I seem to remember bin lid's name being
> > bandied around with the bully boy's threats after the Oklahoma bombing
> too.
> >
> > Evidence would be nice. I can't believe that security agencies who
didn't
> > see this coming can have suddenly gather irrefutable proof about anyone.
> > Then again who needs proof if you are the most powerful nation on earth.
> > Just bomb some third world country and then bully everyone else into
> saying
> > you were right with economic sanctions. As the hysteria rises we are
> coming
> > dangerously close to a witch-hunt with all the finesse of the McCarthy
> > commission's investigations.
> >
> > We should not let our justifiable sympathy with the Americans lead us
into
> > blindly supporting an unjustifiable act. Remember it was our sympathy
for
> > the Jews after WWII that led us into evicting the Palestinians from
their
> > homes to create the state of Israel that got us into this west vs Islam
> > conflict to begin with. The USA and UK created this problem. Time we
tried
> > to sort it out with something other than superior firepower.

> >
> > On the up side though, a war is always good for the economy. Instability
> > boosts
> > arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> > Alec Wood M1BNK
> >
> >
> >
> >
> >
>
>

5545. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:10:28 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <2p5nlIAUyjp7EAZv@ifwtech.com>
Source record: 50243

budgie wrote:
>On Mon, 17 Sep 2001 13:37:11 GMT, Frank Worm <fworm@norpak.ca> wrote:
>
>>So a one turn is the same as a hairpin coil?
>>
>>budgie wrote:
>>
>>> On Mon, 17 Sep 2001 12:56:07 GMT, Frank Worm <fworm@norpak.ca> wrote:
>>>
>>> >No I am talking about air core inductors like for a vhf low pass filter.
>>> >
>>> >"Bob Lewis (AA4PB)" wrote:
>>> >
>>> >> If you're talking about toroids, you count one turn each time the wire
>>> >> passes thru the center of the toroid.
>>>
>>> In my usage, a conductor that comes out of the pcb and goes back in
>>> counts as one turn.
>
>IMHO, yes. Bear in mind that the inductance is related to the "core"
>cross-section, so if a specific inductance is required then the shape
>of the loop (particularly a one-turn loop) is important.

It depends: for toroids, one turn is one pass through the centre of the toroid. The main magnetic flux path is through the core, and anything that looks like only a "half-turn" will in fact be made up to a complete turn by the external circuit path from the finish of the coil back to the start. The layout only affects the flux leakage from the external return path, and that is usually much smaller than the main flux inside the toroid.

But were talking about air-core solenoids here (or at least, the original questioner was). For this type of coil, the main magnetic flux path is much less well defined, and leakage inductance may be more important... but it doesn't actually matter! What matters here is to be able to copy the inductor from the *conventions* that the author used to specify it.

Conventionally, solenoid coils with "whole numbers" of turns have a right-angle bend at the start and finish, so the leads are in line with the central axis of the coil when viewed from above. The leads can go downwards at right-angles into a PCB, or be bent outwards at right-angles parallel to the axis, but there's always a right-angle bend involved at each end.

A hairpin loop is conventionally called a "half-turn". Solenoids of 1.5, 2.5 turns etc all have both leads coming out in the same direction when viewed end-on. When viewed from above, the start and finish are at diagonally opposite corners of the coil.

I hope those word-pictures make sense, without making me draw it in ASCII Art!

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5546. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:15:10 UTC
From: David Perry <david.perry3@virgin.net>
Message-ID: <COqp7.21842$mj6.3906612@news6-win.server.ntlworld.com>
Source record: 50241
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Surely a better, more civilised bet, would be to release some kind of bug or louse that only lives in turbans. The bug could be genetically modified so it lives in turbans but eats human skull tissue!

David

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans. That'll make us all feel better and let's face
> it they can't fight back much. I seem to remember bin lid's name being
> bandied around with the bully boy's threats after the Oklahoma bombing too.
>
> Evidence would be nice. I can't believe that security agencies who didn't
> see this coming can have suddenly gather irrefutable proof about anyone.
> Then again who needs proof if you are the most powerful nation on earth.
> Just bomb some third world country and then bully everyone else into saying
> you were right with economic sanctions. As the hysteria rises we are coming
> dangerously close to a witch-hunt with all the finesse of the McCarthy
> commission's investigations.
>
> We should not let our justifiable sympathy with the Americans lead us into
> blindly supporting an unjustifiable act. Remember it was our sympathy for
> the Jews after WWII that led us into evicting the Palestinians from their
> homes to create the state of Israel that got us into this west vs Islam
> conflict to begin with. The USA and UK created this problem. Time we tried
> to sort it out with something other than superior firepower.
>
> On the up side though, a war is always good for the economy. Instability
> boosts
> arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
>
> Alec Wood M1BNK
>
>
>
>
>

5547. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:28:23 UTC
From: c.a.m@nospam.blueyonder.co.uk
Message-ID: <h4gcqt8t5j7ks0qd5eau0ogfchvgv6mil8@4ax.com>
Source record: 50244

>Or rather, get someone else to bomb them while we watch it on CNN with a
>fridge full of chilled Bud.

Don't you mean Tennets Super ?

5548. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:40:04 UTC
From: jdouglas@timewave.com
Message-ID: <3ba6420a.12762011@news.mcleodusa.net>
Source record: 50245
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hello Alec,

Given that our Intel capability was crippled by the Church commission
in the 1970's and Clinton continued the trend, we did miss this. But
it takes time for a report to be analyzed and acted upon.

Perhaps you can suggest an approach. Your success with the "Irish"
problem would seem to qualify the UK as "experts".

All the best,

John (Ex-USAF and wishing he could be on just one more flight)

On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>Yeah let's bomb the Afghans. That'll make us all feel better and let's face
>it they can't fight back much. I seem to remember bin lid's name being
>bandied around with the bully boy's threats after the Oklahoma bombing too.
>
>Evidence would be nice. I can't believe that security agencies who didn't
>see this coming can have suddenly gather irrefutable proof about anyone.
>Then again who needs proof if you are the most powerful nation on earth.
>Just bomb some third world country and then bully everyone else into saying
>you were right with economic sanctions. As the hysteria rises we are coming
>dangerously close to a witch-hunt with all the finesse of the McCarthy
>commission's investigations.
>
>We should not let our justifiable sympathy with the Americans lead us into
>blindly supporting an unjustifiable act. Remember it was our sympathy for
>the Jews after WWII that led us into evicting the Palestinians from their
>homes to create the state of Israel that got us into this west vs Islam
>conflict to begin with. The USA and UK created this problem. Time we tried
>to sort it out with something other than superior firepower.
>
>On the up side though, a war is always good for the economy. Instability
>boosts
>arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
>
>Alec Wood M1BNK
>
>
>
>
>

5549. Newbie Question-No Ground Xtal?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:48:04 UTC
From: Tik Tok <squidmonkeySPAMPOX@yahoo.com>
Message-ID: <txrp7.4$IG.601218@news.sisna.com>
Source record: 50246

Hi, I'm about to build the EconOceanic crystal shortwave set
http://antiqueradio.org/econmain.htm
I was just wondering, is there any way to build a crystal set without needing to have it grounded? I'd like to make my set portable. Most portable radios don't need to be grounded, and I'm curious as to how they get away with it. If I can do away with the ground, is it possible for me to still build a set with high sensitivity? Thanks for your help.
-Mike Morgan

5550. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 18:53:07 UTC
From: cjX@hth.com
Message-ID: <3ba6468a.97605880@news.sverige.net>
Source record: 50147
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
Send and receive serial data over the power lines... For more info
about the PLM-24 Power Line Modem go to http://www.hth.com/plm-24/
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```

5551. FS: Junior plug-in coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 19:19:07 UTC
From: msix@plato.nmia.com
Message-ID: <L0sp7.111058$sC4.2716626@sjcpnn01.usenetserver.com>
Source record: 50148

```
1 lot of 11 1950's plug-in 75-100W transmitter coils
1.75 inches dia., 5-pin bases, mixed Bud and B&W
Plastic strips fragile but intact
10M JVL var 4T end link
10M JCL fxd 2T ctr link
10M JEL fxd 2T end link
15M JVL var 4T end link
15M JCL fxd 2T ctr link
15M JEL fxd 2T end link
20M JCL fxd 2T ctr link
20M JVL var 4T end link
40M JVL var 4T end link
40M JCL fxd 3T ctr link, reduced from 26T to 18T
80M JVL less var ctr link

$100 pp 48
73 John Conley W7ZFB 1400 Catron SE Albq, NM 87123
```

5552. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 19:25:08 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <t6sp7.28396$Pm5.6570436@news2-win.server.ntlworld.com>
Source record: 50149
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

It's our failure with the "Irish problem" that should stand as a stark reminder at this time. You cannot kill an idea no matter how many bombs you drop. Someone will always continue to fund and support these terrorists just as the Americans supported the IRA and all those other terrorist groups world-wide though at the time to be in America's interest. Bombing the wrong people just creates more support for them.

By all means exact retribution, but come on we all know what is going on here. American public opinion cries out for revenge NOW. CIA and NSA have been embarrassed. Someone must pay. Let's make sure it is someone with no oil and no way of fighting back. Anyone will do.

Now who have we been waiting for an excuse to kill ?

As for a suggested solution, I liked the bugs one above

Alec (Ex British Army and wishing our wet bloody liberal's would have declared war on PIRA then)

"John Douglas" <jdouglas@timewave.com> wrote in message news:3ba6420a.12762011@news.mcleodusa.net...
> Hello Alec,
>
> Given that our Intel capability was crippled by the Church commission
> in the 1970's and Clinton continued the trend, we did miss this. But
> it takes time for a report to be analyzed and acted upon.
>
> Perhaps you can suggest an approach. Your success with the "Irish"
> problem would seem to qualify the UK as "experts".
>
> All the best,
>
> John (Ex-USAF and wishing he could be on just one more flight)
>
> On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
> <alec_wood@ntlworld.com> wrote:
>
> >Yeah let's bomb the Afghans. That'll make us all feel better and let's face
> >it they can't fight back much. I seem to remember bin lid's name being
> >bandied around with the bully boy's threats after the Oklahoma bombing too.
> >
> >Evidence would be nice. I can't believe that security agencies who didn't
> >see this coming can have suddenly gather irrefutable proof about anyone.

> >Then again who needs proof if you are the most powerful nation on earth.
> >Just bomb some third world country and then bully everyone else into
saying
> >you were right with economic sanctions. As the hysteria rises we are
coming
> >dangerously close to a witch-hunt with all the finesse of the McCarthy
> >commission's investigations.
> >
> >We should not let our justifiable sympathy with the Americans lead us
into
> >blindly supporting an unjustifiable act. Remember it was our sympathy for
> >the Jews after WWII that led us into evicting the Palestinians from their
> >homes to create the state of Israel that got us into this west vs Islam
> >conflict to begin with. The USA and UK created this problem. Time we
tried
> >to sort it out with something other than superior firepower.
> >
> >On the up side though, a war is always good for the economy. Instability
> >boosts
> >arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> >Alec Wood M1BNK
> >
> >
> >
> >
> >
>

5553. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 19:49:33 UTC
From: *n7ws@arrl.net
Message-ID: <3ba64bca.101081755@news.triconet.org>
Source record: 50150
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood" <alec_wood@ntlworld.com>
wrote a bunch of crap:

Alec,

We are a bit short of funds to carry out the bombing right now. Please return
the Lend-Lease dollars that we loaned your country 45 years ago.

When your asses were being bombed to oblivion by the Krauts, you didn't seem to
mind the expenditure of our national treasure and blood for bombing raids
against them.

If we hadn't acted, BMW would be turning out "Jaguars" instead of Ford and there
would not be that pesky Israeli problem that troubles you so much.

Wes Stewart N7WS

ps. How are your "pacification efforts" going in Ireland?

|Yeah let's bomb the Afghans. That'll make us all feel better and let's face
|it they can't fight back much. I seem to remember bin lid's name being
|bandied around with the bully boy's threats after the Oklahoma bombing too.
|
|Evidence would be nice. I can't believe that security agencies who didn't
|see this coming can have suddenly gather irrefutable proof about anyone.
|Then again who needs proof if you are the most powerful nation on earth.
|Just bomb some third world country and then bully everyone else into saying
|you were right with economic sanctions. As the hysteria rises we are coming
|dangerously close to a witch-hunt with all the finesse of the McCarthy
|commission's investigations.
|
|We should not let our justifiable sympathy with the Americans lead us into
|blindly supporting an unjustifiable act. Remember it was our sympathy for
|the Jews after WWII that led us into evicting the Palestinians from their
|homes to create the state of Israel that got us into this west vs Islam
|conflict to begin with. The USA and UK created this problem. Time we tried
|to sort it out with something other than superior firepower.
|
|On the up side though, a war is always good for the economy. Instability
|boosts
|arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
|
|Alec Wood M1BNK
|
|

|
|
|

5554. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:01:12 UTC
From: 2w8ji@contesting.com
Message-ID: <3ba65631.555080734@news.akorn.net>
Source record: 50151
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>Yeah let's bomb the Afghans. That'll make us all feel better and let's face
>it they can't fight back much. I seem to remember bin lid's name being
>bandied around with the bully boy's threats after the Oklahoma bombing too.

We should bomb Alec, he obviously is a dip-shit brain who doesn't
understand what is going on...or a troll like Chip.

73 Tom

5555. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:16:33 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <GSsp7.28547$Pm5.6676424@news2-win.server.ntlworld.com>
Source record: 50152
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Some goddam Yank wrote in message
news:3ba64bca.101081755@news.triconet.org...

> We are a bit short of funds to carry out the bombing right now. Please
return
> the Lend-Lease dollars that we loaned your country 45 years ago.
>
> When your asses were being bombed to oblivion by the Krauts, you didn't
seem to
> mind the expenditure of our national treasure and blood for bombing raids
> against them.
>
> If we hadn't acted, BMW would be turning out "Jaguars" instead of Ford and
there
> would not be that pesky Israeli problem that troubles you so much.
>
> Wes Stewart N7WS
>

What difference does it make who has bastardised the good Jaguar name Yank or Kraut. Don't kid yourself with the high morals attitude. If Japan hadn't attacked you'd have stood by and done nothing, Britain would have been defeated and you would have worked out some way of making money out of the Krauts instead of us. All that bothers me is this moral bullshit you all come out with. If the US says it's ok then it must be. I mean come on. Wake up. Your government has lied to you before and will continue to do so, it is almost as devious as ours. What about the syphilis experiments, radioactive iodine in school milk (done over here as well by the way)

I think you've had more than your money's worth out of WWII now don't you ?

> ps. How are your "pacification efforts" going in Ireland?
>

Not well. The IRA terrorists funded by AMERICA have proved hard to put down. Like the Palestinians, ETA and all the others world wide. I think the American public are deluding themselves if they think killing bin-lid is going to solve the problem.

Do not underestimate the power of the US military though, after all they managed to kill more UK troops in gulf than the Iraqis did. Which friendlies will get in the way this time I wonder ?

Alec

5556. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:25:20 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com>
Source record: 50154
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Not agreeing with US government policy makes me neither a supporter of those who commited this evil act nor a "dip-shit". What worries me is the apparent haste with which we seem to be chargeing into this so called solution.

Where is the evidence? Let's see it so we can all make up our minds. I for one have never blindly followed just because the government says so. Well, not since I left the army anyway.

Sorry we can't all share the same opinion, but I thought your country was the one who prides itself on upholding freedom of speech above all others. 'The land of the brave and the home of the free' or something along those lines. I don't seem to recall any small print under that saying "Only if you think what your told to"

73

Alec Wood M1BNK who will to excersise his freedom of speech

PS Saturation bombing didn't seem to work very well in 'Nam did it ?

5557. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:34:52 UTC
From: G8ASO &#65533; <lonely_loony@worcester.com>
Message-ID: <3ba65e4c$1_3@news2.vip.uk.com>
Source record: 50153
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Potters Bar comes to mind!

"Steve L" <steve.m1bjr@nospamplease.ntlworld.com> wrote in message
news:3ba636aa.2244373@news.ntlworld.com...
> On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
> <alec_wood@ntlworld.com> wrote:
>
> >Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> >Alec Wood M1BNK
>
> Sure, where exactly are you Alec?
>

5558. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:46:02 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <Titp7.28641$Pm5.6758867@news2-win.server.ntlworld.com>
Source record: 50155
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

well done Alex,i agree 100%,to me war and terrorism are the same thing,as it is in Northern Ireland we are not doing too bad,unfortunately the Ulster Unionists,have not grown up yet,when will they learn North and South are one country,and after last weeks attacks on schoolchildren we should just tell the unionists thats it.

but back to the issue in hand.

it has been a very sad week,with a large loss of life,and yes i despise those who have wreaked havoc on the US.
but the US has bullied people for years used chemical and nuclear weapons,policed who they dont do business with and let those they do use any method of oppresion available.

it seems though they dont like being told when they do wrong,and we now have to support whatever they say,funny that i thought i lived i a democracy.

bombing Afghanistan will not help,i hope Bin Laden and followers is dealt with,but why hurry,if we went in tonight,it would not stop the terrorist attacks,but increase them.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Alexander S. Wood <alec_wood@ntlworld.com> wrote in message
news:V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com...
> Not agreeing with US government policy makes me neither a supporter of
those
> who commited this evil act nor a "dip-shit". What worries me is the
apparent
> haste with which we seem to be chargeing into this so called solution.
>
> Where is the evidence? Let's see it so we can all make up our minds. I for
> one have never blindly followed just because the government says so. Well,
> not since I left the army anyway.
>
> Sorry we can't all share the same opinion, but I thought your country was

> the one who prides itself on upholding freedom of speech above all others.
> 'The land of the brave and the home of the free' or something along those
> lines. I don't seem to recall any small print under that saying "Only if
you
> think what your told to"
>
> 73
>
> Alec Wood M1BNK who will to excersise his freedom of speech
>
> PS Saturation bombing didn't seem to work very well in 'Nam did it ?
>
>

5559. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:50:57 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <Xmtp7.28646$Pm5.6767468@news2-win.server.ntlworld.com>
Source record: 50156
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

As a regular referrer of your fine pages I resent that remark.

"G8ASO &#65533;" <lonely_loony@worcester.com> wrote in message
news:3ba65e4c$1_3@news2.vip.uk.com...
> Potters Bar comes to mind!
>
>
> "Steve L" <steve.m1bjr@nospamplease.ntlworld.com> wrote in message
> news:3ba636aa.2244373@news.ntlworld.com...
> > On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
> > <alec_wood@ntlworld.com> wrote:
> >
> > >Yeah, come on, bomb someone - let's face it, anyone will do.
> > >
> > >Alec Wood M1BNK
> >
> > Sure, where exactly are you Alec?
> >
>
>

5560. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:57:01 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA6639D.CEF0BBE3@bt.com>
Source record: 50157
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" wrote:

<snip>

You are a Troll AICMFF.

> Alec Wood M1BNK who will to excersise his freedom of speech

Fine, I'll excersise(sic) my freedom of hearing, humanity
and sensitivity, thanks.

> PS Saturation bombing didn't seem to work very well in 'Nam did it ?

"Here's a good idea - have a point."
(Steve Martin, in Planes, Trains & Automobiles)

Andy
G8YOA

5561. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 20:59:54 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <lvtp7.28676$Pm5.6792288@news2-win.server.ntlworld.com>
Source record: 50158
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

At last. Someone capable of independent thought.

As for the Unionists, I cannot believe I risked life and limb for three tours to protect arseholes like that. The harassment of children is unforgivable, as are the actions of the parents for home publicity seems to outweigh the mental well being of their offspring.

Right and wrong seemed more clear cut then. But now I am coming round to the idea of unification and let them deal with or kill each other.

My main point in this is "What's the hurry ?" and "Less of the hypocrisy" i.e. America has supported terrorists for decades

Alec

"proma1" <proma1@ntlworld.com> wrote in message news:Titp7.28641$Pm5.6758867@news2-win.server.ntlworld.com...
>
> well done Alex,i agree 100%,to me war and terrorism are the same thing,as it
> is in Northern Ireland we are not doing too bad,unfortunately the Ulster
> Unionists,have not grown up yet,when will they learn North and South are
> one country,and after last weeks attacks on schoolchildren we should just
> tell the unionists thats it.
>
> but back to the issue in hand.
>
>
> it has been a very sad week,with a large loss of life,and yes i despise
> those who have wreaked havoc on the US.
> but the US has bullied people for years used chemical and nuclear
> weapons,policed who they dont do business with and let those they do use any
> method of oppresion available.
>
> it seems though they dont like being told when they do wrong,and we now have
> to support whatever they say,funny that i thought i lived i a democracy.
>
>
> bombing Afghanistan will not help,i hope Bin Laden and followers is dealt
> with,but why hurry,if we went in tonight,it would not stop the terrorist
> attacks,but increase them.
>
>

> regards
>
> --
> PROMA1
> Paul Wey
>
> Scanning Author
>
> www.geocities.com/proma1_1999
>
> http://groups.yahoo.com/group/scanpromauk
>
>
>
>
> Alexander S. Wood <alec_wood@ntlworld.com> wrote in message
> news:V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com...
> > Not agreeing with US government policy makes me neither a supporter of
> those
> > who commited this evil act nor a "dip-shit". What worries me is the
> apparent
> > haste with which we seem to be chargeing into this so called solution.
> >
> > Where is the evidence? Let's see it so we can all make up our minds. I
for
> > one have never blindly followed just because the government says so.
Well,
> > not since I left the army anyway.
> >
> > Sorry we can't all share the same opinion, but I thought your country
was
> > the one who prides itself on upholding freedom of speech above all
others.
> > 'The land of the brave and the home of the free' or something along
those
> > lines. I don't seem to recall any small print under that saying "Only if
> you
> > think what your told to"
> >
> > 73
> >
> > Alec Wood M1BNK who will to excersise his freedom of speech
> >
> > PS Saturation bombing didn't seem to work very well in 'Nam did it ?
> >
> >
>
>

5562. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 21:15:00 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <wJtp7.28731$Pm5.6820512@news2-win.server.ntlworld.com>
Source record: 50159
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Andy Lake" <andy.lake@bt.com> wrote in message
news:3BA6639D.CEF0BBE3@bt.com...
> "Here's a good idea - have a point."
> (Steve Martin, in Planes, Trains & Automobiles)
>
> Andy
> G8YOA

Here's another good idea. Read the posts before you reply. I have 3 main points

1. Disgust at the evil act committed does not have to mean automatic support for anything and everything just because the US government says so. Conversely disagreeing with US government is NOT IN ANY WAY supporting terrorism against USA.

2. What's the hurry ? (to bomb someone)

3. Where is the evidence ? Let's see it so we can all make an INFORMED decision.

Alec

5563. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 21:35:19 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <71up7.28827$Pm5.6853289@news2-win.server.ntlworld.com>
Source record: 50160
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

why is that we keep being told by the media,we all want war.

hypocrisy is having a field day at the moment.

one being its ok to go bombing Afghanistan,was not ok when the russians
tried ot though

also the refugees were only fleeing to get our dole??

but now its an evil regime in Afghanistan,so surely that makes those fleeing
legitimate.

as stated by Andrew and myself,we do not support the terrorism,but i for one
cannot see a reason for killing innocents in Afghanistan,with good
inteliigence and if we take our time using special forces may be we will
catch Bin Laden off guard,whereas anything in next 6 months is likely tro be
expected by him.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Alexander S. Wood <alec_wood@ntlworld.com> wrote in message
news:wJtp7.28731$Pm5.6820512@news2-win.server.ntlworld.com...
>
> "Andy Lake" <andy.lake@bt.com> wrote in message
> news:3BA6639D.CEF0BBE3@bt.com...
> > "Here's a good idea - have a point."
> > (Steve Martin, in Planes, Trains & Automobiles)
> >
> > Andy
> > G8YOA
>
> Here's another good idea. Read the posts before you reply. I have 3 main
> points
>
> 1. Disgust at the evil act committed does not have to mean automatic
support
> for anything and everything just because the US government says so.

> Conversely disagreeing with US government is NOT IN ANY WAY supporting
> terrorism against USA.
>
> 2. What's the hurry ? (to bomb someone)
>
> 3. Where is the evidence ? Let's see it so we can all make an INFORMED
> decision.
>
> Alec
>
>

5564. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 21:37:08 UTC
From: Victor <sad@git.com>
Message-ID: <y4up7.23143$mj6.4326951@news6-win.server.ntlworld.com>
Source record: 50161
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Can't fight back eh?? Tell the 23,000 Russians that died fighting in that country that.

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans. That'll make us all feel better and let's face
> it they can't fight back much. I seem to remember bin lid's name being
> bandied around with the bully boy's threats after the Oklahoma bombing too.
>
> Evidence would be nice. I can't believe that security agencies who didn't
> see this coming can have suddenly gather irrefutable proof about anyone.
> Then again who needs proof if you are the most powerful nation on earth.
> Just bomb some third world country and then bully everyone else into saying
> you were right with economic sanctions. As the hysteria rises we are coming
> dangerously close to a witch-hunt with all the finesse of the McCarthy
> commission's investigations.
>
> We should not let our justifiable sympathy with the Americans lead us into
> blindly supporting an unjustifiable act. Remember it was our sympathy for
> the Jews after WWII that led us into evicting the Palestinians from their
> homes to create the state of Israel that got us into this west vs Islam
> conflict to begin with. The USA and UK created this problem. Time we tried
> to sort it out with something other than superior firepower.
>
> On the up side though, a war is always good for the economy. Instability
> boosts
> arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
>
> Alec Wood M1BNK
>
>
>
>
>

5565. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 21:57:54 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA671E2.F3F2D3C9@bt.com>
Source record: 50162
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" wrote:
>
> Here's another good idea. Read the posts before you reply.

I did - and they read like rants to me, HTH.

> I have 3 main
> points

> 1. Disgust at the evil act committed does not have to mean automatic support
> for anything and everything just because the US government says so.
> Conversely disagreeing with US government is NOT IN ANY WAY supporting
> terrorism against USA.

OK, agreed, of course.

> 2. What's the hurry ? (to bomb someone)

No one appears to be in any hurry - a week has gone by...!
Who *honestly* expected retaliation within days? I certainly
didn't. It's going to take time to get forces in the area.
(Wherever that may be.) A few air-raids won't achieve much
in remote valleys and hillsides, will it?

You also said "As the hysteria rises we are coming
dangerously close to a witch-hunt with all the finesse of
the McCarthy commission's investigations."

What hysteria? I see measured talk at the moment. I read
your initial post in this thread as closer to hysteria than
any of the political talk I've heard.

> 3. Where is the evidence ? Let's see it so we can all make an INFORMED
> decision.

Ahh, here we have a problem. You're asking for evidence that
you have already stated is from doubtful sources. Who would
you trust to give you this information?

As it happens, I do agree slightly with you - but your
approach and posting style smacks almost of sensationalism.
Sorry, maybe I'm reading it wrong...?

Condolences to all in this terrible tragedy.

73
Andy

5566. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 22:11:25 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <nyup7.29078$Pm5.6906208@news2-win.server.ntlworld.com>
Source record: 50163
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Victor" <sad@git.com> wrote in message
news:y4up7.23143$mj6.4326951@news6-win.server.ntlworld.com...
> Can't fight back eh?? Tell the 23,000 Russians that died fighting in that
> country that.
>

Different country then - united in one cause (almost) and helped with
copious amounts of cash and weapons from the west via Pakistan. CNN reporter
the other day described the state of the country now as "medieval".

They certainly won't be getting any Stingers now will they?

Alec

5567. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 22:16:37 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <hDup7.29110$Pm5.6917659@news2-win.server.ntlworld.com>
Source record: 50164
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hi Andy

Not meant as a rant or flame, honest. More of an alternative viewpoint strongly argued. Apologies to all and anyone offended, and may I take the opportunity to once again reiterate my condemnation of this barbaric act.

Alec

"Andy Lake" <andy.lake@bt.com> wrote in message news:3BA671E2.F3F2D3C9@bt.com...
> "Alexander S. Wood" wrote:
> >
> > Here's another good idea. Read the posts before you reply.
>
> I did - and they read like rants to me, HTH.
>
> > I have 3 main
> > points
>
> > 1. Disgust at the evil act committed does not have to mean automatic support
> > for anything and everything just because the US government says so.
> > Conversely disagreeing with US government is NOT IN ANY WAY supporting
> > terrorism against USA.
>
> OK, agreed, of course.
>
> > 2. What's the hurry ? (to bomb someone)
>
> No one appears to be in any hurry - a week has gone by...!
> Who *honestly* expected retaliation within days? I certainly
> didn't. It's going to take time to get forces in the area.
> (Wherever that may be.) A few air-raids won't achieve much
> in remote valleys and hillsides, will it?
>
> You also said "As the hysteria rises we are coming
> dangerously close to a witch-hunt with all the finesse of
> the McCarthy commission's investigations."
>
> What hysteria? I see measured talk at the moment. I read
> your initial post in this thread as closer to hysteria than
> any of the political talk I've heard.
>
> > 3. Where is the evidence ? Let's see it so we can all make an INFORMED

> > decision.
>
> Ahh, here we have a problem. You're asking for evidence that
> you have already stated is from doubtful sources. Who would
> you trust to give you this information?
>
> As it happens, I do agree slightly with you - but your
> approach and posting style smacks almost of sensationalism.
> Sorry, maybe I'm reading it wrong...?
>
> Condolences to all in this terrible tragedy.
>
> 73
> Andy

5568. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 22:38:02 UTC
From: *n7ws@arrl.net
Message-ID: <3ba66a5a.108907269@news.triconet.org>
Source record: 50165

On Mon, 17 Sep 2001 21:46:02 +0100, "proma1" <proma1@ntlworld.com> wrote:

[snip]

|
|(I)it seems though they don(')t like being told when they do wrong,()and we now have
|to support whatever they say,() funny that i (sic) thought i (sic) lived i(n) a democracy.

You do not have to support us. Tell your Prime Minister that his speech to Parliament was b.s. and you don't want to go along. I'm sure he'll understand, as will the survivors of the British citizens killed in the WTC attack. I'll bet you will soon all be lifting a pint together and agreeing that the USA is the demon. Cheers.

BTW, you do not live in a democracy, nor do we. We live in a republic.

A democracy is where there are ten people in a room and nine of them vote to kill the tenth. Furthermore, pure democracies are doomed to failure just as soon as everyone figures out they can vote themselves a piece of the public treasury.

5569. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 22:46:17 UTC
From: Lynn Pridgen <lpridgen@swbell.net>
Message-ID: <3BA682BB.C0D92E9@swbell.net>
Source record: 50166
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Alex,
Thanks for your view point. I think most of us Yanks don't have a clue as to why a lot of countries hate us. In a recent CNN poll, over 90 percent didn't know what our foreign policy was.
We're not a bad people and we do hang our "laundry" out for everyone to see it. Maybe there is an answer out there somewhere to all this blood shed but I hope this doesn't escalate into something much worse. Just imagine what could happen if that "rug head" decides to spread a few biological weapons around the world. No one is safe and if he is eliminated, what would take his place? Scary thought isn't it.

Lynn, K5JOT

"Alexander S. Wood" wrote:

> Hi Andy
>
> Not meant as a rant or flame, honest. More of an alternative viewpoint
> strongly argued. Apologies to all and anyone offended, and may I take the
> opportunity to once again reiterate my condemnation of this barbaric act.
>
> Alec
>
> "Andy Lake" <andy.lake@bt.com> wrote in message
> news:3BA671E2.F3F2D3C9@bt.com...
> > "Alexander S. Wood" wrote:
> > >
> > > Here's another good idea. Read the posts before you reply.
> >
> > I did - and they read like rants to me, HTH.
> >
> > > I have 3 main
> > > points
> >
> > > 1. Disgust at the evil act committed does not have to mean automatic
> support
> > > for anything and everything just because the US government says so.
> > > Conversely disagreeing with US government is NOT IN ANY WAY supporting
> > > terrorism against USA.
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> > OK, agreed, of course.
> >
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> > No one appears to be in any hurry - a week has gone by...!
> > Who *honestly* expected retaliation within days? I certainly
> > didn't. It's going to take time to get forces in the area.
> > (Wherever that may be.) A few air-raids won't achieve much
> > in remote valleys and hillsides, will it?
> >
> > You also said "As the hysteria rises we are coming
> > dangerously close to a witch-hunt with all the finesse of
> > the McCarthy commission's investigations."
> >
> > What hysteria? I see measured talk at the moment. I read
> > your initial post in this thread as closer to hysteria than
> > any of the political talk I've heard.
> >
> > > 3. Where is the evidence ? Let's see it so we can all make an INFORMED
> > > decision.
> >
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> > you have already stated is from doubtful sources. Who would
> > you trust to give you this information?
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> > As it happens, I do agree slightly with you - but your
> > approach and posting style smacks almost of sensationalism.
> > Sorry, maybe I'm reading it wrong...?
> >
> > Condolences to all in this terrible tragedy.
> >
> > 73
> > Andy

5570. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 23:37:01 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9o61km$io8$1@plutonium.btinternet.com>
Source record: 50167
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

WAR! What is it good for?

Absolutely NOTHING!

Say it again....

5571. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 23:40:38 UTC
From: Harry Bloomfield <harry_m1byt@ntlworld.com>
Message-ID: <MPG.16109a559cebb0d1989687@news.ntlworld.com>
Source record: 50168
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com>,
alec_wood@ntlworld.com says...

|Where is the evidence? Let's see it so we can all make up our minds. I for
|one have never blindly followed just because the government says so. Well,
|not since I left the army anyway.

For those who might be interested, there is a bit of background on Bin
Laden at:-

http://www.cnn.com/SPECIALS/2001/trade.center/binladen.section.html

--
Regards,
Harry (M1BYT)

5572. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-17 23:49:46 UTC
From: "Drink, WP3JQ" <NOSPAMdrink@coqui.net>
Message-ID: <8Xvp7.26737$yJ1.2003720@e420r-atl1.usenetserver.com>
Source record: 50169
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Yes. Evidence would be "nice". In the aftermath, it's not at all unreasonable to expect some of the largest and most sophisticated global intelligence organizations to focus it's efforts and produce actionable information.

> CIA and NSA have been embarrassed. Someone must pay. Let's make sure it is someone with no oil and no way of fighting back.

Sir, you are truely an ass. If you think that picking the rotting, shredded corpses of friends, lovers and children from the rubble of our home is about saving face, you're a worthless human being.
I'm in the military and my 3yr old daughter saw my dog tags for the first time today. She asked, "What's these Daddy?". "That's a very good question" I said, not sure how to respond. "Why you have two?" she continued. I could only think to myself, "One's for my toe and the other gets shoved between my teeth if someone kills me." The thought of orphaning your children's painful but some things are worth killing or dying for. That's the gravity of which you speak and how much it means to us. It's not something you do in a rash moment. While I respect your opinion and, as an ally, would defend your right to express it,
You should be ashamed of yourself for littering this newsgroup with your inflammatory, inappropriate, poorly concieved views.
Good Night,
Drink, WP3JQ

5573. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 01:17:54 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BA6A0C0.66D7C8B7@att.net>
Source record: 50171
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Alec, with regard to your third point, neither you nor I are in any position to demand to see any evidence or to make any decisions. In our democratic nations, yours included, "we" make decisions through our elected representatives. So, no amount of public discussion and/or display or lack of display of "evidence" can have any bearing on the outcome.

It is good to ventilate and make people aware of your distrust of and anger with the US for whatever your reasons may be, but please do not discount and defame us all in your personal vendetta for revenge against real or imagined wrongs.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Alexander S. Wood" wrote:

> 3. Where is the evidence ? Let's see it so we can all make an INFORMED
> decision.
>
> Alec

--
72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

5574. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 01:20:22 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BA6A14D.C26B1744@att.net>
Source record: 50172
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Cross-posting to five newsgroups does rather suggest that someone enjoys
having an audience.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Andy Lake wrote:

> As it happens, I do agree slightly with you - but your
> approach and posting style smacks almost of sensationalism.

5575. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 01:51:34 UTC
From: *n7ws@arrl.net
Message-ID: <3ba6a217.123178464@news.triconet.org>
Source record: 50173

On Mon, 17 Sep 2001 20:25:08 +0100, "Alexander S. Wood" <alec_wood@ntlworld.com>
wrote:

|By all means exact retribution, but come on we all know what is going on
|here. American public opinion cries out for revenge NOW. CIA and NSA have
|been embarrassed. Someone must pay. Let's make sure it is someone with no
|oil and no way of fighting back. Anyone will do.

Speaking of oil, I must note that one of the VP8s I've worked (just to tie this
to ham radio somehow) doesn't count for DXCC because he operates from AN OIL
DRILLING PLATFORM. Would that have anything to do with Britain's 1982 escapades
in the Falkland Islands, a location that has great strategic importance to the
defense of Mother England, I'm sure.

Must be... you certainly seem to have more than enough sheep and fuzzy-headed
thinkers in England.

5576. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 02:02:22 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <935dqtkf5esm7k7r6j9m2ggkhbj0j43d5c@4ax.com>
Source record: 50170

"Sverre Holm \(LA3ZA\)" <svholm2@online.no> wrote:

>What confuses me is that I can read from the HP product description on
>http://www.qsl.net/la3za/HP5326a.pdf that the input sensitivity is 5 mV,
>while my counter has a sensitivity of 50 mV uniformly from audio to 50 MHz.
>If you have the manual, maybe the value for sensitivity can be verified?

Is there any chance that the 50mV you think you're inputting is really
more like 5mV? Got a good calibrated instrument for measuring?
Properly terminated line?

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5577. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 02:20:24 UTC
From: Troy <troyrow@optusnet.com.au>
Message-ID: <3ba6af77$0$30135$afc38c87@news.optusnet.com.au>
Source record: 50174
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

First let me express my deepest sympathy to the victims of the terrorist attacks in the US, especially to the Police and Fire-fighters killed (I work in the same field).

It would seem, at least to the rest of the world other than Americans, that recent American foreign policy has been driven by oil and little else.

The total non-involvement of the US in Rwanda and East Timor, as two examples that immediately pop to mind, would only seem to evidence this standpoint.

Once the mess has been cleaned up and the dead buried, Americans must take a long hard look at themselves. The American public must look at their country's foreign policy and try to understand why a large part of the global population hates them, or at best, puts up with them.

> > CIA and NSA have been embarrassed. Someone must pay. Let's make sure it is
> someone with no oil and no way of fighting back.
>
> Sir, you are truely an ass. If you think that picking the rotting,
> shredded corpses of friends, lovers and children from the rubble of our home
> is about saving face, you're a worthless human being.
> I'm in the military and my 3yr old daughter saw my dog tags for the first
> time today. She asked, "What's these Daddy?". "That's a very good
> question" I said, not sure how to respond. "Why you have two?" she
> continued. I could only think to myself, "One's for my toe and the other
> gets shoved between my teeth if someone kills me." The thought of orphaning
> your children's painful but some things are worth killing or dying for.
> That's the gravity of which you speak and how much it means to us. It's not
> something you do in a rash moment. While I respect your opinion and, as an
> ally, would defend your right to express it,
> You should be ashamed of yourself for littering this newsgroup with your
> inflammatory, inappropriate, poorly concieved views.
> Good Night,
> Drink, WP3JQ
>
>
>

5578. anyone ever used Eimac VT-127's. Do you still have it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 05:39:48 UTC
From: hexter@blazenet.net
Message-ID: <tqdnh4e5kg9o37@corp.supernews.com>
Source record: 50175

Anyone here ever used any of these old radar triodes on the air?
Do you still have the amp? Just curious. They are all probably
to gassy to use anymore.

5579. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 09:06:56 UTC
From: gm7jds <gm7jds@ntlworld.com>
Message-ID: <_jEp7.5166$1V3.163453@news2-win.server.ntlworld.com>
Source record: 50177
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

you really are an ars hole,and don't really have clue what your on about,this is a small group of people that have done a crime not just against the usa but the whole of the free world,nearly every nation on the planet lost someone from there country in this attack,and if there country does not defend its people,even if there not on there home countries soil,them there saying it ok for anyone to murder there people and get away with it just to prove a point.

most Muslims condem what happened

how ever this was a small group of people,who it is said but not proven was led by one man in Afghanistan called bin laden.

I agree that the usa must take some action,but to carpet bomb people who don't really support the afghan government and these people did battle for the usa against the ussr not long ago,this is really firing from the hip a bit.
all countries are running around that have had anything to do with bin laden,they are running scared encase they get drawn into this and get bombed,Pakistan is one,they don't care about the USA only aid that they will loose if they don't stand with the USA,millions of dollars of funding if taken away would throw the country into poverty worse than it is now.

killing more people will not solve anything,infact it may make things worse,and killing Muslims may draw more countries into this.

we need to go after these people and there group that did this,not slaughter more men women and children.
"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans. That'll make us all feel better and let's face
> it they can't fight back much. I seem to remember bin lid's name being
> bandied around with the bully boy's threats after the Oklahoma bombing too.
>
> Evidence would be nice. I can't believe that security agencies who didn't
> see this coming can have suddenly gather irrefutable proof about anyone.
> Then again who needs proof if you are the most powerful nation on earth.
> Just bomb some third world country and then bully everyone else into saying
> you were right with economic sanctions. As the hysteria rises we are coming
> dangerously close to a witch-hunt with all the finesse of the McCarthy
> commission's investigations.

>
> We should not let our justifiable sympathy with the Americans lead us into
> blindly supporting an unjustifiable act. Remember it was our sympathy for
> the Jews after WWII that led us into evicting the Palestinians from their
> homes to create the state of Israel that got us into this west vs Islam
> conflict to begin with. The USA and UK created this problem. Time we tried
> to sort it out with something other than superior firepower.
>
> On the up side though, a war is always good for the economy. Instability
> boosts
> arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
>
> Alec Wood M1BNK
>
>
>
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.280 / Virus Database: 147 - Release Date: 11/09/2001

5580. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 09:12:31 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <JeEp7.5148$1V3.160228@news2-win.server.ntlworld.com>
Source record: 50176
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

another american who does not like democracy,there are so many,but
thankfully not all.

what about the 3 yr olds in Iraq and countless other countries of the the
world,your hands have been in either directly or CIA involvement,the fact is
war is what we are are in already,every few weeks we bomb Iraq,and look what
its got you

5000 dead,you have disrupted the world too many times and now someone has
got you back,and for some reason its called terrorism,yet when you bomb a
country its called war???

to me there is no differance,its killing and its barbaric either way and who
ever is doing it.

to add to that all those capitalist bankers,and workers also are just as
bad,they wanted to get rid of the world trade centre and they did it.

io wish the stock market was brought to its knees in this country[not by
death].

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Drink, WP3JQ <NOSPAMdrink@coqui.net> wrote in message
news:8Xvp7.26737$yJ1.2003720@e420r-atl1.usenetserver.com...
> Yes. Evidence would be "nice". In the aftermath, it's not at all
> unreasonable to expect some of the largest and most sophisticated global
> intelligence organizations to focus it's efforts and produce actionable
> information.
>
> > CIA and NSA have been embarrassed. Someone must pay. Let's make sure it
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> someone with no oil and no way of fighting back.
>
> Sir, you are truely an ass. If you think that picking the rotting,
> shredded corpses of friends, lovers and children from the rubble of our
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> is about saving face, you're a worthless human being.
> I'm in the military and my 3yr old daughter saw my dog tags for the
first
> time today. She asked, "What's these Daddy?". "That's a very good
> question" I said, not sure how to respond. "Why you have two?" she
> continued. I could only think to myself, "One's for my toe and the other
> gets shoved between my teeth if someone kills me." The thought of
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> your children's painful but some things are worth killing or dying for.
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> something you do in a rash moment. While I respect your opinion and, as
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> ally, would defend your right to express it,
> You should be ashamed of yourself for littering this newsgroup with your
> inflammatory, inappropriate, poorly concieved views.
> Good Night,
> Drink, WP3JQ
>
>
>

5581. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 09:53:08 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <RQEp7.5282$1V3.190143@news2-win.server.ntlworld.com>
Source record: 50178
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

another good comment

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

gm7jds <gm7jds@ntlworld.com> wrote in message
news:_jEp7.5166$1V3.163453@news2-win.server.ntlworld.com...
> you really are an ars hole,and don't really have clue what your on
> about,this is a small group of people that have done a crime not just
> against the usa but the whole of the free world,nearly every nation on the
> planet lost someone from there country in this attack,and if there country
> does not defend its people,even if there not on there home countries
> soil,them there saying it ok for anyone to murder there people and get
away
> with it just to prove a point.
>
> most Muslims condem what happened
>
> how ever this was a small group of people,who it is said but not proven
was
> led by one man in Afghanistan called bin laden.
>
> I agree that the usa must take some action,but to carpet bomb people who
> don't really support the afghan government and these people did battle for
> the usa against the ussr not long ago,this is really firing from the hip a
> bit.
> all countries are running around that have had anything to do with bin
> laden,they are running scared encase they get drawn into this and get
> bombed,Pakistan is one,they don't care about the USA only aid that they
will
> loose if they don't stand with the USA,millions of dollars of funding if
> taken away would throw the country into poverty worse than it is now.
>
> killing more people will not solve anything,infact it may make things
> worse,and killing Muslims may draw more countries into this.
>
> we need to go after these people and there group that did this,not
slaughter

> more men women and children.
> "Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
> news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> > Yeah let's bomb the Afghans. That'll make us all feel better and let's
> face
> > it they can't fight back much. I seem to remember bin lid's name being
> > bandied around with the bully boy's threats after the Oklahoma bombing
> too.
> >
> > Evidence would be nice. I can't believe that security agencies who
didn't
> > see this coming can have suddenly gather irrefutable proof about anyone.
> > Then again who needs proof if you are the most powerful nation on earth.
> > Just bomb some third world country and then bully everyone else into
> saying
> > you were right with economic sanctions. As the hysteria rises we are
> coming
> > dangerously close to a witch-hunt with all the finesse of the McCarthy
> > commission's investigations.
> >
> > We should not let our justifiable sympathy with the Americans lead us
into
> > blindly supporting an unjustifiable act. Remember it was our sympathy
for
> > the Jews after WWII that led us into evicting the Palestinians from
their
> > homes to create the state of Israel that got us into this west vs Islam
> > conflict to begin with. The USA and UK created this problem. Time we
tried
> > to sort it out with something other than superior firepower.
> >
> > On the up side though, a war is always good for the economy. Instability
> > boosts
> > arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> > Alec Wood M1BNK
> >
> >
> >
> >
> >
>
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.280 / Virus Database: 147 - Release Date: 11/09/2001
>
>

5582. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 10:37:21 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <64t$yHAhPyp7EwZw@langwang.demon.co.uk>
Source record: 50191
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hang on a minute ! No matter how terrible last weeks events were
(and terrible they were) I hope those in power will sit down & read Brit.
accounts of our disastrous 1st & 2nd Afghan Wars, to say nothing of recent
Russian accounts of campaigns in that country.
How do you fight a high tech war against a mountain based guerrilla
enemy who, although still trying to drag himself into something like the 15th
century, is quite capable of crossing 3 3000m ridges before breakfast (which
he probably doesn't need anyhow) ? Even after 26 yrs. in the military I don't
know the answer - but I do remember the poem written 100 yrs ago by
Kipling:

Arithmetic on the Frontier

A great and glorious thing it is
To learn, for seven years or so,
The Lord knows what of that and this,
Ere reckoned fit to face the foe -
The flying bullet down the Pass,
That whistles clear: "All flesh is grass."

A scrimmage in a border station -
A canter down some dark defile -
Two thousand pounds of education
Drops to a ten-rupee jezail -
The crammer's boast, the Squadron's pride,
Shot like a rabbit in a ride !

--
Dick
GM0MNL

5583. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 11:22:33 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1000812153@msauve>
Source record: 50179
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Extremely OFF TOPIC. Take it outside, please.

On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood" <alec_wood@ntlworld.com> wrote:
[a long, poorly written, sarcastic rant]

5584. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 11:58:55 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BA736FF.3635EC8B@silly.net>
Source record: 50180
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

proma1 wrote:
>
>
> what about the 3 yr olds in Iraq and countless other countries of the the
> world,your hands have been in either directly or CIA involvement,

Yawn. Same old parroted crap from another terrorist sympathiser.
-Bill

5585. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 12:15:29 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba73afd@news.gj.net>
Source record: 50181
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Troy" <troyrow@optusnet.com.au> wrote in message
news:3ba6af77$0$30135$afc38c87@news.optusnet.com.au...
> First let me express my deepest sympathy to the victims of the terrorist
> attacks in the US, especially to the Police and Fire-fighters killed (I
work
> in the same field).
>
> It would seem, at least to the rest of the world other than Americans,
that
> recent American foreign policy has been driven by oil and little else.

The civilized countries of the world need oil/by-products to power there cars/trains/planes/trucks/factories/businesses and so forth,,,, which then powers their economy,,,,, which then provides goods/services/health items/food/trade to all the citizens.. Without these items, then poeple live back in the stone age era. NOW, which civilized/ non-civilized country isn't driven by oil?

>
> The total non-involvement of the US in Rwanda and East Timor, as two
> examples that immediately pop to mind, would only seem to evidence this
> standpoint.

By everything you are indicating, you and whoever else should be happy about non-US involvement. But no, you aren't. Rwanda and East Timor didn't get their supposed fair share of foreign aide from the US. So, you are pissed if US does and you are pissed if the US doesn't. Typical of a spineless liberal.

>
> Once the mess has been cleaned up and the dead buried, Americans must take
a
> long hard look at themselves. The American public must look at their
> country's foreign policy and try to understand why a large part of the
> global population hates them, or at best, puts up with them.

Yes, global population (big generalization here and by no means am I lumping each and every person into this group) wants plenty of welfare/aide from the US with no strings/commitments. Free Lunch is another way of saying it. Global population wants US to play world police and take all the hits, and keep the bad guys at bay, but not on their soil, nor any inconvience to them, whoever them is.

Enough said.

5586. "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 13:09:13 UTC
From: Philip Hudkins <philip@cyberstation.net>
Message-ID: <XGHp7.6$8V6.5097@e420r-atl1.usenetserver.com>
Source record: 50182

Help! Does anyone have any recommended books, software or other training manuals that could be used to educate me in the field of math as it applies to Amateur Radio? Thanks. Philip Hudkins

5587. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 14:46:38 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3BA75E4E.C3121051@ix.netcom.com>
Source record: 50196

Sverre,
Don't know where you got the 5 mV from; my 1973 hp catalog lists the sensitivity as 0.1 volt rms sine wave.....

5588. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 14:52:41 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BA75FB9.8E3E93D2@ay.com.au>
Source record: 50186

Frank,

It is always an argument, in particular for air-cored coils. Toroids are 'one pass through the center equals one turn'. Pig nose formers are contentious too, most people say 'up one hole, and back down the other equals one turn'. Slug tuned coils have large L changes with slug position, so a turn or so can be easily tuned out (you might still want to fiddle for best Q).

In either sense of the term 'turn' you can generally tune out the 1/2 turn 'error' by stretching or compressing the finished coil. It is a bit harder for 3 or less turn coils though (less material to play with). Diameter is probably the most important thing to get right.

Hairpins can be made large and distorted to tune, if you screw up and it won't align, rip it out and start with a different length of wire.

Sometimes the author of an article will include pictures or a more descriptive passage on the coils of a design. This is very helpful, as air-core coils are usually what beginners (and advanced construtors alike) have the most problems with.

If you aren't using a etched board, or a different layout to the original design, a 1/2 turn may be within the stray layout reactance differences, and experimentation will be required anyway.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (2% of Full)

5589. ssb filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 14:57:27 UTC
From: brian@robinsonb5.fsnet.co.uk
Message-ID: <9o7n1m$1tu$1@newsg2.svr.pol.co.uk>
Source record: 50183

Can anyone help with Uk supplier/s for 10.7 MHz filters?

73 Brian G4OZA

5590. Mise à jour Site DSP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 14:58:49 UTC
From: JPM <jean-pierre.mallet1@libertysurf.fr>
Message-ID: <9o7npb$4g1$4@news6.isdnet.net>
Source record: 50188

73's ï¿½ tous,

J'ai remis ï¿½ jour le Site DSP que je maintiens http://www.f5mi.fr.fm avec une partie importante
concernant le transceiver SSB 144 de W7PUA, le DSP10 ï¿½ qui j'ai donnï¿½ une version franï¿½aise.
Si des Om's sont intï¿½ressï¿½s par la construction de ce transceiver, me contacter par e-mail

Amitiï¿½s Jean-Pierre F5MI

5591. Icom M501 marine vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 14:59:11 UTC
From: David Harrison <davidharrison@bpss.demon.co.uk>
Message-ID: <3BA7613F.D643991@bpss.demon.co.uk>
Source record: 50184

Does anyone know where I can obtain the programming software & the
pinouts for the Icom M501 marine vhf?
Thanks

DaveH

5592. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 15:00:19 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BA76183.D676CC9C@midwestmicro-tek.com>
Source record: 50189
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

You know, it is pretty easy to sit back in your comfy little country that hasn't had two major buildings flattend and 5000+ people killed in one day and blame the US for everyone's problems. No matter what we do, someone is going to be happy and someone is going to be mad. But when was the last time you or your little country trird to do something more daring then kick a bunch of under trained, outnumbered, who where they? Chillians? off an oil rich island?

Rick KC0GIX

Alexander S. Wood wrote:

> "Andy Lake" <andy.lake@bt.com> wrote in message
> news:3BA6639D.CEF0BBE3@bt.com...
> > "Here's a good idea - have a point."
> > (Steve Martin, in Planes, Trains & Automobiles)
> >
> > Andy
> > G8YOA
>
> Here's another good idea. Read the posts before you reply. I have 3 main
> points
>
> 1. Disgust at the evil act committed does not have to mean automatic support
> for anything and everything just because the US government says so.
> Conversely disagreeing with US government is NOT IN ANY WAY supporting
> terrorism against USA.
>
> 2. What's the hurry ? (to bomb someone)
>
> 3. Where is the evidence ? Let's see it so we can all make an INFORMED
> decision.
>
> Alec

5593. Re: anyone ever used Eimac VT-127's. Do you still have it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 15:02:25 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BA76050.C0DD032C@ieee.org>
Source record: 50185

gudmundur wrote:

> Anyone here ever used any of these old radar triodes on the air?
> Do you still have the amp? Just curious. They are all probably
> to gassy to use anymore.

If the tube is gassy you might try to run the tube with the plate a dull
red
color. As I remember the pate will take up gas as a kind of getter. This
only
works with tubes that have a tantalum plate.

Bill K7NOM

5594. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 15:07:20 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <onJp7.19845$c5.158022@newsfeeds.bigpond.com>
Source record: 50187

MathCad, great program simple to use. You can buy add on engineering libraries that perform all the complicated engineering calcs. The best feature is, as you see the formula in the text you can type it in and instantly you have the answer. So simple.

Willy
"Philip Hudkins" <philip@cyberstation.net> wrote in message news:XGHp7.6$8V6.5097@e420r-atl1.usenetserver.com...
> Help! Does anyone have any recommended books, software or other training
> manuals that could be used to educate me in the field of math as it applies
> to Amateur Radio? Thanks. Philip Hudkins
>
>
>

5595. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 17:19:52 UTC
From: "Alexander S. Wood" <alec_wood@ntlworld.com>
Message-ID: <1nLp7.7589$1V3.649130@news2-win.server.ntlworld.com>
Source record: 50190
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Your right. It has been fun. Anyway don't slate me over much as everyone loves an audience. Anyway its been a good debate, thanks to all who participated.

Best regards to you all

Alec M1BNK

"George, W5YR" <w5yr@att.net> wrote in message news:3BA6A14D.C26B1744@att.net...
> Cross-posting to five newsgroups does rather suggest that someone enjoys
> having an audience.
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
> Andy Lake wrote:
>
> > As it happens, I do agree slightly with you - but your
> > approach and posting style smacks almost of sensationalism.

5596. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 18:14:21 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BA78EFC.B4E195AB@midwestmicro-tek.com>
Source record: 50192
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Max Topley wrote:

> On Tue, 18 Sep 2001 10:00:19 -0500, Rick Haub wrote:
>
> >You know, it is pretty easy to sit back in your comfy little country that hasn't
> >had two major buildings flattend and 5000+ people killed in one day and blame
> >the US for everyone's problems.
>
> Where in Alexander's post does he suggest anything of the sort?
>
> But I could suggest that the Omagh bombing, whilst not on the same
> scale as the WTC atrocity, was also a major disaster to those
> affected. And that was down to a terrorist organisation largely
> sponsored by US citizens.
>

Your point being?

>
> >No matter what we do, someone is going to be
> >happy and someone is going to be mad.
>
> Punish those who are actually responsible, by all means. But lets see
> some sort of evidence first, and let's not just kick off a full-scale
> war just to salve America's conscience.
>

And I suggested that in my post where?

>
> >But when was the last time you or your
> >little country trird to do something more daring then kick a bunch of under
> >trained, outnumbered, who where they? Chillians? off an oil rich island?
>
> In case you hadn't noticed, the UK took part in the same operations as
> the US in recent years - Desert Storm, Yugoslavia, etc.

True, the UK had a Guiness outlet next the the US bases right?

> The last time
> the US decided to go to war by themselves - in Vietnam - they lost.
>

Thanks for the help.

>
> Oh, and it was Argentina by the way.

Duh, and attemp on my part to show how unimportant that little tiff was. Over your head I suspect.

> You've shown quite clearly what a
> firm grasp Americans have on the doings of those unimportant regions
> of the world that are more than a couple of thousand miles away from
> Shitkicker, Arkansas.
>
> --
> Max
> G8CZR

Yes, well, we may have lost Vietnam but at least we didn't lose an entire city to China because we forgot to renew our lease. And it is Shitkicker, Kansas and Omagh is spelled Omaha, moron.

To Martin: Sorry, this guy oviously took what I said the wrong way (except my remark about the Faulklands which of course was wong of me to say but I'm not going to tell him that) but from *now* on I'll try to ignore the idiots

5597. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 18:20:55 UTC
From: "M.J.Powell" <mike@pickmere.demon.co.uk>
Message-ID: <4s0cBGAHC5p7EwIe@pickmere.demon.co.uk>
Source record: 50105
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <3BA76183.D676CC9C@midwestmicro-tek.com>, Rick Haub
<rhaub@midwestmicro-tek.com> writes
>You know, it is pretty easy to sit back in your comfy little country that hasn't
>had two major buildings flattend and 5000+ people killed in one day and blame
>the US for everyone's problems. No matter what we do, someone is going to be
>happy and someone is going to be mad. But when was the last time you or your
>little country trird to do something more daring then kick a bunch of under
>trained, outnumbered, who where they? Chillians? off an oil rich island?

Argentinians. The is no oil on the Falklands.

Mike
--
M.J.Powell

5598. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 18:47:16 UTC
From: sarah@m1nge.freeserve.co.uk
Message-ID: <MPG.1611a706977547c3989748@news.freeserve.net>
Source record: 50193
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <1103_1000812153@msauve>,
mallread@flatsurface.com says...
> Extremely OFF TOPIC. Take it outside, please.
>
> On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood" <alec_wood@ntlworld.com> wrote:
> [a long, poorly written, sarcastic rant]
>
>
Whist last week was terrible, for everyone,and I send
condolances to all concerned, the facy remains that
this thread is NOT radio related, and should not be
on this NG
go else where, we have enough to worry about, thankyou

5599. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 18:54:30 UTC
From: lucifer@eternal-flames.net
Message-ID: <3ba7978d.3113790@news.btinternet.com>
Source record: 50195
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 19:15:10 +0100, "David Perry"
<david.perry3@virgin.net> wrote:

>Surely a better, more civilised bet, would be to release some kind of bug or
>louse that only lives in turbans. The bug could be genetically modified so
>it lives in turbans but eats human skull tissue!

I'm not sure this would work..... Are those who carry out these sort
of attacks human ?

5600. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 18:54:37 UTC
From: lucifer@eternal-flames.net
Message-ID: <3ba79799.3126010@news.btinternet.com>
Source record: 50194
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 21:16:33 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>If Japan hadn't
>attacked you'd have stood by and done nothing, Britain would have been
>defeated and you would have worked out some way of making money out of the
>Krauts instead of us.

Never spoil a good rant with the facts.

But you really should try reading a little - you know ... Books with
actual writing in... Not your usual comics.

You might then learn that USN warships were escorting supply convoys
partly across the N.Atlantic, long before Pearl Harbour.

American seamen were on ships being torpedoed and sunk, long before
Japan attacked.

There were even American officers working at GCCS, long before they
officially entered the war.

What with the constraints imposed by Congress and the law. FDR was
doing pretty much all he legally could - and then some. Long before
December 1941.

Wood by name and wooden by nature ... Eh? Alec.

Old Nick.

5601. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 19:37:59 UTC
From: 2w8ji@contesting.com
Message-ID: <3ba79fca.639470436@news.akorn.net>
Source record: 50097
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Mon, 17 Sep 2001 21:25:20 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>Not agreeing with US government policy makes me neither a supporter of those
>who commited this evil act nor a "dip-shit". What worries me is the apparent
>haste with which we seem to be chargeing into this so called solution.

What makes you a "dip shit" is you are sitting here claiming someone
is rushing into something, like a massive bombing of countries that
sponser terroists, when nothing of the sort is happening.

What makes you a "dip shit" is you think somehow that rounding up
people who are known to be terrorists or who are in countries
illegally and questioning them is "charging into a situation".

Perhaps dip shit is the wrong word, you are more like Chicken Little
running around saying "the bombs are falling" and whining that no one
is gathering evidence when the EXACT opposite is happening.

You either aren't very smart, or this is just an intentional troll to
get attention.

Regards,
Tom

5602. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 19:38:44 UTC
From: 2w8ji@contesting.com
Message-ID: <3ba7a2a0.640196186@news.akorn.net>
Source record: 50098
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Tue, 18 Sep 2001 18:19:52 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:

>Your right. It has been fun. Anyway don't slate me over much as everyone
>loves an audience. Anyway its been a good debate, thanks to all who
>participated.
>
>Best regards to you all

In other words, the troll has left the room.

5603. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 19:42:09 UTC
From: 2w8ji@contesting.com
Message-ID: <3ba7a2e3.640263087@news.akorn.net>
Source record: 50099

On Tue, 18 Sep 2001 08:09:13 -0500, "Philip Hudkins"
<philip@cyberstation.net> wrote:

>Help! Does anyone have any recommended books, software or other training
>manuals that could be used to educate me in the field of math as it applies
>to Amateur Radio? Thanks. Philip Hudkins

Handbook of Modern Electronic Math by Sam Cowan published by Prentice
Hall ISBN 0-13-380485-2

73 Tom

5604. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 19:56:58 UTC
From: no@thankyou.com
Message-ID: <3ba7a556.5553084@news.ntlworld.com>
Source record: 50100
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Tue, 18 Sep 2001 10:00:19 -0500, Rick Haub
<rhaub@midwestmicro-tek.com> wrote:

>You know, it is pretty easy to sit back in your comfy little country that hasn't
>had two major buildings flattend and 5000+ people killed in one day and blame
>the US for everyone's problems. No matter what we do, someone is going to be
>happy and someone is going to be mad. But when was the last time you or your
>little country trird to do something more daring then kick a bunch of under
>trained, outnumbered, who where they? Chillians? off an oil rich island?
>
>Rick KC0GIX
>

1.) We have laboured under American sponsored terrorism (NORAID) for
about 35 years, and we just lost another 300+ in the Trade Centre.

2.) America was not being blamed, but thought before deed would maybe
a better idea.

3)The Chileans had their country fucked up by Mr. Henry Kissinger, and
the Nixon government who couldn't see the point of democracy for
anyone else.

4)We happened to point out that maybe fascism wasn't a good idea, and
telling you about it, and informing the US intelligence agency about
Pearl Harbor, which was ignored.

One last point, Americans don't live under American foreign policy,
everybody else does.

5605. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:02:53 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <NLNp7.30262$gU.9075172@news1.rdc1.md.home.com>
Source record: 50101
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

> What difference does it make who has bastardised the good Jaguar name Yank
> or Kraut. Don't kid yourself with the high morals attitude. If Japan
hadn't
> attacked you'd have stood by and done nothing, Britain would have been
> defeated and you would have worked out some way of making money out of the
> Krauts instead of us. All that bothers me is this moral bullshit you all
> come out with. If the US says it's ok then it must be. I mean come on.
Wake
> up. Your government has lied to you before and will continue to do so, it
is
> almost as devious as ours. What about the syphilis experiments,
radioactive
> iodine in school milk (done over here as well by the way)

The first thing is it would have had better electrical systems than Lucas!
>
> I think you've had more than your money's worth out of WWII now don't you
?

No! And it is high damn time you Brits at LEAST pay the damn interest.
>
>
> > ps. How are your "pacification efforts" going in Ireland?
> >
>
> Not well. The IRA terrorists funded by AMERICA have proved hard to put
down.
> Like the Palestinians, ETA and all the others world wide. I think the
> American public are deluding themselves if they think killing bin-lid is
> going to solve the problem.

Those Americans you refer to wouldn't happen to be Irish immigrants, would
they?

>
> Do not underestimate the power of the US military though, after all they
> managed to kill more UK troops in gulf than the Iraqis did. Which
friendlies
> will get in the way this time I wonder ?

Perhaps if you had stayed out of the Middle East you wouldn't have created
the India Pakistan problem By breaking India up that way

>
> Alec

Go back to your bloody Pub (Turning my mug upside down on the bar!)

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.280 / Virus Database: 147 - Release Date: 9/11/01

5606. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:06:27 UTC
From: B-Squared <rbethman@home.com>
Message-ID: <7PNp7.30283$gU.9077561@news1.rdc1.md.home.com>
Source record: 50102
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
news:V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com...
> Not agreeing with US government policy makes me neither a supporter of
those
> who commited this evil act nor a "dip-shit". What worries me is the
apparent
> haste with which we seem to be chargeing into this so called solution.
>
> Where is the evidence? Let's see it so we can all make up our minds. I for
> one have never blindly followed just because the government says so. Well,
> not since I left the army anyway.

I'd rather protect the human sources than to let you see the "evidence".

>
> Sorry we can't all share the same opinion, but I thought your country was
> the one who prides itself on upholding freedom of speech above all others.
> 'The land of the brave and the home of the free' or something along those
> lines. I don't seem to recall any small print under that saying "Only if
you
> think what your told to"

Yep it still does - Not like Jolly ole England

>
> 73
>
> Alec Wood M1BNK who will to excersise his freedom of speech
>
> PS Saturation bombing didn't seem to work very well in 'Nam did it ?

No, but only a couple of good Arc Lights could take out England.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.280 / Virus Database: 147 - Release Date: 9/11/01

5607. Re: Buying or making low pass filters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:14:53 UTC
From: Skipp asks for nospame please <skipp@pilotNOSPAM.ucdavis.edu>
Message-ID: <9o89vs$o5$1@woodrow.ucdavis.edu>
Source record: 50103

The ARRL Handbook is full or examples and the information you need to
build one.

73's
skipp

: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com> wrote:
: I would like to buy or make a low pass filter for 2m VHF. I am currently
: running an all mode rig (FT-290) and a 50 watt amp. Where can I get plans,
: or a kit to build this type of filter? If there aren't any kits that exist
: does anyone know of a commercially made product that is inexpensive (I think
: DCI makes them and they cost big bucks) and readily accessible? The only
: ones besides the DCI low pass filters that I have been able to find are
: here:
: http://www.progressive-concepts.com/12.html

: I am open to any suggestions. Thanks for your help!!

: 73 de KG4IVT

5608. Re: LCC, door knob cap. Info please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:16:22 UTC
From: skipp <skipp@pilotNOSPAM.ucdavis.edu>
Message-ID: <9o8a2m$o5$2@woodrow.ucdavis.edu>
Source record: 50104

try http://www.highenergycorp.com

cheers
skipp

5609. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:37:48 UTC
From: timfy <tim.wood1@ntlworld.com>
Message-ID: <FhOp7.3252$qe2.718615@news6-win.server.ntlworld.com>
Source record: 50106
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

```
---Bill--- <"take out the NO in the reply to address"@silly.net> wrote in
message news:3BA736FF.3635EC8B@silly.net...
> proma1 wrote:
> >
> >
> > what about the 3 yr olds in Iraq and countless other countries of the
the
> > world,your hands have been in either directly or CIA involvement,
>
>
> Yawn. Same old parroted crap from another terrorist sympathiser.
> -Bill
>
Terrorist sympathiser?? One word, NORAID.
```

5610. Re: Input stage of HP 5326 frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:50:28 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <cqOp7.19841$1T5.234685@news1.oke.nextra.no>
Source record: 50107

I got it from the internet:
http://www.electronique-diffusion.fr/Accueil/Presentation/Gentilly/Mesure/Frequencemetre/5326a.pdf
http://www.electronique-diffusion.fr/Accueil/Presentation/Gentilly/Mesure/Frequencemetre/5326c.pdf
and http://www.helmut-singer.de/stock/1305662250.html, where the last sentence says "Beide Eingangskan�le besitzen eine Empfindlichkeit bis hinunter zu 5 mV." = Both input channels have a sensitivity better than 5 mV.

However, your number is right, my audio and RF-generators indicate 50 mV rms sensitivity for inputs A & B and 30 - 40 mV rms sensitivity on channel C. So I guess that is how it should be. It confuses me still to see the information in the brochures quoted above.

So that's what got me on the search for the extra 20 dB of sensitivity, which would be nice to have, but that I never found ....

Thanks for all help from various people in looking up their manuals.

Sverre

---
73 de LA3ZA
http://www.qsl.net/la3za

"Dan Rae" <rae4@ix.netcom.com> skrev i melding
news:3BA75E4E.C3121051@ix.netcom.com...
>
>
> Sverre,
> Don't know where you got the 5 mV from; my 1973 hp catalog lists the sensitivity
> as 0.1 volt rms sine wave.....
>
>

5611. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 20:55:45 UTC
From: england26division@hotmail.com
Message-ID: <3ba7b46c.4797959@news.ntlworld.com>
Source record: 50108
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Tue, 18 Sep 2001 10:06:56 +0100, "gm7jds" <gm7jds@ntlworld.com>
wrote:

>killing more people will not solve anything,infact it may make things
>worse,and killing Muslims may draw more countries into this.
>
>we need to go after these people and there group that did this,not slaughter
>more men women and children.

Fuck them.

At least, the ones in Afghanistan celebrating the aftermath shown on
CNN this week.

5612. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 21:09:12 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <JKOp7.8991$1V3.925396@news2-win.server.ntlworld.com>
Source record: 50109
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

your mention of the Falklands has nothing to do with anything,i for one would gladly give them back to the Argentinians,i dont support current war

world war 11 there was no choice,but everything else since has been just to support the arms industry,i have a contact in the MOD [high up].who told me the reasons for Kosovo was mainly to get rid of weapons reaching the end of there shelf life.

a very good reason for killing people,you really cant take criticism can you.

but to be fair both bush and blair and even our new opposition leader have made a few good statements since last week,but i hope they dont get drawn into foolish action because it will make them popular.

and there a lot of good people in the US dont think i dont know that,but lots of the current problems of the world have been caused by the policies of US and UK mainly,soi yes i knock my own country as well,the only loyalty i have is to mankind and not to any country.
regards.and we are not insensitive to the situation in the US and of course the grieving of people of 35 countries,but to get a better world we have to look at the way we do things.

regards and i mean that.

i was at the church service at the American church in London on sunday,and very moving it was.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Rick Haub <rhaub@midwestmicro-tek.com> wrote in message
news:3BA78EFC.B4E195AB@midwestmicro-tek.com...
>
>
> Max Topley wrote:
>
> > On Tue, 18 Sep 2001 10:00:19 -0500, Rick Haub wrote:
> >
> > >You know, it is pretty easy to sit back in your comfy little country

that hasn't
> > >had two major buildings flattend and 5000+ people killed in one day and
blame
> > >the US for everyone's problems.
> >
> > Where in Alexander's post does he suggest anything of the sort?
> >
> > But I could suggest that the Omagh bombing, whilst not on the same
> > scale as the WTC atrocity, was also a major disaster to those
> > affected. And that was down to a terrorist organisation largely
> > sponsored by US citizens.
> >
>
> Your point being?
>
> >
> > >No matter what we do, someone is going to be
> > >happy and someone is going to be mad.
> >
> > Punish those who are actually responsible, by all means. But lets see
> > some sort of evidence first, and let's not just kick off a full-scale
> > war just to salve America's conscience.
> >
>
> And I suggested that in my post where?
>
> >
> > >But when was the last time you or your
> > >little country trird to do something more daring then kick a bunch of
under
> > >trained, outnumbered, who where they? Chillians? off an oil rich
island?
> >
> > In case you hadn't noticed, the UK took part in the same operations as
> > the US in recent years - Desert Storm, Yugoslavia, etc.
>
> True, the UK had a Guiness outlet next the the US bases right?
>
> > The last time
> > the US decided to go to war by themselves - in Vietnam - they lost.
> >
>
> Thanks for the help.
>
> >
> > Oh, and it was Argentina by the way.
>
> Duh, and attemp on my part to show how unimportant that little tiff was.
Over your
> head I suspect.

>
> > You've shown quite clearly what a
> > firm grasp Americans have on the doings of those unimportant regions
> > of the world that are more than a couple of thousand miles away from
> > Shitkicker, Arkansas.
> >
> > --
> > Max
> > G8CZR
>
> Yes, well, we may have lost Vietnam but at least we didn't lose an entire
city to
> China because we forgot to renew our lease. And it is Shitkicker, Kansas
and Omagh is
> spelled Omaha, moron.
>
> To Martin: Sorry, this guy oviously took what I said the wrong way (except
my remark
> about the Faulklands which of course was wong of me to say but I'm not
going to tell
> him that) but from *now* on I'll try to ignore the idiots
>
>

5613. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 21:14:13 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <oPOp7.9043$1V3.928557@news2-win.server.ntlworld.com>
Source record: 50110
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

with respect talking about a war that will affect us all is not off topic on
any group

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

<sarah@m1nge.freeserve.co.uk> wrote in message
news:MPG.1611a706977547c3989748@news.freeserve.net...
> In article <1103_1000812153@msauve>,
> mallread@flatsurface.com says...
> > Extremely OFF TOPIC. Take it outside, please.
> >
> > On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com> wrote:
> > [a long, poorly written, sarcastic rant]
> >
> >
> Whist last week was terrible, for everyone,and I send
> condolances to all concerned, the facy remains that
> this thread is NOT radio related, and should not be
> on this NG
> go else where, we have enough to worry about, thankyou

5614. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 21:28:27 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <I0Pp7.9148$1V3.939286@news2-win.server.ntlworld.com>
Source record: 50111
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

i take it you can read as i cannot think where i supported terrorism.

i hope the they get bin laden and his hench men,i believe that taking time gsthering inteligence on those involved in other countries as there a still many "sleepers" across the world,which is very dangerous,after intelligence has been gathered,then special forces should come into play,backed up in the background by other troops,so yes military action will probably be needed,lbut not led by the polls carried out in US but by good military minds thinking clearly.

but make no mistake whatever the outcome of the action,terrorism from middle east and others will not subside and in fact will probably get worse,particularly by those who think its fine to get killed in the pursuit of there goals>

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

---Bill--- <"take out the NO in the reply to address"@silly.net> wrote in message news:3BA736FF.3635EC8B@silly.net...
> proma1 wrote:
> >
> >
> > what about the 3 yr olds in Iraq and countless other countries of the
the
> > world,your hands have been in either directly or CIA involvement,
>
>
> Yawn. Same old parroted crap from another terrorist sympathiser.
> -Bill
>

5615. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 21:48:35 UTC
From: "M.J.Powell" <mike@pickmere.demon.co.uk>
Message-ID: <9ppNQJAzE8p7EwYs@pickmere.demon.co.uk>
Source record: 50114
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <JKOp7.8991$1V3.925396@news2-win.server.ntlworld.com>, proma1
<proma1@ntlworld.com> writes
>your mention of the Falklands has nothing to do with anything,i for one
>would gladly give them back to the Argentinians,i dont support current war
>
>world war 11 there was no choice,but everything else since has been just to
>support the arms industry,i have a contact in the MOD [high up].who told me
>the reasons for Kosovo was mainly to get rid of weapons reaching the end of
>there shelf life.

It would have cost more to use them than to scrap them.

Mike
--
M.J.Powell

5616. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 22:00:32 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3ba7c360$1_1@newsa.ev1.net>
Source record: 50112

William Orr W6SAI "Radio Handbook" is as good as I have ever seen.
Has all the applicable fomulas in the back section.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Philip Hudkins" <philip@cyberstation.net> wrote in message
news:XGHp7.6$8V6.5097@e420r-atl1.usenetserver.com...
> Help! Does anyone have any recommended books, software or other training
> manuals that could be used to educate me in the field of math as it
applies
> to Amateur Radio? Thanks. Philip Hudkins
>
>
>

5617. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 22:33:15 UTC
From: jr135 <jr135@madasafish.com>
Message-ID: <9o8hsmvjc1@news5.svr.pol.co.uk>
Source record: 50113
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

never mind about the two trade centers!!!!what about the poor old bloody
window cleaner whos out of a job now,how about a whip round for him and his
family.<steve.m1bjr@nospamplease.ntlworld.com> wrote in message
news:3ba636aa.2244373@news.ntlworld.com...
> On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
> <alec_wood@ntlworld.com> wrote:
>
> >Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> >Alec Wood M1BNK
>
> Sure, where exactly are you Alec?
>

5618. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 23:15:51 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>
Source record: 50115
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

agreed,but people want value for money and scrapping would of been seen as a waste,whereas using them is better value.

MOD Procurement work in mysterious ways,as do most government departments of all countries,they have there own agenda.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

M.J.Powell <mike@pickmere.demon.co.uk> wrote in message news:9ppNQJAzE8p7EwYs@pickmere.demon.co.uk...
> In article <JKOp7.8991$1V3.925396@news2-win.server.ntlworld.com>, proma1
> <proma1@ntlworld.com> writes
> >your mention of the Falklands has nothing to do with anything,i for one
> >would gladly give them back to the Argentinians,i dont support current war
> >
> >world war 11 there was no choice,but everything else since has been just to
> >support the arms industry,i have a contact in the MOD [high up].who told me
> >the reasons for Kosovo was mainly to get rid of weapons reaching the end of
> >there shelf life.
>
> It would have cost more to use them than to scrap them.
>
> Mike
> --
> M.J.Powell

5619. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-18 23:55:43 UTC
From: Stu <samalex@eidosnet.co.uk>
Message-ID: <9o8mv5$jt7$1@uranium.btinternet.com>
Source record: 50116
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

http://benladen.da.ru/

5620. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 00:36:04 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BA7E874.6F871949@silly.net>
Source record: 50117
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Just this guy." wrote:

>
> 1.) We have laboured under American sponsored terrorism (NORAID) for
> about 35 years, and we just lost another 300+ in the Trade Centre.
>
> 2.) America was not being blamed, but thought before deed would maybe
> a better idea.
>
> 3)The Chileans had their country fucked up by Mr. Henry Kissinger, and
> the Nixon government who couldn't see the point of democracy for
> anyone else.
>
> 4)We happened to point out that maybe fascism wasn't a good idea, and
> telling you about it, and informing the US intelligence agency about
> Pearl Harbor, which was ignored.
>
> One last point, Americans don't live under American foreign policy,
> everybody else does.

Do you want to talk about Neville Chamberlain who, by his failed
diplomacy, was instrumental in the US being dragged into the European
theatre where "we had no business"?
I didn't think so.
Your little 1-2-3-4-+ of cheap shots is simply that. Grow up.
--
Bill M
Vieques, PR

5621. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 00:50:16 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BA7EBC8.5B7C4FA4@silly.net>
Source record: 50119
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

timfy wrote:
>
> ---Bill--- <"take out the NO in the reply to address"@silly.net> wrote in
> message news:3BA736FF.3635EC8B@silly.net...
> > proma1 wrote:
> > >
> > >
> > > what about the 3 yr olds in Iraq and countless other countries of the
> the
> > > world,your hands have been in either directly or CIA involvement,
> >
> >
> > Yawn. Same old parroted crap from another terrorist sympathiser.
> > -Bill
> >
> Terrorist sympathiser?? One word, NORAID.

You're confusing a little wing-nut group with the US Government. Your
little internal street battles are a somewhat different issue. I know,
I know, the CIA is behind it all...thats cut and paste rheotoric.
When a hijacked 757 tries to park in the middle of EC2 maybe you'll
realize that your petty little preoccupation with NORAID is because you
have nothing better to worry about.
--
Bill

5622. You want war now ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 00:52:53 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <Q1Sp7.82$ng6.19910@brie.direct.ca>
Source record: 50120

I am an amateur, got my licence before WW2 and spent all 6 years of WW2 in the Canadian Army, most of it in Europe, most of that time in action. I don't recommend war now nor at any other time. The ones who go to it are not the ones who benefit. VE7AFN.

5623. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 01:02:53 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba7eed8@news.gj.net>
Source record: 50121
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

>
> we need to go after these people and there group that did this,not slaughter
> more men women and children

If the terrorist hide among the sheep (innocent people), which they are, and the sheep will *not* help or point out the terrorist, then some sheep will, unfortunately, need to be slaughtered. If you don't remove the cancer, it will growing bigger and stronger and be harder to eliminate in the future. Who places the sheep in danger? Terrorist or the people going after the terrorist? I say the terrorist by hiding among them. As has been mentioned, people who support and aide the terrorist are terrorist too, so they are no longer innocent.

War is hell.

5624. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 01:45:24 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <cqcdqts370kjtltbo5nponnnhm16trl90v@4ax.com>
Source record: 50118

Frank Worm <fworm@norpak.ca> wrote:

>I am trying to figure out the proper way to wind coils.
>for instance when the schematic calls for a 1 turn coil
>Is it really a 1 and 1/2 wind?

Consider a loop shaped like a Croquet wicket, soldered to a PC board.
It should be considered a single turn, because the rest of the circuit
on the board closes the loop.

If you think about it, any coil you wind and install in a circuit will
have an integral number of turns (once you consider the whole circuit
loop), otherwise both ends aren't connected to the circuit.

Likewise, you have to remember that the inductance you get depends on
ALL the area enclosed in the loop, so the circuit traces on the PC
board affect the total inductance.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5625. Re: Roxi loves big cocks! 1746

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 02:01:44 UTC
From: 4Skin <DoMeDoYu@Anon.laff>
Message-ID: <9o8u80$8er$0@dosa.alt.net>
Source record: 50122
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.packet

Take your filth elsewhere. One Roger Wiseman is enough.

<rvscdb@hotmail.com> wrote in message news:3ba7f890.2@216.0.152.7...
> x-no-archive: yes
> I spit on my fingers and wiped the saliva on my tingling
> asshole.
> http://www.athens-girls.com
>
gbzyummhqtmzmnqncgzbdvnzehrdctpnrwcciccdgrpesoihspcjshfruhgzumwmhkfhyrczxpys
ckrbpmwptsgpcmhqnnjdgguiifkgvbbkhetcxjwpxenyengvvyyqrvixdtxcfmfbwujrtumctpzc
hvmjkuojttcyyknucowjpjldjjbvbdngmzmyycdppnoeocfsrsnfdwxrunzrjsbszoombvmplrdi
nvucdnlizkqriutjjmluyzfqldopktegnuffqndmzxpizutqtjpunwtgsxiypheqfw
>

5626. Re: WAR or a "just defense"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 02:40:18 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <mATp7.44062$tL2.5626660@news1.rdc1.nj.home.com>
Source record: 50123

I got my license in the Viet Nam era. My first day at high school we had mass for a young guy (alum) who had been shot down.

But, overarching is the notion of a "just defense". If we don't take immediate action to end the activities of this lucifer, we are going to suffer the consequences again.

Jack

John S. MacKay wrote in message ...
>I am an amateur, got my licence before WW2 and spent all 6 years of WW2 in
>the Canadian Army, most of it in Europe, most of that time in action. I
>don't recommend war now nor at any other time. The ones who go to it are
>not the ones who benefit. VE7AFN.
>
>

5627. FS: LCD 16 x 4 display modules, NEW! MUST SELL!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 04:59:58 UTC
From: ovrreactor@aol.com-nospam
Message-ID: <20010919005958.19024.00001299@mb-mo.aol.com>
Source record: 50124

I am selling BRAND NEW LCD display modules, made by Data Vision, model number DV-16400. I have over $25 invested in EACH ONE of these.

Asking $12 each (minimum 2, please)

I bought over 1,000 of these for a project that I have decided to abandon (no more time), and I want to sell them ALL immediately. Offers considered for large quantities, OR the entire lot.

Picture, detailed PDF documentation, and manufacturer website link is available at;
http://members.aol.com/ecc81/yardsale

Please respond BY EMAIL to < OvrReactor@aol.com > if interested.

Thanks,
Tom Mitchell

5628. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 05:26:19 UTC
From: efw@pro.via-rs.com.br
Message-ID: <3ba82c46.379053440@news.via-rs.com.br>
Source record: 50125
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

WAR: We Are Right (Dinos)

"Radio" <codeman@gj.net> wrote:
>> we need to go after these people and there group that did this,not
>slaughter
>> more men women and children
>
>If the terrorist hide among the sheep (innocent people), which they are,
>and the sheep will *not* help or point out the terrorist, then some sheep
>will, unfortunately, need to be slaughtered. If you don't remove the
>cancer, it will growing bigger and stronger and be harder to eliminate in
>the future. Who places the sheep in danger? Terrorist or the people
>going after the terrorist? I say the terrorist by hiding among them. As
>has been mentioned, people who support and aide the terrorist are terrorist
>too, so they are no longer innocent.
>
> War is hell.
>
>
>
>
>

5629. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 07:24:07 UTC
From: timfy <tim.wood1@ntlworld.com>
Message-ID: <xLXp7.98$TU5.63515@news6-win.server.ntlworld.com>
Source record: 50126
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

---Bill--- <"take out the NO in the reply to address"@silly.net> wrote in
message news:3BA7EBC8.5B7C4FA4@silly.net...
> timfy wrote:
> >
> > ---Bill--- <"take out the NO in the reply to address"@silly.net> wrote
in
> > message news:3BA736FF.3635EC8B@silly.net...
> > > proma1 wrote:
> > > >
> > > >
> > > > what about the 3 yr olds in Iraq and countless other countries of
the
> > the
> > > > world,your hands have been in either directly or CIA involvement,
> > >
> > >
> > > Yawn. Same old parroted crap from another terrorist sympathiser.
> > > -Bill
> > >
> > Terrorist sympathiser?? One word, NORAID.
>
>
> You're confusing a little wing-nut group with the US Government. Your
> little internal street battles are a somewhat different issue. I know,
> I know, the CIA is behind it all...thats cut and paste rheotoric.
> When a hijacked 757 tries to park in the middle of EC2 maybe you'll
> realize that your petty little preoccupation with NORAID is because you
> have nothing better to worry about.
> --
> Bill
>

Ah, I see now...

Attack America and it is the start of a terrorist war, loss of innocent life
elsewhere is simply "little internal street battles" funded by "little wing
nut groups"

I suggest you put that argument to one of the many thousands (yes thousands)
that have been killed or injured by both sides of the irish tragedy. Or
indeed the families who have lost loved ones in terrorist actions in Spain,
Russia, India and Pakistan, Sri Lanka and any one of a hundred different
countries.

Don't get me wrong, I have the deepest sympathies for all those affected by the WTC outrage. I think that that day will stay indelibly etched on my mind as long as I live as one of the greatest attrocities of modern times. I also have no personal argument with you Bill or indeed anyone who disagrees with what I say. Stomping all over someones right to speech is what the root of this is all about. The point that I am trying to make is that terrorism didn't begin on tuesday 11th september, it was just a very tragic call to America to wake up and sniff the coffee.

Tim Wood

The difference between a terrorist and a freedom fighter depends on what side of the gun your standing ... anon

5630. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 08:14:15 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <H1teWyAXPFq7EAGv@ifwtech.com>
Source record: 50127

Jim Adney wrote:
>Frank Worm <fworm@norpak.ca> wrote:
>
>>I am trying to figure out the proper way to wind coils.
>>for instance when the schematic calls for a 1 turn coil
>>Is it really a 1 and 1/2 wind?
>
>Consider a loop shaped like a Croquet wicket, soldered to a PC board.
>It should be considered a single turn, because the rest of the circuit
>on the board closes the loop.
>
>If you think about it, any coil you wind and install in a circuit will
>have an integral number of turns (once you consider the whole circuit
>loop), otherwise both ends aren't connected to the circuit.
>
>Likewise, you have to remember that the inductance you get depends on
>ALL the area enclosed in the loop, so the circuit traces on the PC
>board affect the total inductance.
>
That is all true, but misses the point of the original question. The question is how to make a coil exactly like the one in the original design.

By convention, air-wound coils are described the way they look: a croquet wicket looks like a half-turn, it's described as a half-turn, and if you follow that convention you will make one just like the original. That is what matters to the person who originally asked the question.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5631. We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 09:09:19 UTC
From: bpasaric@mac.com
Message-ID: <1ezzaie.1urg2fz16saqfwN%bpasaric@mac.com>
Source record: 50128

Read Samuel P. Huntington's book "The Clash of Civilizations ..." (*)
and the situation will become much clearer. This well documented and
much scorned book has started to gain some credibility and appreciation
after the Manhattan tragedy.

(*) Published by Simon & Shuster UK Ltd., Africa House, 64-78 Kingsway,
London WC2B 6AH.

9A2HL

5632. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 09:15:32 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9o9nnm$bqe0p$1@ID-61331.news.dfncis.de>
Source record: 50129

"Wes Stewart" <*n7ws@arrl.net> wrote in message
news:3ba6a217.123178464@news.triconet.org...
> On Mon, 17 Sep 2001 20:25:08 +0100, "Alexander S. Wood"
<alec_wood@ntlworld.com>
> wrote:
>
>
> |By all means exact retribution, but come on we all know what is going on
> |here. American public opinion cries out for revenge NOW. CIA and NSA have
> |been embarrassed. Someone must pay. Let's make sure it is someone with no
> |oil and no way of fighting back. Anyone will do.
>
> Speaking of oil, I must note that one of the VP8s I've worked (just to tie
this
> to ham radio somehow) doesn't count for DXCC because he operates from AN
OIL
> DRILLING PLATFORM. Would that have anything to do with Britain's 1982
escapades
> in the Falkland Islands, a location that has great strategic importance to
the
> defense of Mother England, I'm sure.
>
> Must be... you certainly seem to have more than enough sheep and
fuzzy-headed
> thinkers in England.
>

I don't get it. Do you think all Brits mindlessly follow and support the
policies of their government like sheep, and we can't criticise any of their
domestic or foreign policies?

Ok, Sorry. Stupid question to ask the average American

Hans Summers
http://www.HansSummers.Com

5633. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 09:17:17 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <cpZp7.305$TU5.119957@news6-win.server.ntlworld.com>
Source record: 50130
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

thats exactly what happened last week,but you call it terrorism,but to those on the other side they call it war,,as far as they are concerned the WTC was a legitimate target,you say that if women and children get caught in your revenge then so be it,so next time round the your enemies will do something even bigger,maybe fly a plane into DISNEYWORLD or blow up as many burger bars they can killing even more children,and what will be there excuse for this,simple,the US attack of innocent people in Afghanistan.

so in other words,this will just go on for ever and ever.more and more innocents killed,what a lovely world you have created.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

efw <efw@pro.via-rs.com.br> wrote in message
news:3ba82c46.379053440@news.via-rs.com.br...
>
> WAR: We Are Right (Dinos)
>
> "Radio" <codeman@gj.net> wrote:
> >> we need to go after these people and there group that did this,not
> >slaughter
> >> more men women and children
> >>
> >If the terrorist hide among the sheep (innocent people), which they are,
> >and the sheep will *not* help or point out the terrorist, then some sheep
> >will, unfortunately, need to be slaughtered. If you don't remove the
> >cancer, it will growing bigger and stronger and be harder to eliminate in
> >the future. Who places the sheep in danger? Terrorist or the people
> >going after the terrorist? I say the terrorist by hiding among them. As
> >has been mentioned, people who support and aide the terrorist are
terrorist
> >too, so they are no longer innocent.
> >>
> > War is hell.
> >>
> >>
> >>

> >
> >
>

5634. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 09:25:34 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9o9oah$bh5uc$1@ID-61331.news.dfncis.de>
Source record: 50131
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

I just want to point out the US has no extradition treaties with
Afghanistan, so quite how they can threaten invasion of the country unless
one of its inhabitants is handed over is a mystery to me.

Then again, I guess extradition treaties don't work that well anyway.
Witness the IRA terrorises harboured by the US despite all our extradition
treaties

Hans Summers, G0UPL
http://www.HansSummers.Com

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
news:V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com...
> Not agreeing with US government policy makes me neither a supporter of
those
> who commited this evil act nor a "dip-shit". What worries me is the
apparent
> haste with which we seem to be chargeing into this so called solution.
>
> Where is the evidence? Let's see it so we can all make up our minds. I for
> one have never blindly followed just because the government says so. Well,
> not since I left the army anyway.
>
> Sorry we can't all share the same opinion, but I thought your country was
> the one who prides itself on upholding freedom of speech above all others.
> 'The land of the brave and the home of the free' or something along those
> lines. I don't seem to recall any small print under that saying "Only if
you
> think what your told to"
>
> 73
>
> Alec Wood M1BNK who will to excersise his freedom of speech
>
> PS Saturation bombing didn't seem to work very well in 'Nam did it ?
>
>

5635. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 09:28:56 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9o9ogq$bpje6$1@ID-61331.news.dfncis.de>
Source record: 50132
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
news:hDup7.29110$Pm5.6917659@news2-win.server.ntlworld.com...
> Hi Andy
>
> Not meant as a rant or flame, honest. More of an alternative viewpoint
> strongly argued. Apologies to all and anyone offended, and may I take the
> opportunity to once again reiterate my condemnation of this barbaric act.

Branding something a "rant" or "sensationalist" is a common response of
those who disagree but can't provide a logically sound argument for their
disagreement

Hans Summers
http://www.HansSummers.Com

5636. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 10:06:52 UTC
From: "M.J.Powell" <mike@pickmere.demon.co.uk>
Message-ID: <CjZiSFA84Gq7Ewmj@pickmere.demon.co.uk>
Source record: 50137
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>,
proma1 <proma1@ntlworld.com> writes
>agreed,but people want value for money and scrapping would of been seen as a
>waste,whereas using them is better value.

But it happens all the time, I've even seen a Hawker Hunter mounted as a
gate guard at a scrap yard miles out in the countryside.

Look at the stuff Anchor Surplus has.

Mike
--
M.J.Powell

5637. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 10:16:32 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba8709d@news.gj.net>
Source record: 50133
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"proma1" <proma1@ntlworld.com> wrote in message
news:cpZp7.305$TU5.119957@news6-win.server.ntlworld.com...
> thats exactly what happened last week,but you call it terrorism,but to
those
> on the other side they call it war,,as far as they are concerned the WTC
was
> a legitimate target,you say that if women and children get caught in your
> revenge then so be it,so next time round the your enemies will do
something
> even bigger,maybe fly a plane into DISNEYWORLD or blow up as many burger
> bars they can killing even more children,and what will be there excuse for
> this,simple,the US attack of innocent people in Afghanistan.
>
>
> so in other words,this will just go on for ever and ever.more and more
> innocents killed,what a lovely world you have created.

Wakeup, what you suggest (continuing killing of each other) has been reality since the beginning of time with human types. Only change has been the choice of weapons. Terrorism/war/fighting has/will continue. Right down to the last two people standing. You only start a fight if you are completely desperate and have nothing to loose or you think you can get away with it. Works for both sides. Innocent people (sheep) are used as shields or targets, or hostages, or camouflage, depending which side you are on.

A world I've created? No, one that we have inherited.

Stop the trend? Would be a nice wish. If you didn't go after the terrorist/bully, then it would be like playing the child's game of tag. Bad guy comes out and kicks the shit out of whoever and then runs back to *safe* homebase, where he is untouchable. He waits until the dust settles and then does it again but being more bold each time. Care to have the town bully living near you and he has a beef with you but the police couldn't/wouldn't do anything to him cause he was at his *safe* homebase? You can resort to saying *stop-it*, *stop-it* three or four times a day in your home and see if that makes a difference.

There *will be* a next round against the US and whichever country you want to talk about, even if we do nothing about the WTC case. Don't know when or where, but it will happen. Who are you kidding? There will always be copy-cats and there are still terrorist out there that have a beef against the US for legitimate/non-legitimate reasons. Rules have changed and for the worse.

A good defense is a strong offense.

5638. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 10:52:19 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9o9td4$bs1k9$1@ID-61331.news.dfncis.de>
Source record: 50134
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Interesting. Any hard evidence seems lacking and the connection still looks somewhat flimsy to me. Of course if Bin Lid is responsible he would try to make it that way. Any murderer would try to arrange an alibi. But that doesn't invalidate all alibis any suspect may ever have, if it did a lot of innocents would be convicted of crimes they never committed.

It amused me where CNN detailed the beginnings of Bin Lid's network in 1979, using family connections and wealth to raise money for the Afghan resistance [to the Soviets]. They somehow forget to mention that he was funded and trained by the US to fight the Soviets.

"Harry Bloomfield" <harry_m1byt@ntlworld.com> wrote in message
news:MPG.16109a559cebb0d1989687@news.ntlworld.com...
> In article <V_sp7.28581$Pm5.6702636@news2-win.server.ntlworld.com>,
> alec_wood@ntlworld.com says...
>
> |Where is the evidence? Let's see it so we can all make up our minds. I
for
> |one have never blindly followed just because the government says so.
Well,
> |not since I left the army anyway.
>
> For those who might be interested, there is a bit of background on Bin
> Laden at:-
>
> http://www.cnn.com/SPECIALS/2001/trade.center/binladen.section.html
>
> --
> Regards,
> Harry (M1BYT)

Hans Summers
http://www.HansSummers.Com

5639. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 11:05:42 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9o9u67$bt1v3$1@ID-61331.news.dfncis.de>
Source record: 50135
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"proma1" <proma1@ntlworld.com> wrote in message
news:oPOp7.9043$1V3.928557@news2-win.server.ntlworld.com...
> with respect talking about a war that will affect us all is not off topic
on
> any group
>

Agreed and for those who aren't interested, please do what I do whenever I see one of multiple postings advertising some radio item for sale in rec.radio.amateur.homebrew which is totally irrelevant to homebrew. Just don't click that little + in a box that appears to the left of the first message in the thread.

Hans Summers
http://www.HansSummers.Com

5640. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 11:08:30 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba87cc9$1@news.gj.net>
Source record: 50136
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Hans Summers" <Hans.Summers@Tudor.Com> wrote in message
news:9o9td4$bs1k9$1@ID-61331.news.dfncis.de...
>
> Interesting. Any hard evidence seems lacking and the connection still
looks
> somewhat flimsy to me. Of course if Bin Lid is responsible he would try to
> make it that way. Any murderer would try to arrange an alibi. But that
> doesn't invalidate all alibis any suspect may ever have, if it did a lot
of
> innocents would be convicted of crimes they never committed.

Hmmm, looks like a skunk, smells like a skunk, acts like a skunk, taste like
a skunk, communicates like a skunk, hangs out with other skunks. Ya think it
is a skunk? Or do you need to get closer and see for sure? How much proof
do ya need?

>
> It amused me where CNN detailed the beginnings of Bin Lid's network in
1979,
> using family connections and wealth to raise money for the Afghan
resistance
> [to the Soviets]. They somehow forget to mention that he was funded and
> trained by the US to fight the Soviets.

yes, he was a US trained thug snake that turned and bit its trainer. Time
to reel the snake and all his babies in. Time for the Afghan people to reel
in the same snake as well, or do they have some more use for him?

5641. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 11:29:07 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3BA881A4.55847CE6@norpak.ca>
Source record: 50138

Thank you All for your replies.
I was having a debate with an old coil winder who was
doing it wrong.(He was making a 1 turn a 1 and 1/2 turn)
So it was difficult for me to decide which was
the right way. After much study with your help
I may have figured out the right way .
Funny though, that there isn't a website or reference
in the ARRL books or anywhere on the proper "convention"
of winding coils. I guess it's something that's handed down
from one generation to the next :-)
Again Thanks
Regards
Frank

Frank Worm wrote:

> Hello All
> I am trying to figure out the proper way to wind coils.
> for instance when the schematic calls for a 1 turn coil
> Is it really a 1 and 1/2 wind?
> Same for 4 turns is it really a 4 and 1/2 turn.
> I've looked around and cannot find a source of info
> on proper coil winding. Can anyone please enlighten
> myself on coil winding or point me to a source of info.
> Thanks in advance
> Regards
> Frank

5642. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 12:25:30 UTC
From: jean&marc@biout.demon.co.uk
Message-ID: <1ezzg9w.d4sd8d1hwpglcN%jean&marc@biout.demon.co.uk>
Source record: 50143
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Wes Stewart <*n7ws@arrl.net> wrote:

>
> Alec,
>
> We are a bit short of funds to carry out the bombing right now. Please return
> the Lend-Lease dollars that we loaned your country 45 years ago.
>

I think that the US has got more than it's money's worth out of the Lend Lease dollars from WW11. After all UK govts over the years have had to kiss the US arse whilst the US Govt (and I have no quarrel at all with the US people - I just think that some of the practices of it's govt leave a lot to be desired) ran riot over Central America, South East Asia, Mid East, etc etc. No country has totally clean hands, building the British Empire was a costly business for the conquered. General Kitchener was undoubtably a war criminal in today's terms, along with Cromwell and others.

It worries me just how much the average US citizen is manipulated by it's media. The coverage of the terrible tragedy in New York from CNN is undoubtably more simplistic than any other coverage I have seen.

I would fight for freedom but not the US Govts version of Freedom. I would fight for the right to be me and for others to have that right also, but I will not fight in a war for General Motors, Wal-Mart, McDonalds, General Dynamics and other US (and some European) multinationals which benefit from the current economic system

The attacks that happened in the US recently were an abhorrent tragedy and my heart is with the bereaved and the tramatised. Any man's death diminishes me which is why I worry abouth the unneccssary deaths which will occur if President George (Hardly Ever Traveled Outside His Own Country) W. Bush leads the world into a unfocused war which probably will turn into a war with Islam. At a time when we should be turning swords into ploughshares, Bush is turning ploughshares into swords.

I wish someone would sit down and give old George a history lesson, you can't fight terrorism with a wholly military solultion. Look at the nations (the US included) which were born in Armed Rebellion and which now take their place in the family of nations.

BTW on a slightly lighter note the UK will chip in to pay back the Lend Lease Dollars if you can take back things like McDonalds.

Sorry about the rant, I had popped in to talk about PMR 446 radios but when I saw the thread I just had to get the above off of my chest.

Best Regards

Marc

5643. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 12:31:17 UTC
From: Tim Payne <Commissioner@fcc.gov>
Message-ID: <tqh3q8mu50te91@corp.supernews.com>
Source record: 50139

Any of the Math for Electronics series by Nelson Cooke. These can be found
in many editions at any junior college bookstore.

Tim

"Philip Hudkins" <philip@cyberstation.net> wrote in message
news:XGHp7.6$8V6.5097@e420r-atl1.usenetserver.com...
> Help! Does anyone have any recommended books, software or other training
> manuals that could be used to educate me in the field of math as it
applies
> to Amateur Radio? Thanks. Philip Hudkins
>
>
>

5644. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 12:34:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9oa4nn$5et$1@plutonium.btinternet.com>
Source record: 50141

> > Help! Does anyone have any recommended books, software or other training
> > manuals that could be used to educate me in the field of math as it
> applies
==========
In the field of mathematics, if you can add, subtract, multiply and divide, then you are already adequately equipped for amateur radio purposes. But this is not maths - it is only arithmetic.

I think what you need is a better understanding of elementary electric circuits. Once you understand how things work it is a simple matter to plug numbers into formulae. Only a knowledge of electric circuits, antennas, etc., allows the right formulae to be selected for the application you have in mind.

An important factor which links understanding the behaviour of electric circuits to arithmetic is units of measurement. It is necessary to think clearly in terns of magnitudes of the various units. Inductance: how many henrys or microhenrys ? Capacitance: how many microfarads or picofarads ? Frequency: 60 Hz or 144 MHz. Etc., etc.

It is necessary to understand only the simplest of formulae. Current = Volts / Resistance. milliamps = volts / kilohms.

To connect measurement units with formulae PRACTICAL EXPERIENCE IS NEEDED IN THE FIELD OF MEASUREMENTS. It is vital to be accustomed to to using simple measuring instruments. No radio shack should be without a multi-range, amps-volts-ohms, DC/AC meter. A radio receiver is also a frequency meter.

Someone has already pointed you in the direction of a good book which has simple formulae described in the appendix. There are plenty of others. ARRL and RSGB books give formulae in the text. Unfortunately article authors and printers too frequently don't have much idea of how to present mathematical formulae which can very easily be misread. Neither authors nor printers always understand what is being waffled about.

The safest way of obtaining elementary formulae is to go to professional electrical engineering text books for students. Purchase a notebook and visit a technical library.

WARNING - The most common instrument in radio shacks is the SWR meter. As useful as it may be, do not expect to learn anything

about measurements from magazine articles which purport to explain
what it does.

Regards, Reg, G4FGQ
http://www.g4fgq.com

5645. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 12:54:36 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BA8958C.5DFED4FD@silly.net>
Source record: 50140

Hans Summers wrote:

> Ok, Sorry. Stupid question to ask the average American
>
> ------------------
> Hans Summers
> http://www.HansSummers.Com

There you go. Sizing up the 'average American' by the TV shows we
export. Don't be such a bigot, sir.
--
Bill M

5646. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 13:01:57 UTC
From: magne@clustra.com
Message-ID: <m3u1xzl4fu.fsf@clustra.com>
Source record: 50146

"Reg Edwards" <g4fgq.regp@btinternet.com> writes:

> In the field of mathematics, if you can add, subtract, multiply and
> divide, then you are already adequately equipped for amateur radio
> purposes. But this is not maths - it is only arithmetic.

Basic trigonometry and algebra is useful, as is (at least) an
understanding of what complex numbers are (and how they're used).

--Magne / la1bfa

5647. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 13:10:43 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9oa5gl$bbt64$1@ID-61331.news.dfncis.de>
Source record: 50142

"---Bill---" <"take out the NO in the reply to address"@silly.net> wrote in
message news:3BA8958C.5DFED4FD@silly.net...
> Hans Summers wrote:
>
> > Ok, Sorry. Stupid question to ask the average American
> >
> > ------------------
> > Hans Summers
> > http://www.HansSummers.Com
>
> There you go. Sizing up the 'average American' by the TV shows we
> export. Don't be such a bigot, sir.

I didn't go into the formation of my opinion but since you mention it, I can
assure you American TV shows had very little to do with it. Much more
important was my reading of US media and conversations with Americans over a
period of many years.

Anyway, I realise it's a sweeping generalisation and the vast majority of
Americans I know are really nice people... but I felt Wes deserved the
comment even if he was the only one in this thread to actually mention
amateur radio.

> --
> Bill M

--

Hans Summers
http://www.HansSummers.Com

5648. Re: Please re-post better looking girls onto this newsgroups (LIKE THIS) 2588

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 13:18:33 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9oa652$7I0$1@plutonium.btinternet.com>
Source record: 50144
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

That's nowt to boast about mate hope you brushed your teeth after!

5649. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 13:20:13 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9oa686$7q0$1@plutonium.btinternet.com>
Source record: 50145
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

It would be most peculiar if Mr Bin Lid went hiding in Ireland.

5650. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 14:31:01 UTC
From: mperry@spambustcinci.rr.com
Message-ID: <3ba8d475.5886748@news-server.cinci.rr.com>
Source record: 49997
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Wed, 19 Sep 2001 10:25:34 +0100, "Hans Summers"
<Hans.Summers@Tudor.Com> wrote:

>
>I just want to point out the US has no extradition treaties with
>Afghanistan, so quite how they can threaten invasion of the country unless
>one of its inhabitants is handed over is a mystery to me.
>

International law didn't stop the terrorists now, did it??

It's no mystery -- you either agree with the premise or you don't. As
the U. S. was attacked by a group known to be a "guest" of a
particular country, a country that is known to have harboured that
guest for a number of years, they can be considered a willing
accomplice. This is their opportunity to demonstrate otherwise, or to
become a target as an accomplice.

See how easy that is? You either agree or you don't.

>Then again, I guess extradition treaties don't work that well anyway.
>Witness the IRA terrorises harboured by the US despite all our extradition
>treaties
>

Rules only work when all parties follow them.

Mike

5651. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 14:33:04 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BA8AC9D.E10D12F4@att.net>
Source record: 49998

Let's also mention that all those formulas involve the use of algebra in addition to aritmetic . . .

And dealing with most circuit theory and calculations involves dealing with vector quantities which basically are an excercise in trigonometry.

While I seldom diagree with Reg, and am not doing so here, I do want to emphasize that some familiarity with basic algebra and trigonometry eventually becomes necessary.

It is largely a matter of how far one wishes to extend his knowledge and capabilities.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Reg Edwards wrote:

> In the field of mathematics, if you can add, subtract, multiply and
> divide, then you are already adequately equipped for amateur radio
> purposes. But this is not maths - it is only arithmetic.
>
> I think what you need is a better understanding of elementary
> electric circuits. Once you understand how things work it is a
> simple matter to plug numbers into formulae. Only a knowledge of
> electric circuits, antennas, etc., allows the right formulae to be
> selected for the application you have in mind.
>
> An important factor which links understanding the behaviour of
> electric circuits to arithmetic is units of measurement. It is
> necessary to think clearly in terns of magnitudes of the various
> units. Inductance: how many henrys or microhenrys ? Capacitance:
> how many microfarads or picofarads ? Frequency: 60 Hz or 144 MHz.
> Etc., etc.
>
> It is necessary to understand only the simplest of formulae.
> Current = Volts / Resistance. milliamps = volts / kilohms.
>
> To connect measurement units with formulae PRACTICAL EXPERIENCE IS
> NEEDED IN THE FIELD OF MEASUREMENTS. It is vital to be accustomed
> to to using simple measuring instruments. No radio shack should be
> without a multi-range, amps-volts-ohms, DC/AC meter. A radio
> receiver is also a frequency meter.
>

> Someone has already pointed you in the direction of a good book
> which has simple formulae described in the appendix. There are
> plenty of others. ARRL and RSGB books give formulae in the text.
> Unfortunately article authors and printers too frequently don't
> have much idea of how to present mathematical formulae which can
> very easily be misread. Neither authors nor printers always
> understand what is being waffled about.
>
> The safest way of obtaining elementary formulae is to go to
> professional electrical engineering text books for students.
> Purchase a notebook and visit a technical library.
>
> WARNING - The most common instrument in radio shacks is the SWR
> meter. As useful as it may be, do not expect to learn anything
> about measurements from magazine articles which purport to explain
> what it does.

5652. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 14:41:57 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <bkahqtc2ftn8mmep6q637adgic5kd7b939@4ax.com>
Source record: 49999

On Wed, 19 Sep 2001 01:07:20 +1000, "willy" <willyacht@yahoo.com>
wrote:

>MathCad, great program simple to use. You can buy add on engineering
>libraries that perform all the complicated engineering calcs. The best
>feature is, as you see the formula in the text you can type it in and
>instantly you have the answer. So simple.

As strange as it sounds, ordinary spreadsheet programs are quite
useful for calculating many kinds of many programs related to
electronics or amateur radio. After setting up the formulas, it is
quite easy to try various parameters (such as component values) and
immediately see the results. Visualisation of the result (e.g.
frequency response) is also easy.

The complex macro library comes with Excel can be quite useful for
electric and electronics calculations with reactances and impedances.

Paul OH3LWR

5653. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 15:37:09 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA8BBA5.880ECB3@bt.com>
Source record: 50000
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hans Summers wrote:
>
> "Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
> news:hDup7.29110$Pm5.6917659@news2-win.server.ntlworld.com...
> > Hi Andy
> >
> > Not meant as a rant or flame, honest. More of an alternative viewpoint
> > strongly argued. Apologies to all and anyone offended, and may I take the
> > opportunity to once again reiterate my condemnation of this barbaric act.
>
> Branding something a "rant" or "sensationalist" is a common response of
> those who disagree but can't provide a logically sound argument for their
> disagreement

What about those who may agree, but still think the initial comments
sensationalist?

73
Andy

5654. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 15:43:40 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA8BD2C.F02A480B@bt.com>
Source record: 50001
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"M.J.Powell" wrote:
>
> In article <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>,
> proma1 <proma1@ntlworld.com> writes
> >agreed,but people want value for money and scrapping would of been seen as a
> >waste,whereas using them is better value.
>
> But it happens all the time, I've even seen a Hawker Hunter mounted as a
> gate guard at a scrap yard miles out in the countryside.

I saw 6 Hunters (in flying condition) together a month ago... One of
which was a replica of the original prototype (WB188). Very nice...
With Christmas coming, I'd like one please!

> Look at the stuff Anchor Surplus has.

And look at their prices.. :-(

73
Andy

5655. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 15:49:36 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9oaf1t$i1$1@uranium.btinternet.com>
Source record: 50002
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

> It would be most peculiar if Mr Bin Lid went hiding in Ireland.
==========
The safest place for Mr Bin Lid to hide at present is in New York City. ;o)

5656. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 15:59:18 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA8C0D6.5BE43FB5@bt.com>
Source record: 50003
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hans Summers wrote:
>
> Agreed and for those who aren't interested, please do what I do whenever I
> see one of multiple postings advertising some radio item for sale in
> rec.radio.amateur.homebrew which is totally irrelevant to homebrew. Just
> don't click that little + in a box that appears to the left of the first
> message in the thread.

You read news like that? Crumbs - it must take *ages*....
I don't touch the mouse from starting reading to finishing it...*much*
quicker using a keyboard space-bar.

> X-Newsreader: Microsoft Outlook Express

Ahhh....
Doesn't OE have single-key read?

73
Andy

5657. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 16:29:36 UTC
From: magne@clustra.com
Message-ID: <m3bsk7uosv.fsf@clustra.com>
Source record: 50011

Paul Keinanen <keinanen@sci.fi> writes:

> As strange as it sounds, ordinary spreadsheet programs are quite
> useful for calculating many kinds of many programs related to
> electronics or amateur radio. After setting up the formulas, it is
> quite easy to try various parameters (such as component values) and
> immediately see the results. Visualisation of the result (e.g.
> frequency response) is also easy.

..and not to forget one of the most useful (IMHO) math
packages - MatLab (and its free counter-part 'Octave')

http://www.octave.org/

--Magne / la1bfa

5658. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 16:37:29 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9oahkc$c66s0$1@ID-61331.news.dfncis.de>
Source record: 50004
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Andy Lake" <andy.lake@bt.com> wrote in message
news:3BA8BBA5.880ECB3@bt.com...
> Hans Summers wrote:
> >
> > "Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
> > news:hDup7.29110$Pm5.6917659@news2-win.server.ntlworld.com...
> > > Hi Andy
> > >
> > > Not meant as a rant or flame, honest. More of an alternative viewpoint
> > > strongly argued. Apologies to all and anyone offended, and may I take
the
> > > opportunity to once again reiterate my condemnation of this barbaric
act.
> >
> > Branding something a "rant" or "sensationalist" is a common response of
> > those who disagree but can't provide a logically sound argument for
their
> > disagreement
>
> What about those who may agree, but still think the initial comments
> sensationalist?

You're probably wiser than the original poster, but in a minority ;-)

>
> 73
> Andy

--

Hans Summers
http://www.HansSummers.Com

5659. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 16:39:27 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9oaho1$c1942$1@ID-61331.news.dfncis.de>
Source record: 50005
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

<mperry@spambustcinci.rr.com> wrote in message
news:3ba8d475.5886748@news-server.cinci.rr.com...
> On Wed, 19 Sep 2001 10:25:34 +0100, "Hans Summers"
> <Hans.Summers@Tudor.Com> wrote:
>
> >
> >I just want to point out the US has no extradition treaties with
> >Afghanistan, so quite how they can threaten invasion of the country
unless
> >one of its inhabitants is handed over is a mystery to me.
> >
>
> International law didn't stop the terrorists now, did it??
>
> It's no mystery -- you either agree with the premise or you don't. As
> the U. S. was attacked by a group known to be a "guest" of a
> particular country, a country that is known to have harboured that
> guest for a number of years, they can be considered a willing
> accomplice. This is their opportunity to demonstrate otherwise, or to
> become a target as an accomplice.
>
> See how easy that is? You either agree or you don't.
>
> >Then again, I guess extradition treaties don't work that well anyway.
> >Witness the IRA terrorises harboured by the US despite all our
extradition
> >treaties
> >
>
> Rules only work when all parties follow them.

Right, but it's hypocritical to make the rules, expect others to follow them
who haven't even agreed to your rules, and then break the rules yourself...

Hans Summers
http://www.HansSummers.Com

5660. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 16:42:43 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9oahu5$bndlu$1@ID-61331.news.dfncis.de>
Source record: 50006
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Andy Lake" <andy.lake@bt.com> wrote in message
news:3BA8C0D6.5BE43FB5@bt.com...
> Hans Summers wrote:
> >
> > Agreed and for those who aren't interested, please do what I do whenever
I
> > see one of multiple postings advertising some radio item for sale in
> > rec.radio.amateur.homebrew which is totally irrelevant to homebrew. Just
> > don't click that little + in a box that appears to the left of the first
> > message in the thread.
>
> You read news like that? Crumbs - it must take *ages*....
> I don't touch the mouse from starting reading to finishing it...*much*
> quicker using a keyboard space-bar.
>
> > X-Newsreader: Microsoft Outlook Express
>
> Ahhh....
> Doesn't OE have single-key read?

You can click Enter to read (or read it in the preview pane if it is small
enough). I don't know what key effects the same response as clicking on the
+ though. Only click on the + once to open up the thread, thereafter Enter
to open a message and Escape to close it and return focus to the thread. So
it's quite quick.

>
> 73
> Andy

5661. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:16:00 UTC
From: mperry@spambustcinci.rr.com
Message-ID: <3ba8fb5e.6275903@news-server.cinci.rr.com>
Source record: 50007
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Wed, 19 Sep 2001 17:39:27 +0100, "Hans Summers"
<Hans.Summers@Tudor.Com> wrote:

>> Rules only work when all parties follow them.
>
>Right, but it's hypocritical to make the rules, expect others to follow them
>who haven't even agreed to your rules, and then break the rules yourself...
>
>

My point exactly -- it's clear which "rules" bin Laden and Afghanistan
follow. So what's wrong with the U. S. following now those rules,
since they obviously don't care for ours?

Mike

5662. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:16:13 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9oak35$h57$1@uranium.btinternet.com>
Source record: 50008
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hello Hans, are you any relation to Buffy?

5663. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:21:29 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA8D419.B1202738@bt.com>
Source record: 50009
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hans Summers wrote:
>
> "Andy Lake" wrote:
> > What about those who may agree, but still think the initial comments
> > sensationalist?
>
> You're probably wiser than the original poster, but in a minority ;-)

Thanks!
;-)

73
Andy

5664. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:25:59 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BA8D527.2A2C4C17@bt.com>
Source record: 50010
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Hans Summers wrote:
>
> "Andy Lake" <andy.lake@bt.com> wrote:

> > > X-Newsreader: Microsoft Outlook Express
> > >
> > > Ahhh....
> > > Doesn't OE have single-key read?
> >
> > You can click Enter to read (or read it in the preview pane if it is small
> > enough). I don't know what key effects the same response as clicking on the
> > + though. Only click on the + once to open up the thread, thereafter Enter
> > to open a message and Escape to close it and return focus to the thread. So
> > it's quite quick.

Hmm, I use Netscape 4.7 usually (although this machine is 4.51 I think),
and I find that ordering posts by "Thread" (not "Subject"), and focusing
on the preview pane, one can step through all unread posts by simply
pressing the space-bar. It even scrolls the screen for you when a
message is longer than 1 page - so from start to finish all I do is hit
the space-bar.... Easy!

73
Andy

5665. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:38:09 UTC
From: "jamesm.stewart" <jamesm.stewart@ntlworld.com>
Message-ID: <3L4q7.1652$TU5.548406@news6-win.server.ntlworld.com>
Source record: 50012
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

YOU ARE THE ENEMY.....

5666. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:39:52 UTC
From: "jamesm.stewart" <jamesm.stewart@ntlworld.com>
Message-ID: <HM4q7.1667$TU5.549759@news6-win.server.ntlworld.com>
Source record: 50013
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

YOU ARE THE ENEMY.....

5667. Heathkit IM-28 VTVM Mounting Bracket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 17:59:58 UTC
From: Scott Madison <scottm@netcommander.com>
Message-ID: <yc5q7.19656$NL.1036694@news6.giganews.com>
Source record: 50014

Looking for a mounting bracket for a Heathkit IM-28 VTVM. This is the blue and white wide body VTVM, but I think the bracket for the tan unit will fit as well. If anyone has one they want to part with, drop me a message off line with price info.

Thanks,
Scott

5668. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 18:25:46 UTC
From: lucifer@eternal-flames.net
Message-ID: <3ba8e14c.1105709@news.btinternet.com>
Source record: 50015
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Wed, 19 Sep 2001 08:24:07 +0100, "timfy" <tim.wood1@ntlworld.com>
wrote:

>The difference between a terrorist and a freedom fighter depends on what
>side of the gun your standing ... anon
>
>

And on who sold the guns.

5669. HUGE Roller Inductor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 20:58:50 UTC
From: FMS <South.River@verizon.net>
Message-ID: <eG7q7.438$nL2.532938@typhoon2.gnilink.net>
Source record: 50016

Check it out its a big one , the mother of all Roller inductors.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1276753219

5670. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-19 22:56:52 UTC
From: Jeremy Taylor <jeremy.taylor@tait.co.nz>
Message-ID: <3BA922B4.F35D5719@tait.co.nz>
Source record: 50017
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

jr135 wrote:
>
> never mind about the two trade centers!!!!what about the poor old bloody
> window cleaner whos out of a job now,how about a whip round for him and his
> family.

That might be funny until you read this Salon article:
http://www.salon.com/tech/feature/2001/09/17/wtc_obit/index2.html
Search on that page for "Roko Camaj"

Jeremy Taylor

<steve.m1bjr@nospamplease.ntlworld.com> wrote in message
> news:3ba636aa.2244373@news.ntlworld.com...
> > On Mon, 17 Sep 2001 18:38:26 +0100, "Alexander S. Wood"
> > <alec_wood@ntlworld.com> wrote:
> >
> > >Yeah, come on, bomb someone - let's face it, anyone will do.
> > >
> > >Alec Wood M1BNK
> >
> > Sure, where exactly are you Alec?
> >

5671. OT was: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 00:02:02 UTC
From: *n7ws@arrl.net
Message-ID: <3ba92091.17415863@news.triconet.org>
Source record: 50018

On Wed, 19 Sep 2001 13:25:30 +0100, jean&marc@biout.demon.co.uk (Jean and Marc) wrote:

|Wes Stewart <*n7ws@arrl.net> wrote:
|
|>
|> Alec,
|>
|> We are a bit short of funds to carry out the bombing right now. Please return
|> the Lend-Lease dollars that we loaned your country 45 years ago.
|>
|
|I think that the US has got more than it's money's worth out of the Lend
|Lease dollars from WW11. After all UK govts over the years have had to
|kiss the US arse whilst the US Govt (and I have no quarrel at all with
|the US people - I just think that some of the practices of it's govt
|leave a lot to be desired) ran riot over Central America, South East
|Asia, Mid East, etc etc. No country has totally clean hands, building
|the British Empire was a costly business for the conquered. General
|Kitchener was undoubtably a war criminal in today's terms, along with
|Cromwell and others.

Much of the commentary in this thread made by Europeans and you folks on the British Isles, seems to include the idea that Americans are hypocrites.

The very same commentators are from counties who I'm sure have behaved no less hypocritically at various times in their history, as you kindly point out above.

So, okay, America is a hypocrite. We also are the biggest, baddest hypocrite on the planet and if we decide to kick ass and take names then look out.

|It worries me just how much the average US citizen is manipulated by
|it's media. The coverage of the terrible tragedy in New York from CNN
|is undoubtably more simplistic than any other coverage I have seen.

Perhaps you are manipulated by your media and government and assume that the average American is too. Personally, I don't receive CNN, so they damned sure don't influence me.

That said, what is wrong with "simple" coverage? The strongest country in the history of the world has been attacked by a group of hanky-heads and they need to be killed. That is the essence of the problem.

My fear is that our government will talk this problem to death instead of taking prompt and decisive action. Frankly, I don't care whether you or the rest of the world approves or assists. It would be nice if you did, and I would welcome it, but I don't want to wait around while we all have a dialog.

See http://www.jewishworldreview.com/cols/sowell.html

(No, I'm not black and I'm not Jewish but I think this man has one of the better intellects around. And no, I'm not manipulated into agreeing with him, he agrees with me <g>)

|
|I would fight for freedom but not the US Govts version of Freedom. I
|would fight for the right to be me and for others to have that right
|also, but I will not fight in a war for General Motors, Wal-Mart,
|McDonalds, General Dynamics and other US (and some European)
|multinationals which benefit from the current economic system

The current "economic system" is what gave you the creature comforts that you most likely enjoy. Why do you condemn it? The "corporations" don't benefit, people do. As a shareholder in hundreds of corporations, I obviously benefit when they do well and, as is the current case, suffer when they do badly. Does that make me a bad guy?

And another thing, General Motors was turning out tanks and General Dynamics (Consolidated Aircraft) was building B-24s during WWII. Who was fighting a war for who?

|
|The attacks that happened in the US recently were an abhorrent tragedy
|and my heart is with the bereaved and the tramatised. Any man's death
|diminishes me which is why I worry abouth the unneccssary deaths which
|will occur if President George (Hardly Ever Traveled Outside His Own
|Country) W. Bush leads the world into a unfocused war which probably
|will turn into a war with Islam. At a time when we should be turning
|swords into ploughshares, Bush is turning ploughshares into swords.

Bush did not drive the aircraft into the buildings, nor did his or any American policy justify the action. Others drew the swords and I sincerely hope that they die regretting their actions. Their deaths will not diminish me.

Whether Bush is widely traveled or not is specious. Americans as a whole are not widely traveled, which gives you in the old country something to smirk about, but you must remember, we are busy WORKING, which is the engine that has created the world's greatest economy. If you are a ham (I'm not sure you are as this thread has spammed a bunch of groups) you should know that the American dollar is the universal currency. Our people may not be widely traveled but our currency sure is. Most of the countries is the world a clambering for some and figure we "owe" it to them.

The American devil isn't so bad when he's doling out the greenbacks.

|
|I wish someone would sit down and give old George a history lesson, you
|can't fight terrorism with a wholly military solultion. Look at the
|nations (the US included) which were born in Armed Rebellion and which
|now take their place in the family of nations.

You are being rather presumptuous when you assume that the solution Bush has in mind is totally military. Has he spoken to you personally and told you the plan? Whisper it in my ear.

|
|BTW on a slightly lighter note the UK will chip in to pay back the Lend
|Lease Dollars if you can take back things like McDonalds.

Is Mc still making burgers over there? I thought all of your cows were dead? I know we are shipping you butterfat so you can have your cream. I know that because I'm paying more for mine. So I guess I'm subsidizing England again with my dollars. Funny have this works:) It's probably one of those mean old corporations corrupting the mother country again. The CIA probably spread mad cow disease so our beef producers could make a few dollars.

Wes N7WS

5672. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 00:27:40 UTC
From: dialcover@webtv.net
Message-ID: <14459-3BA937FC-61@storefull-127.iap.bryant.webtv.net>
Source record: 50019

FOR VHF LOW PASS FILTERS YOU WOULD BE BETTER OFF USING A STRIP LINE FILTER.

Please excuse caps, visual problem.
Bill Turner, 1117 Pike Street, St. Charles, MO 63301 636-949-2210
PLEASE DO NOT READ FURTHER IF EASILY OFFENDED.

Harvey-Wells TBS-50 B/C/D and VFO Manual $7.00 Hickock 532, 533, 533DM, 534, 534A, 534B, 600 tube tester chart, plastic coated, shipped rolled in a tube $7.50 Aeriola JR or SR color lid display $5.00 1N4007 1000 VOLT 1 A DIODES, 10/$2.00 ALL POSTAGE PAID.

5673. Re: bakelite substitute

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 00:41:20 UTC
From: dialcover@webtv.net
Message-ID: <14461-3BA93B30-11@storefull-127.iap.bryant.webtv.net>
Source record: 50020

SEVERAL YEARS AGO I NEEDED SOME BAKELITE SHEET BUT FOUND NONE ANYWHERE. STARTED LOOKING FOR A SUB WHICH TURNED OUT TO BE A FORM OF PVC. IT MACHINES WELL, LOOKS LIKE BAKELITE, ITS DEAD BLACK. REASONABLY RIGID AT 1/8" THICK, MAY BE DOUBLED IF NEEDED FOR "LOOKS. ITS INEXPENSIVE TOO, I SELL IT FOR $6.00 PER SQUARE FOOT.

Please excuse caps, visual problem.
Bill Turner, 1117 Pike Street, St. Charles, MO 63301 636-949-2210
PLEASE DO NOT READ FURTHER IF EASILY OFFENDED.

Harvey-Wells TBS-50 B/C/D and VFO Manual $7.00 Hickock 532, 533, 533DM, 534, 534A, 534B, 600 tube tester chart, plastic coated, shipped rolled in a tube $7.50 Aeriola JR or SR color lid display $5.00 1N4007 1000 VOLT 1 A DIODES, 10/$2.00 ALL POSTAGE PAID.

5674. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 01:33:28 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba94784@news.gj.net>
Source record: 50021
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"jamesm.stewart" <jamesm.stewart@ntlworld.com> wrote in message
news:3L4q7.1652$TU5.548406@news6-win.server.ntlworld.com...
> YOU ARE THE ENEMY.....................
>

To whom?

5675. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 01:38:33 UTC
From: Radio <codeman@gj.net>
Message-ID: <3ba948b5@news.gj.net>
Source record: 50022
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

>
> The difference between a terrorist and a freedom fighter depends on what
> side of the gun your standing ... anon

I kind of think a freedom fighter stays within the borders of the country he
lives in and does his business accordingly. A terrorist does his work
outside of his homeland borders and uses unexpecting civilian targets. to
crreate terror.

5676. Homebrew FDTD Antenna Simulator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 02:17:09 UTC
From: europax@home.com
Message-ID: <20010919.191628.1160857300.238@home.com>
Source record: 50023
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I've posted on my web site a version of FDTD simulator code that contains a half wave 160 meter vertical above perfect ground. What is unusual about this code is that it outputs movie frames in the time domain. Using a volume rendering program called Animabob, you can see a 3d movie of the results. The code is also GPL.

I'm hoping some clever hams can help contribute to the project. The code is currently pretty simplistic, but it demonstrates the basic concepts of FDTD and perfectly matched layers for the boundary conditions. Later versions will include near to far-field transformation and S-parameters for the feed point.

Get it at www.members.home.net/europax

Have Fun! Rob N3FT

5677. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 03:31:26 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9obnuebvv0@208.207.71.131>
Source record: 50024
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Alexander S. Wood" wrote:
>
> Where is the evidence? Let's see it so we can all make up our minds.

Oh, I don't doubt it's be publicised in due time....but not before it
has been used to good effect. Keep your tights on.

5678. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 09:02:44 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9ocbbm$c1hfa$1@ID-61331.news.dfncis.de>
Source record: 50025
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"swampthing" <BEN@BILLSPLACE.CO> wrote in message
news:9oak35$h57$1@uranium.btinternet.com...
> Hello Hans, are you any relation to Buffy?
>
Buffy who and why?

5679. Re: PCB design S/W?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 09:48:44 UTC
From: knox_k@nemaine.com
Message-ID: <3ba9bb6b.620581@news.nemaine.com>
Source record: 50027

On Thu, 13 Sep 2001 20:21:43 +0100, Philip de Cadanet
<phil@invest.fsbusiness.co.uk> wrote:

>I was recently sent a copy of 'Circuit Maker'.
>
>Now this seems to be just a schematic capture and simulator package.
>
>Can someone please confirm this?
>
>If so then I'm still after a basic s/w pack to put a simple QRP AM TX
>circuit to PCB.
>
>Can anyone help?
>
>Many thanks
>
>Phil G4ZOW
>

See:

http://www.microcode.com/ for more information.

5680. Re: Surge arrester schematic?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 09:50:43 UTC
From: knox_k@nemaine.com
Message-ID: <3ba9bbe3.739810@news.nemaine.com>
Source record: 50026

See:

http://www.brickwall.com/

for more info.

On Sun, 16 Sep 2001 01:56:56 GMT, "George, W5YR" <w5yr@att.net> wrote:

>Not really and necessarily always true. One of the most effective
>suppression systems on the market is built around a large inductance . . .
>as I recall it uses NO MOV devices. Tradename is something like Brickwall
>(?). Try a search for more detail.
>
>72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
>Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
>Amateur Radio W5YR, in the 56th year and it just keeps getting better!
>Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
>w_tom wrote:
>>
>> MOVs are the only active components.. Everything else is really irrelevant
>> to surge protection:
>> http://www.extremetech.com/article/0,3396,s%253D1005%2526a%253D8821,00.asp
>>
>> Marty wrote:
>>
>> > Would someone have a schematic for a basic surge arrester? The kind using
>> > just mov's, caps and a neon indicator; no inductors. Or point me to some
>> > references that might also have information on component values as well as
>> > schematics..

5681. Re: Coil Winding?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 11:23:28 UTC
From: Frank Worm <fworm@norpak.ca>
Message-ID: <3BA9D1D4.1AD0CD10@norpak.ca>
Source record: 50028

Ya
O.K.

Bill Turner wrote:

> FOR VHF LOW PASS FILTERS YOU WOULD BE BETTER OFF USING A STRIP LINE
> FILTER.
>
> Please excuse caps, visual problem.
> Bill Turner, 1117 Pike Street, St. Charles, MO 63301 636-949-2210
> PLEASE DO NOT READ FURTHER IF EASILY OFFENDED.
>
> Harvey-Wells TBS-50 B/C/D and VFO Manual $7.00 Hickock 532, 533,
> 533DM, 534, 534A, 534B, 600 tube tester chart, plastic coated, shipped
> rolled in a tube $7.50 Aeriola JR or SR color lid display $5.00 1N4007
> 1000 VOLT 1 A DIODES, 10/$2.00 ALL POSTAGE PAID.

5682. OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 13:47:18 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9ocrf6$fd5$1@news.mbn.or.jp>
Source record: 50029

I apologize if this is slightly off-topic but among the newsgroups I frequent you are the only people I trust with this one.

I just read an introductory-level book on amateur radio by Harry Helms that says the bandwidth of a CW signal varies according to the keying speed and the faster you key the broader the signal bandwidth becomes.

My first impression was that the author might have become confused when he was writing this (since I could not see any reason why increasing the keying speed would influence the bandwidth) - but I just wanted to check with the group whether maybe he is correct and there is something going on here that I have not yet grasped.

Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he talking about some sort of distortion when the key is put on/off due to the waveform not beginning cleanly at exactly the beginning of one cycle?

Many thanks, 73 ram G0WMF/7J1AUA

5683. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 13:48:25 UTC
From: John Hague <John.Hague@philips.com>
Message-ID: <3BA9F3A9.6D9271D2@philips.com>
Source record: 50030

ram wrote:

> I apologize if this is slightly off-topic but among the newsgroups I
> frequent you are the only people I trust with this one.
>
> I just read an introductory-level book on amateur radio by Harry Helms that
> says the bandwidth of a CW signal varies according to the keying speed and
> the faster you key the broader the signal bandwidth becomes.
>
> My first impression was that the author might have become confused when he
> was writing this (since I could not see any reason why increasing the keying
> speed would influence the bandwidth) - but I just wanted to check with the
> group whether maybe he is correct and there is something going on here that
> I have not yet grasped.
>
> Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he
> talking about some sort of distortion when the key is put on/off due to the
> waveform not beginning cleanly at exactly the beginning of one cycle?
>
> Many thanks, 73 ram G0WMF/7J1AUA

Ram

If we liken the CW to be effectively amplitude-modulating the carrier, then
the picture becomes clearer. Generally, in modulation the bandwidth is usually
twice the highest frequency of the modulating signal. If one could key quickly
enough, at say 1000 dots per second then we would be modulating at 1kHz
and the bandwidth would be 2kHz. Likewise for keying at 100 dots per second,
the bandwidth drops to 200Hz.

Therefore, we can easily see that the bandwidth is indeed related to the keying
speed.

Hope this helps

John, G4GOY
The views expressed are my own

5684. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 14:26:44 UTC
From: cj <cj_johansson@hp.com>
Message-ID: <3BA9FCA4.561C3E68@hp.com>
Source record: 50034

ram wrote:
<snip>
> the bandwidth of a CW signal varies according to the keying speed and
> the faster you key the broader the signal bandwidth becomes.
>
> My first impression was that the author might have become confused when he
> was writing this (since I could not see any reason why increasing the keying
> speed would influence the bandwidth) - but I just wanted to check with the
> group whether maybe he is correct and there is something going on here that
> I have not yet grasped.
>
> Can anyone comfirm whether CW bandwidth does vary with keying speed?

Sure, think about amplitude modulation. A steady carrier will have no bandwidth other than the carrier itself. If you modulate it at 1Hz, you get some bandwidth taken up due to that modulation, or, modulate at 1kHz, you take up even more BW, right? In order to recover the signal (hear it), the modulation has to be using bandwidth proportional to the signal content being carried, right? Otherwise the information wouldn't get through.

Now for CW. What are you doing when you key the carrier on and off? Answer: You're modulating the carrier!

Turn it on and off at 1Hz, you're modulating it at 1Hz, keying at 1kHz gives modulation of 1kHz. How is this different from AM? Other than modulating at 100%, it's not.

Now, the actual BW used will depend on the shape of the waveform. If you are keying at a 50% duty cycle (square wave), the signal will have loads of harmonics since that's what a square wave really is, the fundamental plus the odd harmonics. So, keying at 1kHz will give energy at 1kHz, 3kHz, 5kHz, etc.

You can actually see this if you can find a spectrum analyzer to use. Turn on a carrier, you'll see a spike at the carrier freq. Modulate it with a 1kHz sine wave, you'll see a pair of spikes appear at carrier + 1kHz and carrier - 1kHz. Use a square wave and you'll see a series of spikes, decreasing in amplitude at carrier +- 1, 3, 5, 7, etc.

-cj

|cj@boi.hp.com |
KD6AEG |
|===|

```
|Hewlett-Packard | Give a man a
beer |
|MNS R&D Lab | and he'll waste an
hour |
|11413 Chinden Blvd. M/S 831 | Teach him to
brew |
|Boise, ID 83714 | and he'll waste the rest of his
life.|
--------------------------------------------------------------------------------
```

5685. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 14:36:06 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9ocv2c$2rt$1@plutonium.btinternet.com>
Source record: 50031
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Sorry Hans a joke.
Buffy Summers is the vampire slayer.
In a TV programme, staring a very pretty American girl.

5686. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 14:56:36 UTC
From: wieland@copland.udel.edu
Message-ID: <9od034plp1@copland.udel.edu>
Source record: 50032

In article <9ocrf6$fd5$1@news.mbn.or.jp> you write:
>I apologize if this is slightly off-topic but among the newsgroups I
>frequent you are the only people I trust with this one.
>
>I just read an introductory-level book on amateur radio by Harry Helms that
>says the bandwidth of a CW signal varies according to the keying speed and
>the faster you key the broader the signal bandwidth becomes.
>

In any kind of on-off keying, this is exactly true. That's why the RTTY systems that operate over CW-bandwidths are all rather slow.

In practice, the speed at which a common 500Hz CW bandpass starts to affect the audible sound of the keying is up near the all-time human receiving speed, 70-something words per minute. So, if you've never noticed this effect, you're perfectly normal.

This gets more complicated by the fact that the human ear/brain system does not work in the mathematical way of integrating the energy in the signal to determine its strength; we "hear" the beginning & ends of the dits & dahs. So when the bandwidth available is trimmed back to what the mathematics says would be the limit, the code elements stop starting & ending crisply, they sort of fade in & die out. This is a tremendous disadvantage to our brains, who like the signal to be a touch "clicky". Computer code-copying programs can avoid this problem by using the technique of correlation, by comparing what they're receiving with a mathematical representation of a perfect dit & a perfect dah to decide which is a better match (yes, I know that's oversimplified). Since the noise produces the SAME error in both comparisons, it gets disregarded when the decision is made, only the signal creates a difference, so this is a very powerful signal-extraction tool. But, in practice, correlation requires precise synchronization of the keying & receiving systems: as many wits have noted, machine code-receivers work best with machine-sent code.

>My first impression was that the author might have become confused when he
>was writing this (since I could not see any reason why increasing the keying
>speed would influence the bandwidth) - but I just wanted to check with the
>group whether maybe he is correct and there is something going on here that
>I have not yet grasped.
>
>Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he
>talking about some sort of distortion when the key is put on/off due to the
>waveform not beginning cleanly at exactly the beginning of one cycle?
>

>Many thanks, 73 ram G0WMF/7J1AUA
>
>
>

5687. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 15:55:47 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BAA1180.752DD296@ay.com.au>
Source record: 50033

ram wrote:

> Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he
> talking about some sort of distortion when the key is put on/off due to the
> waveform not beginning cleanly at exactly the beginning of one cycle?

CW (on-off keyed AM) does indeed get wider with increasing code speed.

As you suggest, the keying breaks up the length of carrier observed.
Mathematically you need an _infinite_ length of carrier for the
transform to converge to a single line (Dirac function) in the frequency
domain.

The shorter the segment of a continous waveform 'observed' the more
possibility of it actually being a slightly different frequency and so
it inherits a probability profile in the frequency domain (one way of
thinking of it). That is to say, the observed chunk of signal contains
non-zero energy at frequencies other than exactly equal to the carrier
because they are required to cancel out the missing signal from the
beginning of time to the heat-death of the universe :)

If you correlate all frequencies with the signal segment you will
arrive at a number for each frequency which indicates its contribution
to the total envelope power of the signal segment. If the keying is
square, it will look sinc squared. If it is smoother it will tighten
around the carrier in a complex manner.

You could analyze the entire stream of CW if you knew the keying
pattern and calculate exactly what it looks like in the frequency
domain, but the answer would still be infinite in width with non-zero
terms going all the way out from the carrier to infinity on both sides.
For practical purposes you truncate it to where the terms get 'small
enough'.

Most people use the first null in the sinc envelope corresponding to
the shortest modulation period as the bandwith, and maybe add a bit more
for extra garbage like key clicks, because we all know CW keying isn't a
Nyquist pulse.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (14% of Full)

5688. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 16:29:14 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BAA195A.F2E2ACD1@amsat.org>
Source record: 50035

From the ARRL License Manual 1976:

"With proper shaping, the necessary keying bandwidth is equal to 4
times the speed in words per minute for International Morse Code;
e.g. at 25 words per minute, the bandwidth is approximately 100 cycles."

Also see URL:
http://www.qsl.net/dj7hs/ccwtheo.htm
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
ram wrote:

> I apologize if this is slightly off-topic but among the newsgroups I
> frequent you are the only people I trust with this one.
>
> I just read an introductory-level book on amateur radio by Harry Helms that
> says the bandwidth of a CW signal varies according to the keying speed and
> the faster you key the broader the signal bandwidth becomes.
>
> My first impression was that the author might have become confused when he
> was writing this (since I could not see any reason why increasing the keying
> speed would influence the bandwidth) - but I just wanted to check with the
> group whether maybe he is correct and there is something going on here that
> I have not yet grasped.
>
> Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he
> talking about some sort of distortion when the key is put on/off due to the
> waveform not beginning cleanly at exactly the beginning of one cycle?
>
> Many thanks, 73 ram G0WMF/7J1AUA

5689. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 19:44:34 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <3vgdo9.86n.ln@darkstar.localdomain>
Source record: 50047

ram wrote:

> My first impression was that the author might have become confused when he
> was writing this (since I could not see any reason why increasing the
> keying speed would influence the bandwidth) - but I just wanted to check
> with the group whether maybe he is correct and there is something going on
> here that I have not yet grasped.

Keying a carrier with Morse code is just a form of AM. It
creates sidebands in the same way as AM phone or music.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

5690. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 19:46:14 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <62hdo9.86n.ln@darkstar.localdomain>
Source record: 50046

AC6V wrote:

> e.g. at 25 words per minute, the bandwidth is approximately 100 cycles."

<pedantic mode> Cycles per second </pedantic mode>

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

5691. retube yaesu ft 101 with 6146 tubes how do you do this

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 19:55:23 UTC
From: jerrystaylor@cs.com
Message-ID: <20010920155523.23682.00001784@mb-mj.news.cs.com>
Source record: 50036

retube yaesu ft 101 with 6146 tubes who knows how to to this mod please help post or send email to jerrystaylor@cs.com

5692. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 21:01:30 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <xPsq7.3472$ua3.860223@news6-win.server.ntlworld.com>
Source record: 50037
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

i dont think you will be able to buy missiles and bombs at Anchor
surplus,interesting if you could???

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

M.J.Powell <mike@pickmere.demon.co.uk> wrote in message
news:CjZiSFA84Gq7Ewmj@pickmere.demon.co.uk...
> In article <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>,
> proma1 <proma1@ntlworld.com> writes
> >agreed,but people want value for money and scrapping would of been seen
as a
> >waste,whereas using them is better value.
>
> But it happens all the time, I've even seen a Hawker Hunter mounted as a
> gate guard at a scrap yard miles out in the countryside.
>
> Look at the stuff Anchor Surplus has.
>
> Mike
> --
> M.J.Powell

5693. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 21:38:57 UTC
From: Harry Bloomfield <harry_m1bytNOSPAM@ntlworld.com>
Message-ID: <MPG.1614723350b3e65e9896f5@news.ntlworld.com>
Source record: 50038
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <xPsq7.3472$ua3.860223@news6-win.server.ntlworld.com>,
proma1@ntlworld.com says...
| i dont think you will be able to buy missiles and bombs at Anchor
| surplus,interesting if you could???
|
|
|
| regards
|
| --
| PROMA1
| Paul Wey
|
| Scanning Author
|
| www.geocities.com/proma1_1999
|
| http://groups.yahoo.com/group/scanpromauk
|
|
|
|
| M.J.Powell <mike@pickmere.demon.co.uk> wrote in message
| news:CjZiSFA84Gq7Ewmj@pickmere.demon.co.uk...
| > In article <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>,
| > proma1 <proma1@ntlworld.com> writes
| > >agreed,but people want value for money and scrapping would of been seen
| as a
| > >waste,whereas using them is better value.
| >
| > But it happens all the time, I've even seen a Hawker Hunter mounted as a
| > gate guard at a scrap yard miles out in the countryside.
| >
| > Look at the stuff Anchor Surplus has.
| >
| > Mike
| > --
| > M.J.Powell

WRONG... There was a missile stuck in the corner last time I was there
;-)
--
Regards,

Harry (M1BYT)...

Remove the 'NOSPAM' in my email address to reply.

5694. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 22:39:09 UTC
From: "Guy P. Distaffen" <guypd@bigfoot.com>
Message-ID: <heuq7.517020$EF2.71069631@typhoon.nyroc.rr.com>
Source record: 50039
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Ok. I think this thread has gone on long enough. It really doesn't
have anything to do with Amateur Radio, nor the use of Amateur Radio.
I am not going to say that I don't agree with some of the people here,
but it would be better for us as Amateur Radio Operators, to show the true
spirit of our hobby by helping out with communications in any way that we
can.
I personally, have been helping out with the ARRL's National Traffic
System, but at this time, it appears that all communications have been
restored to the area. I was hoping to hear from people close to the
disaster, who could tell their own personal stories on the use of Amateur
Radio in the rescue efforts and with the survivors.

Guy P. Distaffen

KB0SWS

"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans. That'll make us all feel better and let's
face
> it they can't fight back much. I seem to remember bin lid's name being
> bandied around with the bully boy's threats after the Oklahoma bombing
too.
>
> Evidence would be nice. I can't believe that security agencies who didn't
> see this coming can have suddenly gather irrefutable proof about anyone.
> Then again who needs proof if you are the most powerful nation on earth.
> Just bomb some third world country and then bully everyone else into
saying
> you were right with economic sanctions. As the hysteria rises we are
coming
> dangerously close to a witch-hunt with all the finesse of the McCarthy
> commission's investigations.
>
> We should not let our justifiable sympathy with the Americans lead us into
> blindly supporting an unjustifiable act. Remember it was our sympathy for
> the Jews after WWII that led us into evicting the Palestinians from their
> homes to create the state of Israel that got us into this west vs Islam
> conflict to begin with. The USA and UK created this problem. Time we tried
> to sort it out with something other than superior firepower.
>
> On the up side though, a war is always good for the economy. Instability
> boosts
> arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.

>
> Alec Wood M1BNK
>
>
>
>
>

5695. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 23:33:00 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <M2vq7.4520$ua3.975862@news6-win.server.ntlworld.com>
Source record: 50040
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

whatever next,any scud missiles and launchers for sale??

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Harry Bloomfield <harry_m1bytNOSPAM@ntlworld.com> wrote in message
news:MPG.1614723350b3e65e9896f5@news.ntlworld.com...
> In article <xPsq7.3472$ua3.860223@news6-win.server.ntlworld.com>,
> proma1@ntlworld.com says...
> | i dont think you will be able to buy missiles and bombs at Anchor
> | surplus,interesting if you could???
> |
> |
> |
> | regards
> |
> | --
> | PROMA1
> | Paul Wey
> |
> | Scanning Author
> |
> | www.geocities.com/proma1_1999
> |
> | http://groups.yahoo.com/group/scanpromauk
> |
> |
> |
> |
> | M.J.Powell <mike@pickmere.demon.co.uk> wrote in message
> | news:CjZiSFA84Gq7Ewmj@pickmere.demon.co.uk...
> | > In article <pBQp7.9773$1V3.1040231@news2-win.server.ntlworld.com>,
> | > proma1 <proma1@ntlworld.com> writes
> | > >agreed,but people want value for money and scrapping would of been
seen
> | as a
> | > >waste,whereas using them is better value.
> | >

> | > But it happens all the time, I've even seen a Hawker Hunter mounted
as a
> | > gate guard at a scrap yard miles out in the countryside.
> | >
> | > Look at the stuff Anchor Surplus has.
> | >
> | > Mike
> | > --
> | > M.J.Powell
>
> WRONG... There was a missile stuck in the corner last time I was there
> ;-)
> --
> Regards,
> Harry (M1BYT)...
>
> Remove the 'NOSPAM' in my email address to reply.

5696. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-20 23:40:10 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <j8vq7.4553$ua3.982513@news6-win.server.ntlworld.com>
Source record: 50041
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

as usual ARRL has done a good job by all accounts,just as our RAYNET does in
the UK,so if thats it thats it???

over to anyone else,if they want to carry it on

wouldnt it be nice if all the worlds problems could be sorted by talking,it
would be a strange world if we all agreed 100% with each other,i know we
wont but at least we have managed to have a reasonable debate.

agree to dissagree as they say.

and if there is anyone who knows someone at "ground zero" pat them on the
back for me and tell them we are thinking of them.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Guy P. Distaffen <guypd@bigfoot.com> wrote in message
news:heuq7.517020$EF2.71069631@typhoon.nyroc.rr.com...
> Ok. I think this thread has gone on long enough. It really doesn't
> have anything to do with Amateur Radio, nor the use of Amateur Radio.
> I am not going to say that I don't agree with some of the people here,
> but it would be better for us as Amateur Radio Operators, to show the true
> spirit of our hobby by helping out with communications in any way that we
> can.
> I personally, have been helping out with the ARRL's National Traffic
> System, but at this time, it appears that all communications have been
> restored to the area. I was hoping to hear from people close to the
> disaster, who could tell their own personal stories on the use of Amateur
> Radio in the rescue efforts and with the survivors.
>
> Guy P. Distaffen
>
> KB0SWS
>
> "Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message
> news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> > Yeah let's bomb the Afghans. That'll make us all feel better and let's
> face

> > it they can't fight back much. I seem to remember bin lid's name being
> > bandied around with the bully boy's threats after the Oklahoma bombing
> too.
> >
> > Evidence would be nice. I can't believe that security agencies who
didn't
> > see this coming can have suddenly gather irrefutable proof about anyone.
> > Then again who needs proof if you are the most powerful nation on earth.
> > Just bomb some third world country and then bully everyone else into
> saying
> > you were right with economic sanctions. As the hysteria rises we are
> coming
> > dangerously close to a witch-hunt with all the finesse of the McCarthy
> > commission's investigations.
> >
> > We should not let our justifiable sympathy with the Americans lead us
into
> > blindly supporting an unjustifiable act. Remember it was our sympathy
for
> > the Jews after WWII that led us into evicting the Palestinians from
their
> > homes to create the state of Israel that got us into this west vs Islam
> > conflict to begin with. The USA and UK created this problem. Time we
tried
> > to sort it out with something other than superior firepower.
> >
> > On the up side though, a war is always good for the economy. Instability
> > boosts
> > arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
> >
> > Alec Wood M1BNK
> >
> >
> >
> >
> >
>
>

5697. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 01:48:54 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BAA9C86.7B24C318@silly.net>
Source record: 50042
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

proma1 wrote:

> wouldnt it be nice if all the worlds problems could be sorted by talking,it
> would be a strange world if we all agreed 100% with each other,i know we
> wont but at least we have managed to have a reasonable debate.
>
> agree to dissagree as they say.
>
> and if there is anyone who knows someone at "ground zero" pat them on the
> back for me and tell them we are thinking of them.

I'll personally see to it that at least one person who hasn't been able
to catch the news in the past week knows that somebody on the other side
of the pond is in solidarity. We can't solve all the little petty
problems so easily, but this big one has the advantage of unifying
people. I doubt that aspect was given much consideration in the tunnels
below Kandahar.
-Bill M
USA

5698. 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 03:23:18 UTC
From: Steve Bauder <sbauder@wwt.net>
Message-ID: <3BAAB2A6.E6B08562@wwt.net>
Source record: 50043

I've been thinking about building a 6146 amp for my 6 meter TenTec transverter. Looking through my junkbox, I found a chassis of a project that is about 90% complete. I have no idea where I got it...I didn't build it! It might just be a 6 meter amp waiting to be finished. I'm looking for help in identifying this project and finding the original plans.

It appears to be a 3 stage transmitter. The oscillator tube is missing, but it's a 9 pin receiving-type tube. There is a switch to select between a crystal or an external VFO (I think). The oscillator feeds a 2E26 with a tuned input. The 2E26 feeds the 829B in push-pull. The output of the 829B is also in push-pull, which is link-coupled to the antenna. The wiring/coils appear to be 6 meter-ish. Certainly not for 2 meters. Vintage appears mid-60's (9 pin tube, small disk caps).

Any ideas?

Thanks,
Steve, nx9z

5699. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 03:50:00 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BAAB8E5.B378EA9D@att.net>
Source record: 50044

This was a very common and favorite tube lineup back in the 40's up into
the 50's. Probably a 6-meter rig - you should get some idea from the sizes
of the tuned circuits. Check some old Handbooks of that era.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Steve Bauder wrote:
>
> I've been thinking about building a 6146 amp for my 6 meter TenTec
> transverter. Looking through my junkbox, I found a chassis of a project
> that is about 90% complete. I have no idea where I got it...I didn't
> build it! It might just be a 6 meter amp waiting to be finished. I'm
> looking for help in identifying this project and finding the original
> plans.
>
> It appears to be a 3 stage transmitter. The oscillator tube is missing,
> but it's a 9 pin receiving-type tube. There is a switch to select
> between a crystal or an external VFO (I think). The oscillator feeds a
> 2E26 with a tuned input. The 2E26 feeds the 829B in push-pull. The
> output of the 829B is also in push-pull, which is link-coupled to the
> antenna. The wiring/coils appear to be 6 meter-ish. Certainly not for 2
> meters. Vintage appears mid-60's (9 pin tube, small disk caps).
>
> Any ideas?
>
> Thanks,
> Steve, nx9z

5700. 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 07:35:42 UTC
From: Rahul <r_sat@yahoo.com>
Message-ID: <3BAAEDCE.8080906@yahoo.com>
Source record: 50045

Hello,

I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I can use 4CX350B in place of 4CX250B and get some more watts out of the boot? Is this recomended...
Regards
Rahul

5701. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 11:23:27 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <gv7fo9.0qn.ln@darkstar.localdomain>
Source record: 50048
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Alexander S. Wood wrote:

> Your right. It has been fun.

It has not been fun for the subscribers to r.r.a.homebrew -
more than 100 messages that have F all to do with homebrew
radio. Please engage brain before cross-posting again.

Followup set to: alt.flame

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/ei9gq
Linux 2.4.9

5702. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 12:25:17 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001075117@msauve>
Source record: 50049

On Thu, 20 Sep 2001 19:46:14 +0000, Eamon Skelton <Xnospam@oceanfree.net> wrote:
> AC6V wrote:
>
>
> > e.g. at 25 words per minute, the bandwidth is approximately 100 cycles."
>
> <pedantic mode> Cycles per second </pedantic mode>

You misspelled "Hertz." HTH, HAND!

5703. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 13:08:31 UTC
From: Mike <m.j.willis@rl.ac.uk>
Message-ID: <9ofe4j$17lm@newton.cc.rl.ac.uk>
Source record: 50050

Rahul <r_sat@yahoo.com> wrote in message news:3BAAEDCE.8080906@yahoo.com...
> Hello,
>
> I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I
> can use 4CX350B in place of 4CX250B and get some more watts out of the
> boot? Is this recomended...
> Regards
> Rahul
>

What ? No. Different grid bias. Except in the case of a CB amplifier where
replacing 250s by 350s is a great idea....

5704. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 13:27:38 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <efHq7.57801$tL2.7516208@news1.rdc1.nj.home.com>
Source record: 50051

I think it was in the\1958 handbook. I used the 2e26 in my first 6m rig
because they were cheaper than 6146's.

George, W5YR wrote in message <3BAAB8E5.B378EA9D@att.net>...
>This was a very common and favorite tube lineup back in the 40's up into
>the 50's. Probably a 6-meter rig - you should get some idea from the sizes
>of the tuned circuits. Check some old Handbooks of that era.
>
>72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
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>Amateur Radio W5YR, in the 56th year and it just keeps getting better!
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>
>
>Steve Bauder wrote:
>>
>> I've been thinking about building a 6146 amp for my 6 meter TenTec
>> transverter. Looking through my junkbox, I found a chassis of a project
>> that is about 90% complete. I have no idea where I got it...I didn't
>> build it! It might just be a 6 meter amp waiting to be finished. I'm
>> looking for help in identifying this project and finding the original
>> plans.
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>> It appears to be a 3 stage transmitter. The oscillator tube is missing,
>> but it's a 9 pin receiving-type tube. There is a switch to select
>> between a crystal or an external VFO (I think). The oscillator feeds a
>> 2E26 with a tuned input. The 2E26 feeds the 829B in push-pull. The
>> output of the 829B is also in push-pull, which is link-coupled to the
>> antenna. The wiring/coils appear to be 6 meter-ish. Certainly not for 2
>> meters. Vintage appears mid-60's (9 pin tube, small disk caps).
>>
>> Any ideas?
>>
>> Thanks,
>> Steve, nx9z

5705. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 13:53:12 UTC
From: 2w8ji@contesting.com
Message-ID: <3bab4338.107220498@news.akorn.net>
Source record: 50052

On Thu, 20 Sep 2001 08:26:44 -0600, cj <cj_johansson@hp.com> wrote:

r
>> Can anyone comfirm whether CW bandwidth does vary with keying speed?

No, it does NOT vary with speed.

The bandwidth varies with the rise and fall time and slope or shape
oif the rise and fall time.

Bandwidth is constant for a constant waveshape, although the peaks in
sidebands can waddle around a bit with speed. The average POWER in the
sidebands (clicks) will vary with speed and what is being sent.

>Now, the actual BW used will depend on the shape of the waveform. If you
>are keying at a 50% duty cycle (square wave), the signal will have loads
>of harmonics since that's what a square wave really is, the fundamental
>plus the odd harmonics. So, keying at 1kHz will give energy at 1kHz,
>3kHz, 5kHz, etc.

No one keys at 1kHz.

We key in the range of hertz, not kilohertz, and that rate varies
between dots and dashes as well as with the speed and what is being
sent.

While the sidebands move all around, the harmonics are spaced so close
that with useful receiver bandwidths we can't sort it all out as
seperate sidebands.

What we hear is unrelated to speed, unless the radio has a flaw that
allows to change the shape of the rise and fall of the waveform.

Slight changes in shape can make large changes in clicks. Most modern
radios are poorly designed, and have poor shaping and excessively
short rise and fall times. Not only that, the radios can change
frequency while being keyed so a good appearing waveform can still
occupy a wide bandwidth. The IC775 is particularly bad at that.

Look at www.W8JI.com under clicks.

73 Tom

5706. M5 now + FULL Uk licence

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 13:53:41 UTC
From: swampthing <BEN@BILLSPLACE.CO>
Message-ID: <9ofgur$pa9$1@plutonium.btinternet.com>
Source record: 50053

I got a letter from the RA today telling me
that 5 WPM is now okay for a full licence.
I can keep my M5 or change it for an M0.
I still get the full privileges if I keep M5.
So they have dropped the CW test
for the full UK licence to 5WPM.
Any other changes any one knows about yet?

5707. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 14:05:21 UTC
From: 2w8ji@contesting.com
Message-ID: <3bab464d.108009363@news.akorn.net>
Source record: 50054

On Thu, 20 Sep 2001 15:55:47 GMT, Alan Yates <alany@ay.com.au> wrote:

>ram wrote:
>
>> Can anyone comfirm whether CW bandwidth does vary with keying speed? Is he
>> talking about some sort of distortion when the key is put on/off due to the
>> waveform not beginning cleanly at exactly the beginning of one cycle?
>
> CW (on-off keyed AM) does indeed get wider with increasing code speed.

Sorry Alan, that is a popular misconception but is not true.

The bandwidth is set by the shape of the rise and fall times of the envelope, and NOT the keying speed (unless of course you take keying speed to zero Hz).

You need a certain SYSTEM bandwidth to accomodate a certain maximum speed under certain conditions of reception (like various conditions of fading or noise for a given speed), but the occupied bandwidth remains the same even if speed is reduced as long as you don't readjust the filters in the transmitter and receiver.

It is absolutly incorrect to say bandwidth is set by keying speed. It is set by the envelope shape, frequency-related characteristics (like a swooping VCO that comes on to frequency while the radio actually has output), ringing in filters (the FT1000D has this problem on transmit, they band the SSB filter with a square wave and the filter rings and causes clicks), and group delay errors in filters.

If I send 2 WPM or 50 WPM, my clicks extend exactly the same amount of bandwidth. They may occur less frequently, but the level and spread is the same.

The only exception is if the shape and/or time of rise and fall in the radio changes, but that would be rare unless you approach the upper limit of keying response time.

73 Tom

5708. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 14:34:52 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9ofjdu$892$1@uranium.btinternet.com>
Source record: 50055

> Keying a carrier with Morse code is just a form of AM. It
> creates sidebands in the same way as AM phone or music.
>
> 73, Ed. EI9GQ.
========================
Hi Ed, just to tidy up, the Morse modulating waveform is a
squarewave. For reasonably-shaped squarewaves, eg, a string of
dots, it would be nice to include, say, the 6th harmonic of the
fundamental.

Suppose one dot plus the space between two dots lasts 1/20 second,
then, including the 6th harmonic and both AM sidebands, the AM
channel bandwidth is 240 Hz.

I'll leave it for somebody else to work out what words-per-minute
correspond to 20 dots per second.

Regards, Reg, G4FGQ
http://www.g4fgq.com

5709. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 15:06:27 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9ofmpabuc1@news.mbn.or.jp>
Source record: 50056

Many thanks to everyone who replied both on the group and by EMail. I am
very glad that I asked for confirmation and feel much clearer on this now.

73, ram 7J1AUA / G0WMF

John Hague wrote in message <3BA9F3A9.6D9271D2@philips.com>...
>
>If we liken the CW to be effectively amplitude-modulating the carrier, then
>the picture becomes clearer.
>

5710. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 15:58:39 UTC
From: 2w8ji@contesting.com
Message-ID: <3bab618e.114987518@news.akorn.net>
Source record: 50057

On Fri, 21 Sep 2001 15:34:52 +0100, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>Suppose one dot plus the space between two dots lasts 1/20 second,
>then, including the 6th harmonic and both AM sidebands, the AM
>channel bandwidth is 240 Hz.
>
>I'll leave it for somebody else to work out what words-per-minute
>correspond to 20 dots per second.
>----
>Regards, Reg, G4FGQ
>http://www.g4fgq.com

Hi Reg,

The waveform is not a square wave (a least we all hope it is not), but even if it was the bandwidth would extend to infinity at any keying speed.

It is simply the shape of the rise and fall times that control bandwidth, NOT the off-and-on rate.

I think the confusion is people are considering the CW keying a constant modulation at a repeating interval, which it clearly is not (unless your only intent is to send a string of dots or dashes).

The slope of attenuation of sidebands are controlled by the shape and duration of rise and fall times, NOT by the keying rate. You can have more energy in sidebands sending faster, but the bandwidth is limited by the waveshape during amplitude transistions....not by the rate of the transitions.

In other words, if you have a radio on a quiet band and push and release the key only once, I will hear the click the same distance off your frequency no matter how fast or slow you push the key. That distance depends only on the waveshape, not the keying rate.

73 Tom

5711. FS: Parts for homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 16:58:33 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <qiKq7.1021$bV2.101027@news1.iquest.net>
Source record: 50058

Parts for Sale:

NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice long leads.
These are not NPO and are made by S&M Components

50 for $3.00
100 for $5.00

Ceramic Disk Caps - 103M (.01uF 20% tolerance) rated at 1kV.

50 for $3.00
100 for $5.00

I have NEW BNC chassis connectors for

25 for $12.40
50 for $21.00
100 for $36.00

I also have:

LM7805C voltage regulators. TO220 case. 5 for $4.50
L7806CV voltage regulators. TO220 case. 5 for $4.50
LM7808CT voltage regulators. TO220 case. 5 for $4.50
LM7812T voltage regulators. TO220 case. 5 for $4.50

Get 5 of each for $16.50

22uF 35v electrolytics - $1.00 and 2 stamps for 100 These caps are on paper tape, NOS (New, but old stock) made by Richey. I have thousands. Oh boy.

2N2222's in METAL TO18 case - 25 for $7.50
2N2222's plastic TO92 case - 50 for $4.00

8.192 Mhz crystals HC49 25 cents each, and a 1st class stamp. (I have 100)

Let me know if you're interested. All prices are post paid to the USA. I will ship to non USA addresses but we need to discuss the shipping charges first.

Thanks - My address on QRZ is good.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57

==========

5712. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 17:30:43 UTC
From: 26hb896@lineone.net
Message-ID: <Xns9123BC79D685426hb896lineonenet@130.133.1.4>
Source record: 50059
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Tue 18 Sep 2001 07:54:37p lucifer@eternal-flames.net knelt at the big white telephone, and heaved this into uk.rec.radio.cb:

SNIP.

>American seamen were on ships being torpedoed and sunk, long before
>Japan attacked.

Yeah, but that may just have been 'Yank freindly fire'
During the Gulf War, the Yanks killed more British soldiers than the Iraqis did.

--

Mark Russell ''If you enjoy it - it's probably illegal''
Guzzi V50 Monza.
26HB896
OSOS#16

5713. I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 18:33:30 UTC
From: bpasaric@mac.com
Message-ID: <1f03pq7.10pqbih17ettzuN%bpasaric@mac.com>
Source record: 50060

Following the schematic and instructions in Dan Tayloe's patent documentation, the "Letters to the Editor" in the QEX (Dec. 2000) and the information I picked up in this news-group some three months ago, I managed to make a Tayloe receiver which works. I made it on a perfoboard. The multiplexer is a Fairchild FST3253 (SMD style), the binary counter is a Fairchild 74AC163, (in front of which I put a 74F00 to shape the pulses), the I and Q amplifiers are two TL071's, and the adding amplifier is another TL071 followed by a TL072 - which includes a low pass filter followed by one more amplifier. At the end of the chain there is an "active speaker" - a small computer amplifier which I regularly use instead of headphones. At the front end of the receiverI have put a tunable resonant circuit wound on an iron no-name powder core for 3,5 - 14 MHz, with a variable capacitor 500 pF max., so that I can tune in any of the three bands. The secondary coil is about Z = 50 ohms connected to the multiplexer.

The VFO is a rock-stable DDS 0-60 MHz which I made about a year ago. At its output there is a group of tunable resonant circuits with a switch, which guarantee a clear output signal. It was of a great help to me because I did not have to bother about the VFO and its stability. The AF phase-shift network is the same as Phil Rice, VK3BHR, has described it in his article "SSB by the Fourth Method?" (Amateur Radio, February 1998, page 16).

I did not have any real difficulties putting the receiver together, except some tedious work soldering the SMD-style 3253 MUX - with the help of a magnifying glass and a lot of patience. The binary counter 74AC163 does not have an up/down pin as some other binary counters do. However, when you wish to switch from LSB to USB, you just swap the I and Q leads with each other, and so change the direction of the rotation. It can be done with a DPDT toggle switch. The bias for the 3253 was provided with a 5 kohms trimmer potentiometer connected between the stabilized 5 V supply leads. During the test reception it can be positioned to the best result. Initially it is in the middle.

The AF phase-shift network also works fine so I got the SSB signal immediatelly. The SSB is very clear. If someone needs info how to connect it, here it is: the filter has four inputs (1-4, take any side) and four outputs (5-8, the other side). Numbers 3 and 4 are grounded. Numbers 1 and 2 go to the I and Q channels respectively. Output numbers 5 and 6 are soldered together, as well as numbers 7 and 8. So you get a double 0 - 180 degrees output, which goes to the adding amplifier (with a push-pull input as I call it).

I also tried to disconnect the 90 and 270 degrees capacitors C2 and C4 after the multiplexer (for the negative half-period) and the receiver continued working correctly, although with some less volume.

The receiver must have an excellent AF amplifier, because all the amplification is realized there. Precautions against hum must be taken; long ground leads pick up hum. Everything is true what Dan Tayloe told us about his receiver, selectivity, SSB, dynamics etc. I listen to 3.5 - 7 and 14 MHz bands, which means that the VFO works on 14, 28 and 56 MHz.

"But where is the "catch 22" - I used to ask myself before I built the receiver, because I know from experience that there is always one. Well, when tuning along any band you can hear whistles which are obviously coming from some harmonic interferences. They are generated inside the RX because they can also be heard with the antenna pulled out. It is easy to tell them from the outside signals because it takes one whole turn of the rotary encoder to tune the outside signal to zero - and only one tenth of it to tune the spurious signal to zero sound. The whistles are especially strong on the following VFO frequencies:

For 3,5 MHz: 14052 - 14118 - 14320 kHz.

For 7 MHz: 28039 - 28105 - 28237 - 28370 kHz.

For 14 MHz, CW band only: 56036 - 56049 - 56079 - 56116 - 56136 - 56158 - 56210 - 56316 - 56386 kHz.

I felt very proud when the receiver first worked, but now I am a little worried because so many spurious signals spoil the pleasure of listening. On 3.5 and 7 MHz it could be tolerable, but not on the 14 MHz band. Now, can anyone explain to me the reason for so many spurious frequencies, and can anyone advise me what to do and how to get rid of them?

Many thanks for any help - Bozidar, 9A2HL

5714. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 22:29:28 UTC
From: la8ak@online.no
Message-ID: <3bab6b03.461176094@news.online.no>
Source record: 50061

On Thu, 20 Sep 2001 22:23:18 -0500, Steve Bauder <sbauder@wwt.net>
wrote:

>I've been thinking about building a 6146 amp for my 6 meter TenTec
>transverter. Looking through my junkbox, I found a chassis of a project
>that is about 90% complete. I have no idea where I got it...I didn't
>build it! It might just be a 6 meter amp waiting to be finished. I'm
>looking for help in identifying this project and finding the original
>plans.
>
>It appears to be a 3 stage transmitter. The oscillator tube is missing,
>but it's a 9 pin receiving-type tube. There is a switch to select
>between a crystal or an external VFO (I think). The oscillator feeds a
>2E26 with a tuned input. The 2E26 feeds the 829B in push-pull. The
>output of the 829B is also in push-pull, which is link-coupled to the
>antenna. The wiring/coils appear to be 6 meter-ish. Certainly not for 2
>meters. Vintage appears mid-60's (9 pin tube, small disk caps).
>
>Any ideas?
>
>Thanks,
>Steve, nx9z
>
>
>
Driving a 5894 to 180W RF in class AB on 2m you only need 1W, so I
would believe you don't need more for driving 829B to full ratings on
6m A suitable driver for 2m is 6761 or 6939 although the latter is
somewhat too strong.

73
Jan-Martin
LA8AK
Amateur Radio since 1960, member at NRRL and RSGB

5715. MECA info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 23:17:10 UTC
From: *n7ws@arrl.net
Message-ID: <3babc9d3.120115088@news.triconet.org>
Source record: 50062
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Does anyone have an old MECA catalog that lists a 700-M034 dual-directional coupler. I'm looking for specs, particularly power ratings.

Thanks,

Wes N7WS
n7ws@arrl.net

5716. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 23:19:53 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BABC95B.45C1D52@ieee.org>
Source record: 50063

J M Noeding wrote:

> On Thu, 20 Sep 2001 22:23:18 -0500, Steve Bauder <sbauder@wwt.net>
> wrote:
>
> >I've been thinking about building a 6146 amp for my 6 meter TenTec
> >transverter. Looking through my junkbox, I found a chassis of a project
> >that is about 90% complete. I have no idea where I got it...I didn't
> >build it! It might just be a 6 meter amp waiting to be finished. I'm
> >looking for help in identifying this project and finding the original
> >plans.
> >
> >It appears to be a 3 stage transmitter. The oscillator tube is missing,
> >but it's a 9 pin receiving-type tube. There is a switch to select
> >between a crystal or an external VFO (I think). The oscillator feeds a
> >2E26 with a tuned input. The 2E26 feeds the 829B in push-pull. The
> >output of the 829B is also in push-pull, which is link-coupled to the
> >antenna. The wiring/coils appear to be 6 meter-ish. Certainly not for 2
> >meters. Vintage appears mid-60's (9 pin tube, small disk caps).
> >
> >Any ideas?
> >
> >Thanks,
> >Steve, nx9z
> >
> >
> >
> Driving a 5894 to 180W RF in class AB on 2m you only need 1W, so I
> would believe you don't need more for driving 829B to full ratings on
> 6m A suitable driver for 2m is 6761 or 6939 although the latter is
> somewhat too strong.
>
> 73
> Jan-Martin
> LA8AK
> Amateur Radio since 1960, member at NRRL and RSGB

BTW if you need a spare 829 or two I have a bunch.

Bill K7NOM

5717. help to IDENTIFY UHF type Amplifier Model NTBE0206.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-21 23:31:18 UTC
From: ve3ab@mondenet.ca
Message-ID: <3babcc1c.53010140@news.mondenet.com>
Source record: 50064

This is a nice littlle preamp for UHF/Microwave and Id like to get info on it..I bought it at a fleamarket and I suspect it is a pull from perhaps a TVRO rcvr or something..Any help ..any idea who might have been the manufacturer. the fellow told me it had Gasfets in it and it might make a good preamp for VHF/UHF..73 Earl VE3AB

5718. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 00:25:55 UTC
From: 2w8ji@contesting.com
Message-ID: <3babd9df.145792876@news.akorn.net>
Source record: 50065

On Sat, 22 Sep 2001 00:06:27 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>Many thanks to everyone who replied both on the group and by EMail. I am
>very glad that I asked for confirmation and feel much clearer on this now.
>
>73, ram 7J1AUA / G0WMF

Just keep in mind the bandwidth answers were wrong though Ram.

The bandwidth of an AM signal relates to the highest modulation
frequency, and that relates to the SHAPE of the modulating waveform.
Not how OFTEN the modulation occurs when it is off-and -on modulation
like CW.

73 Tom

5719. ISO Loop Antennae

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 01:13:01 UTC
From: geoff barrett <geoff.barrett@hwcn.org>
Message-ID: <9ogo7t$r78$1@mohawk.hwcn.org>
Source record: 50066

Looking for an ISO Loop Antennae for Ham Bands use

details of price and condition to:

geoff.barrett@hwcn.org

Geoff Barrett VE3WP

5720. need help building high-pass filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 02:37:25 UTC
From: Muuga <tidalforce@hotmail.com>
Message-ID: <rKSq7.10653$2H2.854070@e3500-atl1.usenetserver.com>
Source record: 50068

Hi, Im a swl
and I want to build as high-pass filter for my shortwave receiver (DX-398)
I have it fed witha 75ohm coax .
I want to suppress strong MW stations that create intermod on the
shortwave bands(especially around 2-3 mhz)

So I would like to build a filter that would attenuate the frequencies below
1.7 Mhz
have a input and output 75 ohms

I think I should build a chebyshev , but I dont understand what passband
ripple is. and how it affects the filter performance.
I also see a butterworth and elliptic filters,maybe I should take a look at
those. I need some guidance!

Thanks

5721. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 03:17:12 UTC
From: Dan Tayloe <lacelady@home.com>
Message-ID: <3BAC02B7.694B07BE@home.com>
Source record: 50069

The easy answer is to not use a DDS! The detector works fine with either a normal VFO or a VFO that has been mixed to a higher frequency using a crystal osc with no birdies. The nice thing is that many of the ham bands are harmonically related by a power of two, making frequency generation of the lower bands from a higher band relatively easy.

DDSs are kind of dirty as they are really designed for transmitters (certainly clean enough for that) or for cellular phone reception for signals of with limited dynamic range (such as a cellular basestation using power control of all the phones in its area).

I used a pair of AD9851s in quadrature lock to drive one of my receivers and have heard the same you have. The birdies I was getting seemed to occur at regular intervals and were extremely narrow. It lead me to believe that I could use a processor and "skip over" the birdies using frequency "jumps" of much less than 1 Hz.

You could give that a try, but the use of a DDS with numerous in band spurs as high as 80 db down will limit the performance of the receiver. However, a DDS is a nice way to try things out and see how they work. I usually use an HP8640/323 signal generator to tune my receivers until I get everything else ironed out and save the VFO part for last.

- Dan, N7VE

5722. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 04:21:11 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9oh38r$ap4$1@news.mbn.or.jp>
Source record: 50070

Tom W8JI <2w8ji@contesting.com> wrote in message
<3bab464d.108009363@news.akorn.net>...
>>
>> CW (on-off keyed AM) does indeed get wider with increasing code speed.
>
>Sorry Alan, that is a popular misconception but is not true.
>
>The bandwidth is set by the shape of the rise and fall times of the
>envelope, and NOT the keying speed (unless of course you take keying
>speed to zero Hz).
>

Tom, although I lack your technical understanding - this is intuitively what I felt when first reading the Harry Helm book.

Provided you can maintain a constant amplitude/frequency/waveshape continuous wave - then simply keying on/off would create no sidebands in itself and bandwidth will not be directly determined by your keying speed.

In contrast, it is very easy to understand and accept that the CW bandwidth is directly related to the degree of amplitude/frequency/waveshape variation at the beginning and end of the envelope (during the "rise and fall" times).

Many thanks for an interesting thread.

73, ram

5723. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 05:06:53 UTC
From: Ralph Lane <crlane@erols.com>
Message-ID: <3BAC1C6C.87F4F740@erols.com>
Source record: 50067

If you turn the question around and ask what would the minimum bandwidth
required to receive a cw signal of say one word a minute vs 35 words a minute,
you would find that the required bandwidth would be much smaller for the one
word rate. This narrow bandwidth could spell the difference between receiving
the message or not as the result of reduced noise resulting from the narrower
bandwidth.

Ralph

Tom W8JI wrote:

> On Sat, 22 Sep 2001 00:06:27 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:
>
> >Many thanks to everyone who replied both on the group and by EMail. I am
> >very glad that I asked for confirmation and feel much clearer on this now.
> >
> >73, ram 7J1AUA / G0WMF
>
> Just keep in mind the bandwidth answers were wrong though Ram.
>
> The bandwidth of an AM signal relates to the highest modulation
> frequency, and that relates to the SHAPE of the modulating waveform.
> Not how OFTEN the modulation occurs when it is off-and -on modulation
> like CW.
>
> 73 Tom

5724. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 09:06:37 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9ohkiigmg1@neptunium.btinternet.com>
Source record: 50071

If the keying speed is increased N times so is the signal
bandwidth. Quite obvious !

5725. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 09:17:14 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BAC5718.C9B32BD7@ay.com.au>
Source record: 50072

The sidebands _do_ get wider with increased keying speed. What Tom is saying is that the splatter still goes out as far on each side regardless of the keying speed. It is a function of the keying waveshape.

If we ignore the key-click splatter the actual information is in the main sidebands associated with the keying periods. You can filter out everything beyond them and still preserve the information in the CW signal. IMO that is its 'bandwidth'.

However if you do that, it won't sound very good at all. The edges will be so smudged it will be hard to read by ear. So practical CW transmitters send somewhat clicky signals with much wider signals than just the information sidebands.

ram wrote:
>
> Tom W8JI <2w8ji@contesting.com> wrote in message
> <3bab464d.108009363@news.akorn.net>...
> >>
> >> CW (on-off keyed AM) does indeed get wider with increasing code speed.
> >
> >Sorry Alan, that is a popular misconception but is not true.
> >
> >The bandwidth is set by the shape of the rise and fall times of the
> >envelope, and NOT the keying speed (unless of course you take keying
> >speed to zero Hz).
> >
>
> Tom, although I lack your technical understanding - this is intuitively what
> I felt when first reading the Harry Helm book.
>
> Provided you can maintain a constant amplitude/frequency/waveshape
> continuous wave - then simply keying on/off would create no sidebands in
> itself and bandwidth will not be directly determined by your keying speed.
>
> In contrast, it is very easy to understand and accept that the CW bandwidth
> is directly related to the degree of amplitude/frequency/waveshape variation
> at the beginning and end of the envelope (during the "rise and fall" times).
>
> Many thanks for an interesting thread.
>
> 73, ram

--
:wq!

5726. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 09:36:57 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BAC5BB6.B3AA929F@ay.com.au>
Source record: 50073

The sidebands move out N times the distance, but the 'harmonics' of the
sidebands (caused by the spectral content of the baseband keying signal)
have the same envelope.

This is what Tom was saying.

There is no practial filter in common use that can slice off just the
first dit sideband from a CW transmitter signal. Even if you built a
digital monstrosity that could send minimally keyed CW no human would
enjoy listening to its output.

I still say that the speed of CW determines its 'bandwidth' but that is
largely a semantical argument. Practical CW signals contain _many_
times they keying period bandwidth.

Reg Edwards wrote:
>
> If the keying speed is increased N times so is the signal
> bandwidth. Quite obvious !

--
:wq!

5727. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 10:51:07 UTC
From: hexter@blazenet.net
Message-ID: <tqor8rg3ag231b@corp.supernews.com>
Source record: 50074

In article <3BAAEDCE.8080906@yahoo.com>, r_sat@yahoo.com says...
>
>Hello,
>
>I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I
>can use 4CX350B in place of 4CX250B and get some more watts out of the
>boot? Is this recomended...
>Regards
>Rahul
>
In good quality amps, the simple swap seems to produce less output,
and not more. The 350's are more difficult to cool because of the
higher restriction through the plate radiator. Also, if you are using
your 'boot' at 27 mhz, be sure to ask the F.C.C. if they think the
tube swap is a good idea.

5728. Flashover in amplifier.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 10:55:31 UTC
From: Rune &#65533;ye <la7tha@sensewave.com>
Message-ID: <za_q7.101$755.1174@news1.oke.nextra.no>
Source record: 50075

Hello

I have a Amplifier made up with the tube 4cx800.
I have problems with flashover in Plate capacitor, this only happen
on 14 Mhz.
Typical happen when the power increase to about 600 - 700 watt.
This newer happen on the other band eaven with 1 kilo Watt
Plate space is aprox 3 mm.
Someone have any idea.

73 de Rune LA7THA

la7tha@sensewave.com

5729. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 10:57:22 UTC
From: gm7jds <gm7jds@ntlworld.com>
Message-ID: <Gj_q7.1346$Ck.306937@news6-win.server.ntlworld.com>
Source record: 50077
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

there a millions of people out there,i only seen a few hundred on the tv
over joyed at what happened to the usa.
"Hot Dawg" <england26division@hotmail.com> wrote in message
news:3ba7b46c.4797959@news.ntlworld.com...
> On Tue, 18 Sep 2001 10:06:56 +0100, "gm7jds" <gm7jds@ntlworld.com>
> wrote:
>
>
> >killing more people will not solve anything,infact it may make things
> >worse,and killing Muslims may draw more countries into this.
> >
> >we need to go after these people and there group that did this,not
slaughter
> >more men women and children.
>
> Fuck them.
>
> At least, the ones in Afghanistan celebrating the aftermath shown on
> CNN this week.

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.280 / Virus Database: 147 - Release Date: 11/09/2001

5730. Band pass filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 10:59:38 UTC
From: Rune &#65533;ye <la7tha@sensewave.com>
Message-ID: <qe_q7.105$755.1169@news1.oke.nextra.no>
Source record: 50076

Hello

Need info how to made band pass filter
with coax ????.

73 de Rune LA7THA

la7tha@sensewave.com

5731. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 11:01:09 UTC
From: gm7jds <gm7jds@ntlworld.com>
Message-ID: <dn_q7.1362$Ck.309329@news6-win.server.ntlworld.com>
Source record: 50078
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

yup war is hell,so why kill more people,if you kill more people that is
murder,so if its war,then murder is ok,is this is what you are saying.

so if i say i am at war with the guy next door to me,then i go in and kill
him and his family,that ok because i declared war on him.

regards brian
"Radio" <codeman@gj.net> wrote in message news:3ba7eed8@news.gj.net...
>
> >
> > we need to go after these people and there group that did this,not
> slaughter
> > more men women and children
>
> If the terrorist hide among the sheep (innocent people), which they are,
> and the sheep will *not* help or point out the terrorist, then some sheep
> will, unfortunately, need to be slaughtered. If you don't remove the
> cancer, it will growing bigger and stronger and be harder to eliminate in
> the future. Who places the sheep in danger? Terrorist or the people
> going after the terrorist? I say the terrorist by hiding among them. As
> has been mentioned, people who support and aide the terrorist are
terrorist
> too, so they are no longer innocent.
>
> War is hell.
>
>
>
>
>

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Version: 6.0.280 / Virus Database: 147 - Release Date: 11/09/2001

5732. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 11:03:44 UTC
From: gm7jds <gm7jds@ntlworld.com>
Message-ID: <Dp_q7.1371$Ck.311469@news6-win.server.ntlworld.com>
Source record: 50080
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

believe me,when troops from the usa start dropping like flys like the ussr troops did,the usa people may not be so keen to go to war,the usa have been there and did this sort of thing before in nam
"Alexander S. Wood" <alec_wood@ntlworld.com> wrote in message news:myqp7.21806$mj6.3871755@news6-win.server.ntlworld.com...
> Yeah let's bomb the Afghans. That'll make us all feel better and let's face
> it they can't fight back much. I seem to remember bin lid's name being
> bandied around with the bully boy's threats after the Oklahoma bombing too.
>
> Evidence would be nice. I can't believe that security agencies who didn't
> see this coming can have suddenly gather irrefutable proof about anyone.
> Then again who needs proof if you are the most powerful nation on earth.
> Just bomb some third world country and then bully everyone else into saying
> you were right with economic sanctions. As the hysteria rises we are coming
> dangerously close to a witch-hunt with all the finesse of the McCarthy
> commission's investigations.
>
> We should not let our justifiable sympathy with the Americans lead us into
> blindly supporting an unjustifiable act. Remember it was our sympathy for
> the Jews after WWII that led us into evicting the Palestinians from their
> homes to create the state of Israel that got us into this west vs Islam
> conflict to begin with. The USA and UK created this problem. Time we tried
> to sort it out with something other than superior firepower.
>
> On the up side though, a war is always good for the economy. Instability
> boosts
> arms sales. Yeah, come on, bomb someone - let's face it, anyone will do.
>
> Alec Wood M1BNK
>
>
>
>
>

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Version: 6.0.280 / Virus Database: 147 - Release Date: 11/09/2001

5733. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 11:20:31 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <3u_q7.363$5b4.57178@typhoon1.gnilink.net>
Source record: 50079

Bozidar,

How confident are you that you are not picking up harmonics of the logic section of your DDS and/or digital control system? Unless you have extremely good shielding of the logic and also very good filtering of the common power supply voltages, there is a very good possibility that some low frequency component of the fast rise-time logic signals are getting back into the mixer. The Tayloe mixer will respond to input signals at harmonics (mostly odd harmonics in this case) of anything that sneaks into the circuit. In the examples you cited, I did some quick calculations and found some common-denominator low-frequency differences between spur frequencies.

I wouldn't give up on the DDS yet. If additional power supply decoupling and waving of hands over the circuit changes the whistle intensity, then there's a good chance that it's not the DDS...yet. I agree with Dan that the DDS will never be as good as an analog oscillator, but I don't think you've banged into that wall yet.

Please keep us informed. The Tayloe mixer, along with DSP processing of the IQ audio, is great stuff. I'm watching for someone to make a complete and very inexpensive commercial transceiver about the size of a postage card that uses a laptop PC's soundcard for all the IF/audio processing as well as the control interface. I think this will revolutionize Ham radio.

Joe
W3JDR

"Bozidar Pasaric" <bpasaric@mac.com> wrote in message
news:1f03pq7.10pqbih17ettzuN%bpasaric@mac.com...
> Following the schematic and instructions in Dan Tayloe's patent
> documentation, the "Letters to the Editor" in the QEX (Dec. 2000) and
> the information I picked up in this news-group some three months ago, I
> managed to make a Tayloe receiver which works. I made it on a
> perfoboard. The multiplexer is a Fairchild FST3253 (SMD style), the
> binary counter is a Fairchild 74AC163, (in front of which I put a
> 74F00 to shape the pulses), the I and Q amplifiers are two TL071's, and
> the adding amplifier is another TL071 followed by a TL072 - which
> includes a low pass filter followed by one more amplifier. At the end
> of the chain there is an "active speaker" - a small computer amplifier
> which I regularly use instead of headphones. At the front end of the
> receiverI have put a tunable resonant circuit wound on an iron
> no-name powder core for 3,5 - 14 MHz, with a variable capacitor 500 pF
> max., so that I can tune in any of the three bands. The secondary coil
> is about Z = 50 ohms connected to the multiplexer.
>
> The VFO is a rock-stable DDS 0-60 MHz which I made about a year ago.

> At its output there is a group of tunable resonant circuits with a
> switch, which guarantee a clear output signal. It was of a great
> help to me because I did not have to bother about the VFO and its
> stability. The AF phase-shift network is the same as Phil Rice, VK3BHR,
> has described it in his article "SSB by the Fourth Method?" (Amateur
> Radio, February 1998, page 16).
>
> I did not have any real difficulties putting the receiver together,
> except some tedious work soldering the SMD-style 3253 MUX - with the
> help of a magnifying glass and a lot of patience. The binary counter
> 74AC163 does not have an up/down pin as some other binary counters do.
> However, when you wish to switch from LSB to USB, you just swap the I
> and Q leads with each other, and so change the direction of the
> rotation. It can be done with a DPDT toggle switch. The bias for the
> 3253 was provided with a 5 kohms trimmer potentiometer connected
> between the stabilized 5 V supply leads. During the test reception it
> can be positioned to the best result. Initially it is in the middle.
>
> The AF phase-shift network also works fine so I got the SSB signal
> immediatelly. The SSB is very clear. If someone needs info how to
> connect it, here it is: the filter has four inputs (1-4, take any side)
> and four outputs (5-8, the other side). Numbers 3 and 4 are grounded.
> Numbers 1 and 2 go to the I and Q channels respectively. Output numbers
> 5 and 6 are soldered together, as well as numbers 7 and 8. So you get a
> double 0 - 180 degrees output, which goes to the adding amplifier (with
> a push-pull input as I call it).
>
> I also tried to disconnect the 90 and 270 degrees capacitors C2 and C4
> after the multiplexer (for the negative half-period) and the receiver
> continued working correctly, although with some less volume.
>
>
> The receiver must have an excellent AF amplifier, because all the
> amplification is realized there. Precautions against hum must be taken;
> long ground leads pick up hum. Everything is true what Dan Tayloe told
> us about his receiver, selectivity, SSB, dynamics etc. I listen to 3.5 -
> 7 and 14 MHz bands, which means that the VFO works on 14, 28 and 56
> MHz.
>
> "But where is the "catch 22" - I used to ask myself before I built the
> receiver, because I know from experience that there is always one.
> Well, when tuning along any band you can hear whistles which are
> obviously coming from some harmonic interferences. They are generated
> inside the RX because they can also be heard with the antenna pulled
> out. It is easy to tell them from the outside signals because it
> takes one whole turn of the rotary encoder to tune the outside signal to
> zero - and only one tenth of it to tune the spurious signal to zero
> sound. The whistles are especially strong on the following VFO
> frequencies:
>

> For 3,5 MHz: 14052 - 14118 - 14320 kHz.
>
> For 7 MHz: 28039 - 28105 - 28237 - 28370 kHz.
>
> For 14 MHz, CW band only: 56036 - 56049 - 56079 - 56116 - 56136 - 56158
> - 56210 - 56316 - 56386 kHz.
>
> I felt very proud when the receiver first worked, but now I am a little
> worried because so many spurious signals spoil the pleasure of
> listening. On 3.5 and 7 MHz it could be tolerable, but not on the 14 MHz
> band. Now, can anyone explain to me the reason for so many spurious
> frequencies, and can anyone advise me what to do and how to get rid of
> them?
>
> Many thanks for any help - Bozidar, 9A2HL
>

5734. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 11:45:39 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <lspoqts2k6e4gdqklt0eui1vep4uvagtd4@4ax.com>
Source record: 50081

On Thu, 20 Sep 2001 22:47:18 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>I just read an introductory-level book on amateur radio by Harry Helms that
>says the bandwidth of a CW signal varies according to the keying speed and
>the faster you key the broader the signal bandwidth becomes.

Since there seems to be quite conflicting arguments about this in this thread, I hope I can clarify some things.

First of all, you have to be very careful how you define "bandwidth". It is quite simple to define the bandwidth for SSB and AM as it is the same resp. twice the audio baseband bandwidth. However, the situation is quite different for FM or CW.

In FM, you have theoretically an infinite number of sidebands occupying an infinite bandwidth. However, the amplitude of the higher harmonics are very weak and finally they are masked by noise. How do you define the bandwidth for such emissions ? You simply define an arbitrary level and then you just search for a offset from the carrier at which the sidebands are all below this level. For some modulation methods, this level is set at -26 dB below carrier. In amateur radio regulations the level is usually set at -40 dB (or -60 dB in some cases).

Take an ideal switch, that turns on a DC current for 100 ms and off for 100 ms (e.g. a keyer sending a string of dots at 12 WPM). This produces a square wave with a 5 Hz repetition rate. An ideal square wave consists of only odd harmonics, each having an amplitude of 1/n, where n is the harmonic number. Thus, the 999th harmonic is about 0.001 times the fundamental amplitude or -60 dB down. The 99th is at about -40 dB.

When this waveform is used to key the transmitter, it will actually amplitude modulate it, producing symmetrical sidebands on both sides of the carrier, with the strongest sidebands (fundamental) at +/-5 Hz from the carrier. At +/-500 Hz the response would be -40 dB, at +/-5 kHz -60 dB and at +/- 50 kHz at -80 dB. Thus, the key clicks of a nearby station would be heard all over the band. At larger distances these clicks would be buried in noise. By using the -40 dB point as a definition for bandwidth, the bandwidth would be 1 kHz.

Dropping the keying speed to 5 WPM, the fundamental would be at +/- 2 Hz, the -40 dB point at +/-200 Hz and the -60 dB point at+/-2 kHz. Thus, using the -40 dB definition for bandwidth, it would be 400 Hz.

To avoid this problem, some pre-modulation shaping is applied to the original square wave, i.e. the rise and fall times are stretched.

Usually 5-10 ms rise and fall times are used in amateur gear. What effect does this have on the spectrum ? The location of the sidebands are still determined by the pulse repetition frequency.

However, the amplitude is less than 1/n, especially for the higher harmonics. Thus, fewer harmonics would be above the -40 dB limit and you could say that the bandwidth has been reduced.

I just made some simulations using 12 WPM and 5 ms rise and fall times and the 7th harmonic (+/-35 Hz) was at -3 dB, the 9th (+/-45 Hz) -5 dB, the 11th (+/- 55 Hz) -9 dB below the ideal square wave. at around the 13th harmonic (+/-65 Hz i.e. 130 Hz bandwidth) the response would be about -40 dB, which is used as the definition of the bandwidth in this article.

Thus, the premodulation shaping main effect is reducing the amplitude of the sidebands above 30 Hz.

Using 5 WPM (with a 2 Hz fundamental), looking at +/- 60 Hz, we are talking about the 30th harmonics, in an ideal square wave it would be 30 dB down and assuming that the pre-modulation shaping would still attenuate it by 10 dB, thus the total response would be -40 dB down and thus, the bandwidth would be 120 Hz.

Compare this with the 130 Hz bandwidth for the 12 WPM example.

The old CCIR recommendation state that for aural CW reception, at least the 3rd harmonic of the baseband waveform is required or the 5th if there is a strong fading. Since the 5 ms rise and fall times will produce a bandwidth of 120 - 150 Hz, at 150 Hz the 5th harmonic would be at +/-75 Hz and the fundamental frequency 15 Hz, corresponding to 36 WPM.

Increasing the rise and fall times to 10 ms would limit the usable speed to 18 WPM for fading contacts and 30 WPM for non-fading contacts.

While this discussion has been about a string of dots at 5/12 WPM, this is the worst case and all other combinations in the Morse alphabet will produce lower sideband levels.

The CW bandwidth is a complex thing, first of all, you have to understand how bandwidth is defined and then note that the bandwidth depends on the keying speed, but this relationship is not linear.

Paul OH3LWR

5735. Re: Band pass filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 12:38:04 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <95voqtk2j5tk0ifgq7f125i42dl7dd8d8h@4ax.com>
Source record: 50082

On Sat, 22 Sep 2001 12:59:38 +0200, "Rune ï¿½ye" <la7tha@sensewave.com>
wrote:

>Hello
>
>Need info how to made band pass filter
>with coax ????.

Band pass filtering is not usually very efficient, but band stop
(notch) filtering has been used for decades to attenuate unwanted
frequencies. Just get a T-connector and connect a 1/4 open circuit or
1/2 short circuit cable to the side of the T-connector.

To attenuate a 100 MHz signal from your rig and assuming 0.66 coaxial
velocity factor, a 1 m long shorted coaxial cable attached to the
side of a T connector should do the job. You can tune the resonator by
putting a needle through the shield and central connector before
permanently soldering the connection at the far end.

Paul OH3LWR

5736. FS: 6U5 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 12:58:41 UTC
From: arnoldg@enitel.no
Message-ID: <3bac8a9a.12526186@news.enitel.no>
Source record: 50083

Hi,

I have some 6U5 magic eye valves in stock. They are unused and in original boxes. The label is Haltron, but I am pretty sure that they are rebranded US manufacture. The price is NOK 186.70 each and that is about US$ 21.60

Regards,

Arnold Goks&#65533;yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books and components.

5737. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 13:15:05 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BAC8ED9.AC6CE003@mwci.net>
Source record: 50084

Tom W8JI wrote:

> The bandwidth of an AM signal relates to the highest modulation
> frequency, and that relates to the SHAPE of the modulating waveform.
> Not how OFTEN the modulation occurs when it is off-and -on modulation
> like CW.

Wrong:

Imagine a continuous string of dots, each having a constant rise time and fall time of
7 milliseconds and a 50% duty cycle. As the dots per second increases the spectrum width of the signal will increase.

Reason:

The spectrum of the continuous string of dots consists of a set of discrete sidebands that are separated in frequency by the repetition rate of the dots. For example, a rate of 10 dots per second produces the first (dominant) pair of sidebands (high side and low side) that are spaced from the carrier frequency by 10 Hz. Subsequent smaller pairs are separated by 30 Hz (3 x 10).

The width of this spectrum is influenced by the 7 millisecond rise and fall times, and also by the dot rate. But if the duration of the dot is much greater that 14 milliseconds
(it almost always is) then the spectrum width is determined almost entirely by the dot rate.

The purpose of the 7 millisecond shaping is to attenuate higher-order sidebands. But if the dot rate increases too much the dot becomes "smeared" in time, which means that not enough sidebands are present. For the string of dots, the first and most important sidebands are plus and minus the dot rate (10 Hz in my example). At excessive dot rate these sidebands (and a few of the other sidebands) may be attenuated too much.

Also, the string of dots is a special kind of low-level amplitude modulation in which the power in the sidebands is derived from the keydown power. For example, 100 W continuous keydown becomes, say 80 watts in the carrier and 20 watts in the sidebands. This is different from ordinary high-level AM in which an amplitude modulator supplies the sideband power.

This analysis also applies, in a more complicated manner, to a random Morse signal. The bandwidth depends on the code speed, assuming that the dot time is much greater than 14 milliseconds. The receiver bandwidth must also be adjusted.

Further material is in chapter 17 of the 1995-2002 ARRL Handbook (written by Sabin).

Bill W0IYH

5738. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 13:33:55 UTC
From: la8ak@online.no
Message-ID: <3bac435b.516568192@news.online.no>
Source record: 50085

I wouldn't use 829B as a driver for 829B, believe the question was
about a suitable driver.....

5739. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 13:33:55 UTC
From: la8ak@online.no
Message-ID: <3bac4455.516818687@news.online.no>
Source record: 50086

On Sat, 22 Sep 2001 13:21:11 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>Provided you can maintain a constant amplitude/frequency/waveshape
>continuous wave - then simply keying on/off would create no sidebands in
>itself and bandwidth will not be directly determined by your keying speed.
>
>In contrast, it is very easy to understand and accept that the CW bandwidth
>is directly related to the degree of amplitude/frequency/waveshape variation
>at the beginning and end of the envelope (during the "rise and fall" times).
>

>
so miniimum bandwidth for 20WPM is 8.33Hz *3 *2 = 50Hz, suggesting
that the filter must pass at least 3rd harmonic of the repetive keying
frequency of a continious series of dots

Normally, tuning problems and stability of the received signal makes
the limits, I find 100Hz almost minimum in practice using DSP-9

73
Jan-Martin
LA8AK

5740. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 13:55:45 UTC
From: 2w8ji@contesting.com
Message-ID: <3bac8f2e.192215578@news.akorn.net>
Source record: 50087

On Sat, 22 Sep 2001 13:21:11 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>Tom, although I lack your technical understanding - this is intuitively what
>I felt when first reading the Harry Helm book.

Your intutition is correct. Good job! Many people miss this.

>Provided you can maintain a constant amplitude/frequency/waveshape
>continuous wave - then simply keying on/off would create no sidebands in
>itself and bandwidth will not be directly determined by your keying speed.

That is correct, because it is the rate (time) and shape (slope) of
the rise and fall of the envelope that sets the bandwidth. The
off-and-on signal is so slow, that it's harmonics are unimportant.

Let me give you an specific description.

I can turn a transmitter off and on with what is essentially a square
wave. If we looked at a frozen spectral display captured during the
rise time, it would have certain amplitude distrubution with
frequency. It wouldn't matter if we tuned that signal off-and-on a
million times in a day, or only once a day, the spectrum would be the
same as long as the rise was fast enough to allow a full turn-on
period.

Now the steady-state level has NO bandwidth. It is "DC" modulation. So
once again, how OFTEN we make it appear and disappear doesn't matter.

The fall tme is identical to rise time. It generates sidebands. The
LEVEL of the sidebands are controlled by the delta in voltage, while
the frequency distribution is controlled by the rate of the slope at
any period of the changing level.

Very plainly, when we put this all together, we have a "click" that
extends up and down in frequency that is controlled ONLY by the rise
and fall times and not affected by the keying rate as long as the rate
is possible to achieve.

Where people screw this up, is they assume we have an unfiltered
transmitter with infinite bandwidth capability, that simply allows a
fast steady off-and-on modulation out. In that case a higher
modulating frequency does affect the level of signal off frequency,
and the lowest sideband will be the basic modulating frequency.

What most people forget is that CW is a rise (that IS the modulation),
a period of NO modulation (that is the "key down") and another short
period of modulation in the fall time followed by another period of NO
modulation when the key is up.

The modulating frequency is the RISE and FALL period, NOT how fast you are moving the key! You can move the key one WPM, or 100 WPM, and bandwidth is the same. Only the rate of clicks will change.

Someone else said or implied we can't filter the bandwidth, but that is clearly wrong. The type of filter we use can be applied before the stage is modulated, or it can be in the RF system after modulation. If I use a single R/C filter (a single pole filter) we will have one slope of attenuation of sidebands as we move off frequency. This is the waveform the ARRL shows as an "ideal" waveform...but it is NOT. It was ideal perhaps when we had grid-blocked keying and only wanted to use one resistor and one capacitor to shape the modulation.

The ideal filter would be a multiple pole filter with minimum group delay error with frequency, and a steep rolloff. The result would be a sine-shaped modulation rise and fall that would start at the bottom crest, turn slowly upwards and roll over at the top without overshoot or any abrupt changes in dV/dT at any point in the waveform. We could do that with a multipole op-amp filter having Q=1 in each filter section.

This assumes the modulation is applied in a linear fashon.

Now the time of that slope would set the maximum possible keying rate, but the BANDWIDTH of the signal would be the same no matter how fast we keyed it. The bandwidth, whether we send .001 WPM or 100 wpm is exactly the same, because the modulation frequecy is the RISE and FALL times....not the keying rate. The clicks happen more often or less often with speed, but the bandwidth and peak level of clicks in a given frequency range is set by the shape and duration of the MODULATION, which is only during the rise and fall times.

The interesting thing is apparently most radio manufacturers have no idea how this works, or don't care. We have horrid 1mS and faster rise and fall times on popular rigs, and abrupt changes in slope during the short periods of modulation (the rise or the fall).

If you look at keyclicks on www.w8ji.com, you will see the changes I made in an FT1000D and FT1000MP with changes in the slope and duration of the rise and fall. On a spectrum analyzer, it makes absolutely no difference if I key the rigs at 50 WPM or 5 WPM, the nadwidth is indentical.

I hope this helps. I sure hate to see so many wrong descriptions of a simple process!!

73 Tom

5741. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:04:44 UTC
From: 2w8ji@contesting.com
Message-ID: <3bac988f.194616668@news.akorn.net>
Source record: 50088

On Sat, 22 Sep 2001 14:45:39 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>The CW bandwidth is a complex thing, first of all, you have to
>understand how bandwidth is defined and then note that the bandwidth
>depends on the keying speed, but this relationship is not linear.
>
>Paul OH3LWR

Very good Paul!

Perhaps you can visit the big amateur manufacturers and show them how to build rigs that do not click for 5kHz (whether sending at one or one hundred WPM) .

Because the keying speeds are at Hz, and the filters we listen with are in hundreds of hertz of bandwidth, we care less if the little sidebands move around from keying speed. We certainly do care if the sidebands extend far beyond the bandwidth of the narrowest filters we are typically using!!

The real modulation frequency we are concerned with are rise and fall periods, not how often they randomly average a certain repetition.

73 Tom

5742. Amplifier fan source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:12:30 UTC
From: Harris H Leck <leckfam@attglobal.net>
Message-ID: <pZ0r7.26942$c5.201444@newsfeeds.bigpond.com>
Source record: 50089

Any suggestions where to buy a blower fan for a legal limit amp (ceramic tubes)?
Harris

5743. Re: Flashover in amplifier.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:13:21 UTC
From: 2w8ji@contesting.com
Message-ID: <3bac9a79.195106224@news.akorn.net>
Source record: 50090

On Sat, 22 Sep 2001 12:55:31 +0200, "Rune ye" <la7tha@sensewave.com>
wrote:

>Hello
>
>I have a Amplifier made up with the tube 4cx800.
>I have problems with flashover in Plate capacitor, this only happen
>on 14 Mhz.
>Typical happen when the power increase to about 600 - 700 watt.
>This newer happen on the other band eaven with 1 kilo Watt
>Plate space is aprox 3 mm.
>Someone have any idea.

Hi Rune,

There can be a few causes, but they all relate to the peak voltage
exceeding the voltage braekdown of the capacitor.

Common problems are:

1.) Improper loading, with too much capacitance on the loading
capacitor for the peak power.

2.) Poor relay timing. The input relay is closed when the output relay
contacts are not closed or are bouncing.

3.) An arc or momentary open or short in the antenna or feedline
system, such as in a lightning arrestor (very common) or loose
connection.

4.) An exciter transient. many exciters spike on power. Are you
running your exciter near the full power (that is best), or do you
have it turned down? (That is bad, if you are running the exciter at
low power you probably need to attenuate the drive some other way).

5.) A brief oscillation AT or NEAR the resonant frequency of the tank
circuit. (Not at VHF, as some people wrongly assume).

I assume you looked at the air variable and the plates are aligned
properly, and there are

5744. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:19:01 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BAC9DD3.537F15FC@att.net>
Source record: 50091

If I recall correctly - I'm digging back to 1948-49! - the USAF ARC-3 VHF aircraft radio system used an 832 final amp driven by another 832. The 832 is/was the little brother of the 829B. So, maybe for certain power levels, etc. an 829 driving an 829 might not be an impossible combination . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

J M Noeding wrote:
>
> I wouldn't use 829B as a driver for 829B, believe the question was
> about a suitable driver.....

--

5745. Re: Flashover in amplifier.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:22:44 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BAC9EB3.450B453@att.net>
Source record: 50092

Improper L/C ratio? Parasitic oscillation? Tank circuit Q improper when loaded? (Similar to the first one).

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Rune ï¿½ye" wrote:
>
> Hello
>
> I have a Amplifier made up with the tube 4cx800.
> I have problems with flashover in Plate capacitor, this only happen
> on 14 Mhz.
> Typical happen when the power increase to about 600 - 700 watt.
> This newer happen on the other band eaven with 1 kilo Watt
> Plate space is aprox 3 mm.
> Someone have any idea.
>
> 73 de Rune LA7THA

5746. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 14:51:18 UTC
From: bpasaric@mac.com
Message-ID: <1f05a9p.btxljmb3jo1sN%bpasaric@mac.com>
Source record: 50093

Dan Tayloe <lacelady@home.com> wrote:

> The easy answer is to not use a DDS! The detector works fine with
> either a normal VFO or a VFO that has been mixed to a higher frequency
> using a crystal osc with no birdies.

Dear Dan,

Thank you for your prompt answer. Yes, you are right - it was the DDS.
As soon as I used an LC oscillator (ignoring its stability), all the
birdies disappeared, and the reception was clear. Now I feel much
better. Thank you!
Best wishes, Bozidar, 9A2HL

5747. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 17:03:20 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9oiggd$5tb$1@uranium.btinternet.com>
Source record: 50094
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

```
>done a crime not just
>against the usa but the whole of the free world
======================
What's the 'free world' ?

Have you been reading the newspapers and listening to the BBC again
?
```

5748. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 17:12:41 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BACC4C7.AA3AE794@ieee.org>
Source record: 50095

"George, W5YR" wrote:

> If I recall correctly - I'm digging back to 1948-49! - the USAF ARC-3 VHF
> aircraft radio system used an 832 final amp driven by another 832. The 832
> is/was the little brother of the 829B. So, maybe for certain power levels,
> etc. an 829 driving an 829 might not be an impossible combination . . .
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
> J M Noeding wrote:
> >
> > I wouldn't use 829B as a driver for 829B, believe the question was
> > about a suitable driver.....
>

I didn't mean to suggest that anyone should use a 829 as a driver but just
wanted
to point out that I have a few spare 829s available. I have even more 832
tubes if any
one wants a couple. Hate to just put them in the trash but can't imagine
anyone
using a 832 now days.

Bill K7NOM

5749. Modifying CB Amps for 80-10m Use?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 17:12:57 UTC
From: kd4e@arrl.net
Message-ID: <161b5910.0109220912.3c1e30f0@posting.google.com>
Source record: 50096

Anyone have guidance for modifying a Messenger M4V or Super Star 200
CB (10 meter, yeah right) amplifier for 80-10m use?

I have a FT-817 and it needs some help when conditions are right or
when
mobile on an inefficient antenna. These amps are designed for low
drive.

I saw a couple of reasonably priced amps at a recent Ham flea and
thought
they might be the answer within my budget. The Messenger M4V was $75.
asking, the Super Star 200 $125. asking but I'd guess will sell for
$75. or so.

I am aware that I will need to add a switched filter system to the
output and
that the input on 80 and 40 will probably require a 18 ohm input
resistor to
raise the impedance.

Thanks! & 73, Doc KD4E

5750. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 17:26:33 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001179593@msauve>
Source record: 49947

On Sat, 22 Sep 2001 13:55:45 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

> The modulating frequency is the RISE and FALL period, NOT how fast you
> are moving the key! You can move the key one WPM, or 100 WPM, and
> bandwidth is the same. Only the rate of clicks will change.

That is simply not true. If you key on/off at a rate of x/second, then a spectral component of x hz will appear in the output. That
component is independent of rise/fall times or shapes. Go back to your DC example and think it through again; you will have
the spectral components of the key clicks, as you say, which are independent of they keying speed. You will also have a
spectral component equal to the keying rate, which is independent of the key clicks.

5751. Wanted: One MC14561BCP IC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 17:52:31 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3BACCFDE.86AD82F4@ix.netcom.com>
Source record: 49948

I desperately need one of the above obsolete Motorola C-Mos ICs to fix a "bargain" receiver..... All the sources that I have been able to find on the internet have a minimum order of $50 to $100. While I would be happy to pay maybe $10 for what was originally a 50 cent item, $50 is a bit much. Does anyone have one lying around that they would part with for a reasonable sum?

73 all,
Dan ac6ao g3ncr

5752. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 19:54:45 UTC
From: CJ <cjr@visi.com>
Message-ID: <3BACEC85.17C56478@visi.com>
Source record: 49949

"George, W5YR" wrote:
>
> If I recall correctly - I'm digging back to 1948-49! - the USAF ARC-3 VHF
> aircraft radio system used an 832 final amp driven by another 832. The 832
> is/was the little brother of the 829B. So, maybe for certain power levels,
> etc. an 829 driving an 829 might not be an impossible combination . . .
>

The first 832 in the ARC-5 was a tripler.

73, CJ K0CJ

5753. Another Transmission Line Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 20:29:34 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9oisj0$74j$1@uranium.btinternet.com>
Source record: 49950

LATE NEWS EXTRA

22nd September, 2001

NOW AVAILABLE, Program "MATCHSEC.exe

Design of impedance matching transformers formed by inserting in an
antenna feedline a short length of line of different impedance.
Lines may be either coaxial or balanced-pair. Inner and outer
coaxial conductor diameters are computed for given Zo. Also
conductor spacing computed for balanced-pair line construction.

Download *MATCHSEC* in a few seconds from website below. One small
file only. Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
Free Radio Design Software
http://www.g4fgq.com

****

5754. Need info on Permakay Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 21:17:51 UTC
From: "Bob G. Mahrenholz" <bobm@edge.net>
Message-ID: <3BACFFFF.FC49288B@edge.net>
Source record: 49951

Hi:
I picked up an assortment of Motorola Permakay filters at a Hamfest and would like to use one in a receiver I am building (I want the wide bandwidth they have). Does anyone have any information on the different models? Like what kind of circuit drives them and what kind of circuit do they work into? What different bandwidths do they have? Shape factor? DB loss? Input and output impedances? Spurious responses? Etc. I have both old and newer models.

Thanks for any info.

Bob mahrenholz
K4QQK
bobm@edge.net

5755. oscillator help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 21:22:07 UTC
From: console34@hotmail.com
Message-ID: <871dc9cf.0109221322.211f93e@posting.google.com>
Source record: 49952

i am working on a project and i need to locate the following.

10.71mhz
14.28mhz
21.43mhz
42.85mhz crystal oscillators (2 pin can type)

i want to find somwhere in the uk i can get at least 1 of each...
maplins never seem to stock anything anymore...

regards

console

5756. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 22:56:14 UTC
From: la8ak@online.no
Message-ID: <3bace777.558586816@news.online.no>
Source record: 49953

On Sat, 22 Sep 2001 17:12:41 GMT, Bill Janssen <billj@ieee.org> wrote:

>"George, W5YR" wrote:
>
>> If I recall correctly - I'm digging back to 1948-49! - the USAF ARC-3 VHF
>> aircraft radio system used an 832 final amp driven by another 832. The 832
>> is/was the little brother of the 829B. So, maybe for certain power levels,
>> etc. an 829 driving an 829 might not be an impossible combination . . .
>>
>> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
>> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
>> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
>> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>>

have seen a lot of strange practises later than this, but as already
mentioned, when you need only one watt drive it is no good idea to use
a 832A, 6252 or 6360.

6AK5 and 6BX6 are still more than satisfactory

73
Jan-Martin

NRRL member since 1960, RSGB since 1974.
LA8AK in 1966, G5BFV/GW5BFV in 1973

5757. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 22:56:14 UTC
From: la8ak@online.no
Message-ID: <3bacea62.559334097@news.online.no>
Source record: 49954

On Sat, 22 Sep 2001 14:04:44 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>On Sat, 22 Sep 2001 14:45:39 +0300, Paul Keinanen <keinanen@sci.fi>
>wrote:
>
>>The CW bandwidth is a complex thing, first of all, you have to
>>understand how bandwidth is defined and then note that the bandwidth
>>depends on the keying speed, but this relationship is not linear.
>>
>>Paul OH3LWR
>
>Very good Paul!
>
>Perhaps you can visit the big amateur manufacturers and show them how
>to build rigs that do not click for 5kHz (whether sending at one or
>one hundred WPM) .
>
>73 Tom

you can start reading my notes, see QST Technical Correspondence:
January 1982 p.46

Noeding "Active Key Click Filter"

73
Jan-Martin
LA8AK

5758. Re: need help building high-pass filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 23:12:11 UTC
From: Steve Ratzlaff <sratzlaf@prodigy.net>
Message-ID: <fV8r7.43721$Z9.2411317264@newssvr15.news.prodigy.com>
Source record: 49955

Hi,
Here's a web-based filter design program that's easy to use, and will design a filter for your needs.
http://www.wa4dsy.net/filter/hp_lp_filter.html
Normally you'd use a 0.1dB ripple Chebyshev filter. Buttorworth won't give a steep-enough attenuation; elliptic designs require tuning the null elements. Chebyshev filters, at BCB frequencies, you can simply solder the components in and use the filter; no tweaking required, generally. You usually want low ripple, plus a 0.1dB design doesn't require high-Q inductors, like higher-ripple designs do. Use Amidon iron-powder toroids for the inductors. Use mica capacitors, NPO disk ceramics, or other high-quality capacitors. A 7 or 9-element filter should be sufficient. You'll need some way of measuring inductance, and probably capacitance, to make a homebrew filter. Build it on a scrap piece of PC board. For a highpass filter, use the inductors as tiepoints for the capacitors, since one end of each inductor goes to ground/common. Use the highest frequency you can for the cutoff frequency, e.g. if your interests are above 3MHz, use 2.5 or 3MHz as the filter cutoff frequency. That will give the most attenuation for BCB frequencies.
Enclose in a well-shielded box; a diecast box is ideal. You could use common F connectors on the enclosure and for the coax cable. There's no reason to design the filter for 75 ohms, even if you use 75 ohm cable, but it won't hurt, either. Most filters are designed for 50 ohms. For receiving applications below 30 MHz, there's absolutely no difference in using 50 ohm or 75 ohm cable. 50 ohm is the industry-standard for most everything except CATV and video. Your radio has a nominal 50 ohm external antenna impedance.
Email me off-list if you have any other questions. I've been building filters for many years both for hobby and for work.
Any ARRL Handbook in the past 10 years or so has tables for scaling filter designs using Standard Value Capacitors for any frequency you'd like. That eases the capacitor selection since you can just use standard capacitor values rather than paralleling several caps to get a non-standard value, such as the above filter design program uses. I make my filters with exact-value designs since I can measure both caps and inductors. Performance is better with exact-value designs, too.
Steve sratzlaf@flash.net
Palo Alto, CA

"Muuga" <tidalforce@hotmail.com> wrote in message
news:rKSq7.10653$2H2.854070@e3500-atl1.usenetserver.com...
> Hi, Im a swl
> and I want to build as high-pass filter for my shortwave receiver (DX-398)
> I have it fed witha 75ohm coax .
> I want to suppress strong MW stations that create intermod on the

> shortwave bands(especially around 2-3 mhz)
>
> So I would like to build a filter that would attenuate the frequencies
below
> 1.7 Mhz
> have a input and output 75 ohms
>
> I think I should build a chebyshev , but I dont understand what passband
> ripple is. and how it affects the filter performance.
> I also see a butterworth and elliptic filters,maybe I should take a look
at
> those. I need some guidance!
>
> Thanks
>
>
>

5759. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-22 23:48:53 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <Fr9r7.30235$z7.7025181@news02.optonline.net>
Source record: 49956

Hi,

One way to get rid of the DDS spurs is to only use outputs that "fit" inside the range of your output DAC. In other words if you have a 14 bit dac and a 32 bit DDS use outputs that are at clock/N where the 32-14 = 18 lsb's of N are all zero. Unfortunately this restricts you to fairly large steps on your DDS. Something like 1800 hertz or so at 14 MHz. That kind of makes it a hard technique to use for receivers.

You can fiddle around with sub hertz steps and at least spread out the energy a little but the only real major reduction is when you hit an output that is a DAC sized number.

The other way to do it is to clean up the DDS by phase locking a VCO or VCXO to it's output. You can also buy modules that will do that for you.

Enjoy!

Bob Camp
KB8TQ

Truth in advertising note - yes we do make the clean up modules ....

"Dan Tayloe" <lacelady@home.com> wrote in message
news:3BAC02B7.694B07BE@home.com...
> The easy answer is to not use a DDS! The detector works fine with
> either a normal VFO or a VFO that has been mixed to a higher
frequency
> using a crystal osc with no birdies. The nice thing is that many of
the
> ham bands are harmonically related by a power of two, making
frequency
> generation of the lower bands from a higher band relatively easy.
>
> DDSs are kind of dirty as they are really designed for transmitters
> (certainly clean enough for that) or for cellular phone reception
for
> signals of with limited dynamic range (such as a cellular
basestation
> using power control of all the phones in its area).
>
> I used a pair of AD9851s in quadrature lock to drive one of my
receivers
> and have heard the same you have. The birdies I was getting seemed
to

> occur at regular intervals and were extremely narrow. It lead me to
> believe that I could use a processor and "skip over" the birdies
using
> frequency "jumps" of much less than 1 Hz.
>
> You could give that a try, but the use of a DDS with numerous in
band
> spurs as high as 80 db down will limit the performance of the
receiver.
> However, a DDS is a nice way to try things out and see how they
work. I
> usually use an HP8640/323 signal generator to tune my receivers
until I
> get everything else ironed out and save the VFO part for last.
>
> - Dan, N7VE

5760. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 00:40:24 UTC
From: 2w8ji@contesting.com
Message-ID: <3bad2dfc.232875793@news.akorn.net>
Source record: 49957

On Sat, 22 Sep 2001 17:26:33 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>On Sat, 22 Sep 2001 13:55:45 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
>
>> The modulating frequency is the RISE and FALL period, NOT how fast you
>> are moving the key! You can move the key one WPM, or 100 WPM, and
>> bandwidth is the same. Only the rate of clicks will change.
>
>That is simply not true. If you key on/off at a rate of x/second, then a spectral
component of x hz will appear in the output. That
>component is independent of rise/fall times or shapes. Go back to your DC example and
think it through again; you will have
>the spectral components of the key clicks, as you say, which are independent of they
keying speed. You will also have a
>spectral component equal to the keying rate, which is independent of the key clicks.

Sorry, but that is true. The off-and-on frequency is slow compared to
the rise and fall times. So while that component does appear, it does
not affect the overall bandwidth.

As the clicks appear more frequently with higher speeds, the
time-averaged amplitude can increase but actual bandwidth is set by
the shape and rate of the rise and fall...since that is the ONLY time
the carrier is changing level.

Since QRM is a sort term affect, we will have QRM the same distance
from an unfiltered or improperly filtered waveshape regardless of
speed.

73 Tom

5761. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 00:48:21 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <pjar7.6480$3d2.539843@bgtnsc06-news.ops.worldnet.att.net>
Source record: 49958

I've been using that AD9851 for a few years, and have noticed that it is not the cleanest LO around. I found that by placing a 4.7uF tantalum cap right at the PLL Vcc pin, many of those spurs are reduced quite a bit. Still, the spurs don't seem to get lower than -80dBc, with some of those in-band ones at -54dBc. I get around this problem by using 1KHz tuning steps, and having variable BFO injection into the Product Detector.

Pete KE9OA

W3JDR <j.r@usa.com> wrote in message
news:3u_q7.363$5b4.57178@typhoon1.gnilink.net...
> Bozidar,
>
> How confident are you that you are not picking up harmonics of the logic
> section of your DDS and/or digital control system? Unless you have
extremely
> good shielding of the logic and also very good filtering of the common
power
> supply voltages, there is a very good possibility that some low frequency
> component of the fast rise-time logic signals are getting back into the
> mixer. The Tayloe mixer will respond to input signals at harmonics (mostly
> odd harmonics in this case) of anything that sneaks into the circuit. In
the
> examples you cited, I did some quick calculations and found some
> common-denominator low-frequency differences between spur frequencies.
>
> I wouldn't give up on the DDS yet. If additional power supply decoupling
and
> waving of hands over the circuit changes the whistle intensity, then
there's
> a good chance that it's not the DDS...yet. I agree with Dan that the DDS
> will never be as good as an analog oscillator, but I don't think you've
> banged into that wall yet.
>
> Please keep us informed. The Tayloe mixer, along with DSP processing of
the
> IQ audio, is great stuff. I'm watching for someone to make a complete and
> very inexpensive commercial transceiver about the size of a postage card
> that uses a laptop PC's soundcard for all the IF/audio processing as well
as
> the control interface. I think this will revolutionize Ham radio.
>
> Joe
> W3JDR
>

>
>
> "Bozidar Pasaric" <bpasaric@mac.com> wrote in message
> news:1f03pq7.10pqbih17ettzuN%bpasaric@mac.com...
> > Following the schematic and instructions in Dan Tayloe's patent
> > documentation, the "Letters to the Editor" in the QEX (Dec. 2000) and
> > the information I picked up in this news-group some three months ago, I
> > managed to make a Tayloe receiver which works. I made it on a
> > perfoboard. The multiplexer is a Fairchild FST3253 (SMD style), the
> > binary counter is a Fairchild 74AC163, (in front of which I put a
> > 74F00 to shape the pulses), the I and Q amplifiers are two TL071's, and
> > the adding amplifier is another TL071 followed by a TL072 - which
> > includes a low pass filter followed by one more amplifier. At the end
> > of the chain there is an "active speaker" - a small computer amplifier
> > which I regularly use instead of headphones. At the front end of the
> > receiverI have put a tunable resonant circuit wound on an iron
> > no-name powder core for 3,5 - 14 MHz, with a variable capacitor 500 pF
> > max., so that I can tune in any of the three bands. The secondary coil
> > is about Z = 50 ohms connected to the multiplexer.
> >
> > The VFO is a rock-stable DDS 0-60 MHz which I made about a year ago.
> > At its output there is a group of tunable resonant circuits with a
> > switch, which guarantee a clear output signal. It was of a great
> > help to me because I did not have to bother about the VFO and its
> > stability. The AF phase-shift network is the same as Phil Rice, VK3BHR,
> > has described it in his article "SSB by the Fourth Method?" (Amateur
> > Radio, February 1998, page 16).
> >
> > I did not have any real difficulties putting the receiver together,
> > except some tedious work soldering the SMD-style 3253 MUX - with the
> > help of a magnifying glass and a lot of patience. The binary counter
> > 74AC163 does not have an up/down pin as some other binary counters do.
> > However, when you wish to switch from LSB to USB, you just swap the I
> > and Q leads with each other, and so change the direction of the
> > rotation. It can be done with a DPDT toggle switch. The bias for the
> > 3253 was provided with a 5 kohms trimmer potentiometer connected
> > between the stabilized 5 V supply leads. During the test reception it
> > can be positioned to the best result. Initially it is in the middle.
> >
> > The AF phase-shift network also works fine so I got the SSB signal
> > immediatelly. The SSB is very clear. If someone needs info how to
> > connect it, here it is: the filter has four inputs (1-4, take any side)
> > and four outputs (5-8, the other side). Numbers 3 and 4 are grounded.
> > Numbers 1 and 2 go to the I and Q channels respectively. Output numbers
> > 5 and 6 are soldered together, as well as numbers 7 and 8. So you get a
> > double 0 - 180 degrees output, which goes to the adding amplifier (with
> > a push-pull input as I call it).
> >
> > I also tried to disconnect the 90 and 270 degrees capacitors C2 and C4
> > after the multiplexer (for the negative half-period) and the receiver

> > continued working correctly, although with some less volume.
> >
> >
> > The receiver must have an excellent AF amplifier, because all the
> > amplification is realized there. Precautions against hum must be taken;
> > long ground leads pick up hum. Everything is true what Dan Tayloe told
> > us about his receiver, selectivity, SSB, dynamics etc. I listen to 3.5 -
> > 7 and 14 MHz bands, which means that the VFO works on 14, 28 and 56
> > MHz.
> >
> > "But where is the "catch 22" - I used to ask myself before I built the
> > receiver, because I know from experience that there is always one.
> > Well, when tuning along any band you can hear whistles which are
> > obviously coming from some harmonic interferences. They are generated
> > inside the RX because they can also be heard with the antenna pulled
> > out. It is easy to tell them from the outside signals because it
> > takes one whole turn of the rotary encoder to tune the outside signal to
> > zero - and only one tenth of it to tune the spurious signal to zero
> > sound. The whistles are especially strong on the following VFO
> > frequencies:
> >
> > For 3,5 MHz: 14052 - 14118 - 14320 kHz.
> >
> > For 7 MHz: 28039 - 28105 - 28237 - 28370 kHz.
> >
> > For 14 MHz, CW band only: 56036 - 56049 - 56079 - 56116 - 56136 - 56158
> > - 56210 - 56316 - 56386 kHz.
> >
> > I felt very proud when the receiver first worked, but now I am a little
> > worried because so many spurious signals spoil the pleasure of
> > listening. On 3.5 and 7 MHz it could be tolerable, but not on the 14 MHz
> > band. Now, can anyone explain to me the reason for so many spurious
> > frequencies, and can anyone advise me what to do and how to get rid of
> > them?
> >
> > Many thanks for any help - Bozidar, 9A2HL
> >
>
>

5762. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 01:23:38 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ptcqqt4a252dm2fcbqd3hoivkj03eq1v6s@4ax.com>
Source record: 49959

On Sun, 23 Sep 2001 00:40:24 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>Since QRM is a sort term affect, we will have QRM the same distance
>from an unfiltered or improperly filtered waveshape regardless of
>speed.

This is simply not true, please read my previous posting more
carefully, in which I stated

1) The _location_ (frequency) of the sidebands depends of the keying
rate
2) The _amplitude_ of these sidebands depends of the wave shape
3) The bandwidth depends of the reference level used.

Using an unfiltered string of dots at 24 WPM will produce harmonics
for every 10 Hz offset from the carrier, of which the odd harmonics
are of any significance. At an offset of 10 kHz, we are talking about
the 1000th harmonics, which is about -60 dB down.

At 5 WPM, the fundamental is at 2 Hz, thus at 10 kHz, we are talking
about the 5000th harmonics, which is -74 dB down from the carrier.

The premodulation shaping will reduce these levels even further, but
since the 5 WPM started at 14 dB lower levels, the difference in
sideband amplitudes still remains after filtering. Using a fixed
reference level for bandwidth, the slow CW will have a slightly
narrower bandwidth. However, the difference in bandwidth is much
smaller than the ratio between the keying rates.

Paul OH3LWR

5763. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 01:30:32 UTC
From: 2w8ji@contesting.com
Message-ID: <3bad352a.234713908@news.akorn.net>
Source record: 49960

On Sat, 22 Sep 2001 08:15:05 -0500, "William E. Sabin"
<sabinw@mwci.net> wrote:

>The purpose of the 7 millisecond shaping is to attenuate higher-order
>sidebands. But if the dot rate increases too much the dot becomes "smeared" in
>time, which means that not enough sidebands are present. For the string of
>dots, the first and most important sidebands are plus and minus the dot rate
>(10 Hz in my example). At excessive dot rate these sidebands (and a few of the
>other sidebands) may be attenuated too much.

That is correct. We need to set the rise and fall to accomodate the
fastest speed, and the worse conditions of fading.

But where we disagree is in the rate of CW affecting bandwidth once
the rise and fall and the shape of the rise and fall are set.

In that case, as I clearly pointed out, only the POWER in the
sidebands changes. The bandwidth does not.

>Further material is in chapter 17 of the 1995-2002 ARRL Handbook (written by
>Sabin).
>
>Bill W0IYH

Quoting yourself as a reference does not mean much, because I would
hope you already agree with yourself.

Reference Data for Radio Engineers in the section on radio noise and
interference describes adjacent channel interference problems with CW.

The Sixth edition on page 29-10 and 29-11 clearly shows that bandwidth
of each dot (or dash) is set only by the rise and fall shape and
duration. This bandwidth (where our ears would perceive a "click") is
always much wider than the sidebands of the actual keying speed.

It is also constant, so the click extends out in bandwidth exactly the
same distance each side of the carrier if you send one dot a year or
one dot a millisecond, assuming the dots (or dashes) are longer than
the rise and fall times.

The only thing that changes with dot speed is the power in that
bandwidth.

I certainly agree that if you send 60 wpm the clicks are more
disruptive than if you send at 1 WPM (because average power is
higher), but as far as how far off frequency the sidebands
extend...that is controilled only by the slope and time of the rise
and fall.

I can clearly see this on a spectrum analyzer using say a 100 sweep average of peaks. The bandwidth trace remains exactly the same no matter what dot speed I run, as long as the dots are longer than the rise and fall times.

I know that because I just did this test on several rigs as I looked at waveshape.

Perhaps Reference Data for Radio Engineers is wrong, and my spectrum analyzer is broken. I'll check on both and let you know.

73 Tom

5764. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 01:40:19 UTC
From: 2w8ji@contesting.com
Message-ID: <3bad3b3b.236266493@news.akorn.net>
Source record: 49961

On Sat, 22 Sep 2001 22:56:14 GMT, la8ak@online.no (J M Noeding) wrote:

>
>you can start reading my notes, see QST Technical Correspondence:
>January 1982 p.46
>
> Noeding "Active Key Click Filter"
>
>73
>Jan-Martin
>LA8AK

Too bad they do not include that in Handbooks Jan.

Keyclicks are becoming a major problem now. I hope the ARRL starts to measure the spectrum of CW transmitters instead of the almost useless pictures of the envelope.

I was experimenting with a raised sine waveform filter all in one chip, but unfortunately it does not go low enough in frequency to be useful for CW (and has too much ripple on the output).

I wound up using a quad op-amp with Q=1 lowpass filters set for 150 Hz driving a PIN diode modulator. I'll use that in my homebrew rig, rather than the terrible shape of a simple R/C filter.

My other choice was to use a CW filter in the transmitter IF after the keying, and linear stages after the filter.

73 Tom

5765. Re: Flashover in amplifier.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 01:44:22 UTC
From: 2w8ji@contesting.com
Message-ID: <3bad3d7c.236843958@news.akorn.net>
Source record: 49962

On Sat, 22 Sep 2001 14:22:44 GMT, "George, W5YR" <w5yr@att.net> wrote:

>Improper L/C ratio? Parasitic oscillation? Tank circuit Q improper when
>loaded? (Similar to the first one).

Improper L/C ratio can not cause it, unless the tank is underloaded
allowing the tube to "ring" the tank which can cause peak tank voltage
to exceed twice the dc supply rail by quite a margin.

Parasitics near or below the actual operating frequency can cause it,
but they are probably very rare and he would be getting other
complaints...hi hi.

73 Tom

5766. Re: Modifying CB Amps for 80-10m Use?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 01:52:20 UTC
From: 2w8ji@contesting.com
Message-ID: <3bad3e76.237094398@news.akorn.net>
Source record: 49963

On 22 Sep 2001 10:12:57 -0700, kd4e@arrl.net (Doc) wrote:

>Anyone have guidance for modifying a Messenger M4V or Super Star 200
>CB (10 meter, yeah right) amplifier for 80-10m use?
>
>I have a FT-817 and it needs some help when conditions are right or
>when
>mobile on an inefficient antenna. These amps are designed for low
>drive.

These amplifiers are very poorly designed. They not only lack proper harmonic filters, they are actually class C.

I measured a "Super Star" for a ham, and it was about -18dB 3rd order IMD with significant level on products extending out to the 15th order product. That would make you the undesired center of attention on any low background noise band when your signal levels are reasonably strong.

You would have to bias them into conduction with a stiff stable bias source, as well as fix some impedance issues in the transformers and add filters.

Best to stay away from non-type accepted "stuff" built for CBers.

73 Tom

5767. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 02:32:37 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BAD49C5.BA833A38@mwci.net>
Source record: 49964

Tom W8JI wrote:

> In that case, as I clearly pointed out, only the POWER in the
> sidebands changes. The bandwidth does not.

You are wrong about that. Any CW operator knows that fast code requires more bandwidth and that very slow CW uses very narrow bandwidth for micropower communication. Anyone who understands signal processing mathematics also knows it. I understand signal processing mathenmatics and I know it.

> >Further material is in chapter 17 of the 1995-2002 ARRL Handbook (written by
> >Sabin).
> >
> >Bill W0IYH
>
> Quoting yourself as a reference does not mean much, because I would
> hope you already agree with yourself.

And that remark you can blow out your you-know-what.

Bill W0IYH

5768. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 02:36:30 UTC
From: John Moriarity <k6qq@hdo.net>
Message-ID: <tqqil9iuc9oga6@corp.supernews.com>
Source record: 49965

I think that two things are being argued here.

Tom says that the *transmitted* bandwidth
is invarient. In a certain sense, that is true.

The original question (I believe) was what
minimum bandwidth would be required to
successfully receive a given cw speed.

My 51 years as a ham (and 38 years as an
EE) have convinced me that you need a
wider bandwidth to copy 50 WPM than
1 WPM. I may be wrong, but I don't think so.

Nonetheless, it is comforting to have someone
so confidently omniscient in our newsgroup.

73,

John, K6QQ

5769. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 04:20:58 UTC
From: David N7VRZ <n7vrz@home.com>
Message-ID: <Kqdr7.28560$QK.23081842@news1.sttln1.wa.home.com>
Source record: 49966
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

And if you had bothered to take a good look at the screen you would have seen the words "File Footage" that was only on the screen for the shortest time. Which means that the scene being shown was from a previous time and then shown now. They also did not state from where the footage came. Nor will they.
I will not be led down the rosy path by all the sensationalism put out by the networks. After the attack was news then ratings needed to be propped up. So the sensationalism started.
Is Usama Bin Laden the culprit? Maybe, maybe not. I do not want to see anyone attacked until some proof is presented that the correct person/group/country is, indeed, the culprit.
Am I a sympathizer? For the unfortunates that were involved, yes! For those that carried out these outrageous deeds? Not by a damn sight!
And as for G. W. Bush saying he wants Usama Bin Laden 'dead or alive', I ask that he modify his statement to be 'wanted dead or alive when we have proof to his involvment'.
I did not spend 20 years in the military to see this country rush headlong into a conflict with just anyone. Show me some evidence. I have some very specific things I would like to see done to the perpetrators and none of them involve death. (At least not a very fast one!)
And this nitpicking we are doing between each other! Trying to out do each other? Show how much worse "ours" was? Whether 5000+ were killed or zero were killed, terrorism is something that cannot be allowed anymore! We, as a population of the entire world, need to stand up and stop the insanity that has been created, not just by one group or the other but by most of us. They were attempts to help (in most cases) and it turned around and bit us on our collective asses. The US, GB, France, USSR, etc. We have all done wrong with the world. Go ahead and point fingers at each other, just don't forget to point one at yourself.
Time that we all try to understand each other and quit the bickering and finger pointing. Learn what we each need to do to try and get along with each other.
I do know about Omagh, County Londonderry, Northern Ireland. The loss of many lives, including, sadly, children. Just as there was in Oklahoma and in New York. These are only a very minute sampling of the many sad moments in the last several years. You could include Paris, Manilla, Mexico City, Tokyo, and many, many more.
I will stop now. I have made myself morose remembering these horrible things.
"Hot Dawg" <england26division@hotmail.com> wrote in message news:3ba7b46c.4797959@news.ntlworld.com...
> On Tue, 18 Sep 2001 10:06:56 +0100, "gm7jds" <gm7jds@ntlworld.com>
> wrote:

>
>
> >killing more people will not solve anything,infact it may make things
> >worse,and killing Muslims may draw more countries into this.
> >
> >we need to go after these people and there group that did this,not
slaughter
> >more men women and children.
>
> Fuck them.
>
> At least, the ones in Afghanistan celebrating the aftermath shown on
> CNN this week.

5770. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 04:35:23 UTC
From: David N7VRZ <n7vrz@home.com>
Message-ID: <fEdr7.28601$QK.23104520@news1.sttln1.wa.home.com>
Source record: 49967
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Let me correct the error myself, Omagh is in County Tyrone not County
Londonderry. Thinking too much and typing just as fast.
"David N7VRZ" <n7vrz@home.com> wrote in message
news:Kqdr7.28560$QK.23081842@news1.sttln1.wa.home.com...
> And if you had bothered to take a good look at the screen you would have
> seen the words "File Footage" that was only on the screen for the shortest
> time. Which means that the scene being shown was from a previous time and
> then shown now. They also did not state from where the footage came. Nor
> will they.
> I will not be led down the rosy path by all the sensationalism put out by
> the networks. After the attack was news then ratings needed to be propped
> up. So the sensationalism started.
> Is Usama Bin Laden the culprit? Maybe, maybe not. I do not want to see
> anyone attacked until some proof is presented that the correct
> person/group/country is, indeed, the culprit.
> Am I a sympathizer? For the unfortunates that were involved, yes! For
those
> that carried out these outrageous deeds? Not by a damn sight!
> And as for G. W. Bush saying he wants Usama Bin Laden 'dead or alive', I
ask
> that he modify his statement to be 'wanted dead or alive when we have
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> to his involvment'.
> I did not spend 20 years in the military to see this country rush headlong
> into a conflict with just anyone. Show me some evidence. I have some very
> specific things I would like to see done to the perpetrators and none of
> them involve death. (At least not a very fast one!)
> And this nitpicking we are doing between each other! Trying to out do each
> other? Show how much worse "ours" was? Whether 5000+ were killed or zero
> were killed, terrorism is something that cannot be allowed anymore! We, as
a
> population of the entire world, need to stand up and stop the insanity
that
> has been created, not just by one group or the other but by most of us.
> They were attempts to help (in most cases) and it turned around and bit us
> on our collective asses. The US, GB, France, USSR, etc. We have all done
> wrong with the world. Go ahead and point fingers at each other, just don't
> forget to point one at yourself.
> Time that we all try to understand each other and quit the bickering and
> finger pointing. Learn what we each need to do to try and get along with
> each other.
> I do know about Omagh, County Londonderry, Northern Ireland. The loss of
> many lives, including, sadly, children. Just as there was in Oklahoma and

in
> New York. These are only a very minute sampling of the many sad moments in
> the last several years. You could include Paris, Manilla, Mexico City,
> Tokyo, and many, many more.
> I will stop now. I have made myself morose remembering these horrible
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> > >worse,and killing Muslims may draw more countries into this.
> > >
> > >we need to go after these people and there group that did this,not
> slaughter
> > >more men women and children.
> >
> > Fuck them.
> >
> > At least, the ones in Afghanistan celebrating the aftermath shown on
> > CNN this week.
>
>

5771. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 10:14:03 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BADB5EA.8B8900C7@ay.com.au>
Source record: 49968

Tom W8JI wrote:

> I wound up using a quad op-amp with Q=1 lowpass filters set for 150 Hz
> driving a PIN diode modulator. I'll use that in my homebrew rig,
> rather than the terrible shape of a simple R/C filter.

Wouldn't it just be easier to store the keying waveshape in a EPROM and use that to modulate the low level RF stages, before the linear output bits? With the EPROM you can have all sorts of wave shapes in there for different speeds and QSB conditions.

Seems easier than huge synthetic inductors at baseband frequencies. Alternatively you could use a crystal filter in the TX chain to limit the keying crap, then you could key with a square wave if you wanted to.

You can't go overboard with minimal keying though, if you make the dits and dahs Nyquist pulses they are going to be just about impossible for a human to listen to at high keying speeds. Although the key clicks will be gone.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (40% of Full)

5772. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 10:14:58 UTC
From: Mark Little <mark@brigadoon.apana.org.au>
Message-ID: <3BADB621.60DC8680@brigadoon.apana.org.au>
Source record: 49969

It would seem that some people are talking about the bandwidth required
to receive a signal and some are talking about the bandwidth generated
by the transmission.

If one is talking about the transmitter bandwidth, clearly a square wave
modulation produces a much wider bandwidth than a signal with a slow
rise time. As long as the rise time remains short compared to the period
of the code elements, the harmonics generated by the fast rise time will
set the maximum bandwidth of the _transmitted_ signal.

On the other hand, if one is talking about the _receiver_ bandwidth
required to resolve the signal, that is dominated by the speed of the
code, since the harmonics generated by the fast rise time can be
attenuated without affecting the ability to resolve the information. In
this case, the faster the code, the wider the minimum bandwidth required
to resolve the signal.

Mark.

"William E. Sabin" wrote:
>
> Tom W8JI wrote:
>
> > In that case, as I clearly pointed out, only the POWER in the
> > sidebands changes. The bandwidth does not.
>
> You are wrong about that. Any CW operator knows that fast code requires more
> bandwidth and that very slow CW uses very narrow bandwidth for micropower
> communication. Anyone who understands signal processing mathematics also knows it. I
> understand signal processing mathenmatics and I know it.
>
> > >Further material is in chapter 17 of the 1995-2002 ARRL Handbook (written by
> > >Sabin).
> > >
> > >Bill W0IYH
> >
> > Quoting yourself as a reference does not mean much, because I would
> > hope you already agree with yourself.
>
> And that remark you can blow out your you-know-what.
>
> Bill W0IYH

--
Alexa Little
"Homemaker, dressmaker, lacemaker and troublemaker"

5773. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 12:51:12 UTC
From: la8ak@online.no
Message-ID: <3bad9d34.605118429@news.online.no>
Source record: 49970

Seems to me that you may choose a too complicated solution, this is of course your own business, but not necessary. A problem for the conventional transceiver transmitting CW as described by Leif SM5BSZ is that the keyline has not proper voltage swing for the different stages keyed, one stage may be cutoff while another has some amplification

*) The first rule for good keying is matching key-voltage swing for the different stages, only when this is done one should think about time constants, only then any filter, simple or elaborate, will improve key click.

*) Using a small signal device below 15-20MHz it is perfectly OK to key only one stage, but the RF input level shouldn't be too high, 50dB key on/off ratio is easy to achieve, but YAESU and other tend to use general purpose devices, they will leak some RF and on/off ratio of 10-20dB is often the result

*) Too often keyed stages are overdriven, or the input level increases as the device is shut down, so some RF input level matching is also needed to avoid this. Another problem is that the keyed stage loads the previous stage too much, a simple buffer may improve on this.

For Yaesu FT-221: First keyed stage is an emitter follower after the xtal oscillator, the drive level was reduced to this stage, this also improved the xtal frequency shift for CW-keying. The second stage was IF amplifier, this was replaced using BF199 (I am not familiar with US small signal devices). Then emitter voltage DC-swing was corrected

73
Jan-Martin
LA8AK

On Sun, 23 Sep 2001 01:40:19 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:

>On Sat, 22 Sep 2001 22:56:14 GMT, la8ak@online.no (J M Noeding) wrote:
>
>>
>>you can start reading my notes, see QST Technical Correspondence:
>>January 1982 p.46
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>> Noeding "Active Key Click Filter"
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>>73
>>Jan-Martin

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>Too bad they do not include that in Handbooks Jan.
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>Keyclicks are becoming a major problem now. I hope the ARRL starts to
>measure the spectrum of CW transmitters instead of the almost useless
>pictures of the envelope.
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>I was experimenting with a raised sine waveform filter all in one
>chip, but unfortunately it does not go low enough in frequency to be
>useful for CW (and has too much ripple on the output).
>
>I wound up using a quad op-amp with Q=1 lowpass filters set for 150 Hz
>driving a PIN diode modulator. I'll use that in my homebrew rig,
>rather than the terrible shape of a simple R/C filter.
>
>My other choice was to use a CW filter in the transmitter IF after the
>keying, and linear stages after the filter.
>
>73 Tom

5774. FS: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 13:09:59 UTC
From: arnoldg@enitel.no
Message-ID: <3baddf26.777389@news.enitel.no>
Source record: 49971

Hello,

PC 900 is a B7G base triode with a heater of 3.9V 0.3A, Va is 135V
Vg -1V Ia=11mA Wa 2.2W Ik=20mA max, u=76 and the gm is 14.5mA/V
A very promising valve to experiment with in low-level stages, both
audio and HF/VHF amplification. It was developed for use in VHF and
UHF television tuners.
I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
each if you buy 100 pcs or more. The valves are NOS, in mint
condition, original boxes and the label is Haltron, but they are
rebranded, and I think the are originally made by Philips or Siemens.
E-mail me if interested.

Best regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
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Thousands of different valves in stock as well as
sockets,transformers,books and components.

5775. Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 13:38:31 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <rBlr7.27711$NT3.3807893@news1.rdc1.ct.home.com>
Source record: 49972

Not really a homebrew topic, but... I noticed my Yaesu rig uses both .1 ceramics and .1 electrolytics on the AF board. Why in the world would anyone want to use an electrolytic in lieu of a good ceramic or plastic capacitor--I can't see any technical advantages. Was it a cost driven decision?

--
Peter, K1ZJH

p.s. chasing an intermittant audio stage problem by replacing the caps on my 726R which didn't take kindly to 5 years of storage.

5776. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 14:10:39 UTC
From: la8ak@online.no
Message-ID: <3badea8f.624924771@news.online.no>
Source record: 49973

On Sat, 22 Sep 2001 19:36:30 -0700, "John Moriarity" <k6qq@hdo.net>
wrote:

>I think that two things are being argued here.
>
>Tom says that the *transmitted* bandwidth
>is invarient. In a certain sense, that is true.
>
>The original question (I believe) was what
>minimum bandwidth would be required to
>successfully receive a given cw speed.
>
well, you may say that for transmitting a signal with certain very
small rise time need a large bandwidth -whatever the keying speed is,
while some rise time is needed to avoid a certain degree of key
clicks. Then the techniques outlined by Paul applies

Unfortunately the manufacturers don't seem to care too much for
avoiding key-clicks, particularly not for VHF, and when somebody
modify their equipment for higher MS speeds by removing the
timeconstant in the keying circuit makes it no good

-JM

5777. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 14:39:13 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <arnrqtolkgoli9dgsmbt7bcd250fuifl4o@4ax.com>
Source record: 49974

On Sun, 23 Sep 2001 10:14:03 GMT, Alan Yates <alany@ay.com.au> wrote:

> Wouldn't it just be easier to store the keying waveshape in a EPROM and
>use that to modulate the low level RF stages, before the linear output
>bits? With the EPROM you can have all sorts of wave shapes in there for
>different speeds and QSB conditions.

Integrate that into an automatic keyer, which knows if a dit or dah is
to be generated with possibly different pulse shapes, this will give
the opportunity to generate even cleaner signals.

BTW, with only a DC bias, the fundamental, 3rd and 5th harmonics
present, quite nice looking square waves (strings of dots) can be
generated to feed an amplitude modulator to produce CW. There are of
course some ripple at the top and bottom of the waveform. The ripple
(about 1 dB) on the top half (during mark) is not harmful. However,
ripple at the bottom (during space) is more harmful, since this would
produce some leakage (about -25 dB) during the space period, so some
extra shaping would be needed, which slightly increased harmonic
levels.

Paul OH3LWR

5778. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 14:53:43 UTC
From: keith <keith@recelectronics.demon.co.uk>
Message-ID: <DcEQJAA3dfr7Ewdw@recelectronics.demon.co.uk>
Source record: 49978
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <M2vq7.4520$ua3.975862@news6-win.server.ntlworld.com>, proma1
<proma1@ntlworld.com> writes
>whatever next,any scud missiles and launchers for sale??
>
>
>
>--
>PROMA1
>Paul Wey
>
>Scanning Author
>
>www.geocities.com/proma1_1999
>
>http://groups.yahoo.com/group/scanpromauk
>
As it happens YES.....!

I saw a guy a few years back with the above at a military vehicle show
in Yorkshire, he got it in Eastern Europe somewhere.

And yes Anchor do, or at least did ,have a missile for sale.

But Paul you must get a grip.

Do you really think that the MOD said to old Milosovic (or whatever his
name is)

" Go on old boy knock the !!! out of Kosovo so we can go in and have
ago at you and use up all of our weapons"

And he replied.

"Certainly old chum, I,ll do that. Then you can knock the !!! out of us
and then you can arrest me on war charges"

Duh..

Keith

****
* Visit "Keiths Vintage Racal Site" *
* http://www.recelectronics.demon.co.uk *
****

5779. Re: retube yaesu ft 101 with 6146 tubes how do you do this

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 17:17:45 UTC
From: TC <cadigant2@uofs.edu>
Message-ID: <3BAE1939.B6F79271@uofs.edu>
Source record: 49975

Jerry,

QST, May 1999, p. 68-69, in "Hints & Kinks", there is a brief article on how to modify FT-101 - substitute 6146B for original 6JS6A's.

If you can't find a copy of the issue, send me an mailing address and I'll copy it out and send it to you.

good luck,
Tim C. (wc1f)

5780. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 17:31:41 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9ol63i$4jd$1@wanadoo.fr>
Source record: 49976

From my point of view the RF behaviors of those components are not the same.
The ceramic capacitors, even for a 0.1 µF value are more RF oriented. Their
impedance are lower in the RF region. In the other hand, the electrolytic
capacitors are the good choice in the AF region.

In the audio section of your rig, maybe there is a need of some decoupling
against RF signals of the vicinity.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Peter J. Bertini" <commquart@home.com> a &#65533;crit dans le message news:
rBlr7.27711$NT3.3807893@news1.rdc1.ct.home.com...
Not really a homebrew topic, but... I noticed my Yaesu rig uses
both .1 ceramics and .1 electrolytics on the AF board. Why in
the world would anyone want to use an electrolytic in lieu of a
good ceramic or plastic capacitor--I can't see any technical
advantages. Was it a cost driven decision?

--
Peter, K1ZJH

p.s. chasing an intermittant audio stage problem by replacing
the caps on my 726R which didn't take kindly to 5 years of
storage.

5781. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 18:00:28 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BAE2309.D8D7EEDF@earthlink.net>
Source record: 49977

Tom---

> The only thing that changes with dot speed is the power in that
> bandwidth.

Not correct.

Think about this: When you insert a 100KHz sinewave carrier and a 2KHz sinewave modulating signal into an unbalanced mixer, you wind up with discrete mixer output products at 102KHz, 100KHz, 98KHz, and 2KHz. The power output of each component varies depending upon the modulation index. In order to resolve this signal, you MUST have an RX bandwidth of at LEAST 4KHz, centered at 100KHz, to demodulate the signal.

Now, let us assume for a moment that you have a perfect squarewave, and you use that same squarewave at 100Hz to modulate the 100KHz carrier. You will have discrete mixer output products at 100KHz, 100+(0.1+2n)KHz, 100-(0.1+2n)KHz, and (0.1+2n)KHz, where n is zero or any positive integer. Again, the power in each of these outputs will depend on the modulation index, and the strength of the individual harmonics ((0.1+2n)KHz) in the squarewave.

Take this line of reasoning a bit further. If we decrease the modulating signal frequency to, say, 50Hz, the sideband term becomes (0.05+2n)KHz. Increase it to, say, 200Hz, and it becomes (0.2+2n)KHz.

THIS TERM DIRECTLY RELATES TO KEYING SPEED. As you can see, if we have a 50% duty cycle string of dits, the first-order sidebands of a CW signal can be found at (+/-x)Hz from the carrier frequency, where x is the keying rate in dits/sec, or Hz. By smoothing out the rise and fall times, we simply attenuate some of the higher harmonics transmitted, giving us better spectral purity. At the reciever end, however, the filter bandwidth required to demodulate and comprehend a CW signal is proportional to the keying speed.

It's simple arithmetic.

Hope it helps,

Henry C. Gernhardt, III
KE4PIB

5782. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 19:10:42 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BAE33BA.DBED8FE9@home.com>
Source record: 49979

One factor might be that for very low level signals, ceramics are
microphonic. However, this consideration might be more applicable to
the first few audio stages of a DC receiver than the
last few stages of a commercial superhet receiver.

- Dan Tayloe, N7VE; Phoenix, AZ; Az ScQRPions

"Peter J. Bertini" wrote:
>
> Not really a homebrew topic, but... I noticed my Yaesu rig uses
> both .1 ceramics and .1 electrolytics on the AF board. Why in
> the world would anyone want to use an electrolytic in lieu of a
> good ceramic or plastic capacitor--I can't see any technical
> advantages. Was it a cost driven decision?
>
> --
> Peter, K1ZJH
>
> p.s. chasing an intermittant audio stage problem by replacing
> the caps on my 726R which didn't take kindly to 5 years of
> storage.

5783. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 20:28:23 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <b2gsqtg27rb72cka8v32v5k8p5ac4aab0j@4ax.com>
Source record: 49980

On Sun, 23 Sep 2001 18:00:28 GMT, Henry Gernhardt/Andrea Winship
<hcg_alw@earthlink.net> wrote:

>You will have discrete mixer output products at 100KHz, 100+(0.1+2n)KHz,
>100-(0.1+2n)KHz, and (0.1+2n)KHz, where n is zero or any positive
>integer.

I assume you mean

100KHz, 100+(0.1*(2n+1))KHz, 100-(0.1*(2n+1))KHz, and (0.1*(2n+1))KHz,

>Again, the power in each of these outputs will depend on the
>modulation index, and the strength of the individual harmonics
>((0.1+2n)KHz) in the squarewave.

And here it should be

((0.1*(2n+1)kHz)

The relative amplitudes for these harmonics can be calculated using
the formula 1/(2n+1). Since the carrier is amplitude modulated with
the square wave to 100 %, so you can also calculate the amplitudes of
the sidebands relative to the (unmodulated) carrier level.

Paul OH3LWR

5784. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 20:44:08 UTC
From: msix@plato.nmia.com
Message-ID: <sQrr7.7588$ey1.276186@sjcpnn01.usenetserver.com>
Source record: 49981

>> I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I
>> can use 4CX350B in place of 4CX250B and get some more watts out of the
>> boot? Is this recomended...
>> Regards
>> Rahul
>>

If class AB1, OK else not. 4CX350s are one of Eimac's no grid
current tubes for AB1 only.
73 John

5785. Re: oscillator help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 20:55:51 UTC
From: tg002a5869@blueyonder.co.uk
Message-ID: <58397fb5.0109231255.59ee6ebe@posting.google.com>
Source record: 49982

console34@hotmail.com (console) wrote in message
news:<871dc9cf.0109221322.211f93e@posting.google.com>...
> i am working on a project and i need to locate the following.
>
> 10.71mhz
> 14.28mhz
> 21.43mhz
> 42.85mhz crystal oscillators (2 pin can type)
>
> i want to find somwhere in the uk i can get at least 1 of each...
> maplins never seem to stock anything anymore...
>
> regards
>
> console

Try http://www.golledge.co.uk

5786. Re: ssb filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 21:00:41 UTC
From: tg002a5869@blueyonder.co.uk
Message-ID: <58397fb5.0109231300.117ebb7e@posting.google.com>
Source record: 49983

<brian@robinsonb5.fsnet.co.uk> wrote in message
news:<9o7n1m$1tu$1@newsg2.svr.pol.co.uk>...
> Can anyone help with Uk supplier/s for 10.7 MHz filters?
>
> 73 Brian G4OZA

Try http://www.golledge.co.uk.
If you whinge a bit they will let you have one from stock. 73s

5787. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 21:06:31 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <gasr7.8005$%a4.1849735@news2-win.server.ntlworld.com>
Source record: 49984
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

thats not what i said,but governments make use of situations for there own end,i have contact as said at very high level in military and military intelligence and military procurement,and various things they have told me have borne out as true.

i knew of certain defence cuts and shake ups several months before the press announced them,if your wondering why i should say these things even though i have at one point in my life signed the official secrets act,its because i do not believe in the official secrets act or secrets in general,i had to sign it but i never wanted to.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

keith <keith@recelectronics.demon.co.uk> wrote in message news:DcEQJAA3dfr7Ewdw@recelectronics.demon.co.uk...
> In article <M2vq7.4520$ua3.975862@news6-win.server.ntlworld.com>, proma1
> <proma1@ntlworld.com> writes
> >whatever next,any scud missiles and launchers for sale??
> >
> >
> >
> >--
> >PROMA1
> >Paul Wey
> >
> >Scanning Author
> >
> >www.geocities.com/proma1_1999
> >
> >http://groups.yahoo.com/group/scanpromauk
> >
> As it happens YES.....!
>
> I saw a guy a few years back with the above at a military vehicle show
> in Yorkshire, he got it in Eastern Europe somewhere.

>
> And yes Anchor do, or at least did ,have a missile for sale.
>
> But Paul you must get a grip.
>
> Do you really think that the MOD said to old Milosovic (or whatever his
> name is)
>
> " Go on old boy knock the !!! out of Kosovo so we can go in and have
> ago at you and use up all of our weapons"
>
>
> And he replied.
>
> "Certainly old chum, I,ll do that. Then you can knock the !!! out of us
> and then you can arrest me on war charges"
>
> Duh..
>
>
> Keith
>
> **
> * Visit "Keiths Vintage Racal Site" *
> * http://www.recelectronics.demon.co.uk *
> **
>

5788. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 21:40:29 UTC
From: Andy Lake <andy.lake@bt.com>
Message-ID: <3BAE56CD.D3E65593@bt.com>
Source record: 49985
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

proma1 wrote:
> even though i
> have at one point in my life signed the official secrets act,

It is valid for life, remember? It matters not when you signed it.

> its because i
> do not believe in the official secrets act or secrets in general,

!?!

> i had to sign it but i never wanted to.

"Darling, I *had* to sign that finance paperwork for the
new Icomyeasuwood 400 GX TDi & Linear, honest"

73
Andy

5789. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-23 22:30:18 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <Hotr7.8387$%a4.1901223@news2-win.server.ntlworld.com>
Source record: 49986
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

yes i know,thats why i stated it,to get in one had no choice,but,i joined an organisation.only the Royal Observer Corps to gain information for CND during the cold war,i state that that,as there is no proof that i did and i could be lying,so any MOD police on this group[IE Dave Mckay] then you will not find proof as i covered my tracks,admission is not enough,so i am reasonably safe.

at the end of the day the stuff i learnt was already known to CND anyway,so wheres the problem??

as usual ranting on

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Andy Lake <andy.lake@bt.com> wrote in message
news:3BAE56CD.D3E65593@bt.com...
> proma1 wrote:
> > even though i
> > have at one point in my life signed the official secrets act,
>
> It is valid for life, remember? It matters not when you signed it.
>
> > its because i
> > do not believe in the official secrets act or secrets in general,
>
> !?!
>
> > i had to sign it but i never wanted to.
>
> "Darling, I *had* to sign that finance paperwork for the
> new Icomyeasuwood 400 GX TDi & Linear, honest"
>
> 73
> Andy

5790. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 01:32:50 UTC
From: Mr G H Ireland <igor@argonet.co.uk>
Message-ID: <na.cbc3194abe.a70320igor@argonet.co.uk>
Source record: 49987

Another way of looking at it - Imagine a very high Q circuit. Send a dot to it. The higher the Q, i.e., the smaller the band-width, the longer it will take for the output to reach full amplitude and the longer it will take to die away.
There will be a speed at which the rise and fall times are too long to make the signal intelligible.
G.H.Ireland, G3CCL

--

__ __ __ __ __ ___ _____
|__||__)/ __/ \|\ ||_ | /
| || __/__/| \||__ | /...Internet access for all Acorn RISC machines
_____/ igor@argonet.co.uk

5791. Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 04:06:48 UTC
From: afunradio@aol.com
Message-ID: <20010924000648.21106.00000316@mb-fd.aol.com>
Source record: 49988

I have been trying to patch in a equalizer between my studio type mic and my kenwood 940, I cant seem to stop the rf feedback, I have changed and eliminated all the jumpers between coax switches and tuners, that don't work, I'm using good quality shielded cables, all grounds in place, the mic is a sure sm-58, the EQ is a rane 30 band, Anyone run accross a problem like this? Thanks, Dale

5792. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 04:42:42 UTC
From: ---Bill--- <"take out the NO in the reply to address"@silly.net>
Message-ID: <3BAEB9C2.FEEB177E@silly.net>
Source record: 49989

Afunradio wrote:
>
> I have been trying to patch in a equalizer between my studio type mic and my
> kenwood 940, I cant seem to stop the rf feedback, I have changed and eliminated
> all the jumpers between coax switches and tuners, that don't work, I'm using
> good quality shielded cables, all grounds in place, the mic is a sure sm-58,
> the EQ is a rane 30 band, Anyone run accross a problem like this? Thanks,
> Dale

haha- I tried that once and got the same results. "Audiophile"
components don't necessarily have RF field as part of their design and
the bypassing, etc. simply isn't up to par in such an application. All
is not lost because if you get out your the wallet there are some
'transmitting capable' equalizers out there.
A good mike, or voice lessons may be cheaper-eaper-eaper-eaper. Excuse
me, let me cut off the reverb. Beep.
--
Bill M
Vieques, PR

5793. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 07:01:57 UTC
From: "Tim P." <N6DRAnospam@nc.rr.com>
Message-ID: <FTAr7.16065$0x.7300692@typhoon.southeast.rr.com>
Source record: 49990

Have you tried ferrite on the cables?

Tim

"Afunradio" <afunradio@aol.com> wrote in message
news:20010924000648.21106.00000316@mb-fd.aol.com...
> I have been trying to patch in a equalizer between my studio type mic and
my
> kenwood 940, I cant seem to stop the rf feedback, I have changed and
eliminated
> all the jumpers between coax switches and tuners, that don't work, I'm
using
> good quality shielded cables, all grounds in place, the mic is a sure
sm-58,
> the EQ is a rane 30 band, Anyone run accross a problem like this?
Thanks,
> Dale

5794. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 07:16:22 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9ommu1$4bb$1@news.mbn.or.jp>
Source record: 49991

J M Noeding wrote in message <3badea8f.624924771@news.online.no>...

>>The original question (I believe) was what
>>minimum bandwidth would be required to
>>successfully receive a given cw speed.
>>

My original question was to challenge a statement in the book I had been reading (ISBN 1-878707-04-3) where the author argued that because of the general principle that "the more information you put into a carrier the greater the bandwidth always becomes" it followed that the energy spectrum occupied by a transmitted CW signal was directly determined by the keying speed.

START OF QUOTE (page 98)

An unmodulated carrier occupies very little frequency space, but if we send Morse code by interrupting the carrier, we slightly increase the bandwidth of the signal. The usual rule of thumb is that the bandwidth of a CW signal can be found by multiplying the speed in words per minute (WPM) by 4. A signal of 20 WPM will occupy about 80Hz, while a 30 WPM CW signal will occupy 120Hz of bandwidth. The extra band-width occupied by the faster code speed reflects the additional amount of intelligence present in the faster code speed (that is, more information is being transmitted in a given amount of time). The same thing happens with RTTY and digital signals; the faster information is transmitted (the higher the "baud rate"), the more bandwidth such signals will occupy.

END OF QUOTE

I had a feeling that something might be wrong so I asked the group for confirmation.

In the digital signal processing that I have worked on in the past (mostly serial communications) the problem was more one of preserving the pulse waveshape as higher harmonics became attentuated at higher transmission speeds - and I was doubtful whether even the somewhat simplistic argument 'more information means more bandwidth' was meaningful at the low keying frequencies we use to key CW.

Some people posted or EMailed saying that CW keying was just like AM modulating a carrier with a squarewave - implying that the CW bandwidth is relative to the highest keying frequency multiplied by a coefficient to compensate for the waveshape being square. As a result, the faster you key, the broader the bandwidth.

I still have problems with this analogy. Just because 0 and 1 are numbers does not mean that every model for processing analog variables will necessarily be meaningful in real-world terms for discrete variables too.

Is it not true to say that the 'sidebands' caused by on/off keying of the carrier itself are simply the result of the presence or absence of the signal in the time domain - while the spectral spread caused at the beginning and end of the envelope during rise and fall times is the result of variations in amplitude/waveshape of what is (during the mark period itself) a continuous signal.

I feel no resistance to the concept that CW bandwidth might be determined more by the variations in amplitude and waveshape during rise/fall times and if (as Tom is arguing) these rise/fall times are dependent on other factors such as rig design then I would have no problem accepting that CW bandwidth is not determined by keying speed itself.

Thanks to all contributors. I am learning a lot from this thread.

73, ram

5795. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 07:32:12 UTC
From: hexter@blazenet.net
Message-ID: <tqtobsi8f3jcbb@corp.supernews.com>
Source record: 49992

In article <20010924000648.21106.00000316@mb-fd.aol.com>,
afunradio@aol.com says...
>
>I have been trying to patch in a equalizer between my studio type mic
and my
>kenwood 940, I cant seem to stop the rf feedback, I have changed and
eliminated
>all the jumpers between coax switches and tuners, that don't work, I'm
using
>good quality shielded cables, all grounds in place, the mic is a sure
sm-58,
>the EQ is a rane 30 band, Anyone run accross a problem like this?
Thanks,
> Dale

Well, you are using it wrongly. The rane eq was designed for line level input, not mike level. So all impedances and levels are so mismatched you have created a nightmare. You would then have to attenuate the line level output of the rane back down to mike level for the rig.

So much wrong, so little time 73

5796. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 07:35:04 UTC
From: hexter@blazenet.net
Message-ID: <tqtoh8jqv9v714@corp.supernews.com>
Source record: 49993

In article <20010924000648.21106.00000316@mb-fd.aol.com>,
afunradio@aol.com says...
>
>I have been trying to patch in a equalizer between my studio type mic
and my
>kenwood 940, I cant seem to stop the rf feedback, I have changed and
eliminated
>all the jumpers between coax switches and tuners, that don't work, I'm
using
>good quality shielded cables, all grounds in place, the mic is a sure
sm-58,
>the EQ is a rane 30 band, Anyone run accross a problem like this?
Thanks,
> Dale
Oh yes, while you're at it, remember that the radio has audio shaping
in the mike circuit, and the rf/if filters shape the sidebands, so all
that you do with an eq is probably screw up everything and sound like
total crap.

5797. balanced mixer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 07:41:55 UTC
From: hexter@blazenet.net
Message-ID: <tqtou3gl7tmie5@corp.supernews.com>
Source record: 49994

I have a 3 port BNC balanced mixer that I want to use in a vhf transverter. The ports are L X R. i know that L is local osc. Which would be the low freq output, and which the high freq input?

5798. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 09:03:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BAEF6C5.1AFA4109@eznec.com>
Source record: 49995

Let's put some numbers on the situation.

If you look at the spectrum of a square wave, it consists of an infinite number of individual spectral lines at discrete frequencies. The first line is at zero frequency if there's a DC component to the waveform. If it's a perfectly square wave, that is, exactly 50% duty cycle, there won't be any even harmonics, just spectral lines at odd harmonics. For example, if the period of the square wave is 1 s (a fundamental frequency of 1 Hz), there'll be a spectral line at 1 Hz, 3 Hz, 5 Hz, and so forth. The amplitudes of the spectral components follow a sin(x)/x envelope, but for a perfect square wave there's only one spectral line per lobe of the sin(x)/x envelope. The net result for a square wave with instantaneous rise and fall times is that the third harmonic line (the one at 3 Hz for the 1 s period square wave) is 1/3 the amplitude of the first harmonic line. The 5th harmonic line is 1/5 the amplitude of the first harmonic line, and so forth. This is true regardless of the square wave frequency.

Now let's compare the spectrum of a 1 Hz square wave (1 s period) with a 10 Hz square wave (0.1 s period). The 1 Hz square wave has the following components, normalized to the amplitude of the first harmonic:

Freq Hz Ampl rel to 1st harmon

1 1
3 1/3
5 1/5
7 1/7
9 1/9

. . . .

and the 10 Hz wave:

Freq Hz Ampl rel to 1st harmon

10 1
30 1/3
50 1/5
70 1/7
90 1/9

Both have an infinite number of components, but in practical terms, bandwidth is always defined as the width of the signal at some amplitude level. Ultimately, the spectral components will drop below the noise at some point. Beyond that frequency, the components are zero for any practical purpose. Let's look, for example, at the bandwidth occupied by

the signal with components at least 1/9 the fundamental. That is, the bandwidth beyond which the spectral components are down by more than 19 dB.

For the 1 Hz square wave, the 19 dB bandwidth is 9 Hz. For the 10 Hz square wave, the 19 dB bandwidth is 90 Hz. Choose any signal level you want, and you'll find that the bandwidth is directly proportional to the fundamental frequency of the square wave (or inversely proportional to its period). So if the rise and fall times aren't limited, the bandwidth is directly proportional to keying speed. Incidentally, the amplitudes of the various components aren't affected at all by the speed. If you amplitude modulate a carrier with this square wave, you'll have the same spectrum, but shifted up to the carrier frequency, and with a mirror image on the lower side of the carrier also. The bandwidth of this signal will be twice the bandwidth we're calculating.

Now, what happens when we limit the rise and fall times of the square wave?

The simplest form of shaping is done by running the square wave through a single pole filter, such as a series R/shunt C lowpass circuit. The frequency response of this circuit, when viewed on a log-log amplitude vs frequency plot, is approximately a straight horizontal line up to a "break point", often denoted f0. Above that frequency, the amplitude drops following another straight line at 1/f, or 6 dB per octave, or 20 dB per decade. f0 is 1/(2*pi*R*C). The rise of fall time of the filtered square wave is about 2.2*R*C. To find the overall spectrum of a square wave with limited rise and fall times, all we have to do is multiply the original square wave spectrum by the response of the filter. For example, suppose we use an RC filter with R*C = 4.5 ms. Then the rise and fall times of the square wave will be 10 ms. f0 = 35 Hz. Up to 35 Hz, the attenuation of the filter will be minimal. (Actually, it's 3 dB at 35 Hz and less at lower frequencies. Although it's not difficult to calculate the attenuation exactly, the "Bode plot" with the two straight lines is easier to visualize. The Bode plot is off by only about 1 dB at twice and half f0, and it's off by less at frequencies farther from f0.) So the filter won't make much difference to any component below 35 Hz. Components above that will drop off more rapidly than they would without the filter. If we run the 1 Hz square wave through the filter, that is, we limit its rise and fall times to 10 ms, there won't be any appreciable difference in the spectral components below the 35th harmonic, where the amplitude is down 20*log(1/35) = -31 dB anyway. Above that point, the harmonics will drop more rapidly than before, but likely not enough to make any real difference. For example, the 71st harmonic will be down 20*log(71) = 37 dB without the filter, and an additional 20*log(71/35) = 6.1 dB with it. It won't be until around the 350th harmonic that the filter will attenuate the spectral components by 20 dB. The effect of the filter will be more pronounced on the 10 Hz square wave. For that one, it'll start kicking in at around the third harmonic. The filter will reduce the seventh harmonic by about 20*log(70/35) = 6 dB. (I skipped the fifth because the Bode

approximation will be noticeably off that close to f0.) The 35th harmonic at 350 Hz, or 10*f0, will be attenuated 20 dB due to the filter. So it'll be down 51 dB with the filter vs 31 dB without. The bandwidth of the 10 Hz square wave will still be greater than the 1 Hz wave, but not by as much -- particularly if you define the bandwidth as being, say, the 50 dB down points.

The bottom line is that the bandwidth DOES increase with keying speed. However, if the rise and fall times are limited to a fixed value for all speeds, the bandwidth won't necessarily increase in direct proportion to the keying speed. The amount the bandwidth will increase when you increase keying speed depends on the risetime-limiting filter frequency and at how many dB down you define the bandwidth to be. An additional factor is the filter response. Higher order filters can be used, and they'll have a sharper frequency rolloff, further modifying the bandwidth.

If you'd like to calculate the rolloff of a single pole filter exactly, the response in dB is 20*log(1/sqrt((f/f0)^2 + 1)).

Roy Lewallen, W7EL

ram wrote:
>
> J M Noeding wrote in message <3badea8f.624924771@news.online.no>...
>
> >>The original question (I believe) was what
> >>minimum bandwidth would be required to
> >>successfully receive a given cw speed.
> >>
>
> My original question was to challenge a statement in the book I had been
> reading (ISBN 1-878707-04-3) where the author argued that because of the
> general principle that "the more information you put into a carrier the
> greater the bandwidth always becomes" it followed that the energy spectrum
> occupied by a transmitted CW signal was directly determined by the keying
> speed.
>
> START OF QUOTE (page 98)
>
> An unmodulated carrier occupies very little frequency space, but if we send
> Morse code by interrupting the carrier, we slightly increase the bandwidth
> of the signal. The usual rule of thumb is that the bandwidth of a CW signal
> can be found by multiplying the speed in words per minute (WPM) by 4. A
> signal of 20 WPM will occupy about 80Hz, while a 30 WPM CW signal will
> occupy 120Hz of bandwidth. The extra band-width occupied by the faster code
> speed reflects the additional amount of intelligence present in the faster
> code speed (that is, more information is being transmitted in a given amount
> of time). The same thing happens with RTTY and digital signals; the faster
> information is transmitted (the higher the "baud rate"), the more bandwidth
> such signals will occupy.

>
> END OF QUOTE
>
> I had a feeling that something might be wrong so I asked the group for
> confirmation.
>
> In the digital signal processing that I have worked on in the past (mostly
> serial communications) the problem was more one of preserving the pulse
> waveshape as higher harmonics became attentuated at higher transmission
> speeds - and I was doubtful whether even the somewhat simplistic argument
> 'more information means more bandwidth' was meaningful at the low keying
> frequencies we use to key CW.
>
> Some people posted or EMailed saying that CW keying was just like AM
> modulating a carrier with a squarewave - implying that the CW bandwidth is
> relative to the highest keying frequency multiplied by a coefficient to
> compensate for the waveshape being square. As a result, the faster you key,
> the broader the bandwidth.
>
> I still have problems with this analogy. Just because 0 and 1 are numbers
> does not mean that every model for processing analog variables will
> necessarily be meaningful in real-world terms for discrete variables too.
>
> Is it not true to say that the 'sidebands' caused by on/off keying of the
> carrier itself are simply the result of the presence or absence of the
> signal in the time domain - while the spectral spread caused at the
> beginning and end of the envelope during rise and fall times is the result
> of variations in amplitude/waveshape of what is (during the mark period
> itself) a continuous signal.
>
> I feel no resistance to the concept that CW bandwidth might be determined
> more by the variations in amplitude and waveshape during rise/fall times and
> if (as Tom is arguing) these rise/fall times are dependent on other factors
> such as rig design then I would have no problem accepting that CW bandwidth
> is not determined by keying speed itself.
>
> Thanks to all contributors. I am learning a lot from this thread.
>
> 73, ram

5799. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 09:58:35 UTC
From: 2w8ji@contesting.com
Message-ID: <3baf02ac.352877134@news.akorn.net>
Source record: 49996

On Sun, 23 Sep 2001 04:23:38 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Sun, 23 Sep 2001 00:40:24 GMT, 2w8ji@contesting.com (Tom W8JI)
>wrote:
>
>
>>Since QRM is a sort term affect, we will have QRM the same distance
>>from an unfiltered or improperly filtered waveshape regardless of
>>speed.
>
>This is simply not true, please read my previous posting more
>carefully, in which I stated

>
>1) The _location_ (frequency) of the sidebands depends of the keying
>rate
>2) The _amplitude_ of these sidebands depends of the wave shape
>3) The bandwidth depends of the reference level used.
>
>Using an unfiltered string of dots at 24 WPM will produce harmonics
>for every 10 Hz offset from the carrier, of which the odd harmonics
>are of any significance. At an offset of 10 kHz, we are talking about
>the 1000th harmonics, which is about -60 dB down.
>
>At 5 WPM, the fundamental is at 2 Hz, thus at 10 kHz, we are talking
>about the 5000th harmonics, which is -74 dB down from the carrier.
>
>The premodulation shaping will reduce these levels even further, but
>since the 5 WPM started at 14 dB lower levels, the difference in
>sideband amplitudes still remains after filtering. Using a fixed
>reference level for bandwidth, the slow CW will have a slightly
>narrower bandwidth. However, the difference in bandwidth is much
>smaller than the ratio between the keying rates.
>
>Paul OH3LWR
>

5800. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 10:21:21 UTC
From: keith <keith@recelectronics.demon.co.uk>
Message-ID: <6TRuaBAhkwr7EwKt@recelectronics.demon.co.uk>
Source record: 49904
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <gasr7.8005$%a4.1849735@news2-win.server.ntlworld.com>,
proma1 <proma1@ntlworld.com> writes
>thats not what i said,but governments make use of situations for there own
>end,i have contact as said at very high level in military and military
>intelligence and military procurement,and various things they have told me
>have borne out as true.
>
>i knew of certain defence cuts and shake ups several months before the press
>announced them,if your wondering why i should say these things even though i
>have at one point in my life signed the official secrets act,its because i
>do not believe in the official secrets act or secrets in general,i had to
>sign it but i never wanted to.
>
>
>
>
Nothing new in that.

I knew of the close down of certain Radar control centres , in favour of
Neatishead , a couple of years before it was announced.
The studies,made by civilian companies ,always get leaked out.

these things are always planned/decided a long time before the press
ever know.

I wondered why a small bomb store was built at Mildenhall.
Then a long while after, it was announced Alconbury would close and the
USAF SOS units move to Mildenhall.
They new long before the announcement was made.

I have to say that if your "contacts" are a a "very high level" then I
despair at out national security as it looks like you are ready to pass
it all on.
You admit that you do not believe in the "Official Secrets Act" and then
they pass all this stuff on to you.

Frightening.

Keith

```
****************************************
* Visit "Keiths Vintage Racal Site" *
* http://www.recelectronics.demon.co.uk *
****************************************
```

5801. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 10:26:11 UTC
From: 2w8ji@contesting.com
Message-ID: <3baf03aa.353131698@news.akorn.net>
Source record: 49897

On Sun, 23 Sep 2001 04:23:38 +0300, Paul Keinanen <keinanen@sci.fi>

>This is simply not true, please read my previous posting more
>carefully, in which I stated
>1) The _location_ (frequency) of the sidebands depends of the keying
>rate
>2) The _amplitude_ of these sidebands depends of the wave shape
>3) The bandwidth depends of the reference level used.
>
>Using an unfiltered string of dots at 24 WPM will produce harmonics
>for every 10 Hz offset from the carrier, of which the odd harmonics
>are of any significance. At an offset of 10 kHz, we are talking about
>the 1000th harmonics, which is about -60 dB down.

I agree with your power assessment. I've said all along the average power changes. The overall bandwidth does not.

Here is what I am saying.

Imagine a single dot. The rise time of the envelope creates sidebands, which extend out depending on the shape and duration of the rise time. The same is true as the signal falls.

The ONLY time sidebands are generated is during the rise and fall. Neither the on duration or the off duration generates any sidebands.

When we send CW, we increase how often the sidebands generated by the waveshape appear. This changes the time-averaged power in the sidebands, but it does not change the bandwidth.

The effect is the averaged power in the sidebands increases with increasing speed (just as a pulse transmitters average power increases with increased pulse repetition rate) but the bandwidth is the same for one pulse or a thousand. Duration of a pulse does not affect the high order sidebands cause by the rise and fall of the pulse, because it is at such a low frequency.

Maybe we are saying the same thing, in different words.

In the real world, the distance your keyclicks extend and the strength of those clicks on a peak detecting system like a receiver AGC is mainly controlled by the rise and fall times and shape of the signal rather than speed within normal ranges of speed and rise and fall times. The power in the clicks increases with increased speed, but the frequency limit is the same and is set by the rise and fall waveshape.

If a transmitter has a square rise and fall time, it will have clicks for a wide bandwidth even if you send 2 WPM. If it has a rise and fall waveshape like a squarewave sent through a 150 Hz sharp-cutoff filter, that is how far the sidebands will extend no matter how fast you push the key.

Of course the more often you push the key in a given time, the more average power you will have in the sidebands.

73 Tom

5802. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 10:33:59 UTC
From: 2w8ji@contesting.com
Message-ID: <3baf0a56.354839903@news.akorn.net>
Source record: 49898

On Sun, 23 Sep 2001 18:00:28 GMT, Henry Gernhardt/Andrea Winship
<hcg_alw@earthlink.net> wrote:

>Tom---
>
>> The only thing that changes with dot speed is the power in that
>> bandwidth.
>
>Not correct.
>
>Think about this: When you insert a 100KHz sinewave carrier and a 2KHz
>sinewave modulating signal into an unbalanced mixer, you wind up with
>discrete mixer output products at 102KHz, 100KHz, 98KHz, and 2KHz. The
>power output of each component varies depending upon the modulation
>index. In order to resolve this signal, you MUST have an RX bandwidth
>of at LEAST 4KHz, centered at 100KHz, to demodulate the signal.

Apples and oranges.

We are talking about off-and-on modulation speeds of a few Hz to a few
dozen Hz.

The problem is at hundreds of hertz away.

The modulation you describe is applied with a rise time and fall time
that is a sine-wave following the modulation frequency.

The CW signal is a square wave filtered either before or after
modulating the RF signal.

There is no difference which way we do it, assuming the circuitry is
correct.

You can consider each rise and each fall to be the modulation
frequency that causes the problems. We can make it occur more often
and increase the average power, but each rise and fall has the same
spectrum shape.

73 Tom

5803. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 10:37:11 UTC
From: keith <keith@recelectronics.demon.co.uk>
Message-ID: <sz8rCGAXzwr7Ewr8@recelectronics.demon.co.uk>
Source record: 49905
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <Hotr7.8387$%a4.1901223@news2-win.server.ntlworld.com>,
proma1 <proma1@ntlworld.com> writes
>yes i know,thats why i stated it,to get in one had no choice,but,i joined an
>organisation.only the Royal Observer Corps to gain information for CND
>during the cold war,i state that that,as there is no proof that i did and i
>could be lying,so any MOD police on this group[IE Dave Mckay] then you will
>not find proof as i covered my tracks,admission is not enough,so i am
>reasonably safe.
>
>at the end of the day the stuff i learnt was already known to CND anyway,so
>wheres the problem??
>
>as usual ranting on
>
>
>
You know, Paul, I'm sorry to have to keep having a go at you mate, and I
hate having to keep adding to this non radio thread but you are a bit of
a liability.

You admit to spying for CND..?

What you found out was already known by CND..?

So why go to all the trouble to join the ROC.

You were prepared to pass on information that may have undermined this
countries Civil Defence Network. Set up to hopefully get this country
and any survivors up and running again after a strike.

Or was it that CND wanted to know where the nearest underground bolt
hole would be when "The Day" came

Sad

Keith

****
* Visit "Keiths Vintage Racal Site" *
* http://www.recelectronics.demon.co.uk *
****

5804. Re: balanced mixer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 10:40:25 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3baf0d04.375937@news.9bit.qc.ca>
Source record: 49899

L: Lo
R: receive signal (vhf in your case)
X: mixed (to your receiver or transmitter hf)

hexter@blazenet.net (gudmundur) wrote:

>I have a 3 port BNC balanced mixer that I want to use in a vhf
>transverter. The ports are L X R. i know that L is local osc.
>Which would be the low freq output, and which the high freq input?
>

---
to reply direct, remove "faux" from e-mail address

5805. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 11:45:34 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1104_1001331934@msauve>
Source record: 49900

On Mon, 24 Sep 2001 10:33:59 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> On Sun, 23 Sep 2001 18:00:28 GMT, Henry Gernhardt/Andrea Winship
> <hcg_alw@earthlink.net> wrote:
> >Think about this: When you insert a 100KHz sinewave carrier and a 2KHz
> >sinewave modulating signal into an unbalanced mixer, you wind up with
> >discrete mixer output products at 102KHz, 100KHz, 98KHz, and 2KHz. The
> >power output of each component varies depending upon the modulation
> >index. In order to resolve this signal, you MUST have an RX bandwidth
> >of at LEAST 4KHz, centered at 100KHz, to demodulate the signal.
>
> Apples and oranges.
>
> We are talking about off-and-on modulation speeds of a few Hz to a few
> dozen Hz.
>
> The problem is at hundreds of hertz away.

Well then, just to be equally pedantic, since we can never generate a perfect sine, there will always be higher order harmonics extending infinitely.

Apples and pears. The problem is infinitely larger than the few hundreds of Hz you're talking about.

5806. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 12:38:40 UTC
From: Radio <codeman@gj.net>
Message-ID: <3baf296a@news.gj.net>
Source record: 49901
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"gm7jds" <gm7jds@ntlworld.com> wrote in message
news:dn_q7.1362$Ck.309329@news6-win.server.ntlworld.com...
> yup war is hell,so why kill more people,if you kill more people that is
> murder,so if its war,then murder is ok,is this is what you are saying.

Hmmm, reread what I wrote. How far down the military terrorist structure do you go after Bin Laden? His generals, lieutenants, ground pounders, intelligent people, his information curriers that transport a computer zip disk with info, his financial people? All of those people (eyes, ears, brains of the group) have assisted in the WTC and other activities. Some of them probably couldn't fire a weapon. Do you let them go or include them in the war? My post suggest that people who stand around and refuse to lay down their weapons and cooperatate are part of the passive and maybe not so passive group of BL. They play an important part in shielding BL. . In this case, they are a defensive tool that BL is banking on. If the people elect to not be a human shield and not be a part of BL terrorist machine, then don't include them in the war or murder them.

>
> so if i say i am at war with the guy next door to me,then i go in and kill
> him and his family,that ok because i declared war on him.

Not Ok if your neighbor didn't do a horrific act against you. If you declare war (for whatever reason for this discussion) in advance and your neighbor knows it and is able to prepare for it, then that isn't necessarily good either, but better.

War is an ultimate discipline action against someone(s) to make them cease whatever they are doing, wishfully, forever. Typically very costly and a last resort option, but an option. You better not start a war with your neighbor unless you have some military advantage, or you feel suicidal. Now what do you think when your neighbor continually hides behind its spouse, children and pets but causes horrific crime? BTW, the spouse and children freely support the terrorist. Are they still innocent? If you want to continually take in coming from your neighbor and elect to do whatever, of which nothing is an option, then that is your choice. If your neighbor then spreads their hate, death and distructive crime to other people, are you now part of it because you didn't do anything to prevent it?

There is a fine line between an innocent by stander and a trooper and can be very difficult to distinguish between the two.

5807. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 16:16:42 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0109240816.6647a535@posting.google.com>
Source record: 49902

I've been involved in the design of precision audio-range signal analysis equipment for quite a while now, and especially the analog "front end" sections. FWIW, I've had occasion to make quantitative measurements of some things like dielectric absorption, leakage, distortion, stability and noise, in various types of capacitor. AFAIK, ceramics are better performing, cheaper and smaller than electrolytics in an 0.1uF size, in all respects. There are three reasons that come immediately to my mind for going to a polyester (or even better, polypropylene) film cap: lower distortion (only an issue when there are significant voltage changes across the cap...near filter corner freqs for instance), lower noise at _very_ low frequencies (~1Hz) in certain very special situations when there's DC across the cap, and lower dielectric absorption. I have not seen microphonics to be an issue with modern multi-layer ceramics, though if it's in a place where people will be beating it with a hammer, you might care about that. So...I'd say you just may have found a case of "bad design." (They abound...just because something comes from a company with a well-respected name doesn't mean everything in it is perfect.)

Cheers,
Tom

"Peter J. Bertini" <commquart@home.com> wrote in message news:<rBlr7.27711$NT3.3807893@news1.rdc1.ct.home.com>...
> Not really a homebrew topic, but... I noticed my Yaesu rig uses
> both .1 ceramics and .1 electrolytics on the AF board. Why in
> the world would anyone want to use an electrolytic in lieu of a
> good ceramic or plastic capacitor--I can't see any technical
> advantages. Was it a cost driven decision?

5808. Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 17:24:36 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <kYJr7.2546$2K4.614790@news6-win.server.ntlworld.com>
Source record: 49903

Hi

Old KW equipment uses the Kokusai MF-455-|OCK mechanical filter Problem: they become "lossy" during time. Apparantly, the actual mechanical filter housing inside the outer filter can, is set in foam and the foam goes gooy. Well, I would NOT have thought that that itself affected much, just the mechanical shock resistance of the filter. So, maybe the foam going splodgy isn't why the filter goes lossy, so that leaves the transducers. Does anyone know if it is the transducers that go faulty? All this seems odd to me, I would have thought a filter would last indefinitely, but apparantly not so. Thanks.

5809. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 17:50:55 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BAF727F.47D4F3EB@clifto.com>
Source record: 49906

Tom Bruhns wrote:
> AFAIK, ceramics are better performing, cheaper and smaller than
> electrolytics in an 0.1uF size, in all respects.

Including tantalums? I was under the impression that tantalums are very
low-leakage caps.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

5810. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 17:59:21 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109240959.6155b86d@posting.google.com>
Source record: 49907

Rahul <r_sat@yahoo.com> wrote in message news:<3BAAEDCE.8080906@yahoo.com>...
> Hello,
>
> I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I
> can use 4CX350B in place of 4CX250B and get some more watts out of the
> boot? Is this recomended...

While the 4CX350 is the same physical size as the 4CX250, it
is not electrically the same. The 4CX350 is only suitable for
linear operation (zero control grid dissipation). Also, it
requires 110 volts on the filament, and -220 volts on the
suppressor grid.

Unlike the 4CX250, it needs no cooling air. This can
make it a lot easier to use.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5811. Re: "Mathematics and Amateur Radio"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 18:04:16 UTC
From: Glenn Pederson <gpeder@elnet.com>
Message-ID: <tqutkmrc0rance@corp.supernews.com>
Source record: 49909

I saw the following book at my local Border's Bookstore just last night. It was an excellent overview of the math used in electronics.

Teach Yourself Algebra for Electric Circuits
Author: Ken Jenkins
ISBN: 0071381821
List Price: $ 34.95
http://www7.bestwebbuys.com/books/search?q=0071381821&t=ISBN

Philip Hudkins <philip@cyberstation.net> wrote in message news:XGHp7.6$8V6.5097@e420r-atl1.usenetserver.com...
> Help! Does anyone have any recommended books, software or other training
> manuals that could be used to educate me in the field of math as it applies
> to Amateur Radio? Thanks. Philip Hudkins
>
>
>

5812. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 18:05:39 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <CzKr7.1844$755.37082@news1.oke.nextra.no>
Source record: 49908

I was in touch with JF1VHX when I restored a Trio JR-310 from 1968 and he confirmed what you were saying concerning the Kokusai mechanical filters and aging. Perhaps he can also explain why?

Date: Mon, 2 Apr 2001 08:58:49 +0900
From: Takaomi Eda <te21c@dh.catv.ne.jp>
Subject: Re: Question about Trio JR-310

Thank you for visiting my web site. The narrow filter intended for JR-310 was MF-455 10AZ, a mechanical filter made by Kokusai Electric. Co. New or Used, 10AZ is very hard to find now, and if you should find one, it would be very likely to have deteriorated. Kokusai's mechanical filters are well known to lose their original performance over a long period of time.

de JF1VHX, Taka.

His web page can be found by following my link below and go to Vitnage Radios and Trio JR-310.

Regards,

Sverre

---
http://www.qsl.net/la3za

"Richard Daventry" <newsgps_email@ntlworld.com> skrev i melding news:kYJr7.2546$2K4.614790@news6-win.server.ntlworld.com...
> Hi
>
> Old KW equipment uses the Kokusai MF-455-|OCK mechanical filter Problem:
> they become "lossy" during time. Apparantly, the actual mechanical filter
> housing inside the outer filter can, is set in foam and the foam goes gooy.
> Well, I would NOT have thought that that itself affected much, just the
> mechanical shock resistance of the filter. So, maybe the foam going splodgy
> isn't why the filter goes lossy, so that leaves the transducers. Does anyone
> know if it is the transducers that go faulty? All this seems odd to me, I
> would have thought a filter would last indefinitely, but apparantly not so.
> Thanks.
>
>

5813. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 18:21:13 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BAF7996.5067B5FA@att.net>
Source record: 49910

I use a Behringer MX602A mixer/EQ unit with my IC-756PRO and my Kachina 505DSP, both transmitting and receiving. The unit is also interfaced to my computer and is the complete audio control center for the shack, including the large stereo amplifier and speaker system.

I run CW, SSB and PSK31 and have no - repeat - no r-f or other such problems. xOthers using the 602 have had similar results.

The MX602A sells at any large music store for $99. Or it is available from Heil Sound.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

---Bill--- wrote:
>
> Afunradio wrote:
> >
> > I have been trying to patch in a equalizer between my studio type mic and my
> > kenwood 940, I cant seem to stop the rf feedback, I have changed and eliminated
> > all the jumpers between coax switches and tuners, that don't work, I'm using
> > good quality shielded cables, all grounds in place, the mic is a sure sm-58,
> > the EQ is a rane 30 band, Anyone run accross a problem like this? Thanks,
> > Dale
>
> haha- I tried that once and got the same results. "Audiophile"
> components don't necessarily have RF field as part of their design and
> the bypassing, etc. simply isn't up to par in such an application. All
> is not lost because if you get out your the wallet there are some
> 'transmitting capable' equalizers out there.
> A good mike, or voice lessons may be cheaper-eaper-eaper-eaper. Excuse
> me, let me cut off the reverb. Beep.
> --
> Bill M
> Vieques, PR

5814. FS: Large stock of valves - very cheap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 19:39:50 UTC
From: arnoldg@enitel.no
Message-ID: <3baf8ba0.15161634@news.enitel.no>
Source record: 49911

Hello,

I just got a large stock of valves from an old radio/TV repair shop
that has been closed for years. The owner just died and the shop was
sold at an action.
All the valves are completely new, never used. They are in original
boxes and in mint shape. The valves are mostly HALTRON brand, but
obviously a large part of them are just rebranded by Haltron.

The following are for sale.

950 pcs DY 87 $ 0,40 HV single rectifier

60 pcs EB 91 $ 0,50 = 6AL5
40 pcs EF 50 $ 0,40 WW2 wideband pentode
20 pcs EF 55 $ 0,50 WW2 wideband radar pentode
200 pcs EF 183 $ 0,50 = 6EH7 remote cutoff pebtode
40 pcs EY 81 $ 0,40 Booster diode 550V 150mA
40 pcs EY 86 $ 0,40 HV single rectifier

220 pcs PABC 80 $ 0,50 triple diode + medium u triode
400 pcs PC 900 $ 3,00 high gm VHF triode + audio
90 pcs PCC 85 $ 0.40 double triode VHF
280 pcs PCF 200 $ 0,50 triode + high gm pentode
350 pcs PCF 201 $ 0,50 Triode + high gm pentode
630 pcs PCF 801 $ 0,50 Triode + high gm pentode
370 pcs PCF 802 $ 0,60 Triodepentode
730 pcs PCH 200 $ 0,50 Triodeheptode

150 pcs PCL 81 $ 0,60 Triode outputpentode
190 pcs PCL 82 $ 0,50 Triode outputpentode Wa 7W
200 pcs PCL 86 $ 0,60 Triode outputpentode Wa 9W
250 pcs PFL 200 $ 0,50 Pentode + high gm outputpentode
(S= 22mA/V Wa 5W)
100 pcs PL 36 $ 0,50 Line outputpentode Wa 12W
170 pcs PL 82 $ 0,50 Output pentode Wa 9W
170 pcs PL 83 $ 0,50 Output pentode Wa 9W
360 pcs PL 84 $ 0,50 Output pentode close to EL 84 l
200 pcs PY 81 $ 0,40 Booster diode 550V 150mA
100 pcs PY 83 $ 0,40 Booster diode 175mA

Even more discount is available if you buy large quantities.

Please contact me by fax (+47 57 69 12 67) or e-mail
(arnoldg@enitel.no) if you are interested

Best regards,

Arnold Goks&#65533;yr
-manager-

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books and components.

5815. Mega Web Site - Homebrew

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 19:43:30 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BAF8CE2.A0E5A41C@amsat.org>
Source record: 49912

Hundreds of homebrew projects at URL:
http://ac6v.com/homebrew.htm

--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com

5816. 2 Mbit/s amateur modem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 20:29:20 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9oo4siqub1@wanadoo.fr>
Source record: 49913

Description of a 2 Mbit/s experimental amateur modem.

http://perso.wanadoo.fr/jf.fourcadier/accueil/accueil_e.htm

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

5817. Re: Using audio EQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 20:45:34 UTC
From: Mike Tatum <miket@cybatek.fsnet.co.uk>
Message-ID: <3BAF9B6E.4812858F@cybatek.fsnet.co.uk>
Source record: 49805

Take a look at the W2IHY audio eq and noise gate, I use one here and it's
simply brilliant !

Julius (W2IHY) has a website with all the details ...

Regards,

MikeT
M0AWS.

Afunradio wrote:

> I have been trying to patch in a equalizer between my studio type mic and my
> kenwood 940, I cant seem to stop the rf feedback, I have changed and eliminated
> all the jumpers between coax switches and tuners, that don't work, I'm using
> good quality shielded cables, all grounds in place, the mic is a sure sm-58,
> the EQ is a rane 30 band, Anyone run accross a problem like this? Thanks,
> Dale

--
MikeT
http://www.cybatek.fsnet.co.uk/m0aws/

5818. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 20:52:22 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <%2Nr7.5391$KP.1095011@news2-win.server.ntlworld.com>
Source record: 49914
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

anything i find out or know i gladly pass on to those who need the info depending on circumstances,they spy on us so i spy on them,when i first got intp scanners and was still a student i use to pass on information gained at demonstrations that would be of benefit to the demonstrators,in fact it was funny a couple of years ago,when stopped for scanning at notting hill carnival,the cid guy said"you are the one who use to scan at demonstrations",i was well known for that by special branch,and on special or royal events my details use to be passed over by "GT" special ops room at Scotland Yard,they dont bother anymore,they know what i am about and i have a lot of contacts and friends in various police forces,but i dont ever ask them to divulge confidential info,its just that some do.

dont get me wrong,i would not divulge everything,just depended on circumstances.

you could rightly say dangerous,i just stick to my principles and dont get fooled like most people the crap thats fed to us by the current capitalist state.

but you have the right to dissagree by all means.

my politics are just important to me as my scanning

as for CND they thought that it might be useful to have people on the inside,not just me,i still supported what we were doing in the ROC,but although the info gained was not public domain it was hardly top secret.

it amazed me i passed the security checks as i had already been arrested several times at left wing demonstrations,mainly anti nucleur or anti rascist,and i have always been proud of my arrests,i know demonstrate in differant ways.

remember you all can have your say in Brighton on Sunday,the Labour party conference,a very large vociferous but peaceful demo is going to take place[10,000 or hopefully more].

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

keith <keith@recelectronics.demon.co.uk> wrote in message
news:6TRuaBAhkwr7EwKt@recelectronics.demon.co.uk...
> In article <gasr7.8005$%a4.1849735@news2-win.server.ntlworld.com>,
> proma1 <proma1@ntlworld.com> writes
> >thats not what i said,but governments make use of situations for there
own
> >end,i have contact as said at very high level in military and military
> >intelligence and military procurement,and various things they have told
me
> >have borne out as true.
> >
> >i knew of certain defence cuts and shake ups several months before the
press
> >announced them,if your wondering why i should say these things even
though i
> >have at one point in my life signed the official secrets act,its because
i
> >do not believe in the official secrets act or secrets in general,i had to
> >sign it but i never wanted to.
> >
> >
> >
> >
> Nothing new in that.
>
> I knew of the close down of certain Radar control centres , in favour of
> Neatishead , a couple of years before it was announced.
> The studies,made by civilian companies ,always get leaked out.
>
> these things are always planned/decided a long time before the press
> ever know.
>
> I wondered why a small bomb store was built at Mildenhall.
> Then a long while after, it was announced Alconbury would close and the
> USAF SOS units move to Mildenhall.
> They new long before the announcement was made.
>
> I have to say that if your "contacts" are a a "very high level" then I
> despair at out national security as it looks like you are ready to pass
> it all on.
> You admit that you do not believe in the "Official Secrets Act" and then
> they pass all this stuff on to you.
>
> Frightening.
>
>
> Keith
>
>
> **
> * Visit "Keiths Vintage Racal Site" *

> * http://www.recelectronics.demon.co.uk *
> **
>

5819. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-24 21:49:52 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9ooa1qqsl1@plutonium.btinternet.com>
Source record: 49915
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

If USA citizens would like to know why the USA is disliked by most
of the world's population, why not ask and listen carefully.

You will hear the truth. Don't be afraid of it It might hurt but
you can take it.

5820. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 00:21:04 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0109241621.30df07f5@posting.google.com>
Source record: 49916

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:<3BAF727F.47D4F3EB@clifto.com>...
> Tom Bruhns wrote:
> > AFAIK, ceramics are better performing, cheaper and smaller than
> > electrolytics in an 0.1uF size, in all respects.
>
> Including tantalums? I was under the impression that tantalums are very
> low-leakage caps.

Tantalums have pretty terrible dielectric absorption, and distortion
(for the same value in the same circuit) is worse than the X7R
ceramics I've tested. They are much more expensive than ceramics,
around the 0.1uF range. They are polarized, so you gotta make sure
they are loaded correctly. Leakage seems to be somewhat higher than
ceramics...but polyprop films are pretty nice if you want low leakage!
(I have an ongoing experiment to test the leakage of those, and last
I checked, the discharge time constant was many tens of
years...sub-femtoamp leakage current.) ESR for standard tants is a
bit higher than for ceramics...sometimes a good thing, and relied on
for bypassing some linear regulators. Tants are superior to aluminum
electrolytics in most situations, 'cept for cost. They don't become
open circuits like the alums do at low temp.

Cheers,
Tom

5821. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 00:28:03 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BAFCF93.309A93A@world.std.com>
Source record: 49917

Could someone here kindly point me to an online source of this article? It sounds like fascinating reading.

Thank you.

Clyde KA1CRV

Bozidar Pasaric wrote:

> Following the schematic and instructions in Dan Tayloe's patent
> documentation, the "Letters to the Editor" in the QEX (Dec. 2000) and
> the information I picked up in this news-group some three months ago, I
> managed to make a Tayloe receiver which works. I made it on a
> perfoboard. The multiplexer is a Fairchild FST3253 (SMD style), the
> binary counter is a Fairchild 74AC163, (in front of which I put a
> 74F00 to shape the pulses), the I and Q amplifiers are two TL071's, and
> the adding amplifier is another TL071 followed by a TL072 - which
> includes a low pass filter followed by one more amplifier. At the end
> of the chain there is an "active speaker" - a small computer amplifier
> which I regularly use instead of headphones. At the front end of the
> receiverI have put a tunable resonant circuit wound on an iron
> no-name powder core for 3,5 - 14 MHz, with a variable capacitor 500 pF
> max., so that I can tune in any of the three bands. The secondary coil
> is about Z = 50 ohms connected to the multiplexer.
>
> The VFO is a rock-stable DDS 0-60 MHz which I made about a year ago.
> At its output there is a group of tunable resonant circuits with a
> switch, which guarantee a clear output signal. It was of a great
> help to me because I did not have to bother about the VFO and its
> stability. The AF phase-shift network is the same as Phil Rice, VK3BHR,
> has described it in his article "SSB by the Fourth Method?" (Amateur
> Radio, February 1998, page 16).
>
> I did not have any real difficulties putting the receiver together,
> except some tedious work soldering the SMD-style 3253 MUX - with the
> help of a magnifying glass and a lot of patience. The binary counter
> 74AC163 does not have an up/down pin as some other binary counters do.
> However, when you wish to switch from LSB to USB, you just swap the I
> and Q leads with each other, and so change the direction of the
> rotation. It can be done with a DPDT toggle switch. The bias for the
> 3253 was provided with a 5 kohms trimmer potentiometer connected
> between the stabilized 5 V supply leads. During the test reception it
> can be positioned to the best result. Initially it is in the middle.
>
> The AF phase-shift network also works fine so I got the SSB signal

> immediatelly. The SSB is very clear. If someone needs info how to
> connect it, here it is: the filter has four inputs (1-4, take any side)
> and four outputs (5-8, the other side). Numbers 3 and 4 are grounded.
> Numbers 1 and 2 go to the I and Q channels respectively. Output numbers
> 5 and 6 are soldered together, as well as numbers 7 and 8. So you get a
> double 0 - 180 degrees output, which goes to the adding amplifier (with
> a push-pull input as I call it).
>
> I also tried to disconnect the 90 and 270 degrees capacitors C2 and C4
> after the multiplexer (for the negative half-period) and the receiver
> continued working correctly, although with some less volume.
>
> The receiver must have an excellent AF amplifier, because all the
> amplification is realized there. Precautions against hum must be taken;
> long ground leads pick up hum. Everything is true what Dan Tayloe told
> us about his receiver, selectivity, SSB, dynamics etc. I listen to 3.5 -
> 7 and 14 MHz bands, which means that the VFO works on 14, 28 and 56
> MHz.
>
> "But where is the "catch 22" - I used to ask myself before I built the
> receiver, because I know from experience that there is always one.
> Well, when tuning along any band you can hear whistles which are
> obviously coming from some harmonic interferences. They are generated
> inside the RX because they can also be heard with the antenna pulled
> out. It is easy to tell them from the outside signals because it
> takes one whole turn of the rotary encoder to tune the outside signal to
> zero - and only one tenth of it to tune the spurious signal to zero
> sound. The whistles are especially strong on the following VFO
> frequencies:
>
> For 3,5 MHz: 14052 - 14118 - 14320 kHz.
>
> For 7 MHz: 28039 - 28105 - 28237 - 28370 kHz.
>
> For 14 MHz, CW band only: 56036 - 56049 - 56079 - 56116 - 56136 - 56158
> - 56210 - 56316 - 56386 kHz.
>
> I felt very proud when the receiver first worked, but now I am a little
> worried because so many spurious signals spoil the pleasure of
> listening. On 3.5 and 7 MHz it could be tolerable, but not on the 14 MHz
> band. Now, can anyone explain to me the reason for so many spurious
> frequencies, and can anyone advise me what to do and how to get rid of
> them?
>
> Many thanks for any help - Bozidar, 9A2HL

5822. Re: I have made a Tayloe receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 00:28:36 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BAFCFB4.7C402B5F@world.std.com>
Source record: 49918

Oh, I forgot, and the patent number?

Clyde

Bozidar Pasaric wrote:

> Following the schematic and instructions in Dan Tayloe's patent
> documentation, the "Letters to the Editor" in the QEX (Dec. 2000) and
> the information I picked up in this news-group some three months ago, I
> managed to make a Tayloe receiver which works. I made it on a
> perfoboard. The multiplexer is a Fairchild FST3253 (SMD style), the
> binary counter is a Fairchild 74AC163, (in front of which I put a
> 74F00 to shape the pulses), the I and Q amplifiers are two TL071's, and
> the adding amplifier is another TL071 followed by a TL072 - which
> includes a low pass filter followed by one more amplifier. At the end
> of the chain there is an "active speaker" - a small computer amplifier
> which I regularly use instead of headphones. At the front end of the
> receiverI have put a tunable resonant circuit wound on an iron
> no-name powder core for 3,5 - 14 MHz, with a variable capacitor 500 pF
> max., so that I can tune in any of the three bands. The secondary coil
> is about Z = 50 ohms connected to the multiplexer.
>
> The VFO is a rock-stable DDS 0-60 MHz which I made about a year ago.
> At its output there is a group of tunable resonant circuits with a
> switch, which guarantee a clear output signal. It was of a great
> help to me because I did not have to bother about the VFO and its
> stability. The AF phase-shift network is the same as Phil Rice, VK3BHR,
> has described it in his article "SSB by the Fourth Method?" (Amateur
> Radio, February 1998, page 16).
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> I did not have any real difficulties putting the receiver together,
> except some tedious work soldering the SMD-style 3253 MUX - with the
> help of a magnifying glass and a lot of patience. The binary counter
> 74AC163 does not have an up/down pin as some other binary counters do.
> However, when you wish to switch from LSB to USB, you just swap the I
> and Q leads with each other, and so change the direction of the
> rotation. It can be done with a DPDT toggle switch. The bias for the
> 3253 was provided with a 5 kohms trimmer potentiometer connected
> between the stabilized 5 V supply leads. During the test reception it
> can be positioned to the best result. Initially it is in the middle.
>
> The AF phase-shift network also works fine so I got the SSB signal
> immediatelly. The SSB is very clear. If someone needs info how to
> connect it, here it is: the filter has four inputs (1-4, take any side)
> and four outputs (5-8, the other side). Numbers 3 and 4 are grounded.

> Numbers 1 and 2 go to the I and Q channels respectively. Output numbers
> 5 and 6 are soldered together, as well as numbers 7 and 8. So you get a
> double 0 - 180 degrees output, which goes to the adding amplifier (with
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> I also tried to disconnect the 90 and 270 degrees capacitors C2 and C4
> after the multiplexer (for the negative half-period) and the receiver
> continued working correctly, although with some less volume.
>
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> amplification is realized there. Precautions against hum must be taken;
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> us about his receiver, selectivity, SSB, dynamics etc. I listen to 3.5 -
> 7 and 14 MHz bands, which means that the VFO works on 14, 28 and 56
> MHz.
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> "But where is the "catch 22" - I used to ask myself before I built the
> receiver, because I know from experience that there is always one.
> Well, when tuning along any band you can hear whistles which are
> obviously coming from some harmonic interferences. They are generated
> inside the RX because they can also be heard with the antenna pulled
> out. It is easy to tell them from the outside signals because it
> takes one whole turn of the rotary encoder to tune the outside signal to
> zero - and only one tenth of it to tune the spurious signal to zero
> sound. The whistles are especially strong on the following VFO
> frequencies:
>
> For 3,5 MHz: 14052 - 14118 - 14320 kHz.
>
> For 7 MHz: 28039 - 28105 - 28237 - 28370 kHz.
>
> For 14 MHz, CW band only: 56036 - 56049 - 56079 - 56116 - 56136 - 56158
> - 56210 - 56316 - 56386 kHz.
>
> I felt very proud when the receiver first worked, but now I am a little
> worried because so many spurious signals spoil the pleasure of
> listening. On 3.5 and 7 MHz it could be tolerable, but not on the 14 MHz
> band. Now, can anyone explain to me the reason for so many spurious
> frequencies, and can anyone advise me what to do and how to get rid of
> them?
>
> Many thanks for any help - Bozidar, 9A2HL

5823. Re: balanced mixer question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 01:37:01 UTC
From: Steve Ratzlaff <sratzlaf@prodigy.net>
Message-ID: <1dRr7.11154$jz6.1534570738@newssvr17.news.prodigy.com>
Source record: 49919

A slight addition to the information already given, which is correct. R stands for "RF" and is usually the input; X stands for "IF" and is usually the mixed output. But R and X can be interchanged. Often the X port extends down to dc, or at least a lower frequency than the R port. If your application needs a very low mixed output, then X is the port to use; conversely if your input is lower than the mixed output, then you'd interchange R and X and use X as the input port and R as the mixed output. If your mixer is a Mini-Circuits mixer, you can look up its specs online at Mini-Circuit's webpage.
Steve AA7U
"gudmundur" <hexter@blazenet.net> wrote in message
news:tqtou3gl7tmie5@corp.supernews.com...
> I have a 3 port BNC balanced mixer that I want to use in a vhf
> transverter. The ports are L X R. i know that L is local osc.
> Which would be the low freq output, and which the high freq input?
>

5824. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 03:53:34 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <6mqvqtccv4tiih6ed5b1nessa4hii0pkiq@4ax.com>
Source record: 49921

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote:

>Tom Bruhns wrote:
>> AFAIK, ceramics are better performing, cheaper and smaller than
>> electrolytics in an 0.1uF size, in all respects.
>
>Including tantalums? I was under the impression that tantalums are very
>low-leakage caps.

Tantalum electrolytics are lower leakage than aluminum electrolytics,
but worse than film or ceramic.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

5825. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 04:54:56 UTC
From: hexter@blazenet.net
Message-ID: <tr03h089lt5258@corp.supernews.com>
Source record: 49922

In article <d42b5a72.0109240959.6155b86d@posting.google.com>,
marsgal42@hotmail.com says...
>
>Rahul <r_sat@yahoo.com> wrote in message
news:<3BAAEDCE.8080906@yahoo.com>...
>> Hello,
>>
>> I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if
I
>> can use 4CX350B in place of 4CX250B and get some more watts out of
the
>> boot? Is this recomended...
>
>While the 4CX350 is the same physical size as the 4CX250, it
>is not electrically the same. The 4CX350 is only suitable for
>linear operation (zero control grid dissipation). Also, it
>requires 110 volts on the filament, and -220 volts on the
>suppressor grid.
>
>Unlike the 4CX250, it needs no cooling air. This can
>make it a lot easier to use.
>
>Laura Halliday VE7LDH "Que les nuages soient notre
>Grid: CN89lg pied a terre..."
>ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

Where on this green earth did you come up with those specs??????
surely you must be trolling for the low i.q. 'c.b.fish' a certain
bottom feeder in the electronic food chain.

5826. Want dead 8877 tube

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 05:46:17 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tqvrj2jmibid20@corp.supernews.com>
Source record: 49920

For an amplifier project. Don't have the money for a new tube so
want a place holder so I can get started with the layout, etc.

Doug N4IJ
snowden@peoplepc.com

5827. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 06:28:21 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <3h60rtc5fqb38m37blv595vj8m6bl1ndbn@4ax.com>
Source record: 49923

On Mon, 24 Sep 2001 10:26:11 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>Imagine a single dot. The rise time of the envelope creates sidebands,
>which extend out depending on the shape and duration of the rise time.
>The same is true as the signal falls.

If you turn the signal on and it remains on forever, it generates
broadband _noise_.

>The ONLY time sidebands are generated is during the rise and fall.
>Neither the on duration or the off duration generates any sidebands.

If you look at a single pulse, with some nonzero duration, it
generates a discrete line spectrum, with a frequency distance between
sidebands proportional to the inverse of the pulse width. The
available noise power has now been concentrated into these discrete
sidebands. The amplitude of these sidebands follow the sin(x)/x
relationship.

>When we send CW, we increase how often the sidebands generated by the
>waveshape appear. This changes the time-averaged power in the
>sidebands, but it does not change the bandwidth.
>
>The effect is the averaged power in the sidebands increases with
>increasing speed (just as a pulse transmitters average power increases
>with increased pulse repetition rate) but the bandwidth is the same
>for one pulse or a thousand.

Do I understand correctly that you are saying that the total power of
the sidebands will increase with increased number of transitions ?

If so, where does this power come from ? It is coming from the
transmitter. So going from 5 WPM to 50 WPM would turn a 100 W
transmitter into a 1 kW transmitter ?

Unfortunately this is not true :-).

The ratio between the carrier and the total power in the sidebands
remains the same regardless of speed.

>Duration of a pulse does not affect the
>high order sidebands cause by the rise and fall of the pulse, because
>it is at such a low frequency.

The duration of the pulse has a very important effect to the
distribution of the noise power. At 5 WPM, the noise power is
concentrated into small discrete sidebands every 2 Hz. Increasing the

speed to 50 WPM will concentrate the power into discrete sidebands 20 Hz apart. Since one sideband contains the noise power of 10 small sidebands, it is 10 times taller (+10 dB).

Since the power of the carrier level is the reference level and you measure the relationship between the peaks of the discrete sidebands compared to the carrier level (i.e. the attenuation relative to the carrier) and the definition for bandwidth is the (double) frequency offset between the carrier and the sideband at which the peak of the sideband is below a preset level.

Thus, with a few large sidebands far apart, the bandwidth is proportional to the keying rate when the rise and fall times are 0.

Compare this with the situation in a DDS, in which various truncation errors will produce a constant noise power. At certain frequency settings, this noise is evenly distributed on all frequencies and there is a constant white noise floor at say -100 dBc. However, on certain frequency settings, all the noise power is concentrated to one or only a few discrete frequencies, creating nasty birdies only 40 - 60 dB below the carrier.

Paul OH3LWR

5828. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 07:08:34 UTC
From: "jamesm.stewart" <jamesm.stewart@ntlworld.com>
Message-ID: <55Wr7.224$H4.63771@news2-win.server.ntlworld.com>
Source record: 49924
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
news:9ooa1qqsl1@plutonium.btinternet.com...
> If USA citizens would like to know why the USA is disliked by most
> of the world's population, why not ask and listen carefully.
>
> You will hear the truth. Don't be afraid of it It might hurt but
> you can take it.
>
>
YOU ARE THE ENEMY.................

5829. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 07:22:12 UTC
From: 2w8ji@contesting.com
Message-ID: <3baf6a68.379437158@news.akorn.net>
Source record: 49925

I think I see what is going on.

First most of us probably realize that the only time sidebands are generated are when the waveform changes amplitude. I'm sure most of us understand the bandwidth required for the rise and fall time is much wider than bandwidth required for the actual information in most practical cases, otherwise the CW would sound too "soft".

So we know from that that the spectrum of the sidebands (clicks) is set by the rise and fall characteristics, and not by how often we repeat them.

The probelm is in how we are defining bandwidth.

What most seem to be assuming is we can define CW interference bandwidth using total power accumulated over many dot and dash rise and fall periods. Hence as we double the speed of a given string of characters, we have 3dB more power in a long time window at a given rise-and-fall shape and duration and carrier power level.

That doesn't work well, if at all. For an example of how oddly the brain perceives quick signals, listen to the 1kHz sinewave (as I recall it is 1kHz) tone on WWV that appears once a second. See if that quick pure tone doesn't sound like a click or tick to you.

Once the peak power of any sideband generated by the leading and falling edge of the CW signal is over the threshold of noise, our brains registers a loud click. Neither our brains nor our receivers "store" the energy from multiple repeating busts of energy that are separated by wide margins compared to the duration of these short duratiuon "energy packets".

Now if we were heating resistors, or integrating the energy in a R/C charging system that slowly ramped up with increasing numbers of rising and falling transitions per second, the assumption that bandwidth increases with more frequent transitions would be valid. The level of interference or clicks would sound like it increases in direct proportion to the number of transistions from off-to-on and on-to-off.

Unfortunately that isn't what registers in our minds when we try to operate near another station. What we "hear" are more frequent clicks that extend almost exactly the same distance up and down from the offending station, not more powerful clicks, as that staion sends faster.

Since properly working AGC systems are fast attack and slow decay, they are pretty much charged by one or two "clicks". As a matter of fact, that is how I test AGC systems. I look at the response to a pulse transmitter with short duration and a somewhat large gap between pulses.

If I don't have an AGC system that ramps up faster than the rise time of the CW signal, then the AGC system will thump and distort the desired signals.when on fast AGC. So the AGC, to sound good at high speeds, has to be significantly faster responding than the duration of the rise time. In other words, it has to have a much shorter attack time than the length of the rise time of the signal.

So the AGC system, with the receiver set a given distance from the carrier frequency, pretty well charges to full voltage on the leading edge transition. Increasing the number of transitions per second has little effect on peak AGC voltage, and if we put the meter on slow decay we will see no change in S meter reading as we change the number of "energy packets" sent per second.

Our brains will also not register the difference in bandwidth. For all practical purposes, the bandwidth is set by the rise and fall characteristics and not the number of them per second (or hour or day).

I see now what the problem is. We are trying to somehow define bandwidth as the power over a long period of time compared to what a properly working AGC system or a brain will need to register maximum effect. We are trying to make this time period so long, that the number of transitions in a matter of a second or two becomes unimportant. By doing that, even though each letter has a different number of transitions and a dash has a much slower pulse rate per second than a dot, we are making it all the same and tieing it back to speed.

The problem is, neither our ears or a properly responding AGC system works that way.

That's why when we tune near a novice sending at 5 WPM and notice his rg clicks for 4kHz, it will sound like the same rig clicks for about the same spacing when sending at 50 WPM.

73 Tom

5830. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 08:36:05 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <zmXr7.974$L4.204519@news6-win.server.ntlworld.com>
Source record: 49926
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

itsw funny how the countries that cause these problems,cannot understand how there arrogance is responsible.

just reading Israels prime minister has refused to talk withy our foreign secretary,just because he righty critsicised Israel.

very similar to the US,must not ctriscise them,they own us,tell us what to do,and now even UK tv reference George Bush as the president,not US president,just president,i was not aware we had one in the UK.

also look at Northern Ireland a problem created by Ulster Unionists and the British,there would of been no IRA,if there had not of been apartheid and racsism towards catholics,which as shown the other week against those schoolgirls is still rife,and there orange marches of course.

these countries and people will not have peace until they realise what they have done to cause the hatred in the first place.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

jamesm.stewart <jamesm.stewart@ntlworld.com> wrote in message
news:55Wr7.224$H4.63771@news2-win.server.ntlworld.com...
>
> Reg Edwards <g4fgq.regp@btinternet.com> wrote in message
> news:9ooa1qqsl1@plutonium.btinternet.com...
> > If USA citizens would like to know why the USA is disliked by most
> > of the world's population, why not ask and listen carefully.
> >
> > You will hear the truth. Don't be afraid of it It might hurt but
> > you can take it.
> >
> >
> YOU ARE THE ENEMY.................
>
>

5831. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 09:11:11 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <19i0rtk3s0olukek3d62smprveio4q5mrk@4ax.com>
Source record: 49927

Why would you want a higher ESR for bypassing linear regulators?
Also, aren't the capacitance values used for bypass caps a little
too high for ceramics?

Thanks and 73,
Jim

On 24 Sep 2001 17:21:04 -0700, tom_bruhns@agilent.com (Tom Bruhns)
wrote:

>"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:<3BAF727F.47D4F3EB@clifto.com>...
>
>...
>years...sub-femtoamp leakage current.) ESR for standard tants is a
>bit higher than for ceramics...sometimes a good thing, and relied on
>for bypassing some linear regulators. Tants are superior to aluminum
>electrolytics in most situations, 'cept for cost. They don't become
>open circuits like the alums do at low temp.
>
>Cheers,
>Tom

5832. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 10:46:16 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001414776@msauve>
Source record: 49928

On Tue, 25 Sep 2001 07:22:12 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
>
> The problem is, neither our ears or a properly responding AGC system
> works that way.

But the FCC regulations and laws of physics do. No one ever qualified this discussion as being limited to "psycho-acoustic" bandwidth.

5833. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 12:18:14 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BB07606.245A4A56@clifto.com>
Source record: 49929

Jim Adney wrote:
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote:
> >Including tantalums? I was under the impression that tantalums are very
> >low-leakage caps.
>
> Tantalum electrolytics are lower leakage than aluminum electrolytics,
> but worse than film or ceramic.

THERE'S the missing bit of information. My first exposure to tantalums was in the 70's, when my sources of information were mostly incomplete and I wasn't particularly good at using them anyway. The circuit was a Sylvania TV pushbutton volume control that stored its setting in a tantalum.

Thanks also to Tom for additional details that further complete the picture.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

5834. Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 12:25:06 UTC
From: jwodell@provide.net
Message-ID: <3bb07740.2230560@news.provide.net>
Source record: 49930

Just read a 1991 book on Soldering. Yes, there is a whole book on it.

Fellow says that one should never resolder a connection. Reasoning:
each time heat is applied the bonding layer gets thicker, and will
eventually fail. Of course, you have to resolder it if has failed.

Wonder if he is right!

73 jerry w8gnd

5835. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 13:21:10 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <fu%r7.678$H4.83425@news2-win.server.ntlworld.com>
Source record: 49931

"Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
news:CzKr7.1844$755.37082@news1.oke.nextra.no...
I was in touch with JF1VHX when I restored a Trio JR-310 from 1968 and he confirmed what you were saying concerning the Kokusai mechanical filters and aging. Perhaps he can also explain why?

RD
I emailed JF1VHX and he made some comments. Even said he's done a page on his site, on the issue, but I cannot see it. The foam stuff must surround the actual vibrating portions of the filter. So it will be the, "curdled" foam that spoils them.

Thanks for your input.

Rich.

5836. Bottom loaded antennas

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 13:31:01 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9oq1shosm2@plutonium.btinternet.com>
Source record: 49932

NEW PROGRAM *** BOTLOAD.exe

This little program answers the frequently asked questions "What is
the inductance of a bottom loading coil needed to resonate a
vertical antenna and how many turns of what gauge wire ?

Also how many picofarads will resonate the antenna when its input
reactance is inductive ?

And what heights of antenna will give a feedpoint input resistance
of 50 ohms or 75 ohms ? And what loading coil or tuning
capacitance should be used at those heights.

Covers any antenna height from a few inches to several wavelengths
on 160m.

Dimensions in metres, feet, inches and American Wire Gauge.

****
Regards, Reg, G4FGQ
Free Radio Design Software
http://www.g4fgq.com

****

5837. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 16:03:18 UTC
From: Jack Smith <jsmith@mnsinc.com>
Message-ID: <hia1rt8ktok79r25t8qgetpcjleth3p0ka@4ax.com>
Source record: 49933

I made some measurements using a pulse generator, signal generator and digital scope for 5 and 24 WMP, using fast (500 us) and shaped (7.5 ms) rise/fall times. The results are posted on my web page at:

http://home.cox.rr.com/k8zoa/cw_bandwidth.htm

Jack K8ZOA

5838. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 16:10:26 UTC
From: msix@plato.nmia.com
Message-ID: <S%1s7.4255$%72.138933@sjcpnn01.usenetserver.com>
Source record: 49934

Where can I find the specs for this Kokusai filter?
Zin, Zout, BW...
73 John W7ZFB

Richard Daventry wrote:
>"Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
>news:CzKr7.1844$755.37082@news1.oke.nextra.no...
>I was in touch with JF1VHX when I restored a Trio JR-310 from 1968 and he
>confirmed what you were saying concerning the Kokusai mechanical filters and
>aging. Perhaps he can also explain why?

>RD
>I emailed JF1VHX and he made some comments. Even said he's done a page on
>his site, on the issue, but I cannot see it. The foam stuff must surround
>the actual vibrating portions of the filter. So it will be the, "curdled"
>foam that spoils them.

>Thanks for your input.

>Rich.

5839. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 16:39:26 UTC
From: "jamesm.stewart" <jamesm.stewart@ntlworld.com>
Message-ID: <7s2s7.1463$H4.216833@news2-win.server.ntlworld.com>
Source record: 49936
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

```
>
> these countries and people will not have peace until they realise what
they
> have done to cause the hatred in the first place.
>
>
>
> --
> PROMA1
> Paul Wey

Who cares ...shoot the lot of them..............
```

5840. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 16:40:50 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB0B392.69B5B987@mwci.net>
Source record: 49935

Jack Smith wrote:

> I made some measurements using a pulse generator, signal generator and
> digital scope for 5 and 24 WMP, using fast (500 us) and shaped (7.5
> ms) rise/fall times. The results are posted on my web page at:
>
> http://home.cox.rr.com/k8zoa/cw_bandwidth.htm
>
> Jack K8ZOA

Excellent.

Bill W0IYH

5841. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 17:17:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB0BC22.C3C5C908@eznec.com>
Source record: 49937

Did he really say to not resolder it, or just to not reheat it?

Roy Lewallen, W7EL

"Jerry W. O'Dell" wrote:
>
> Just read a 1991 book on Soldering. Yes, there is a whole book on it.
>
> Fellow says that one should never resolder a connection. Reasoning:
> each time heat is applied the bonding layer gets thicker, and will
> eventually fail. Of course, you have to resolder it if has failed.
>
> Wonder if he is right!
>
> 73 jerry w8gnd

5842. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 17:39:42 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <Ah3s7.448$tu6.7952@news1.oke.nextra.no>
Source record: 49938

"Richard Daventry" <newsgps_email@ntlworld.com> skrev i melding
news:fu%r7.678$H4.83425@news2-win.server.ntlworld.com...
> I emailed JF1VHX and he made some comments. Even said he's done a page on
> his site, on the issue, but I cannot see it. The foam stuff must surround
> the actual vibrating portions of the filter. So it will be the, "curdled"
> foam that spoils them.
>

Take a look at http://home.catv.ne.jp/dd/te21c/ and select item no 4 in the menu. There is a series of images of a mechanical filter being taken apart, cleaned and then reassembled.

Sverre

www.qsl.net/la3za

5843. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 17:56:10 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <6w3s7.3187$L4.682083@news6-win.server.ntlworld.com>
Source record: 49939

"Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
news:Ah3s7.448$tu6.7952@news1.oke.nextra.no...

"Richard Daventry" <newsgps_email@ntlworld.com> skrev i melding
news:fu%r7.678$H4.83425@news2-win.server.ntlworld.com...
> I emailed JF1VHX and he made some comments. Even said he's done a page on
> his site, on the issue, but I cannot see it. The foam stuff must surround
> the actual vibrating portions of the filter. So it will be the, "curdled"
> foam that spoils them.
>

Take a look at http://home.catv.ne.jp/dd/te21c/ and select item no 4 in the
menu. There is a series of images of a mechanical filter being taken apart,
cleaned and then reassembled.

Sverre

www.qsl.net/la3za

RD

I still cannot get to it. His menu is as follows, and item #4 to me looks
like Homebrew Radios. But nothing under that heading.

MENU

VHF Collection
HF Collection
Portable TRX Collection
Homebrew Radios
Old Radio Books
Old Radio Parts...

etc.

5844. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 18:01:03 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <sA3s7.3201$L4.688279@news6-win.server.ntlworld.com>
Source record: 49940

<msix@plato.nmia.com> wrote in message
news:S%1s7.4255$%72.138933@sjcpnn01.usenetserver.com...
Where can I find the specs for this Kokusai filter?
Zin, Zout, BW...
73 John W7ZFB

RD
I would also like that information. I think I might be able to get it.
Please watch this space, or I will email you direct if your email is valid.

73. Rich.

5845. Re: Ceramic vs. electrolytic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 18:11:55 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0109251011.3857c597@posting.google.com>
Source record: 49941

Hi Jim (and lurkers),

Some (actually, quite a few, especially the "low dropout" variety) linear regulators depend on some series resistance in the bypass cap for stability. If the data sheet is good, it will specifically tell you to avoid extremely low ESR. Conversely, some brag about being stable with very low ESR caps. For example, see the data sheet for the Analog Devices ADP3303A, available on their web site. Then look at the applications info for the National LP2981. One says "any cap" and the other says "avoid ceramics."

Some regulators are happy enough (stable) with low capacitance, and others require enough (for stability) that as you say you wouldn't want to pay for the ceramic variety. As for what's needed in the circuit...some regulators are fast enough (and the load circuit constant enough current) that any huge bypassing on the output is just a waste. For one-off circuits, I'd be strongly inclined to toss in a reasonably large tantalum or even aluminum "energy storage" cap, but in designs I put into production, I can spend some time thinking about what I actually need to get the desired performance. Additional bypass caps ('specially electrolytics) add cost and reduce reliability, in that they DO sometimes short-circuit (sometimes burning holes in the board under them). Rule of thumb for best reliability: run caps at not over half their rated voltage, especially if they see high ripple current and/or are in an area that gets hot.

Hope that helps 'splain it!

Cheers,
Tom

ZZZjim_cronin@juno.comZZZ wrote in message
news:<19i0rtk3s0olukek3d62smprveio4q5mrk@4ax.com>...
> Why would you want a higher ESR for bypassing linear regulators?
> Also, aren't the capacitance values used for bypass caps a little
> too high for ceramics?
>
> Thanks and 73,
> Jim
>
> On 24 Sep 2001 17:21:04 -0700, tom_bruhns@agilent.com (Tom Bruhns)
> wrote:
>
> >"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:<3BAF727F.47D4F3EB@clifto.com>...

> >
> >...
> >years...sub-femtoamp leakage current.) ESR for standard tants is a
> >bit higher than for ceramics...sometimes a good thing, and relied on
> >for bypassing some linear regulators. Tants are superior to aluminum
> >electrolytics in most situations, 'cept for cost. They don't become
> >open circuits like the alums do at low temp.
> >
> >Cheers,
> >Tom

5846. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 18:33:13 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <J54s7.61228$xB1.15733690@news1.rdc1.tn.home.com>
Source record: 49942
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

> All very true. The US behave in the same arrogant imperialist manner
> as did Victorian Britain, and seem astonished when other nations
> resent it.
>
> Notice how often they refer to themselves as "the leaders of the free
> world", and "the guardians of freedom and democracy"? America has been
> the greatest danger to world peace for a generation, and still are.

Sorry you feel that way, if you had just informed us before we pulled your chestnuts out of the fire the last 3-4 times, we could have just stayed home.

W4ZCB

5847. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 18:52:51 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB0D283.B56E4AEC@bill.com>
Source record: 49943
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur

proma1 wrote:
>
> itsw funny how the countries that cause these problems,cannot understand how
> there arrogance is responsible.

Whats not funny is that every country seems to have a small sect that
would blame many of their internal problems on The Great Satan...just
as you are doing.
>
> just reading Israels prime minister has refused to talk withy our foreign
> secretary,just because he righty critsicised Israel.
>
> very similar to the US,must not ctriscise them,they own us,tell us what to
> do,and now even UK tv reference George Bush as the president,not US
> president,just president,i was not aware we had one in the UK.

I don't recall the US prohibiting or controlling free elections in your
country. Take it up with your own politicians instead of dodging your
responsibility as a citizen by simply crying on usenet. Oh, btw, in the
US, the Queen is normally referred to as The Queen. In fact, I've never
heard her described as The Queen of England or anything like that. If I
use your logic, then maybe we should blame her for the terrorist
attacks?
>
> also look at Northern Ireland a problem created by Ulster Unionists and the
> British,there would of been no IRA,if there had not of been apartheid and
> racsism towards catholics,which as shown the other week against those
> schoolgirls is still rife,and there orange marches of course.

Yeah, blame that on the US too.

> --
> PROMA1
> Paul Wey

5848. Re: Soldering

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 19:11:40 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BB0D6EC.F8286B6B@midwestmicro-tek.com>
Source record: 49944

You seem to have missed an important point. The original
poster said his goal was to increase *receiving* capacities.

What does that have to do with keeping our ever diminishing
ham bands clean?

Absolutely nothing.

Point taken. However I was referring to the original posters over all
attitude. It doesn't matter if it is illegal, just so long as I can do
what I want and anyone who doesn't think that way are "FCC bootlickers"
and like living in a police state. He may not be the same guy who is
operating a 1000W CB radio somewhere in my town and clobbering reception
of the adjacent ham band not to mention the TVI but its the same crap.
I don't know about you but I don't care to be referred to as "boot
licker" just because I prefer to operate radio equipment legally.

Rick KC0GIX

73,
Jim WB5UDE

In article <3B8BDA69.B17A5604@midwestmicro-tek.com> you wrote:
: Since when does trying to keep our ever diminishing ham bands clean
: qualify us as "FCC boot lickers"? Get bent moron.

: Rick KC0GIX

: wrenn_thomas@hotmail.com wrote:

:> I want to solder a bridge from point A to point B on a
:> handheld device. It's a simple job that will increase
:> its receiving capacities, and doing it myself will
:> spare me all of the hassles associated with approaching
:> FCC boot lickers who wouldn't do it anyway.
:>
:> Problem is, it's a very tight area and I'm a novice. I
:> realize inaccuracy is the kiss of death, so what I need
:> are tips from you seasoned veterans on which type of
:> solder and solder gear I should use, and the correct
:> method of ensuring that I get it where I want it!
:>
:> Thanks in advance. Is there any doubt we're living in a
:> police state?
:>
:> Drop me a direct line at: wrenn_thomas@hotmail.com

Rick Haub wrote:

> Since when does trying to keep our ever diminishing ham bands clean
> qualify us as "FCC boot lickers"? Get bent moron.
>
> Rick KC0GIX
>
> wrenn_thomas@hotmail.com wrote:
>
> > I want to solder a bridge from point A to point B on a
> > handheld device. It's a simple job that will increase
> > its receiving capacities, and doing it myself will
> > spare me all of the hassles associated with approaching
> > FCC boot lickers who wouldn't do it anyway.
> >
> > Problem is, it's a very tight area and I'm a novice. I
> > realize inaccuracy is the kiss of death, so what I need
> > are tips from you seasoned veterans on which type of
> > solder and solder gear I should use, and the correct
> > method of ensuring that I get it where I want it!
> >
> > Thanks in advance. Is there any doubt we're living in a
> > police state?
> >
> > Drop me a direct line at: wrenn_thomas@hotmail.com

5849. Output to car stereo directly?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 20:59:53 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <337F5D54F17DDA94.57190A2D2A4C3803.F5BC512FB1AC9846@lp.airnews.net>
Source record: 49945

ISTR someone having plans for a device similar to the low-power FM broadcast transmitters, that plugged in directly to the motorola-type antenna socket. Anybody heard of this, or am I thinking of something that's commercially available? I would think it would pick up less interference, and would be somewhat more efficient than transmitting out to the antenna.

Failing that, anybody got any ideas for an automatic speaker switch that would allow me to listen to the CD player, but automatically switch both front speakers to the ham rig's output when something opens the squelch? Obviously, it would need to provide loads to the CD player's outputs while it's switched over.

Eventually, I'd like to get everything set up so that I can mix all the audio outputs (stereo, scanner, ham rigs and SW BCB receiver) over the car's existing speakers, rather than bolting more speakers to every available surface.

Joe Bramblett, KD5NRH

5850. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 21:11:28 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <Rq6s7.3280$H4.564554@news2-win.server.ntlworld.com>
Source record: 49847
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

we are a danger as well becuase all the recent prime ministers have always backed whatever the US does,including the slave labour of there business in the far east,and now our business look for the same slave labour countries to do business in.

but as said.we are just talking freely,we or rather i show no hate towards your or your family,and all those who have spoken are truly sorry for the recent tragedies,but one has to look at the causes before action can be taken.

sadly though i dont think whatever happens now,the world will ever be the same.

regards

Harold E. Johnson <W4ZCB@home.com> wrote in message
news:J54s7.61228$xB1.15733690@news1.rdc1.tn.home.com...
>
> > All very true. The US behave in the same arrogant imperialist manner
> > as did Victorian Britain, and seem astonished when other nations
> > resent it.
> >
> > Notice how often they refer to themselves as "the leaders of the free
> > world", and "the guardians of freedom and democracy"? America has been
> > the greatest danger to world peace for a generation, and still are.
>
> Sorry you feel that way, if you had just informed us before we pulled your
> chestnuts out of the fire the last 3-4 times, we could have just stayed
> home.
>
> W4ZCB
>
>

5851. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-25 21:15:36 UTC
From: "Sverre Holm (LA3ZA)" <svholm2@online.no>
Message-ID: <Dr6s7.704$tu6.16135@news1.oke.nextra.no>
Source record: 49946

That's strange. I have the same set of items except that I also have
"Restoration of a Mechanical Filter":

VHF Collection
HF Collection
Portable TRX Collection
---> Restoration of a Mechanical Filter <---
Homebrew Radios
Old Radio Books
Old Radio Parts...

- Sverre

>
> Take a look at http://home.catv.ne.jp/dd/te21c/ and select item no 4 in
the
> menu. There is a series of images of a mechanical filter being taken
apart,
> cleaned and then reassembled.
>
>
> RD
>
> I still cannot get to it. His menu is as follows, and item #4 to me looks
> like Homebrew Radios. But nothing under that heading.
>
>
> MENU
>
> VHF Collection
> HF Collection
> Portable TRX Collection
> Homebrew Radios
> Old Radio Books
> Old Radio Parts...
>
> etc.
>

5852. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 00:25:45 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb11f80.7916316@news.akorn.net>
Source record: 49848

On Tue, 25 Sep 2001 10:46:16 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>On Tue, 25 Sep 2001 07:22:12 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
>>
>> The problem is, neither our ears or a properly responding AGC system
>> works that way.
>
>But the FCC regulations and laws of physics do. No one ever qualified this discussion as being limited to "psycho-acoustic" bandwidth.

I see now!

HOW it actually works in a receiver's AGC system or the human ear
isn't important. The distance we tune and hear the clicks is
meaningless when we are talking about bandwidth.

In other words, it is meaningless that when up the band 3kHz I still
hear the same clicks and see the same S meter reading when speed is
doubled...as long as if I use the clicks to heat a resistor I get
twice the heat with twice the speed.

Very interesting science.

73 Tom

5853. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 00:35:16 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb12125.8337882@news.akorn.net>
Source record: 49849

On Tue, 25 Sep 2001 16:03:18 GMT, Jack Smith <jsmith@mnsinc.com>
wrote:

>I made some measurements using a pulse generator, signal generator and
>digital scope for 5 and 24 WMP, using fast (500 us) and shaped (7.5
>ms) rise/fall times. The results are posted on my web page at:
>
>http://home.cox.rr.com/k8zoa/cw_bandwidth.htm
>
>
>Jack K8ZOA

Thanks Jack, and as you can see all the higher speed does is move the
existing close-spaced sidebands further apart while maintaining the
same power level in a given window of bandwidth. Ultimate bandwidth is
the same, the sidebands just move around in that bandwidth.

Average power will increase, however, with speed because there are
more rises and fall per given time period at higher speeds.

73 Tom

5854. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 00:58:57 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1105_1001465937@msauve>
Source record: 49850

On Wed, 26 Sep 2001 00:25:45 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> I see now!

Actually, you don't, you're just being sarcastic.

Someone has already gone to the effort to actually collect hard data, using professional test equipment, and placed that
information on a web site for everyone to see. You are wrong in stating that rise times have a meaningful effect on
bandwidth and keying speed does not. Empirical data proves that keying speed DOES effect the bandwidth of a signal.
We will be anxiously awaiting your obfuscating explanation, offering to redefine terms to match your theories, of how HP
test equipment is wrong, and you are right.

5855. Re: Amplifier fan source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 01:21:55 UTC
From: Woody <woody.white@att.net>
Message-ID: <3BB12E4E.3B36C8B@att.net>
Source record: 49851

Check this link...
http://www.aaaim.com/cgi-local/shop991/shop.pl/SID=16630599346/page=60CB.htm#ACB8300

I have ordered from them before and was satisfied, but that was long,
long ago.
At least they are still in business. Prices not the cheapest, but
have unusual surplus sometimes.

Woody

Harris H Leck wrote:
>
> Any suggestions where to buy a blower fan for a legal limit amp (ceramic
> tubes)?
> Harris

--
Woody, WB4QXE
Ham Radio Homebrew
&
Scanning Electron Microscope Images
http://woody.white.home.att.net

5856. FS; Boatanchors on Long Island, Johnson, Halli, Nat, Pick-up only!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 02:10:45 UTC
From: rlucch2098@aol.com
Message-ID: <20010925221045.08273.00000648@mb-cv.aol.com>
Source record: 49852

Hi Guys;
I have a few BA's that I cannot hold any longer, too big, too heavy & not enough time.
They are pick-up here on Long Island.
1- Johnson Viking Valiant(I) Untested, Extra Nice condition, Best I've seen anyway. Price is $300.
2- RCA RBB-1(?) Navy Receiver, Insides look NEW, No Supply, Built in 1940, Navy type CRV-46147, covers 500 kcs to 4mcs, Has cabinet, & part of the 4 rubber shock mounts. Front Panel is dusty but will be MINT!
Price is $300
3- E.H. SCOTT RCH Navy Receiver, Built in Supply, Original Cabinet with shouck mounts, Super nice, plays.
Price is $300
4- Hallicrafters SX-28, Plays, really clean, nice one guys $400.
5- Viking II, Factory Built, Working, Really nice, nedds a few screws in the Cab.
Price is $250, well worth it!
6- National NC-303 Receiver, The Cabinet if a BUD & very nice but not original. I think its better, plays, Price is $250.
7- NC-183 Receiver, Kind of scuffed up but complete & plays $150.
8- Hallicrafters SX-101A with the 160 mtr band, plays, needs tlc, $150.
All above may need some adjusting, etc. They been unused for years and Will NOT SHIP, Pick-up only.

Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

5857. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 02:15:23 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1106_1001470523@msauve>
Source record: 49853

On Wed, 26 Sep 2001 00:35:16 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> On Tue, 25 Sep 2001 16:03:18 GMT, Jack Smith <jsmith@mnsinc.com>
> wrote:
>
> >I made some measurements using a pulse generator, signal generator and
> >digital scope for 5 and 24 WMP, using fast (500 us) and shaped (7.5
> >ms) rise/fall times. The results are posted on my web page at:
> >
> >http://home.cox.rr.com/k8zoa/cw_bandwidth.htm
> >
> >
> >Jack K8ZOA
>
>
> Thanks Jack, and as you can see all the higher speed does is move the
> existing close-spaced sidebands further apart while maintaining the
> same power level in a given window of bandwidth. Ultimate bandwidth is
> the same, the sidebands just move around in that bandwidth.

Wow, you are megalomaniacal. Even hard evidence directly in opposition to your statements is taken as supportive!

You claim, in full context, with your own emphasis, made in a message of 21-Sept-01, was "It is simply the shape of the rise and fall
times that control bandwidth, NOT the off-and-on rate."

It is clear from the final composite, http://home.cox.rr.com/k8zoa/Overlay_shaped_fast__slow.gif, which compares identically shaped keying at both 5 and 25 wpm, that a higher "off-and-on rate" directly results in a higher bandwidth of the signal at ANY given
"db down." So the ARRL Handbook was right, and you were wrong, after all.

5858. Astron RS-35M Power Supply Voltage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 03:58:54 UTC
From: Vince Staffo <vstaffo@twcny.rr.com>
Message-ID: <2ocs7.544901$EF2.76817722@typhoon.nyroc.rr.com>
Source record: 49854

While making a repair to my Astron RS-35M Power
Supply I noticed that the 22 volts supplied by
Diodes CR101 & CR102 does not drain off
when shutting off the supply. I assume its due
to the large value of the C5 filter Capacitor
which is 70,000 microfarads! I see no bleeder
resistor and I wonder if anyone else has noticed
or encountered this!

Thanks,

Vince WB2FYZ

5859. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 10:41:13 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BB1B093.A915EDE1@earthlink.net>
Source record: 49855

Mark---

> Someone has already gone to the effort to actually collect hard data,
> using professional test equipment, and placed that information on a
> web site for everyone to see.

What's the URL?

Henry C. Gernhardt, III
KE4PIB

5860. radCom third-method HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 10:52:27 UTC
From: Bertalan Mora <bertalanm@dplanet.ch>
Message-ID: <3bb1b430@news.swissonline.ch>
Source record: 49856

Hi All!

I am looking for the article by Peter Rhodes in 1996 issues of Radio Communication that describe a Third-Method (weaver) SSB HF transceiver. I have the jun-aug issues, but am missing the sept and oktober entries. Would anyone be able to tell me where to find these, or possibly be willing to send them as an attachment?

Thanks,
BNM

5861. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 11:00:40 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BB1B51E.C1365CED@earthlink.net>
Source record: 49857

Mark, Tom, et. al---

Okay, okay. Let's settle this. I'm tired of hearing all the bickering.

Tom: You're right. Mark: You're right. Good enough?

No? Okay. Here's what I see.

When we alter the keying shape, we attenuate the higher-order harmonics. This is evident on the spectral plot. By attenuating these harmonics, we effectively reduce the bandwidth by altering the skirt of the ``filter''. Instead of having a low-Q filter, we now have a high-Q filter, _EFFECTIVELY_. Trace along the tops of the peaks, you'll see what I mean. _THIS_FILTER_SHAPE_IS_UNCHANGED_BY_KEYING_SPEED_.

When we alter the keying SPEED, we bring the low-order harmonics closer into the carrier, thus making the filter _NARROWER_. The sidebands are still there, and the rolloff shape (Q) is somewhat modified because of it. This effectively brings the -3dB and -6dB points closer into the carrier, _THUS_REDUCING_THE_EFFECTIVE_BANDWIDTH_, as these are the points used to define it.

So, I see where Tom's argument is valid, AND I see where Mark's argument is valid. Both are equally valid depending upon your standpoint.

Can we all shake hands and be friends now?

Henry C. Gernhardt, III
KE4PIB

5862. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 12:42:56 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <w0ks7.6573$L4.1450969@news6-win.server.ntlworld.com>
Source record: 49858

KK6IL (who cannot post to the NG at the moment) wishes to add the following
to the thread:

The foam in the Kokusai filters does indeed decompose into
a sticky, gooey mess that greatly increases the filter
attenuation.

I've corrected a couple of them, one just last month, a beautiful
unused unit which didn't work.

Bend the tabs on the bottom of the filter to open it up,

Remove filter from case carefully so as to not pull and break
the wires between the transducers and the base terminals.

Scrape off the large chunks of foam without scratching
the metal - toothpicks work well.

Clean the filter disks with Qtips soaked in alcohol.

Clean out the inside of the case.

I repacked the filter in cotton from a standard cotton ball.
Place a little between the filter assembly and the plastic base,
place more inside the case, and reassemble.

Feel free to post this back to the newsgroup to continue the
thread. If I ever get a web page up, I'll post the pictures
I took of the process.

John KK6IL jlkolb@cts.com

5863. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 13:24:22 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB1D706.CA1EB910@bill.com>
Source record: 49859
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur

Max Topley wrote:

>
> Huh? Just when in the last 25-30 years (a generation) has the US got
> involved in any military adventures in order to support the UK? And
> you didn't exactly rush to our aid in 1939, either.
>
> --
> Max
> G8CZR

You're not only not speaking German, but you are not speaking Russian
either.
-WX4A

5864. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 13:35:47 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <TQks7.64469$xB1.16649525@news1.rdc1.tn.home.com>
Source record: 49860
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur

> > Huh? Just when in the last 25-30 years (a generation) has the US got
> > involved in any military adventures in order to support the UK? And
> > you didn't exactly rush to our aid in 1939, either.
> >
> > --
> > Max
> > G8CZR
>
> You're not only not speaking German, but you are not speaking Russian
> either.
> -WX4A
>
Never argue with an idiot WX4A, he's not even speaking anything
intelligible.

W4ZCB

5865. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 13:42:54 UTC
From: "Guy P. Distaffen" <guypd@bigfoot.com>
Message-ID: <yXks7.546180$EF2.77137301@typhoon.nyroc.rr.com>
Source record: 49861
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

This whole thread has been beaten to death. Lets drop it and talk amateur radio. We are driving away the people that are interested in these newgroups for what they were set up. I for one, would rather see something about amateur radio in the discussions, instead of the same old diatrabe.

Guy P. Distaffen

KB0SWS

5866. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 14:54:51 UTC
From: cj <cj_johansson@hp.com>
Message-ID: <3BB1EC3B.B8FE800D@hp.com>
Source record: 49862

Mark Allread wrote:
<snip!>
> We will be anxiously awaiting your obfuscating explanation, offering to redefine terms to match your theories, of how HP
> test equipment is wrong, and you are right.

Well, HP test equipment can't possibly be right anymore since HP doesn't make test equipment. You should have said Agilent test equipment ;-)

-cj

P.S. I can't get used to it either...

5867. Re: Hams needed for project in Cincinnati, Ohio area

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 15:22:03 UTC
From: vshah101@aol.com
Message-ID: <20010926112203.07298.00000744@mb-mk.aol.com>
Source record: 49863

>I'm looking for some operators that are currently involved in
>foxhunting to track down a 9 - 10 MHz signal approximately
>80 miles east of Cincinnati.

What is this project for? Is this a paying project (employment), Ham project,
school project?

5868. MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 15:36:34 UTC
From: vshah101@aol.com
Message-ID: <20010926113634.07298.00000751@mb-mk.aol.com>
Source record: 49864

These devices are rf amplifiers from mini circuits, usable from DC to 1GHz. These seem like good amplifiers and they have a 50 ohm input and output, which would simplify the design significantly as there would be no need for matching circuitry. This is one reason I would like to design something with this. However, I have not built a MAR-x amplifier.

Has anyone made a prototype board for this device. Can you use regular pc board material (FR4) for this device? I saw a prototype board in the AARL handbook and it says the only critical dimension is the 0.1 inch strip which is used as a 50 Ohm transmission line. Has anyone made this device and found them useful? Are there better devices out there than are inexpensive? I would assume that with the 50 ohm output, it would be alot easier than transistor amplifier design.

Also, can this amplifier be used as a high frequency 1GHz oscillator with the right feedback components?

5869. Swan Siltronix alignment information free

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 16:51:30 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9ot12h$1r7$1@woodrow.ucdavis.edu>
Source record: 49865
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.cb

re: Swan Siltronix Tranceiver, Alignment information.

Hi there,

If you have a Swan or Siltronix 1011 amateur radio... We have great news for you. Not only will you find a web page for the 1011 tranceivers, but we have now writen a brief carrier oscillator alignment text which will appear as a down load icon on the Siltronix (Swan) web page. I also plan to break the page into smaller chapters/sections for an easier down load/web reading.

After the classic golden screw driver has hit your carrier oscillator adjustments, Swan and Siltronix radios are pretty much un-usable. You can now get the radio back into operation by reading the available (free) owners manual and/or suppliment oscillator text writen up. The icon will appear in a very short time, today with a little luck and free time.

Watch for it and feel free to Email questions from the web page if you like.

cheers
skipp

http://sonic.ucdavis.edu/siltronix

5870. Re: Output to car stereo directly?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 17:40:50 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0109260940.a5e7953@posting.google.com>
Source record: 49866

Well, you can buy the little FM modulators quite cheap, and it should be straightforward to modify one to feed directly into a "Motorola" connector. I got a couple of them recently from MCM Electronics at around $10 each as I recall. It is a bit of a problem in a metropolitan area finding a clear channel to operate them on if the antenna is still connected to the radio.

I've also modified an in-dash radio/cassette player by adding a 1/8" stereo jack which opens the audio from the unit and inserts external audio. I can imagine doing that with relay-controlled insertion...in some ways it might be easier. It was some fun finding a place on the front panel of the unit to put the 1/8" jack...I had maybe half a dozen jacks in different form factors, and only one of them would fit. (Not the smallest, actually...just the one with the right shape.) Running four small shielded leads out to an external relay would have been easier but left things messier. The radio was 1986 vintage, with mechanical volume controls. Modern ones almost certainly use electronic controls but if you are willing to poke around in the guts, you can _perhaps_ find a place to break into the audio path. If a single IC is used for control and source selection, it's not so easy--unless you get really lucky and find spare inputs you can select.

If your unit plays casettes, you can perhaps use a fake casette that magnetically couples to the tape heads, to feed audio. These are commonly available...try CD shops or consumer electronics stores. They have a 1/8" stereo plug on a cord that you feed line-level audio to.

It's very unlikely that you'd need to load the speaker outputs if you simply switched the speaker leads. Modern solid state audio power amps don't much care about open circuit loads...many (most?) don't even care about shorts. But beware that the outputs may be "bridged" meaning that neither speaker lead is grounded. So be prepared to switch _both_ speaker leads to each speaker.

If your unit happens to have an external power amplifier, you have yet another place to break into the audio path...the cabling that goes from the in-dash part to the amplifier.

Hope these thoughts help...

Cheers,
Tom

"Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net> wrote in message
news:<337F5D54F17DDA94.57190A2D2A4C3803.F5BC512FB1AC9846@lp.airnews.net>...
> ISTR someone having plans for a device similar to the low-power FM
> broadcast transmitters, that plugged in directly to the motorola-type
> antenna socket. Anybody heard of this, or am I thinking of something
> that's commercially available? I would think it would pick up less
> interference, and would be somewhat more efficient than transmitting
> out to the antenna.
>
> Failing that, anybody got any ideas for an automatic speaker switch
> that would allow me to listen to the CD player, but automatically
> switch both front speakers to the ham rig's output when something
> opens the squelch? Obviously, it would need to provide loads to the
> CD player's outputs while it's switched over.
>
> Eventually, I'd like to get everything set up so that I can mix all
> the audio outputs (stereo, scanner, ham rigs and SW BCB receiver) over
> the car's existing speakers, rather than bolting more speakers to
> every available surface.
>
>
> Joe Bramblett, KD5NRH

5871. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 17:50:52 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <Qwos7.9216$L4.1692510@news6-win.server.ntlworld.com>
Source record: 49867

"Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
news:Dr6s7.704$tu6.16135@news1.oke.nextra.no...
That's strange. I have the same set of items except that I also have
"Restoration of a Mechanical Filter":

VHF Collection
HF Collection
Portable TRX Collection
---> Restoration of a Mechanical Filter <---
Homebrew Radios
Old Radio Books
Old Radio Parts...

- Sverre

RD
"Restoration of a Mechanical Filter" comes up now.

5872. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 18:15:30 UTC
From: norman_tebbit@thenottinghillcarnival.org
Message-ID: <3bb20914.24752958@news.freeserve.net>
Source record: 49868
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

On Wed, 26 Sep 2001 13:35:47 GMT, "Harold E. Johnson" <W4ZCB@home.com> wrote:

>
>> > Huh? Just when in the last 25-30 years (a generation) has the US got
>> > involved in any military adventures in order to support the UK? And
>> > you didn't exactly rush to our aid in 1939, either.
>> >
>> > --
>> > Max
>> > G8CZR
>>
>> You're not only not speaking German, but you are not speaking Russian
>> either.
>> -WX4A
>>
>Never argue with an idiot WX4A, he's not even speaking anything
>intelligible.

Ignore the lot of them. I think we owe you enough to stand with
you now, whatever the minority represented by a few on this
newsgroup may say.

J+

5873. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 18:45:55 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB22263.5984086C@bill.com>
Source record: 49869

Richard Daventry wrote:
>
> "Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
> news:Dr6s7.704$tu6.16135@news1.oke.nextra.no...
> That's strange. I have the same set of items except that I also have
> "Restoration of a Mechanical Filter":
>
> VHF Collection
> HF Collection
> Portable TRX Collection
> ---> Restoration of a Mechanical Filter <---
> Homebrew Radios
> Old Radio Books
> Old Radio Parts...
>
> - Sverre
>
> RD
> "Restoration of a Mechanical Filter" comes up now.

Is that what they call a "mirror site"?
-WX4A

5874. NY/NJ/PA (Radio) Octoberfest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 19:05:12 UTC
From: k3bu@aol.com
Message-ID: <20010926150512.22469.00001716@mb-fi.aol.com>
Source record: 49870

NY/NJ/PA (Radio) Octoberfest

Fellow Radio Aficionados!

You are all invited to (Radio) Octoberfest at Verkhovyna Mountainview Resort in Glen Spey, NY (NY,NJ,PA tri-state area) hosted by the Tesla Radioclub and Ukrainian-American Cultural Foundation - UACF on October 6, 2001, starting at noon till ???

Come and have fun meeting other hams, DXers, contesters, while having good time and drinking Octoberfest beer. Enjoy Ukrainian and German food, listen or dance to endless polka's. Wear your badge, hat or shirt with callsign proud and meet other radio aficionados around the "radio" table.

140 acre Verkhovyna resort is the new home to Tesla Radioclub N2EE station. Join the semi-serious discussion of how many towers do we need to put up there. Come, join the club and get a free beer.

Directions:
Take Hwy. 84 to Port Jervis, NY, NY exit 1; follow Rt. 6 through Port Jervis to traffic light with Rt. 87/42 signs, go through and follow Rt. 97 west for 10.8 miles to Pond Eddy (motel on right, bridge on left), turn right onto High Rd. (Rt. 41), go up the steep hill for 1.7 miles, Verkhovyna is on the left. Plenty of parking.
Maps are at www.UACF.net home page.

See you all there and join us yodeling in Morse code :-)
Nazdorovya, Prosit!

Yuri, K3BU
pres. Tesla Radioclub

5875. Re: NY/NJ/PA (Radio) Octoberfest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 19:23:48 UTC
From: k3bu@aol.com
Message-ID: <20010926152348.22430.00002042@mb-fi.aol.com>
Source record: 49871

Ooops, correction:
Take Hwy. 84 to Port Jervis, NY, NY exit 1; follow Rt. 6 through Port Jervis to traffic light with Rt. 97/42 signs, go through and follow Rt. 97 west for 10.8 miles to Pond Eddy (motel on right, bridge on left), turn right onto High Rd. (Rt. 41), go up the steep hill for 1.7 miles, Verkhovyna is on the left. Plenty of parking.
Maps are at www.UACF.net home page and click on directions.

5876. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 19:34:06 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <j4a4rtgh7nfj0sn4a41v8ci7t4lo4v4o5r@4ax.com>
Source record: 49872

On 26 Sep 2001 15:36:34 GMT, vshah101@aol.com (Vshah101) wrote:

> Has anyone made a prototype board for this device. Can you use regular pc
>board material (FR4) for this device? I saw a prototype board in the AARL
>handbook and it says the only critical dimension is the 0.1 inch strip which is
>used as a 50 Ohm transmission line. Has anyone made this device and found them
>useful? Are there better devices out there than are inexpensive? I would
>assume that with the 50 ohm output, it would be alot easier than transistor
>amplifier design.

I have. You can use FR4 if you don't care about high frequency
rolloff. Glass Teflon-Epoxy is not much more expensive (epsilon=2.2)
and it has slightly better and more consistent loss characteristics.

It is easier to work with in some respects because, as you say, you
don't need to match it. However, don't expect a really good noise
figure or great IMD numbers. They're designed to be wide-band
amplifiers which can simplify a project and reduce parts count.

>Also, can this amplifier be used as a high frequency 1GHz oscillator with the
>right feedback components?

To answer your question, you CAN use them in oscillator circuits, but
they weren't designed for such service, and frankly you'd find your
self working at least as hard to make an MAR series of device work as
you would any discrete active device.

Given how easy it is to work with computer software for amplifier
design these days, as an amateur, I would really question whether it's
worth using them.

73,

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

5877. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 19:40:14 UTC
From: ccox@chopped-ham-filtre.uhc.com.invalid
Message-ID: <9otauu$2e9$1@gabriel.uhc.com>
Source record: 49873
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Let's say, just for a minute, that it wasn't some nasty Islamic radical that caused the atrocities of two weeks ago, but, rather it was some warped "Michigan Militia" men.

Would the appropriate tactic then be to bomb Detroit?
--
Chris Cox, N0UK/G4JEC
A computer without MS Windows is like a dog without bricks
tied to its head.
LINUX - aka Microsoft Windows/NT - The Final Service Pack

5878. Re: Output to car stereo directly?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 20:33:22 UTC
From: Don Lubin <don_lubin@agilent.com>
Message-ID: <3BB23B92.FCCEC9F3@agilent.com>
Source record: 49874

Joe:

I use an FM modulator designed for a JVC CD changer. The local electronics store was having a sale on miscellaneous "open box" products and I got the unit (without the changer) for $11.00. It contains an antenna relay to switch the modulator in and the antenna out when it is activated. I use the switched power pin on the back of my IC-706MKII to power it, so when the transceiver comes on, the modulator automatically connects to the car stereo. I've found this to be very effective. Having 8 speakers, 200 watts of audio, and tone controls makes the system much more flexible than using an add-on speaker.

I had previously tried some low cost ($10-20) modulators made for attaching portable CD players to a car stereo, but found them to tend to drift and have poor audio quality. The modulators designed for CD changers are typically crystal controlled and have excellent audio quality. If you find a place that sells them new, they run in the $50-100 range, but if you search a bit, you should be able to find one that has been "orphaned" like I did for not too much.

73,

Don
KQ6JI

"Joe Bramblett, KD5NRH" wrote:
>
> ISTR someone having plans for a device similar to the low-power FM
> broadcast transmitters, that plugged in directly to the motorola-type
> antenna socket. Anybody heard of this, or am I thinking of something
> that's commercially available? I would think it would pick up less
> interference, and would be somewhat more efficient than transmitting
> out to the antenna.
>
> Failing that, anybody got any ideas for an automatic speaker switch
> that would allow me to listen to the CD player, but automatically
> switch both front speakers to the ham rig's output when something
> opens the squelch? Obviously, it would need to provide loads to the
> CD player's outputs while it's switched over.
>
> Eventually, I'd like to get everything set up so that I can mix all
> the audio outputs (stereo, scanner, ham rigs and SW BCB receiver) over
> the car's existing speakers, rather than bolting more speakers to
> every available surface.
>

> Joe Bramblett, KD5NRH

5879. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 21:12:00 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <gxrs7.10657$L4.1922364@news6-win.server.ntlworld.com>
Source record: 49875
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

as for the USSR the cold war was the biggest hoax in history,when exactly were we in danger,even during the cuban missile crisis,at the end of the day we and the US were more than happy to point all there weopons in Germany at the USSR ,but the americans did not like the fact that they had the same types of weapons pointed at them,rather smilar to what unfortunately happened two weeks ago,fine if we do it against other countries but,somebody attacking us.

as for minority,i think it is the view of the majority of the british replies on the subject,yes go ahead ignore,as you normally do but its at your and our peril as we are likely to get terrorist attacks now as well.

yes go in and get Bin Laden and his cronies but unless yours and our foreign policy this is never going to end.

criticism does not mean we dont grieve with you,its not personal[or should not be],but how does the west expect to be popular with the east and middle east when we support slavery in those countries and do nothing to protect them,do you remember Tianemen square,we were too scared to help but picking someone with no nuclear weapons is an easy target.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

J+ <norman_tebbit@thenottinghillcarnival.org> wrote in message news:3bb20914.24752958@news.freeserve.net...
> On Wed, 26 Sep 2001 13:35:47 GMT, "Harold E. Johnson" <W4ZCB@home.com> wrote:
>
> >
> > > Huh? Just when in the last 25-30 years (a generation) has the US got
> > > involved in any military adventures in order to support the UK? And
> > > you didn't exactly rush to our aid in 1939, either.
> > >
> > > --
> > > Max
> > > G8CZR

> >>
> >> You're not only not speaking German, but you are not speaking Russian
> >> either.
> >> -WX4A
> >>
> >Never argue with an idiot WX4A, he's not even speaking anything
> >intelligible.
>
> Ignore the lot of them. I think we owe you enough to stand with
> you now, whatever the minority represented by a few on this
> newsgroup may say.
>
> J+
>

5880. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 21:13:38 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <Myrs7.10671$L4.1920690@news6-win.server.ntlworld.com>
Source record: 49876
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

simple answer is dont read it,no one forces you you know.

this is probably the most important topic across the world at the moment.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Guy P. Distaffen <guypd@bigfoot.com> wrote in message
news:yXks7.546180$EF2.77137301@typhoon.nyroc.rr.com...
> This whole thread has been beaten to death. Lets drop it and talk
> amateur radio. We are driving away the people that are interested in
these
> newgroups for what they were set up. I for one, would rather see
something
> about amateur radio in the discussions, instead of the same old diatrabe.
>
> Guy P. Distaffen
>
> KB0SWS
>
>
>

5881. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 23:19:32 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB26284.A7905E9E@bill.com>
Source record: 49877
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

proma1 wrote:
>
> as for the USSR the cold war was the biggest hoax in history,when exactly
> were we in danger,even during the cuban missile crisis,at the end of the day
> we and the US were more than happy to point all there weopons in Germany at
> the USSR ,but the americans did not like the fact that they had the same
> types of weapons pointed at them,rather smilar to what unfortunately
> happened two weeks ago,fine if we do it against other countries but,somebody
> attacking us.

It worked and the Free World won. US didn't need to attack USSR and
vice-versa. Had either side laid down their defence, who knows what
might have happened.
-Bill

5882. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 23:21:55 UTC
From: tdonaly@cs.com
Message-ID: <20010926192155.10639.00000749@mb-cp.news.cs.com>
Source record: 49878

proma1 wrote,
>
>as for the USSR the cold war was the biggest hoax in history,when exactly
>were we in danger,even during the cuban missile crisis,at the end of the day
>we and the US were more than happy to point all there weopons in Germany at
>the USSR ,but the americans did not like the fact that they had the same
>types of weapons pointed at them,rather smilar to what unfortunately
>happened two weeks ago,fine if we do it against other countries but,somebody
>attacking us.

Whatever else the cold war was, it was not a hoax. Many people died on both sides, and
each side was deadly serious about destroying the other. The only thing that kept what little
peace there was, was the threat of mutually assured destruction. Moreover, weapons of
mass destruction were programmed to destroy Europe as well as the U.S. and Russia. Everyone, worldwide,
was in danger. You would do well not to let your dislike of current American military and
financial hegemony distort your view of history. It does you little credit, and promotes false and
dangerous attitudes among those gullible enough to believe you.

Tom Donaly KA6RUH

5883. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 23:38:43 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <SGts7.11853$L4.2060989@news6-win.server.ntlworld.com>
Source record: 49879
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

there we go again quoting that free world tripe.

those with lots of money are free,most of us are slaves to our jobs,barely making enough to keep our families,that just in the west,for those in the former USSR and other countries spoilt by capitilism,capitilism can work but it can and should be a lot fairer,remember the the only low paid workers in the WTC,were the cleaners/security/chefs etc why should they get less than those pen pushers sitting in offices on there bsacksides earning lots of money for nothing.

if one good thing comes out of recent events,i hope that the real workers of the world get together and overthrow the current system.

Tony Blair and co are reputed to be getting bloody noses in Brighton this weekend,it will be fun.

he can have his war,others can have theres,it all fair in love and war as they say.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com> wrote in message news:3BB26284.A7905E9E@bill.com...
> proma1 wrote:
> >
> > as for the USSR the cold war was the biggest hoax in history,when exactly
> > were we in danger,even during the cuban missile crisis,at the end of the day
> > we and the US were more than happy to point all there weopons in Germany at
> > the USSR ,but the americans did not like the fact that they had the same
> > types of weapons pointed at them,rather smilar to what unfortunately
> > happened two weeks ago,fine if we do it against other countries but,somebody
> > attacking us.
>
> It worked and the Free World won. US didn't need to attack USSR and

> vice-versa. Had either side laid down their defence, who knows what
> might have happened.
> -Bill
>

5884. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-26 23:49:01 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB2696D.ED76F152@bill.com>
Source record: 49880
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

proma1 wrote:
>
> there we go again quoting that free world tripe.
>
> those with lots of money are free,most of us are slaves to our jobs,barely
> making enough to keep our families,that just in the west,for those in the
> former USSR and other countries spoilt by capitilism,capitilism can work but
> it can and should be a lot fairer,remember the the only low paid workers in
> the WTC,were the cleaners/security/chefs etc why should they get less than
> those pen pushers sitting in offices on there bsacksides earning lots of
> money for nothing.
>
> if one good thing comes out of recent events,i hope that the real workers of
> the world get together and overthrow the current system.
>
> Tony Blair and co are reputed to be getting bloody noses in Brighton this
> weekend,it will be fun.
>
> he can have his war,others can have theres,it all fair in love and war as
> they say.
>
> --
> PROMA1
> Paul Wey

Are you drunk?
-Bill

5885. Measurements

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 00:00:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9otqf2$co0$1@plutonium.btinternet.com>
Source record: 49881

10 percent of the reliabilty and accuracy of measurements is due to the quality of the measuring instruments. However, regardless of the reputation of the instrument manufacturer , the other 90 percent is due to the person making the measurements and his technical judgement.

Measurement results obtained by anyone claiming his measurements are good simply because he uses a particular manufacturer's instruments should be automatically discarded as unreliable. The manner of his claims themselves betray ignorance of measurement principles. He lacks confidence in his own ability. He resorts to name-dropping.

The most reliable measurements are made with the most simple and inexpensive instruments by someone who understands the subject matter.

KISS

Regards, Reg, G4FGQ
http://www.g4fgq.com

==========

cj <cj_johansson@hp.com> wrote in message
news:3BB1EC3B.B8FE800D@hp.com...
> Mark Allread wrote:
> <snip!>
> > We will be anxiously awaiting your obfuscating explanation,
offering to redefine terms to match your theories, of how HP
> > test equipment is wrong, and you are right.
>
> Well, HP test equipment can't possibly be right anymore since HP
doesn't
> make test equipment. You should have said Agilent test equipment
;-)
>
> -cj
>
> P.S. I can't get used to it either...

5886. Re: NY/NJ/PA (Radio) Octoberfest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 00:14:18 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <ubus7.3328$Fi.495256@news1.rdc1.nj.home.com>
Source record: 49882

Will Bill Shibilski (late of WFUV - 90.7FM - Polka Party no longer on the air) be there?

Yuri Blanarovich wrote in message <20010926150512.22469.00001716@mb-fi.aol.com>...
>NY/NJ/PA (Radio) Octoberfest
>
>Fellow Radio Aficionados!
>
>You are all invited to (Radio) Octoberfest at Verkhovyna Mountainview Resort in
>Glen Spey, NY (NY,NJ,PA tri-state area) hosted by the Tesla Radioclub and
>Ukrainian-American Cultural Foundation - UACF on October 6, 2001, starting at
>noon till ???
>
>Come and have fun meeting other hams, DXers, contesters, while having good time
>and drinking Octoberfest beer. Enjoy Ukrainian and German food, listen or dance
>to endless polka's. Wear your badge, hat or shirt with callsign proud and meet
>other radio aficionados around the "radio" table.
>
>140 acre Verkhovyna resort is the new home to Tesla Radioclub N2EE station.
>Join the semi-serious discussion of how many towers do we need to put up there.
>Come, join the club and get a free beer.
>
>Directions:
>Take Hwy. 84 to Port Jervis, NY, NY exit 1; follow Rt. 6 through Port Jervis to
>traffic light with Rt. 87/42 signs, go through and follow Rt. 97 west for 10.8
>miles to Pond Eddy (motel on right, bridge on left), turn right onto High Rd.
>(Rt. 41), go up the steep hill for 1.7 miles, Verkhovyna is on the left. Plenty
>of parking.
>Maps are at www.UACF.net home page.
>
>See you all there and join us yodeling in Morse code :-)
>Nazdorovya, Prosit!
>

>Yuri, K3BU
>pres. Tesla Radioclub

5887. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 01:05:50 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109261705.1d3cf5a@posting.google.com>
Source record: 49883

vshah101@aol.com (Vshah101) wrote in message
news:<20010926113634.07298.00000751@mb-mk.aol.com>...

> These devices are rf amplifiers from mini circuits, usable from DC to 1GHz.

> These seem like good amplifiers and they have a 50 ohm input and output, which

> would simplify the design significantly as there would be no need for matching

> circuitry. This is one reason I would like to design something with this.

> However, I have not built a MAR-x amplifier.

Go for it.

These devices are easy to apply, and they work as advertised.
I stock MAR-2, MAR-6 and MAV-11 in my junkbox.

> Has anyone made a prototype board for this device. Can you use regular pc

> board material (FR4) for this device? I saw a prototype board in the AARL

> handbook and it says the only critical dimension is the 0.1 inch strip which is

> used as a 50 Ohm transmission line.

It's not that critical (and some basic research would have
lead to the same conclusion). Use 2.5 mm tape, or lay it out
by hand. It works fine. FR4 or other relatively lossy board
can be A Good Move. A bit of loss helps keep things stable.

Don't take *my* word for it: try it and see. Hams did this
at one time, you know.

> Has anyone made this device and found them
useful?

They are extremely useful.

> Are there better devices out there than are inexpensive?

Define "better". Cost? Gain? Parts count? Noise? Isolation?

> I would

> assume that with the 50 ohm output, it would be alot easier than transistor

> amplifier design.

Yes and no. Look at the power consumption and decide if the low parts
count is worth it.

> Also, can this amplifier be used as a high frequency 1GHz oscillator with the

> right feedback components?

Any amplifier will oscillate. The loop gain is kinda
high, and there are better ways of solving the problem.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5888. ER-79A manual wanted

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 01:54:45 UTC
From: Brian <brian999999@hotmail.com>
Message-ID: <FFvs7.332$ic3.1124261@paloalto-snr2.gtei.net>
Source record: 49884

Needed,
service manual for French built ER-79A radio.
Similar to PRC/9 but has dc to dc converter built in.
May be similar to Canadian set CPRC 509 or 510

Thanks

5889. Re: Swan Siltronix alignment information free

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 02:31:21 UTC
From: Jay in the Mojave <jay123a@qnet.com>
Message-ID: <3BB28F79.57387DC4@qnet.com>
Source record: 49885
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.cb

Hello Skipp:

Did the folks at Siltronix have any connection or ties with the guys over at General Radiotelephone, on Burbank Blvd, in Burbank. Near Burbank and Hollywood Way ?????????

I now they where in with Comco, Courier, Messenger, and Bendix! And I think they helped or sold parts for the Buddy Base's made in Pasadena.

Jay in the Mojave

Skipp wrote:
>
> re: Swan Siltronix Tranceiver, Alignment information.
>
> Hi there,
>
> If you have a Swan or Siltronix 1011 amateur radio... We have great news
> for you. Not only will you find a web page for the 1011 tranceivers, but
> we have now writen a brief carrier oscillator alignment text which will
> appear as a down load icon on the Siltronix (Swan) web page. I also plan
> to break the page into smaller chapters/sections for an easier down
> load/web reading.
>
> After the classic golden screw driver has hit your carrier oscillator
> adjustments, Swan and Siltronix radios are pretty much un-usable. You can
> now get the radio back into operation by reading the available (free)
> owners manual and/or suppliment oscillator text writen up. The icon will
> appear in a very short time, today with a little luck and free time.
>
> Watch for it and feel free to Email questions from the web page if you
> like.
>
> cheers
> skipp
>
> http://sonic.ucdavis.edu/siltronix

5890. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 05:33:18 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9oudsqblo1@slb4.atl.mindspring.net>
Source record: 49886

I like the MAR series amplifiers as general purpose gain blocks. They
also make convenient LO amplifiers for driving double balanced mixers.
Pick an amplifer that compresses at the right output power and you can make
the drive to the mixer consistant across large tuning ranges.

For high dynamic range amplifiers, I use discrete devices, but for a lot
of applications a MAR is hard to beat for cost and ease of use.

Jim Pennell
N6BIU

5891. DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 05:51:55 UTC
From: Jason <kc7eip@home.com>
Message-ID: <%7zs7.27703$L8.5224512@news2.rdc1.bc.home.com>
Source record: 49887

An avid Weekend Barganhunter...(garagesales) I've come across wuite a few electronic components real cheap.. Mostly old computers and parts for them... Recently i have started removing components from some of the circuit cards... In particular i am intrested in removing a 556 timer and several 74 family chips I was wondering if somone could provied some methods on desoldering... and removing components withought damage...

5892. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 08:03:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB2DD36.282C3350@eznec.com>
Source record: 49888

I've removed through-hole leaded ICs from boards by turning the board upside down, heating the non-component side with a propane torch, and rapping the board on the bench. Don't let the torch stay on one area too long. I wouldn't try this with surface mount parts, and it does destroy the board itself. But the ICs I've recovered have all survived. Practice on some throwaway components first, and I wouldn't do it indoors because of the fire hazard.

Roy Lewallen, W7EL

Jason wrote:
>
> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
> electronic components real cheap.. Mostly old computers and parts for
> them... Recently i have started removing components from some of the
> circuit cards... In particular i am intrested in removing a 556 timer and
> several 74 family chips I was wondering if somone could provied some methods
> on desoldering... and removing components withought damage...

5893. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 08:27:41 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <IqBs7.187$3Q5.113011@news2-win.server.ntlworld.com>
Source record: 49889
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

just a realist

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com> wrote in message
news:3BB2696D.ED76F152@bill.com...
> proma1 wrote:
> >
> > there we go again quoting that free world tripe.
> >
> > those with lots of money are free,most of us are slaves to our
jobs,barely
> > making enough to keep our families,that just in the west,for those in
the
> > former USSR and other countries spoilt by capitilism,capitilism can work
but
> > it can and should be a lot fairer,remember the the only low paid workers
in
> > the WTC,were the cleaners/security/chefs etc why should they get less
than
> > those pen pushers sitting in offices on there bsacksides earning lots of
> > money for nothing.
> >
> > if one good thing comes out of recent events,i hope that the real
workers of
> > the world get together and overthrow the current system.
> >
> > Tony Blair and co are reputed to be getting bloody noses in Brighton
this
> > weekend,it will be fun.
> >
> > he can have his war,others can have theres,it all fair in love and war
as
> > they say.
> >
> > --
> > PROMA1

> > Paul Wey
>
>
> Are you drunk?
> -Bill
>

5894. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 08:59:34 UTC
From: jon@cbugDEADWOOD.org.uk
Message-ID: <3bb2ea59.254653064@news.axion.bt.co.uk>
Source record: 49890
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Wed, 26 Sep 2001 22:13:38 +0100, "proma1" <proma1@ntlworld.com>
wrote:

>simple answer is dont read it,no one forces you you know.
>
>this is probably the most important topic across the world at the moment.

Maybe, but it doesn't mean this is the right place to discuss it...

JH

5895. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 09:17:29 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <s9Cs7.369$3Q5.146229@news2-win.server.ntlworld.com>
Source record: 49891
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

you discuss it on whatever group you want,we are adults with a common hobby
and true we should speak about that on this group,but whats the problem??

you do not have to read,i enjoy on all groups including my own
yahoogroup,good conversation,if we go off topic sometimes,and as said this
is a major one,one should not need to go on another more relevant
group,particulary if the discussion started on here.

rules are there for the breaking,thats what scanning is all about anyway.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Jon Harris <jon@cbugDEADWOOD.org.uk> wrote in message
news:3bb2ea59.254653064@news.axion.bt.co.uk...
> On Wed, 26 Sep 2001 22:13:38 +0100, "proma1" <proma1@ntlworld.com>
> wrote:
>
> >simple answer is dont read it,no one forces you you know.
> >
> >this is probably the most important topic across the world at the moment.
>
> Maybe, but it doesn't mean this is the right place to discuss it...
>
> JH

5896. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 09:55:06 UTC
From: kg4fet@aol.combadspam
Message-ID: <20010927055506.22362.00000411@mb-ck.aol.com>
Source record: 49892

Radio Shack has a desoldering iron that has a vacum bulb on it to remove solder as you heat it. There are several kits available that have tools by which you can remove the whole chip at once by heating all of the pins and pulling it out. Chek the Rat Shack catalog for those as well. The torch idea is a good one too but as Roy says it should be done outside AND you do need to practice on a junk board a couple of times.
73 and all the best
DE KG4FET Sandor Proud owner of Yaesu's FT 100

5897. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 10:29:21 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9p00isdak1@plutonium.btinternet.com>
Source record: 49801

"Jason" <kc7eip@home.com> wrote in message
news:%7zs7.27703$L8.5224512@news2.rdc1.bc.home.com...
> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
> electronic components real cheap.. Mostly old computers and parts for
> them... Recently i have started removing components from some of the
> circuit cards... In particular i am intrested in removing a 556 timer and
> several 74 family chips I was wondering if somone could provied some
methods
> on desoldering... and removing components withought damage...

The quickest and easiest way is to heat the underside of the board with a
blowtorch around the chips you want to remove, and wack it down on something
hard. The chips should fall out. It's probably a good idea to do this
outside. 8-)

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5898. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 10:35:59 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9p00ivdak2@plutonium.btinternet.com>
Source record: 49800

"Vshah101" <vshah101@aol.com> wrote in message
news:20010926113634.07298.00000751@mb-mk.aol.com...
> These devices are rf amplifiers from mini circuits, usable from DC to
1GHz.
> These seem like good amplifiers and they have a 50 ohm input and output,
which
> would simplify the design significantly as there would be no need for
matching
> circuitry. This is one reason I would like to design something with this.
> However, I have not built a MAR-x amplifier.
>
> Has anyone made a prototype board for this device. Can you use regular pc
> board material (FR4) for this device? I saw a prototype board in the AARL
> handbook and it says the only critical dimension is the 0.1 inch strip
which is
> used as a 50 Ohm transmission line. Has anyone made this device and found
them
> useful? Are there better devices out there than are inexpensive? I would
> assume that with the 50 ohm output, it would be alot easier than
transistor
> amplifier design.

You can use ordinary FR4 for a simple amplifier. It won't work very well for
more complex microwave design using microstrip, because it isn't
characterised properly for the frequencies involved.

>
> Also, can this amplifier be used as a high frequency 1GHz oscillator with
the
> right feedback components?
>
>

Electronics World had an article a few years ago about using this type of
device as an oscillator. It worked, but wasn't all that good. I can't
remember what the problems were.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

5899. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 11:53:31 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9ov41r$9jq$1@nntp9.atl.mindspring.net>
Source record: 49893

I've used a hot air gun as a way to heat the board for melting solder...
It'd be safer then a torch, but works well enough.

Something like a hair dryer, but this one was bought at a hardware store
and I think is rated at 1200 and 1600 watts.

Jim Pennell
N6BIU

5900. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 12:51:42 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9ov7d0$feoud$1@ID-61331.news.dfncis.de>
Source record: 49894

Budget/cheapskate method:

I use a hacksaw to physically remove a chip and it's surrounding section of PCB, then wirecutters to separate the pins, and finally an ordinary soldering iron to finish off...

Hans Summers
http://www.HansSummers.Com

5901. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 13:12:32 UTC
From: w4pqwhs@aol.com
Message-ID: <20010927091232.00949.00000833@mb-fh.aol.com>
Source record: 49895

> wondering if somone could provied some methods
>on desoldering... and removing components withought damage...

Best way is to purchase a de- soldering station with controlled heat,suction,etc..that is quite expensive, so, get a small iron with temp control ,get a roll of copper wicking,and a solder sucker. you can get that at a local supply , Radio Shack...practice and be careful, you will get the nack of it and be able to save most of the components. good luck W4PQW

5902. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 13:31:52 UTC
From: "Guy P. Distaffen" <guypd@bigfoot.com>
Message-ID: <cTFs7.560160$T97.74976409@typhoon.nyroc.rr.com>
Source record: 49896
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

That is the whole point, Proma. These groups are about Amateur Radio
and this discussion isn't. Secondly, this hasn't been a good discussion, it
has been more of a way to lob insults at each other. This discussion isn't
helping anything, it isn't informing anyone, so what is the point.
My point, was that we should drop the thread, because it is serving no
purpose at this point and that it is causing some people to take a childish
attitude and it isn't doing any good for the group. Not only that, but it
is detracting from the "spirit" of Amateur Radio.
My point was put well by Jon Harris, "...it doesn't mean that this is
the right place to discuss it..."
Have you looked at what groups your cross-posting to? They are
alt.ham-radio.vhf-uhf, alt.radio.scanner.uk, rec.radio.amateur.homebrew,
uk.radio.amateur, uk.rec.radio.cb

Guy P. Distaffen

KB0SWS

"proma1" <proma1@ntlworld.com> wrote in message
news:s9Cs7.369$3Q5.146229@news2-win.server.ntlworld.com...
> you discuss it on whatever group you want,we are adults with a common
hobby
> and true we should speak about that on this group,but whats the problem??
>
>
> you do not have to read,i enjoy on all groups including my own
> yahoogroup,good conversation,if we go off topic sometimes,and as said this
> is a major one,one should not need to go on another more relevant
> group,particulary if the discussion started on here.
>
>
> rules are there for the breaking,thats what scanning is all about anyway.
>
>
>
>
> --
> PROMA1
> Paul Wey
>
> Scanning Author
>
> www.geocities.com/proma1_1999
>

> http://groups.yahoo.com/group/scanpromauk
>
>
>
>
> Jon Harris <jon@cbugDEADWOOD.org.uk> wrote in message
> news:3bb2ea59.254653064@news.axion.bt.co.uk...
> > On Wed, 26 Sep 2001 22:13:38 +0100, "proma1" <proma1@ntlworld.com>
> > wrote:
> >
> > >simple answer is dont read it,no one forces you you know.
> > >
> > >this is probably the most important topic across the world at the
moment.
> >
> > Maybe, but it doesn't mean this is the right place to discuss it...
> >
> > JH
>
>

5903. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 13:40:27 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BB32C4B.CBF4925B@amsat.org>
Source record: 49797

Jason -- for desoldering -- see URL:
http://www.epemag.wimborne.co.uk/solderfaq.htm#desold
AND
http://www.aaroncake.net/electronics/desolder.htm

Easily found using http://www.google.com/
Search for desoldering
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
Jason wrote:

> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
> electronic components real cheap.. Mostly old computers and parts for
> them... Recently i have started removing components from some of the
> circuit cards... In particular i am intrested in removing a 556 timer and
> several 74 family chips I was wondering if somone could provied some methods
> on desoldering... and removing components withought damage...

5904. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 15:41:23 UTC
From: wieland@copland.udel.edu
Message-ID: <9ovhb3$3pr$1@copland.udel.edu>
Source record: 49798

In article <%7zs7.27703$L8.5224512@news2.rdc1.bc.home.com> you write:
[snip]
>them... Recently i have started removing components from some of the
>circuit cards... In particular i am intrested in removing a 556 timer and
>several 74 family chips I was wondering if somone could provied some
>methods on desoldering... and removing components withought damage...

This takes two people... Put the board in a vise to hold it firm. Then the first worker uses slip-joint pliers to grab the ends of the chip-to-be-removed, grip it firmly, and pull rather strongly. The second worker then, on the solder side of the board, hits all the chip's pins with the flame of a large propane torch. As soon as the second sees the chip pull free, he takes the flame away.

This is hard on the board, but not on the chips. The secret is to have a flame big enough, and to work FAST. We used to do this back in the 1970s to take large numbers of memory chips out of surplus boards from obsolete mainframes. It really does work.

5905. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 17:46:06 UTC
From: keith <keith@recelectronics.demon.co.uk>
Message-ID: <oktnToAeX2s7Ewy2@recelectronics.demon.co.uk>
Source record: 49799
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

In article <SGts7.11853$L4.2060989@news6-win.server.ntlworld.com>,
proma1 <proma1@ntlworld.com> writes
>there we go again quoting that free world tripe.
>
>those with lots of money are free,most of us are slaves to our jobs,barely
>making enough to keep our families,that just in the west,for those in the
>former USSR and other countries spoilt by capitilism,capitilism can work but
>it can and should be a lot fairer,remember the the only low paid workers in
>the WTC,were the cleaners/security/chefs etc why should they get less than
>those pen pushers sitting in offices on there bsacksides earning lots of
>money for nothing.
>
>
>if one good thing comes out of recent events,i hope that the real workers of
>the world get together and overthrow the current system.
>
>
>Tony Blair and co are reputed to be getting bloody noses in Brighton this
>weekend,it will be fun.
>
>
>he can have his war,others can have theres,it all fair in love and war as
>they say.
>
>
>--
>PROMA1
>Paul Wey
>
>Scanning Author
>
>www.geocities.com/proma1_1999
>
This Geezer has just got to be a wind up..!!

```
****************************************
* Visit "Keiths Vintage Racal Site" *
* http://www.recelectronics.demon.co.uk *
****************************************
```

5906. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 21:23:50 UTC
From: norman_tebbit@the-nottinghill-carnival.com
Message-ID: <3bb39073.1194780@news.freeserve.net>
Source record: 49802
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

On Thu, 27 Sep 2001 00:38:43 +0100, "proma1" <proma1@ntlworld.com> wrote:

>there we go again quoting that free world tripe.
>
>those with lots of money are free,most of us are slaves to our jobs,barely
>making enough to keep our families,that just in the west,for those in the
>former USSR and other countries spoilt by capitilism,capitilism can work but
>it can and should be a lot fairer,remember the the only low paid workers in
>the WTC,were the cleaners/security/chefs etc why should they get less than
>those pen pushers sitting in offices on there bsacksides earning lots of
>money for nothing.

Perhaps because they're a lot better qualified than the cleaners?

>Tony Blair and co are reputed to be getting bloody noses in Brighton this
>weekend,it will be fun.

How so?

>he can have his war,others can have theres,it all fair in love and war as
>they say.

You're not making a lot of sense, Paul. As usual.

J+

5907. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 21:26:04 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb3920c.42726014@news.akorn.net>
Source record: 49803

OK, so we have all the explainations of how bandwidth changes. Good enough. Anyone can make a mistake, and I was almost convinced I had a bad memory. I was working from my recollection of what I measured and observed when measing keyclicks on various radios.

Sooo, I did a quick setup today and ran a test with my FT1000D because it has a filter I can switch in and out. I can make it stock keying, or my modification that makes filtered CW keying. This mod was the result of complaints that I was "clicking up the band" by other DX'ers when working a close split.

I have a homebrew receiver with a double balanced high level mixer, followed by a push-pull CATV transistor amp into a 600Hz 6-pole filter followed by another high level mixer into a 250 Hz filter. This receiver has a two-tone IM DR of over 110dB @ 2kHz spacing, and a blocking DR about 120dB or more (my generator noise limits the blocking test at 2kHz spacing).

The FT1000D has composite noise (mostly from transmitter IF amplifiers) that extends over the whole band, but it is about 100dB down.

I transmitted on 1823.5 kHz with a string of dots (using a keyer that displays WPM). I closed my eyes and tuned the receiver up towards the carrier while sending dots, and stopped when I could clearly hear clicks. This is what I measured:

Yaesu stock poor filtered CW:
5 WPM 1822.1
40 WPM 1822

Click modified filtered CW:
5WPM 1823
40 WPM 1823

Repeating the test poor filtered

5WPM 1822
40 WPM 1822

Repeating the test filtered

5WPM 1823
40 WPM 1823

Now that we know the "transmitter bandwidth" changes with clicks, why doesn't it change a measureable amount?

By the way, this is almost identical to what I recall looking at several other rigs. I recall always hearing the click the same distance away regardless of speed.

Something is very odd when bandwidth increases but the bandwidth does not increase.

My problem is in understand what something in the future or past means to a given instant of time. The click only occurs during the rise and fall window. While it might matter to a FFT analysis what a string of dots does, it sure doesn't matter to a receiver that is not being overloaded or blocked!

Why?

73 Tom

5908. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 21:30:20 UTC
From: ve3ab@mondenet.ca
Message-ID: <3bb398b9.171255670@news.mondenet.com>
Source record: 49804

another method..alot slower than the torch..is to buy a desoldering
iron from radio shack..the type with the suction bulb built into the
soldering iron fixture..it has a special tip with a hole to allow the
solder to be sucked up away from the joint (with the rubber bulb)..it
works quite well..you can buy replacement tips..when the units and
tips were on sale..i bought some up as spares...73 Earl VE3AB

On Thu, 27 Sep 2001 11:29:21 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>
>"Jason" <kc7eip@home.com> wrote in message
>news:%7zs7.27703$L8.5224512@news2.rdc1.bc.home.com...
>> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
>> electronic components real cheap.. Mostly old computers and parts for
>> them... Recently i have started removing components from some of the
>> circuit cards... In particular i am intrested in removing a 556 timer and
>> several 74 family chips I was wondering if somone could provied some
>methods
>> on desoldering... and removing components withought damage...
>
>The quickest and easiest way is to heat the underside of the board with a
>blowtorch around the chips you want to remove, and wack it down on something
>hard. The chips should fall out. It's probably a good idea to do this
>outside. 8-)
>
>
>73, Leon
>--
>Leon Heller, G1HSM leon_heller@hotmail.con
>http://www.geocities.com/leon_heller
>Low-cost Altera Flex design kit: http://www.leonheller.com
>
>
>
>

5909. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 21:55:27 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb39e5b.45877318@news.akorn.net>
Source record: 49806

On Thu, 27 Sep 2001 11:35:59 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>
>Electronics World had an article a few years ago about using this type of
>device as an oscillator. It worked, but wasn't all that good. I can't
>remember what the problems were.

I can! I was asked to try that circuit in a wideband oscillator. It
really worked poorly because the system used L/C phase shift to make
the feedback the correct phase.

The problem is the phase changes so gradual over a wide frequency
range, the thing was jumping and wandering all over the place in
frequency.

Also, MMIC's don't limit well and you can't modify the saturation or
limiting like you can with discrete componets. They make very very
poor variable oscillators in my experience.

They are OK for amplifiers but seem to have high harmonic distortion.
I use devices like the MAV-11 in sorta-low-noise amplifiers in
filtered applications and they are fine, like as a post-mixer amplifer
driving a crystal filter. You can certainly do better with descrete
components.

I've had no success using them in push-pull broadband applications.
Has anyone else?

73 Tom

5910. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 21:59:41 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <0kNs7.5240$zu1.778579@news6-win.server.ntlworld.com>
Source record: 49807
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

low paid unskilled usually work harder than those in banking and office jobs,so in a fair society they should get a better share of the worlds wealth.

as for Brighton,large demo planned,and also intelligence reports to the police passed on to me by press contacts is that the conference is likely to be a terrorist main target on Sunday.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

J+ <norman_tebbit@the-nottinghill-carnival.com> wrote in message news:3bb39073.1194780@news.freeserve.net...
> On Thu, 27 Sep 2001 00:38:43 +0100, "proma1" <proma1@ntlworld.com> wrote:
>
> >there we go again quoting that free world tripe.
> >
> >those with lots of money are free,most of us are slaves to our jobs,barely
> >making enough to keep our families,that just in the west,for those in the
> >former USSR and other countries spoilt by capitilism,capitilism can work but
> >it can and should be a lot fairer,remember the the only low paid workers in
> >the WTC,were the cleaners/security/chefs etc why should they get less than
> >those pen pushers sitting in offices on there bsacksides earning lots of
> >money for nothing.
>
> Perhaps because they're a lot better qualified than the cleaners?
>
> >Tony Blair and co are reputed to be getting bloody noses in Brighton this
> >weekend,it will be fun.
>
> How so?
>

> >he can have his war,others can have theres,it all fair in love and war as
> >they say.
>
> You're not making a lot of sense, Paul. As usual.
>
> J+
>

5911. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 22:11:53 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <ovNs7.5293$zu1.790149@news6-win.server.ntlworld.com>
Source record: 49808
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

i like the norman tebbit adress,may be i could use osamabinladen@baldock.com

this is good fun,but we cant keep it up forever,in brief all i say is just look at the world,reaearch your facts and history.
[mind you even that is flawed,books as with any media is going to be biassed according to our own biasses]

at least we can share our views,so although i have serious views on the current world,and those who lead it,i know they are my views,right or wrong depending on your viewpoint.

terrorism is the poor mans war,he cant buy jet fighters so he uses passenger planes

ok ossama is not poor,but still he has no access to jet fighters.

many people we considered terrorists are now well respected,as we gain more info on someone we realise that it was the only way out for some people,in a world that does not listen.

regards

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

J+ <norman_tebbit@the-nottinghill-carnival.com> wrote in message news:3bb39073.1194780@news.freeserve.net...
> On Thu, 27 Sep 2001 00:38:43 +0100, "proma1" <proma1@ntlworld.com> wrote:
>
> >there we go again quoting that free world tripe.
> >
> >those with lots of money are free,most of us are slaves to our jobs,barely
> >making enough to keep our families,that just in the west,for those in the
> >former USSR and other countries spoilt by capitilism,capitilism can work but
> >it can and should be a lot fairer,remember the the only low paid workers in
> >the WTC,were the cleaners/security/chefs etc why should they get less than

> >those pen pushers sitting in offices on there bsacksides earning lots of
> >money for nothing.
>
> Perhaps because they're a lot better qualified than the cleaners?
>
> >Tony Blair and co are reputed to be getting bloody noses in Brighton this
> >weekend,it will be fun.
>
> How so?
>
> >he can have his war,others can have theres,it all fair in love and war as
> >they say.
>
> You're not making a lot of sense, Paul. As usual.
>
> J+
>

5912. WTB homebrew rx any condition

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 23:07:13 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3bb3b101.17466793@news.usfamily.net>
Source record: 49809

Hi,

I'm interested in buying tube or solid state homebrew receivers and transmitters. Any condition as long as the price is right.

Email me with info.

Thanks,

Bob

5913. Re: Swan Siltronix alignment information free

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 23:10:33 UTC
From: Skipp <skipp@pilot.ucdavis.edu>
Message-ID: <9p0bl9$75i$1@woodrow.ucdavis.edu>
Source record: 49810
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.cb

: Did the folks at Siltronix have any connection or ties with the guys
: over at General Radiotelephone, on Burbank Blvd, in Burbank. Near
: Burbank and Hollywood Way ?????????

I doubt it... I have a good ham friend Bill (wa6cax) who knows all that
went on down there. I'll ask him about it.

: I now they where in with Comco, Courier, Messenger, and Bendix! And I
: think they helped or sold parts for the Buddy Base's made in Pasadena.
: Jay in the Mojave

I remember Bill talking about the Buddy Base's just a few weeks ago...

I'll try to get back to you... I've just revised the siltronix web page
into sections (mucho betta') and now I'm adding the promised text into
files which can be down loaded.

cheers
skipp
skipp@pilot.ucdavis.edu

5914. Fm broadcast notch filter schematic need

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-27 23:58:46 UTC
From: Craig - N5XNQ <cpclark@pca.net>
Message-ID: <3020E1813D52291D.A83D3B5CE58EF6EE.6EC4D5C878978DBD@lp.airnews.net>
Source record: 49811

I am in need of a schematic for a notch filter that has a 50 ohm impedance
and will notch out 88 Mhz to 110 Mhz. Please email me at cpclark@pca.net
Thanks in advance!

73's
Craig - N5XNQ

5915. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 00:38:24 UTC
From: Craig Davidson <nospam@earthlink.com>
Message-ID: <4EPs7.21554$Hx1.2040153@newsread1.prod.itd.earthlink.net>
Source record: 49812
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

The Icom 706 is the best 6 meter rig available.

It has Subaudible tone encode and decode built in

Also, I found out that the hustler mobile antenna resonates exactly in the
middle of the 6 meter band with no coil installed.

Have fun.

David J. Moge wrote in message ...
>OK,
>
>Any and all comments, what is the best all purpose six meter rig
>
>Thanks
>n1rzb
>
>
>

5916. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 01:45:54 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BB3D880.18DF@pop.removethistomailme.net>
Source record: 49813

Leon Heller wrote:
>
> You can use ordinary FR4 for a simple amplifier. It won't work very well for
> more complex microwave design using microstrip, because it isn't
> characterised properly for the frequencies involved.
>

Forget all that microstrip junk. Just solder the thing down to a piece
of bare copper-clad board and keep your connections short. You'll lose
a dB at most.

The presence (and proper choice) of a power-supply choke is MUCH more
important to these devices than fiddling around with exotic substrates
and precision cuts trying to get a 1.000001:1 SWR.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

5917. Re: Fm broadcast notch filter schematic need

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 01:49:04 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB3D710.E4C8F1AB@bill.com>
Source record: 49814

Craig - N5XNQ wrote:
>
> I am in need of a schematic for a notch filter that has a 50 ohm impedance
> and will notch out 88 Mhz to 110 Mhz. Please email me at cpclark@pca.net
> Thanks in advance!
>
> 73's
> Craig - N5XNQ

What is the application here? A notch filter will only take out a
single frequency. What you're describing would be more of a band reject
filter, typically comprised of a combination of low-pass and high-pass
filtering. But, if you're wanting to only notch out a single signal
somewhere inside the range stated, a notch filter would work.
Is this a transmitting application?
A single freq notch can be easily made with a coax stub trimmed to the
freq of interest.
-Bill WX4A

5918. MFJ-259B Plate Choke Procedure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 01:52:33 UTC
From: ko4nrbs@yahoo.com
Message-ID: <a25f10b8.0109271752.7893360e@posting.google.com>
Source record: 49815

I need to double check my amplifier's Plate Choke to make sure it is
not resonant in the HF bands. How do I do that with a MFJ-259B
analyzer?
73,
Bill Smith KO4NR
email- ko4nrbs@yahoo.com

5919. Re: MFJ-259B Plate Choke Procedure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 02:22:46 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <u3Rs7.24053$2H2.1946360@e3500-atl1.usenetserver.com>
Source record: 49816

Not familiar with MFJ box, I use an AEA CIA. Technique should be the same, however.

Disconnect the plate end of the choke from tube and tank circuit, attach it to analyzer center conductor terminal. Ground analyzer shield terminal to chassis. Other end of choke will be effectively grounded through the bypass caps on the DC side.
Don't move the connecting wires too much, you want to include parasitic capacitance in your measurements.

Sweep the analyzer across the frequency range. Watch for impedance dips indicating series resonance. Note frequenc(ies) at dip. Watch for x = 0 at any frequency. This will indicate resonance. Impedance peaks indicate parallel resonance, not always good due circulating currents in the choke. Ideally, resonant points should fall outside ham bands.

If your analyzer doesn't read reactance, you can insert a 50 ohm resistor in series with the choke and sweep looking for minimum VSWR points.

73
Rory N7CR

"Bill Smith" <ko4nrbs@yahoo.com> wrote in message
news:a25f10b8.0109271752.7893360e@posting.google.com...
> I need to double check my amplifier's Plate Choke to make sure it is
> not resonant in the HF bands. How do I do that with a MFJ-259B
> analyzer?
> 73,
> Bill Smith KO4NR
> email- ko4nrbs@yahoo.com

5920. power supply for sale 5 volt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 02:31:29 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3BB3DFA6.25227A14@netdoor.com>
Source record: 49817
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.amateur.swap,rec.radio.amateur.homebrew

I have a new 5 volt, 30 or 35 amp (can't remember just now) power supply
for sale.150.00 plus shipping.

5921. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 07:47:54 UTC
From: Paul Richards <p.richards@ukonline.co.uk>
Message-ID: <jva8rts4mhdhf0676ol4e8jdlgf6te9cn6@4ax.com>
Source record: 49777
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

On Thu, 27 Sep 2001 10:17:29 +0100, "proma1" <proma1@ntlworld.com>
wrote:

>you discuss it on whatever group you want,we are adults with a common hobby
>and true we should speak about that on this group,but whats the problem??
>
>
>you do not have to read,i enjoy on all groups including my own
>yahoogroup,good conversation,if we go off topic sometimes,and as said this
>is a major one,one should not need to go on another more relevant
>group,particulary if the discussion started on here.
>
>
>rules are there for the breaking,thats what scanning is all about anyway.

Aren't you the one who asked people not to post off topic in
scanpromauk at yahoo.groups.com because it goes to your
phone on sms?

Is that rule also for breaking?

Paul

--
Paul Richards

5922. Re: power supply for sale 5 volt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 07:55:16 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9p1ad6$g1i5e$1@ID-61331.news.dfncis.de>
Source record: 49818
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.amateur.swap,rec.radio.amateur.homebrew

"Butch Magee" <lynyrd@netdoor.com> wrote in message
news:3BB3DFA6.25227A14@netdoor.com...
> I have a new 5 volt, 30 or 35 amp (can't remember just now) power supply
> for sale.150.00 plus shipping.

150 what plus shipping? US dollars?

Have a look at http://www.rswww.com. For £103 (approx US $150) they will
offer you a new power supply with outputs:

+3.3V @ 23A
+5V @ 32A
+12V @ 12A
-12V @ 1A
-5V @ 0.5A
+5VSB @ 0.1A

RS are hardly the cheapest supplier around either...

5923. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 08:02:19 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9p1aqd$g6qu1$1@ID-61331.news.dfncis.de>
Source record: 49819
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

"Guy P. Distaffen" <guypd@bigfoot.com> wrote in message
news:cTFs7.560160$T97.74976409@typhoon.nyroc.rr.com...
> That is the whole point, Proma. These groups are about Amateur Radio
> and this discussion isn't. Secondly, this hasn't been a good discussion,
it
> has been more of a way to lob insults at each other. This discussion
isn't
> helping anything, it isn't informing anyone, so what is the point.

The insults have mainly been lobbed from one side, always when faced with arguments which they can't or don't want to deal with. I for one learnt a lot from this discussion and found it interesting.

I still can't understand why people can't just ignore threads that don't interest them. I am reading this on rec.radio.amateur.homebrew. Each day I automatically ignore a large number of posts by people selling commercial radio equipment, because it doesn't interest me (nor do I see how it relates to homebrew). It's not that difficult...

Hans Summers
http://www.HansSummers.Com

5924. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 08:31:49 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <CAWs7.6808$zu1.1147552@news6-win.server.ntlworld.com>
Source record: 49820
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

i have not cross posted to anyone,i have only posted to alt.radio,but spirit
of ameteur radio,what a laugh have you not heard all the racism and other
unsavoury talk on repeaters.

but no insults have been thrown my way,nothing bad anyway,it is called
discussion and i have enjoyed it,if people want to respond they can,on
whatever side.

this is usenet,not ameteur radio,luckily we can talk about what we want
whenever we want,its an immediate,global communication system.

if on one replies then i will have nothing on this subject to reply to.,so
by replying you are carrying it on.

so is this the end of the topic,its up to the next reply

its a major story,do you want bombs dropping or aircraft or chemicals going
off everywhere,i dont,it affects us all.

mainly caused by US and UK foreign policy.

--
PROMA1
Paul Wey

Scanning Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

proma1 <proma1@ntlworld.com> wrote in message
news:s9Cs7.369$3Q5.146229@news2-win.server.ntlworld.com...
> you discuss it on whatever group you want,we are adults with a common
hobby
> and true we should speak about that on this group,but whats the problem??
>
>
> you do not have to read,i enjoy on all groups including my own
> yahoogroup,good conversation,if we go off topic sometimes,and as said this
> is a major one,one should not need to go on another more relevant
> group,particulary if the discussion started on here.
>
>
> rules are there for the breaking,thats what scanning is all about anyway.
>
>

>
>
> --
> PROMA1
> Paul Wey
>
> Scanning Author
>
> www.geocities.com/proma1_1999
>
> http://groups.yahoo.com/group/scanpromauk
>
>
>
>
> Jon Harris <jon@cbugDEADWOOD.org.uk> wrote in message
> news:3bb2ea59.254653064@news.axion.bt.co.uk...
> > On Wed, 26 Sep 2001 22:13:38 +0100, "proma1" <proma1@ntlworld.com>
> > wrote:
> >
> > >simple answer is dont read it,no one forces you you know.
> > >
> > >this is probably the most important topic across the world at the
moment.
> >
> > Maybe, but it doesn't mean this is the right place to discuss it...
> >
> > JH
>
>

5925. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 08:46:45 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ko98rtsk0kkmtg959ds8r7bt3k9ubrl6cj@4ax.com>
Source record: 49821

On Thu, 27 Sep 2001 21:26:04 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>followed by another high level mixer into a 250 Hz filter.

>I transmitted on 1823.5 kHz with a string of dots (using a keyer that

>Yaesu stock poor filtered CW:
>5 WPM 1822.1
>40 WPM 1822

I don't know psycho-acoustics well enough, but some of these things
may contribute to your observations.

At 5 WPM, the fundamental is at 2 Hz and odd harmonics every 4 Hz,
thus, there are about 60 discrete harmonics in the 250 Hz band.
At 40 Wpm, the fundamental is at 33 Hz and odd harmonics at 66 Hz
interval with 3 or 4 harmonics in the passband.

I am not sure how the ear/brain system responds with some form of
addition to 60 weak or 3-4 strong harmonics in the passband. You might
even get different results with the BFO above or below the receiver
passband.

There is also the special case when the BFO is at the Tx frequency and
thus, the recovered audio tones are harmonically related to a
filtered-out fundamental tone.

It is interesting to note that you can "hear" a very low tone (10-30)
from an organ even when listening through small speakers with 100 Hz
cut-off due to harmonic reconstruction in ear/brain.

I would not be too surprised, if putting the BFO exactly on the Tx
frequency might produced some strange sensations.

Paul OH3LWR

5926. Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 09:35:18 UTC
From: nandy99@mail.ru
Message-ID: <a083d3aa.0109280135.6df86743@posting.google.com>
Source record: 49822

I am working on a VFO for a HF transceiver coving the ham bands, while going through the postings on VCOs I came across a posting about using FETs instead of varicaps. The author wrote that he had got the idea from an called article "Accessories for the VFO" by Doug DeMaw from the Jan 1988 issue of QST (pg.31). I wonder if anyone has tried this idea, I would be glad if anyone could guide me on this topic.As I do not have this issue, i would be very grateful if anyone could mail me this aricle or at least send me a summary(necessary bias voltages, circuit used etc.)

5927. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 09:47:30 UTC
From: Martin Farrell <Martin@hobbit.nu>
Message-ID: <$0TyuYBycEt7Ew4p@hobbit.nu>
Source record: 49778

In article <3bb3920c.42726014@news.akorn.net>, Tom W8JI
<2w8ji@contesting.com> writes
>Something is very odd when bandwidth increases but the bandwidth does
>not increase.
>
>My problem is in understand what something in the future or past means
>to a given instant of time. The click only occurs during the rise and
>fall window. While it might matter to a FFT analysis what a string of
>dots does, it sure doesn't matter to a receiver that is not being
>overloaded or blocked!
>
>Why?

Because CW is usually injected as an audio tone into the usual SSB TX.
It will be filtered in the TX chain before the receiver has a chance to
see the 'real' sidebands.

With this tone set to the middle of the TX SSB filter you might expect a
bandwidth of +/- 1.5kHz which is roughly what you measured before
modifying the rise and fall times.

There, everyone's right ;-)
--
Martin G0PFT

5928. Re: radCom third-method HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 10:14:21 UTC
From: Bertalan Mora <bertalanm@dplanet.ch>
Message-ID: <3bb44df4@news.swissonline.ch>
Source record: 49823

Seems that I've found the mags. thx anyway

-BNM

5929. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 12:18:51 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001679531@msauve>
Source record: 49824

On Thu, 27 Sep 2001 21:26:04 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> I did a quick setup today and ran a test with my FT1000D because
> it has a filter I can switch in and out. I
>
> Yaesu stock poor filtered CW:
> 5 WPM 1822.1
> 40 WPM 1822
>
> Click modified filtered CW:
> 5WPM 1823
> 40 WPM 1823
>
> Now that we know the "transmitter bandwidth" changes with clicks, why
> doesn't it change a measureable amount?

> Something is very odd when bandwidth increases but the bandwidth does
> not increase.

According to the ARRL Handbook, Appendix 6 of the CCIR Radio Regulations and Section 2.202 of the FCC rules, a 5 wpm code stream will use
about 12 Hz of bandwidth. According to the sources already quoted, and Shannon's law, the speed/bandwidth relationship is linear. An identically
shaped 40 wpm code stream would consume approximately 100 Hz of bandwidth.

You are attempting to measure, using subjective senses and uncalibrated equipment, the change in bandwidth occuring on one sideband,
a change of approximately 44 Hz. The measurements you report indicate you are measuring with a resolution of 100 Hz. It's not surprising that you
can't measure a difference, given the method of measurement.

> My problem is in understand what something in the future or past means
> to a given instant of time. The click only occurs during the rise and
> fall window. While it might matter to a FFT analysis what a string of
> dots does, it sure doesn't matter to a receiver that is not being
> overloaded or blocked!

The consumed bandwidth is not a constant, but rather best thought of as a moving average. If you send a 50 dot-per-second stream, it should be
easy to see why you would have a 50 Hz sideband component (you're sending a 50 Hz square wave). If you send a string of dashes at the same
speed (3 x dot), it will create a 17 Hz sideband component (the dashes) and a 50 Hz sideband component (the spaces between the dashes). Letter
spacing adds a 17 Hz component, and word spacing an 8 Hz component. Hold key down, and all of that goes away. Add the harmonics, and the
consumed bandwidth is greater. Shaping controls how higher harmonics drop off, but speed controls the sideband. It should be easy to see that if

you widen that sideband, then the higher harmonics will widen also independent of shaping, because they're simply multiples.

5930. Semi's coming up on the bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 13:25:19 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <3T_s7.5413$c8.755271@news1.rdc1.nj.home.com>
Source record: 49825

some guy is unloading several hundred lots of IC's and HexFets on the Bay
jack
exWA8PZL

5931. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 14:54:45 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb489b5.106136048@news.akorn.net>
Source record: 49826

On Fri, 28 Sep 2001 12:18:51 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>According to the ARRL Handbook, Appendix 6 of the CCIR Radio Regulations and Section 2.202 of the FCC rules, a 5 wpm code stream will use
>about 12 Hz of bandwidth. According to the sources already quoted, and Shannon's law, the speed/bandwidth relationship is linear. An identically
>shaped 40 wpm code stream would consume approximately 100 Hz of bandwidth.
>
>You are attempting to measure, using subjective senses and uncalibrated equipment, the change in bandwidth occuring on one sideband,
>a change of approximately 44 Hz. The measurements you report indicate you are measuring with a resolution of 100 Hz. It's not surprising that you
>can't measure a difference, given the method of measurement.

I disagree. My receiver is calibrated quite well, better than most spectrum analyzers. Not only that, it does not need to sweep.

Please tell me what could possibly be wrong with my reciver? It is a good receive, it can read frequency to within 100Hz, and I am measuring something 1.5kHz wide.

Not only that, it is HOW the signal affects receivers that determines the bandwidth required for operation.

The receiver can "sit" on one frequency and give a real-time observartion of clicks. The spectrum analyzer or an FFT system can NOT. The spectrum analyzer or FFT system requires many clicks (or dots) to proivide a result, so phase is important and can color the results. With a receiver, you hear one click and it is gone. Same with the brain.

The bandwidth at which I can hear a click clearly does not change a noticable amount with dot speed for a given rise and fall shape and duration.

>The consumed bandwidth is not a constant, but rather best thought of as a moving average. If you send a 50 dot-per-second stream, it should be
>easy to see why you would have a 50 Hz sideband component (you're sending a 50 Hz square wave). If you send a string of dashes at the same
>speed (3 x dot), it will create a 17 Hz sideband component (the dashes) and a 50 Hz sideband component (the spaces between the dashes).

50 dots per second would never be realistic, and would require a thousand Hz bandwidth with normal CW shaping. What possible difference does it make if the primary sidebands are out 2 Hz or 50Hz when the sidebands caused by the rise and fall times are out many kilohertz?

We keep getting into unrealistic speeds and rise and fall times (and bandwidths) while ignoring the harmonic energy necessary to generate the rise and fall in order to justify something that appears to be wrong, even though commonly understood to be correct.

When the rise and fall time is significantly faster than the modulation off-and-on rate, the rate does NOT affect the bandwidth at all. It makes no difference at all if you add sidebands of a 10 Hz signal to a signal that is alread 500Hz wide because of rise and fall characteristics.

After all, you are adding LOWER frequency sidebands by keying, not HIGHER frequency sidebands because the rise and fall sidebands always have to be much wider than the sidebands caused by information.

The ratio of carrier power to sidebands changes, and is reduced with increased speed. The distribution of sidebands within that bandwidth is changed, but the bandwidth and slope of that bandwidth remains the same as long as the elements being sent are significantly longer than the rise and fall times.

No one uses a 50Hz shaping filter on a transmitter, and a 50Hz filter on the receiver.

Here is what I received in private e-mail:

To: W8JI@contesting.com
Subject: Re: Clicks

Tom,

That is all correct, always assuming as you did that the pulses are much longer than the rise and fall times, those times dominate the problem. I am attaching some notes where I plotted the spectrum generated from keying pulses of 20 ms and 50 ms both with 4 ms rise times. You can see how the pulse length effects the spectrum. The details
are changed. The central peak corresponding to the carrier has more power
for the longer pulse as it has too, and that peak is narrower. It is probably this effect that others are thinking about, however
the overall width taken up by the sidebands is independent of the pulse length until it gets to be around the same as the rise and fall times.

end

I'll post the plots on a web page if and when I get permission.

73 Tom

5932. remote ANT switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 15:21:56 UTC
From: Tazanator <NOones@home.com>
Message-ID: <oA0t7.134591$K6.61710249@news2>
Source record: 49827

Did anybody builds the remote ant switcher in the nov (2000 I think) QST mag. If so please email me...I want one but don't know where to begin building it.

--
**** ****
ALT.2600.WAREZ AWARD :
ALL YOUR BASE ARE BELONG TO US!!!
**** ****

5933. Re: radCom third-method HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 15:42:23 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0109280742.7a874eb0@posting.google.com>
Source record: 49828

"Bertalan Mora" <bertalanm@dplanet.ch> wrote in message
news:<3bb1b430@news.swissonline.ch>...
> Hi All!
>
> I am looking for the article by Peter Rhodes in 1996 issues of Radio
> Communication that describe a Third-Method (weaver) SSB HF transceiver. I
> have the jun-aug issues, but am missing the sept and oktober entries. Would
> anyone be able to tell me where to find these, or possibly be willing to
> send them as an attachment?
>
> Thanks,
> BNM

What I would do is go to the local public library. If they don't have
'Radio Communications' they could locate another library that could.
Then they could either get an interlibrary loan, or (if you knew for
certain what articles you wanted) have the other library copy the
articles for you, for a nominal fee.

This, of course, is if you are in the USA. I beleive you are not, and
I am not sure if other countries have the network of libraries like we
do here.

5934. AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 15:49:27 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0109280749.6069db87@posting.google.com>
Source record: 49829

Can anyone tell me who sells the AD9850 DDS in small quantities?

As far as that goes, where did all the homebrew friendly vendors go
(at least in this area)?

5935. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 15:57:43 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001692663@msauve>
Source record: 49835

On Fri, 28 Sep 2001 14:54:45 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> On Fri, 28 Sep 2001 12:18:51 GMT, Mark Allread
> <mallread@flatsurface.com> wrote:
>
> >According to the ARRL Handbook, Appendix 6 of the CCIR Radio Regulations and Section 2.202 of the FCC rules, a 5
wpm code stream will use
> >about 12 Hz of bandwidth. According to the sources already quoted, and Shannon's law, the speed/bandwidth
relationship is linear. An identically
> >shaped 40 wpm code stream would consume approximately 100 Hz of bandwidth.
> >
> >You are attempting to measure, using subjective senses and uncalibrated equipment, the change in bandwidth occuring
on one sideband,
> >a change of approximately 44 Hz. The measurements you report indicate you are measuring with a resolution of 100 Hz.
It's not surprising that you
> >can't measure a difference, given the method of measurement.
>
> I disagree. My receiver is calibrated quite well, better than most
> spectrum analyzers. Not only that, it does not need to sweep.
>
> Please tell me what could possibly be wrong with my reciver? It is a
> good receive, it can read frequency to within 100Hz, and I am
> measuring something 1.5kHz wide.

So you are now claiming that a 40 wpm morse code stream consumes 1.5 KHz of bandwidth (or is it 3.0 KHz, since your
methodology only measures the change in one sideband) !!!??? I guess we should get rid of the CW portions of the bands,
since you've just proven (!) that CW consumes the same bandwidth as SSB!?

> >The consumed bandwidth is not a constant, but rather best thought of as a moving average. If you send a 50 dot-per-
second stream, it should be
> >easy to see why you would have a 50 Hz sideband component (you're sending a 50 Hz square wave). If you send a string
of dashes at the same
> >speed (3 x dot), it will create a 17 Hz sideband component (the dashes) and a 50 Hz sideband component (the spaces
between the dashes).

>
> 50 dots per second would never be realistic, and would require a

> thousand Hz bandwidth with normal CW shaping. What possible difference
> does it make if the primary sidebands are out 2 Hz or 50Hz when the
> sidebands caused by the rise and fall times are out many kilohertz?

With that logic, the sidebands go out ad infinitum, you just don't have a receiver capable of detecting them. 50 dpm was
used as an example; divide all the numbers by whatever factor you wish, the concept will still be valid.

You keep focusing on the rise time independent of the keying rate. You have stated "My problem is in understand what
something in the future or past means to a given instant of time," which is a good summary of why you do not understand the
issues involved. Bandwidth exists in the frequency domain, where time is intrinsic.

Something to consider. We all know (or should know) that a square wave is made up of odd-order harmonic sines. The
harmonics are defined by the appropriate Fourier expansion: s(x) = [sin pi x - (1/3)sin 3 pi x - (1/5)sin 5 pi x + (1/7)sin 7 pi x + .
.ï¿½] It should be clear (simply because it's a fact) that the higher the frequency of the fundamental (keying rate), the wider the
bandwidth used.

What harmonics are generated by a single key down event with instantaneous rise time? If the key is released 1 second
later, what happens? 0.5 seconds later? Your argument is that the same harmonics are generated in each case, but reality
(and Fourier) says that the harmonics depend upon the time between these events.

The point is, an event cannot be separated from past and future events when examining the frequency domain, because
without the time component, there is no frequency.

5936. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:00:02 UTC
From: ----
Message-ID: <681t7.881$0K6.789@newsfeed.intelenet.net>
Source record: 49830
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

the 706 is a multi mode multi band rig. So its not just a 6 meter rig. I think he is looking for just a 6. But If i was going to buy something it prob would be the 706MKII with dsp good deals great rig. Who the hell needs 440.
"Craig Davidson" <nospam@earthlink.com> wrote in message news:4EPs7.21554$Hx1.2040153@newsread1.prod.itd.earthlink.net...
> The Icom 706 is the best 6 meter rig available.
>
> It has Subaudible tone encode and decode built in
>
> Also, I found out that the hustler mobile antenna resonates exactly in the
> middle of the 6 meter band with no coil installed.
>
> Have fun.
>
>
> David J. Moge wrote in message ...
> >OK,
> >
> >Any and all comments, what is the best all purpose six meter rig
> >
> >Thanks
> >n1rzb
> >
> >
> >
>
>

5937. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:03:11 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9p270o$g23fd$1@ID-61331.news.dfncis.de>
Source record: 49831

"Apratim" <nandy99@mail.ru> wrote in message
news:a083d3aa.0109280135.6df86743@posting.google.com...
> I am working on a VFO for a HF transceiver coving the ham bands, while
> going through the postings on VCOs I came across a posting about using
> FETs instead of varicaps. The author wrote that he had got the idea
> from an called article "Accessories for the VFO" by Doug DeMaw from
> the Jan 1988 issue of QST (pg.31). I wonder if anyone has tried this
> idea, I would be glad if anyone could guide me on this topic.As I do
> not have this issue, i would be very grateful if anyone could mail me
> this aricle or at least send me a summary(necessary bias voltages,
> circuit used etc.)

You can also use ordinary LED's or standard diodes as varicaps in many cases
(http://www.hanssummers.com/radio/varicap/varicap.htm)

Hans Summers
http://www.HansSummers.Com

5938. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:10:02 UTC
From: "Gary Tait, Very Real" <tait@primeline.net>
Message-ID: <3BB4A0DA.9DB1463D@primeline.net>
Source record: 49832

Jason wrote:
>
> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
> electronic components real cheap.. Mostly old computers and parts for
> them... Recently i have started removing components from some of the
> circuit cards... In particular i am intrested in removing a 556 timer and
> several 74 family chips I was wondering if somone could provied some methods
> on desoldering... and removing components withought damage...

I use a hotplate, and if I am careful, I won't damage the PCB or parts.
(IC sockets and other plastic parts don't like this too much.)
--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5939. Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:11:45 UTC
From: "Gary Tait, Very Real" <tait@primeline.net>
Message-ID: <3BB4A141.ECF2FD21@primeline.net>
Source record: 49833

Does any body have any recommendation to modify an old 800 Mhz analog
cellular for either 450 Mhz or 900 Mhz ham use?

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

5940. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:25:19 UTC
From: Jason <kc7eip@home.com>
Message-ID: <Pv1t7.31029$L8.6489823@news2.rdc1.bc.home.com>
Source record: 49836

Tried the torch method with vice grip...No luck i think i need a bigger torch and not my little butane torch/soldering iron....I was able to remove resistors/capacitors with out problem...no luck on the ic's. I have a spare hotplate.skillet i may try but looks like i will have to buy a soldersucker and some wick... thanks for the help all.. I did manage to get some ti 256k memorychips (they were in sockets)... but i think i will practice with some not wanted chips before i go for the 556 timer... thanks all for your suggestions...KC7EIP

5941. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 16:40:06 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9p28ooglj1@news.mbn.or.jp>
Source record: 49837

Henry Gernhardt/Andrea Winship wrote in message
<3BB1B51E.C1365CED@earthlink.net>...
>When we alter the keying shape, we attenuate the higher-order
>harmonics....
>
>When we alter the keying SPEED, we bring the low-order harmonics closer
>into the carrier....

Don't wish to be confrontational - but wasn't this Tom's point from the very start ?....

.... that the effects of keying speed on the lower harmonics (which he acknowledged to be relative to keying speed) were less significant than the effects of envelope shape during rise/fall times on the higher harmonics (which would be determined by envelope shape or rig design and independent of keying speed) so the widely-accepted statement "more information requires more bandwidth.... the faster you key the more bandwidth is occupied by your cw signals" is _EFFECTIVELY_ incorrect because it fails to take into account what is happening during the rise and fall periods.

I find this discussion truly fascinating. How can so many people with so much experience discuss this for so long and still not come to a consensus about a technical issue such as the bandwidth occupied by a CW signal and whether it is or is not relative to keying speed? I don't think it's just personality differences. The 'widely-accepted view' seems to be an oversimplification and maybe we should reconsider the way we think of cw bandwidth.

73, ram

5942. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 17:31:15 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9p2bui$m0v$1@wanadoo.fr>
Source record: 49838

Medium size rectifier diodes act like good varicaps.

I use a standard 1N4007 diode in my ATV audio modulator at 6.5 MHz.

Look at :
http://perso.wanadoo.fr/jf.fourcadier/television/regie/regie_e.htm

--

Trois fromages de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"Apratim" <nandy99@mail.ru> a &#65533;crit dans le message news:
a083d3aa.0109280135.6df86743@posting.google.com...
I am working on a VFO for a HF transceiver coving the ham bands, while going through the postings on VCOs I came across a posting about using FETs instead of varicaps. The author wrote that he had got the idea from an called article "Accessories for the VFO" by Doug DeMaw from the Jan 1988 issue of QST (pg.31). I wonder if anyone has tried this idea, I would be glad if anyone could guide me on this topic.As I do not have this issue, i would be very grateful if anyone could mail me this aricle or at least send me a summary(necessary bias voltages, circuit used etc.)

5943. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 17:51:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB4B884.6179C199@eznec.com>
Source record: 49839

The capacitance of all semiconductor diodes changes with reverse bias. The only things that distinguish a varicap from any other diode is that the capacitance characteristics are specified, and that in some cases the doping profile has been altered to produce a particular shape of C vs V curve. For one-off applications, where you don't need to be able to exactly duplicate the circuit on a mass production basis, you can use other diode types in place of varicaps. I've often used Zener diodes in HF applications such as pulling a VFO for RIT because they have a relatively large amount of capacitance. In general, the lower the voltage rating or higher the power rating, the greater the C. Transistor emitter-base or collector-base junctions can be used, with the emitter-base junction giving you a lot more capacitance. Likewise, you can use a JFET junction. A small-signal silicon diode like a 1N914 also varies with reverse bias, but the capacitance is very small, so it's generally useful only at very high frequencies.

Roy Lewallen, W7EL

Apratim wrote:
>
> I am working on a VFO for a HF transceiver coving the ham bands, while
> going through the postings on VCOs I came across a posting about using
> FETs instead of varicaps. The author wrote that he had got the idea
> from an called article "Accessories for the VFO" by Doug DeMaw from
> the Jan 1988 issue of QST (pg.31). I wonder if anyone has tried this
> idea, I would be glad if anyone could guide me on this topic.As I do
> not have this issue, i would be very grateful if anyone could mail me
> this aricle or at least send me a summary(necessary bias voltages,
> circuit used etc.)

5944. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 18:15:39 UTC
From: norman_tebbit@the-nottinghill-carnival.com
Message-ID: <3bb4addb.25311792@news.freeserve.net>
Source record: 49840
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

On Thu, 27 Sep 2001 23:11:53 +0100, "proma1" <proma1@ntlworld.com> wrote:

>i like the norman tebbit adress,may be i could use osamabinladen@baldock.com

I'm glad you like it, but I don't follow the connection between
ObL and Baldock.

J+

5945. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 18:46:49 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <dWOdaYAZWMt7EAO3@ifwtech.com>
Source record: 49846

Jason wrote:
>Tried the torch method with vice grip...No luck i think i need a bigger
>torch and not my little butane torch/soldering iron....

<Cue Crocodile Dundee> That's not a torch. THIS is a torch!

Seriously, speed is important or else you'll cook the ICs. You need something the size of a blowtorch or a 2kW hot-air gun, that can heat the back of the board up fast.

The hot-air gun is for lots of other things - such as heat-shrink tubing, or pre-heating PL259s so your soldering iron can handle them. Given how cheap they are, I'd recommend you get one.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5946. FS: RF and HV components and much more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 19:10:49 UTC
From: Bob Levitt <parts@3web.net>
Message-ID: <3bb4a18b$1@isis.cybersurf.net>
Source record: 49834
Cross-posted to:
rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur.homebrew,alt.electronics,uk.radio.amateur,rec.radio.amateur.misc

http://www.geocities.com/myjunkboxes is my 30 year accumulation of
electronic components for sale

Coaxial Power switch,
RF power and other transistors, RF I.C.'s, non-inductive power resistors,
Minicircuits power combiners/splitters, ceramic 455kHz and 460kHz filters,

variable capacitors, both panel mount shaft type and trimmer
variable inductors and coil forms, RF feedthrough and standoff capacitors,

High voltage: VACUUM RELAYS, RECTIFIERS, resistors and capacitors,

Other capacitors including, Photoflash, polypropylenes, tantulums,

Switches, such as foot switches and industrial limit (micro) switches,

Ferrites cores, Transformers and inductors,

Transistors for power audio amplifiers and television deflection,
Super fast (35ns) 1 and 3 amp rectifiers, and lots, lots more.

Bob Levitt

5947. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 19:27:28 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BB4CF1E.4D06ECDC@att.net>
Source record: 49841

ram,

What you are experiencing in reading these exchanges is a demonstration of the fact that most of this "radio" stuff that we deal with daily and take so lightly is in reality extremely difficult material, both in its physics and its mathematics. Sure, you don't need to know much to get a ham ticket - especially these days - but having reached that goal does not usually qualify one in many areas of the technology.

Like an onion, there are layers of complexity and meaning. Most hams - non-professionals, that is - see only the general outline of the onion or maybe have had a peek at the first layer or two. The guys who labored through grad school and put in decades of their lives to gain the experience they enjoy now see many more aspects of the situation than others. And since not all of *them* are always seeing and talking about the same layers, they run into disagreements over terms and concepts which seem to the layman to be nonsense becuase their meanings should be so obvious to everyone.
But, they are not.

We are blessed to have enormous talent on this and other amateur newsgroups and lists. I personally have learned much from reading these discourses despite being one of those guys who has ventured pretty far into the onion over the years, both in school and work.

In general, each viewpoint that you read is probably more *right* than *wrong* and the apparent conflicts are usually based upon concepts and principles that probably elude most of us.

So, bear with it and take the opportunity to polish your own understanding - I do so daily.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

ram wrote:

> Don't wish to be confrontational - but wasn't this Tom's point from the very
> start ?....

> I find this discussion truly fascinating. How can so many people with so
> much experience discuss this for so long and still not come to a consensus
> about a technical issue such as the bandwidth occupied by a CW signal and
> whether it is or is not relative to keying speed? I don't think it's just
> personality differences. The 'widely-accepted view' seems to be an

> oversimplification and maybe we should reconsider the way we think of cw
> bandwidth.

5948. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 19:32:53 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb4c4ad.121234586@news.akorn.net>
Source record: 49842

On Fri, 28 Sep 2001 15:57:43 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>> Please tell me what could possibly be wrong with my reciver? It is a
>> good receive, it can read frequency to within 100Hz, and I am
>> measuring something 1.5kHz wide.

To which you divert to:

>So you are now claiming that a 40 wpm morse code stream consumes 1.5 KHz of bandwidth (or is it 3.0 KHz, since your
>methodology only measures the change in one sideband) !!!??? I guess we should get rid of the CW portions of the bands,
>since you've just proven (!) that CW consumes the same bandwidth as SSB!?

It is the rise and fall times and shape that sets bandwidth of clicks,
not the speed.

For any rise time and shape, the rig must generate sidebands that
allow that rise. Click. The same is true for the fall. There is no way
around that.

And yes the FT1000, FT1000D and FT1000MP and many other rigs now are
notoriously and needlessly wide. There is no need to occupy 3kHz to
send 5WPM or even 40 WPM CW. Perhaps the factory engineers have
misinterpreted what affects bandwidth of CW, and don't understand why
a smooth round transitiuon from zero to full power and back down is
needed, without any sharp corners, and they somehow think bandwidth is
tied to speed instead of rise and fall times and shape.

>With that logic, the sidebands go out ad infinitum, you just don't have a receiver capable of detecting them. 50 dpm was
>used as an example; divide all the numbers by whatever factor you wish, the concept will still be valid.

The point you miss is the rise time and fall time generate harmonics.
It doesn't maytter if I only push the key once this year, and never
again, or fifty times a second....those sidebands are there at every
push.

That is the click that bothers people up and down the band.

That click is filtered or limited by whatever shapes the rise and
fall. In the FT1000 series, that is mostly the SSB filter since the
fileter is driven with an almost perfectly square envelope. With a
transmitter SSB filter 3dB BW of 2.4KHz or so filtering the sidebands
(clicks), it isn't any wonder at all I hear clicks down 1.5kHz no

matter what speed I send.

>You keep focusing on the rise time independent of the keying rate. You have stated "My problem is in understand what
>something in the future or past means to a given instant of time," which is a good summary of why you do not understand the
>issues involved. Bandwidth exists in the frequency domain, where time is intrinsic.

That is the problem. In my receiver, or in my ears, the click is all gone before the next one comes along. What happens in the future, or the past, does not matter to either my ears or the receiver because the click has decayed to nothing before the next one appears.

Since we are talking about the interference bandwidth of the CW signal, and since the interference is caused by clicks, it matters not a bit what happens after any click is gone. Neither my receiver nor my ears store the previous click, or anticipate future clicks.

>What harmonics are generated by a single key down event with instantaneous rise time? If the key is released 1 second
>later, what happens? 0.5 seconds later? Your argument is that the same harmonics are generated in each case, but reality
>(and Fourier) says that the harmonics depend upon the time between these events.
>
>The point is, an event cannot be separated from past and future events when examining the frequency domain, because
>without the time component, there is no frequency.

We listen in real-time.

The whole concept of frequency domain is wrong when used in this application. The concept of bandwidth increasing with spped only applies if some spectrum remains in the system when the next sideband comes along. It does NOT remain in this case.

I think what has happened, is someone at some time started applying the wrong analysis to clicks. They forgot the receiver does not respond to dc, and does not "hold-over" one click to the next in some sort of storage. Neither does the brain, untill the clicks become more like a tone.

We are using receivers, not storage scopes, to copy CW. It is the response of a receiver that matters.

73 Tom

5949. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 20:29:21 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <uil9rtgv2tqe6dhaus9aiiki6pq6qk1kh9@4ax.com>
Source record: 49843

On Fri, 28 Sep 2001 19:32:53 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>And yes the FT1000, FT1000D and FT1000MP and many other rigs now are
>notoriously and needlessly wide. There is no need to occupy 3kHz to
>send 5WPM or even 40 WPM CW. Perhaps the factory engineers have
>misinterpreted what affects bandwidth of CW, and don't understand why
>a smooth round transitiuon from zero to full power and back down is
>needed, without any sharp corners, and they somehow think bandwidth is
>tied to speed instead of rise and fall times and shape.

So it appears that FT1000x is actually transmitting J2A and not A1A,
i.e. an audio oscillator is keyed and the signal is fed to an ordinary
SSB transmitter and the "CW" mode selection only affects the frequency
display, showing the actual transmitted frequency, not the suppressed
SSB carrier frequency.

If this is the case, then the test results with 5/40 WPM that you
previously posted are completely bogus and prove nothing about the
effects of keying speeds and transition slopes.

Assuming the keyed audio oscillator is running at 1500 Hz, it will
generate a rich set of odd harmonics every 4/33 Hz down to zero (and
images due to "negative" frequencies) and up to tens of kilohertz.
Since the SSB transmitter uses some sort of crystal filter to limit
the actually radiated bandwidth to +/-1200 Hz from the carrier, the
last harmonics that will be the 600th resp. 72th that are about -55 dB
resp. -37 dB down from the carrier. Any harmonics with a higher number
will be filtered out by the sharp crystal filter.

It is quite obvious that the offset at which clicks are detected will
be about 1500 Hz due to the +/-1200 Hz from the Tx filter and +/-125
Hz from the receiver filter, so the test really proves nothing about
keying waveform shaping.

BTW, is the low click modification simply that the Tx signal is routed
through a narrow (500 Hz?) CW filter instead of the stock SSB filter ?
No wonder that the results are the same for both keying speeds, since
the bandwidth is simply set by a crystal filter.

Paul OH3LWR

5950. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 20:44:11 UTC
From: Howard James <howardwj@btinternet.com>
Message-ID: <9p2n6o$ll8$1@uranium.btinternet.com>
Source record: 49844
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Of course, if Isreal conformed to UN resolutions (Resolution 242 etc) and
stopped killing women and children we probably woulden't have the problems
we're having now.

Howard

---Bill--- <"take out the NO in the reply to address"@silly.net> wrote in
message news:3BAA9C86.7B24C318@silly.net...
> proma1 wrote:
>
> > wouldnt it be nice if all the worlds problems could be sorted by
talking,it
> > would be a strange world if we all agreed 100% with each other,i know we
> > wont but at least we have managed to have a reasonable debate.
> >
> > agree to dissagree as they say.
> >
> > and if there is anyone who knows someone at "ground zero" pat them on
the
> > back for me and tell them we are thinking of them.
>
> I'll personally see to it that at least one person who hasn't been able
> to catch the news in the past week knows that somebody on the other side
> of the pond is in solidarity. We can't solve all the little petty
> problems so easily, but this big one has the advantage of unifying
> people. I doubt that aspect was given much consideration in the tunnels
> below Kandahar.
> -Bill M
> USA
>

5951. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 21:08:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB4E6B8.52579592@eznec.com>
Source record: 49845

Both Tom and the people doing frequency domain analysis are right.

A few days ago I posted a verbal description of the spectrum of a string of dots (a square wave) with and without rise/fall time filtering. Jack, K8ZOA, posted some measurements which show the spectra in graphical form. Yet Tom listens with his receiver tuned away from a transmitter frequency and hears a click each time the dot is made or broken, and its amplitude doesn't change with keying speed regardless of how far away he tunes.

The problem is that Tom isn't listening to the signal with a spectrum analyzer, so he's not hearing what the spectrum analyzer shows.

There are several ways of looking at this, and the one I've found most comfortable is a combination of time and frequency domain analysis. First, consider the spectrum of a single step with instantaneous rise time. The spectrum is continuous, that is, it's not composed of discrete lines. Its shape is 1/f, so if you look at the voltage or power at one frequency, it'll be 6 dB less at twice that frequency, or 20 dB less at ten times that frequency. In the theoretical case, where the step lasts forever, it has infinite energy, and the spectrum keeps getting larger and larger at lower and lower frequencies. In reality, of course, the step ends at some time, limiting the low frequency spectral amplitude. If we run this step through a lowpass filter to limit its rise time, the spectrum drops more rapidly at frequencies above the filter's break point, just as it does with a repetitive square wave.

The important point is that the single step contains energy at all frequencies, and the amount drops as you go higher in frequency. When the step is modulating a carrier, the spectrum is simply shifted so it's centered at the carrier frequency, and a mirror image appears on the other side of the carrier. The fact that it contains energy at all frequencies means that if you put a step into any kind of filter, something will come out of the filter. That is, the filter will ring for a while. Suppose you put the step into a band pass filter. The filter will ring for a while, then die out to zero, where it started before the step was applied. (It would have to be a lowpass filter, with response down to DC, in order to avoid decaying down to its initial state.) What we'd hear is a click if the filter didn't ring too long. Now suppose that after the filter has completely (for practical purposes) returned to its initial state, we apply another step, either upward or downward. The filter will produce another click just as before, and return to its initial state. If we put steps in more and more rapidly, the filter will produce clicks more often, but they'll be the same amplitude as before.

This is what Tom hears when he listens to the receiver tuned away from the signal.

If the step is run through a lowpass filter to limit its risetime, the amplitude of the spectrum above the filter's breakpoint is reduced. Consequently, if you're listening to the signal at a frequency farther away from the carrier than filter's breakpoint, the amplitude of the click will be reduced.

Why don't the clicks get louder when the keying speed increases?

For the clicks to get louder when keying speed increases, some of the energy from the upward step has to still be around when the downward step occurs. It's the summation of these bits of energy that make up the different spectra as the keying speed changes. This requires a filter with different characteristics than you'll probably find on a communications receiver. As long as the effect of one step has died out by the time the next one happens, you'll hear the same thing, at the same loudness, regardless of the keying speed. It's because you're starting from scratch each time.

The spectra that Jack and I described are real, correct, and well known. But a communications receiver is not a spectrum analyzer and they're not what you hear when you listen to a receiver. What you hear is what Tom describes -- clicks whose amplitude depends on the rise and fall time, and not on the keying speed.

Roy Lewallen, W7EL

ram wrote:
>
> Henry Gernhardt/Andrea Winship wrote in message
> <3BB1B51E.C1365CED@earthlink.net>...
> >When we alter the keying shape, we attenuate the higher-order
> >harmonics....
> >
> >When we alter the keying SPEED, we bring the low-order harmonics closer
> >into the carrier....
>
> Don't wish to be confrontational - but wasn't this Tom's point from the very
> start ?....
>
> .... that the effects of keying speed on the lower harmonics (which he
> acknowledged to be relative to keying speed) were less significant than the
> effects of envelope shape during rise/fall times on the higher harmonics
> (which would be determined by envelope shape or rig design and independent
> of keying speed) so the widely-accepted statement "more information requires
> more bandwidth.... the faster you key the more bandwidth is occupied by your
> cw signals" is _EFFECTIVELY_ incorrect because it fails to take into account
> what is happening during the rise and fall periods.
>
> I find this discussion truly fascinating. How can so many people with so
> much experience discuss this for so long and still not come to a consensus

> about a technical issue such as the bandwidth occupied by a CW signal and
> whether it is or is not relative to keying speed? I don't think it's just
> personality differences. The 'widely-accepted view' seems to be an
> oversimplification and maybe we should reconsider the way we think of cw
> bandwidth.
>
> 73, ram

5952. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 21:55:41 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB4F1DD.1835E939@mwci.net>
Source record: 49747

ram wrote:

> I find this discussion truly fascinating.

I have prepared a Mathcad analysis of shaped dot strings at two different speeds and identical rise and fall times that show accurately how the spectra of these two waveforms differ. A text file discussion of conclusions is included.

I will email the .PDF document to anyone who wants it.

I don't have a website, but if anyone wants to put it on his website, that would be fine.

Bill W0IYH

5953. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 22:06:22 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001714782@msauve>
Source record: 49748

On Fri, 28 Sep 2001 19:32:53 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> It is the rise and fall times and shape that sets bandwidth of clicks,
> not the speed.

I will waste no more of my time trying to educate a rock.

plonk

5954. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 22:55:22 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9p2vdk$4a6$1@uranium.btinternet.com>
Source record: 49749

Mark Allread wrote -
> According to the ARRL Handbook . . . . .
==========
Their interpretation followed by your's of their interpretation
makes what follows not very convincing.

5955. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 23:16:28 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BB50700.7784@pop.removethistomailme.net>
Source record: 49750

JLB wrote:
>
> Can anyone tell me who sells the AD9850 DDS in small quantities?
>
> As far as that goes, where did all the homebrew friendly vendors go
> (at least in this area)?

http://www.findchips.com

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

5956. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-28 23:32:57 UTC
From: ve3ab@mondenet.ca
Message-ID: <3bb50726.386603@news.mondenet.com>
Source record: 49751

Radio Shack has a useful tool especially for removing solder around
joints. It is a soldering iron with a hollow tip (removable so you can
clean it and\or replace as necessary...and works with a manual
operated rubber bulb to heat and suck away solder. Works quite
well for the price of it..I use it here. 73 earl Ve3AB
On Thu, 27 Sep 2001 11:29:21 +0100, "Leon Heller"
<leon_heller@hotmail.com> wrote:

>
>"Jason" <kc7eip@home.com> wrote in message
>news:%7zs7.27703$L8.5224512@news2.rdc1.bc.home.com...
>> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
>> electronic components real cheap.. Mostly old computers and parts for
>> them... Recently i have started removing components from some of the
>> circuit cards... In particular i am intrested in removing a 556 timer and
>> several 74 family chips I was wondering if somone could provied some
>methods
>> on desoldering... and removing components withought damage...
>
>The quickest and easiest way is to heat the underside of the board with a
>blowtorch around the chips you want to remove, and wack it down on something
>hard. The chips should fall out. It's probably a good idea to do this
>outside. 8-)
>
>
>73, Leon
>--
>Leon Heller, G1HSM leon_heller@hotmail.con
>http://www.geocities.com/leon_heller
>Low-cost Altera Flex design kit: http://www.leonheller.com
>
>
>
>

5957. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 00:15:09 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1104_1001722509@msauve>
Source record: 49752

On Fri, 28 Sep 2001 23:55:22 +0100, "Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
>
> Their interpretation followed by your's of their interpretation
> makes what follows not very convincing.

That sentence is unparsable.

5958. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 01:02:13 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1105_1001725333@msauve>
Source record: 49753

On Fri, 28 Sep 2001 23:29:21 +0300, Paul Keinanen <keinanen@sci.fi> wrote:
>
> If this is the case, then the test results with 5/40 WPM that you
> previously posted are completely bogus and prove nothing about the
> effects of keying speeds and transition slopes.
..
> It is quite obvious that the offset at which clicks are detected will
> be about 1500 Hz due to the +/-1200 Hz from the Tx filter and +/-125
> Hz from the receiver filter, so the test really proves nothing about
> keying waveform shaping.

Not only that, Paul, but by approaching the sidebands "from the edge," he has introduced the receiver's AGC
into the mix, amplifying the level of those sidebands. As bandwidth is normally defined as the width of the signal
which contains "x" percentage of the mean radiated power (FCC rules say 99%), no measurement is possible
without including the fundamental as a basepoint. If each sideband beyond the occupied bandwidth contains
0.5% of the power, then those sidebands are -23 dB down from the carrier.

He used a transmitter and receiver in close proximity, so it a virtual certainty that the clicks at the threshold of
audibility are much, much more than -23 dB (6 S-units) down from the carrier. Furthermore, even though clicks
may be present, they occupy a small time fraction of the actual radiated signal further reducing their mean power.

Assuming that the clicks last the full 5 ms rise/fall time of the suggested shaping, and a 40 wpm sending rate, the
instantaneous level of those clicks must also be reduced to .010 (rise+fall) / .060 (time of 1 dot @ 40 wpm) = 17%
of their instantaneous maximum. (And even lower still, considering clicks are an even smaller percentage of
dashes.) That alone makes these clicks -8 dB down in mean power, so that the actual instantaneous power
would only need to be -15 dB down from the carrier for them to be considered outside the bandwidth.

So, let's say that the receiver, in close proximity to the transmitter, was receiving the carrier at only S9. In order for
those clicks to be within the defined bandwidth, they would need to be at a level no more than 15 dB down from
that, which is more than S6 (which would be 18 dB down.) Unless his FT-1000 is seriously broken, S6 is well

beyond the threshold of audibility. If we assume that he heard the clicks at S1, then they were 36 dB down from
the carrier, which places what he heard over 20 dB below what they would have to be to be considered part of
the occupied bandwidth. Of course, with xmitter/receiver in such close proximity, a more realistic assumption is
carrier at S9+20 (+), which places his clicks at over 40 dB below the level they would have to be at to be
considered within the bandwidth.

5959. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 01:37:57 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1107_1001727477@msauve>
Source record: 49754

On Sat, 29 Sep 2001 01:02:13 GMT, in rec.radio.amateur.homebrew you wrote:
>the clicks at the threshold of
> audibility are much, much more than -23 dB (6 S-units) down from the carrier.

Should be "4 S-Units."

5960. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 02:02:16 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb52526.145935577@news.akorn.net>
Source record: 49755

Hi Paul,

Pardon my tpo's, I don't have a spellcheck on this and not enough time to go back and proof read.

On Fri, 28 Sep 2001 23:29:21 +0300, Paul Keinanen <keinanen@sci.fi> wrote:

>So it appears that FT1000x is actually transmitting J2A and not A1A,
>i.e. an audio oscillator is keyed and the signal is fed to an ordinary
>SSB transmitter and the "CW" mode selection only affects the frequency
>display, showing the actual transmitted frequency, not the suppressed
>SSB carrier frequency.

No, it has a carrier oscillator that is keyed on and off. The rise and the fall of the waveform is almost vertical. I haven't counted the cycles, but it isn't too many hundreds of cycles of the carrier oscillator before it reaches full amplitude.

This would be the same in any rig that shapes the CW later.

>If this is the case, then the test results with 5/40 WPM that you
>previously posted are completely bogus and prove nothing about the
>effects of keying speeds and transition slopes.

No. As I said above, it is exactly the way any rig would behave that shapes the keying in later stages. It does not matter if you shape in a crystal filter at radio frequencies or shape the keying signal modulating the stage. A certain bandwidth will produce a certain shape, and vice versa.

>It is quite obvious that the offset at which clicks are detected will
>be about 1500 Hz due to the +/-1200 Hz from the Tx filter and +/-125
>Hz from the receiver filter, so the test really proves nothing about
>keying waveform shaping.

The same is true in a rig that keys a stage following an oscillator. It matters not one bit how you get the envelope as long as the signal is filtered someplace for bandwidth and the following stages do not add distortion.

If you look up a few postings, you will see Roy Lewallen just posted his understanding and agreement with what is said.

The fact is this, as long as the keying speed is reasonably slow compared to the rise and fall times the rise and fall times set the bandwidth of the signal. It doesn't matter one bit to a receiver if the clicks happen ten times a second, ten times a day, or every ten

years. You will hear the sidebands the same distance.

Roy's way of looking at it is a good one. Once the energy in the clicks decays to zero, it makes no difference at all if sideband another comes along or not. The click bandwidth, since the receiver (unlike a spectrum analyzer or storage scope that stores and analyzes many dots) does not "store" a click or the energy in sidebands, cares less what happened 40 mS before or what will happen in the future.

Every rise produces one click, every fall another, and the bandwidth of those clicks almost always is different. That is what you hear up and down the band, and unless the elements of code are so fast that the flat part of the carrier or zero point of the carrier are so short they rival the rise and fall times you will never see a change in bandwidth with speed.

That is how virtually all rigs operate. That is how all receivers that are not seriously flawed or overloaded operate. That is how our ears and brains work.

I've received permission from W9CF to post his analysis on my web page, and I will do that over the next week. His analysis bears out what I am saying.

So now Roy, Kevin, and myself are all on the same page.

>BTW, is the low click modification simply that the Tx signal is routed
>through a narrow (500 Hz?) CW filter instead of the stock SSB filter ?
>No wonder that the results are the same for both keying speeds, since
>the bandwidth is simply set by a crystal filter.

What you miss is it doesn't matter one bit (pardon the pun) if the filter is before the modulator or after. It only has to be ahead of the antenna and after the key.

It would be very nice to generate the CW and filter it in a 250Hz filter, because then only stages after the filter would have to be linear to prevent excessive clicks. When you filter the keying signal before modulation, the modulator and all other stages has to have the correct response.

I feel better now that real-world bandwidth in the actual application is now being considered. It is the rise and fall that makes the clicks and controls the click bandwidth in a normally operating real-world CW radio system, not the speed.

73 Tom

5961. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 02:21:15 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb52d8c.148085394@news.akorn.net>
Source record: 49756

On Sat, 29 Sep 2001 01:40:06 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>Don't wish to be confrontational - but wasn't this Tom's point from the very
>start ?....

It was. I always agreed that the low speed changes affect things
inside the bandwidth of the fast changes.

That isn't the issue.

>.... that the effects of keying speed on the lower harmonics (which he
>acknowledged to be relative to keying speed) were less significant than the
>effects of envelope shape during rise/fall times on the higher harmonics
>(which would be determined by envelope shape or rig design and independent
>of keying speed) so the widely-accepted statement "more information requires
>more bandwidth.... the faster you key the more bandwidth is occupied by your
>cw signals" is _EFFECTIVELY_ incorrect because it fails to take into account
>what is happening during the rise and fall periods.

Yes indeed.

That argument ASSUMES the filters are set and reset at the bandwidth
required for the keying speed, rather than for the highest keying
speed.

Either that or it assumes the sidebands generated by the rise and fall
do not decay to zero before the next change in carrier level comes
along.

>I find this discussion truly fascinating. How can so many people with so
>much experience discuss this for so long and still not come to a consensus
>about a technical issue such as the bandwidth occupied by a CW signal and
>whether it is or is not relative to keying speed? I don't think it's just
>personality differences. The 'widely-accepted view' seems to be an
>oversimplification and maybe we should reconsider the way we think of cw
>bandwidth.

I think that is the crux of the problem. I think people have just been
looking at it from the point of something that stores information (dc
response?) rather than an actual receiver.

Because of that, the conclusions while correct for a device that
stores the sidebands, are incorrect for a receiver that only (like our
hearing) works in real time.

Both solutions are right, but I am stubbornly insisting it is how the
real-world receiver works that matters. After all, very few of us use
storage scopes to copy CW.

It is what we hear on the receiver in real time that matters for interference, not what would happen in an infinite amount of time.

73 Tom

5962. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 02:33:28 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb53025.148751143@news.akorn.net>
Source record: 49757

On Sat, 29 Sep 2001 01:02:13 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>Not only that, Paul, but by approaching the sidebands "from the edge," he has introduced the receiver's AGC
>into the mix, amplifying the level of those sidebands.

Guessing won't work well. The AGC was off.

>He used a transmitter and receiver in close proximity, so it a virtual certainty that the clicks at the threshold of
>audibility are much, much more than -23 dB (6 S-units) down from the carrier. Furthermore, even though clicks
>may be present, they occupy a small time fraction of the actual radiated signal further reducing their mean power.

Guessing won't work well. The receiver is well shielded and operated
through a step attenuator pad.

>So, let's say that the receiver, in close proximity to the transmitter, was receiving the carrier at only S9. In order for
>those clicks to be within the defined bandwidth, they would need to be at a level no more than 15 dB down from
>that, which is more than S6 (which would be 18 dB down.) Unless his FT-1000 is seriously broken, S6 is well
>beyond the threshold of audibility. If we assume that he heard the clicks at S1, then they were 36 dB down from
>the carrier, which places what he heard over 20 dB below what they would have to be to be considered part of
>the occupied bandwidth. Of course, with xmitter/receiver in such close proximity, a more realistic assumption is
>carrier at S9+20 (+), which places his clicks at over 40 dB below the level they would have to be at to be
>considered within the bandwidth.

I can move the receiver closer to get stronger clicks, turn on the AGC
with slow decay, read the S meter, and change the speed. The meter
does not change any amount I can notice.

I can turn off AGC and set the gain so I can barely hear the clicks. I
can change the speed, and the clicks do not b get louder....only more
frequent.

Please read Roy Lewallen's explaination,. it might help you follow
this.

73 Tom

5963. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 02:37:45 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <Ztat7.14623$W8.1220245@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49758

All of the chips are gone.

Pete

Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net> wrote in message
news:aPhm7.10752$Uf1.958995@bgtnsc06-news.ops.worldnet.att.net...
> I have some of these chips on hand; I was going to use them in a
> synthesizer, until I went to a DDS based design. How many do you need? I
> bought them from Newark Electronics at 38 cents each, when they were
closing
> them out. If you can't find them, I can send you some free of charge.
>
> Pete Gianakopoulos KE9OA
> Chicago, Il. USA
>
> Beverin <beverin@alphalink.com.au> wrote in message
> news:3B934559.304A83D6@alphalink.com.au...
> > I am trying to locate several of the above chips (MC145170P2 PPL Chip).
> > I am prepared to pay (inc. postage). If you have one or more of the
> > above chips or know of a source of supply, please email at
> > vk3cmo@hotmail.com .
> >
> > Thanks & 73's
> > John (vk3cmo).
> >
>
>

5964. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 03:44:10 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109281944.5850dd9c@posting.google.com>
Source record: 49759

jim.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0109280749.6069db87@posting.google.com>...

> Can anyone tell me who sells the AD9850 DDS in small quantities?

Where do you live? Where have you looked? I find, for
example, that Newark have it in stock. Analog Devices
sell direct, though their terms are unfavourable for
non-U.S. customers.

> As far as that goes, where did all the homebrew friendly vendors go

> (at least in this area)?

While nominally an industrial/OEM supplier, Newark have
never refused my money for onesies and twosies, so I would
describe them as "homebrew friendly". Ditto Future. Ditto
lots of others.

I get weird and wonderful stuff from Barend Hendriksen.
They also carry AD9850 and will sell you as many as you
want.

While hobbyist electronics suppliers are indeed extinct,
there are lots of industrial/OEM suppliers out there who
are not averse to small orders. Some even go to some lengths
to accomodate small orders, especially if they come from
hams.

The parts are there. Go get them!

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

5965. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 05:34:57 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <M4dt7.12423$zu1.2062838@news6-win.server.ntlworld.com>
Source record: 49760
Cross-posted to: alt.radio.scanner.uk,rec.radio.amateur.homebrew

sorry just where i live,i wonder if the security services would launch a strike against me[lol].

i think this thread is now closed so,we will spar again on some other topic,probably to do with scanning.
[friendly sparring,i hope nothing personal]

i know i am a bit controversial on most subjects,but as i have said before,i quite admit i am an arrogant sod,but really friendly and none of what i say has malice or hate in it.[just dislikes or dissagreements]

regards

J+ <norman_tebbit@the-nottinghill-carnival.com> wrote in message news:3bb4addb.25311792@news.freeserve.net...
> On Thu, 27 Sep 2001 23:11:53 +0100, "proma1" <proma1@ntlworld.com> wrote:
>
> >i like the norman tebbit adress,may be i could use osamabinladen@baldock.com
>
> I'm glad you like it, but I don't follow the connection between
> ObL and Baldock.
>
> J+
>

5966. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 05:57:11 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB562B7.7C2413BC@mwci.net>
Source record: 49761

> ram wrote:
>
> > I find this discussion truly fascinating.

The receiver is a pretty good spectrum analyzer, especially a narrowband CW receiver. Statements to the contrary are not correct. Because of AGC it has a quasi-logarithmic amplitude response. It responds to the spectrum that passes through the narrow filter and delivers energy to the headphones (detector). If the receiver is tuned away from the carrier, it will respond to any energy that is in the frequency band that the receiver is tuned to. That is precisely what a spectrum analyzer does.

If code speed is very slow the spectrum of the signal may just be a function of the rise and fall times of the signal. My writeup in Chapter 17 of the ARRL Handbook clearly mentions this. That writeup is correct in all aspects.

But as the code rate increases, some of the incoming energy that is due to the Morse code sidebands will show up in the off-channel passband of the off-frequency receiver. Simulations clearly prove this fact beyond doubt. This additional energy is a valid signal just like anything else, and it is passed on to the headphones.

If listening tests fail to detect this increase, that does not mean, and from basic principles cannot mean, that the event of the previous paragraph is not happening. If the code speed is increased enough, it will (must) show up, unless something is preventing it.

What is being discussed is adjacent channel interference, where the interfering signal is not heard as a beat note, only its key clicks. If the code speed is increased sufficiently, the interference must eventually show up, unless the rise and fall clicks (or whatever else may be at fault) are so bad that the code speed effect can't be noticed even at high code speed. This is the classical key click problem that needs to be fixed.

Revising the basic principles of signal processing is not the right approach. The right approach is to fix the defect in the transmitter, possibly by revising the shape of the Morse characters, or fixing the parasitic, or making sure that the wave form is not getting screwed up somewhere in the signal path. Maybe the receiver is at fault somehow. Is stray xmtr RF messing up the receiver?

Long history has verified that a clean 5 or 6 ms rise/fall time leads to a clean signal for which code speed spectrum widening can then become a factor.

Bill W0IYH

5967. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 06:57:59 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9p3qqo$h8e$1@news.mbn.or.jp>
Source record: 49762

I nearly forgot to mention that I find the idea of 'disregarding' the space periods and looking only at what is happening in the mark periods to be a very interesting approach to understanding CW bandwidth. I understand what Tom is saying about this 'present' and 'future' thing because it is exactly how I felt about it.

When you transmit AM signals you measure the bandwidth when you are transmitting with the signal present. Nobody thinks of the 'bandwidth' as including the squarewave ratio of transmit vs. receive periods when you are listening to the other station. If you modified the concept of 'bandwidth' to include this second factor (reflecting the time relationship between transmit/non-transmit periods) I don't think anybody would be very interested because it is intuitively obvious that sometimes you are transmitting and sometimes you are receiving.

This is just about how I personally feel with CW signals. If you are talking about the bandwidth that the energy spectrum of transmitted CW signals occupies (as opposed to the bandwidth required for demodulation) then I think you should start by thinking about what happens in the rise/fall times and then talk about what is happening as a result of the relationship between mark/space periods as a secondary issue.

I also just noticed that some of the quotes contain phrases like "identically shaped" or "properly shaped" envelope when describing why bandwidth is dependent upon keying speed. I have not looked at the original documents, but if "identically/properly" shaped assumes rise/fall times defined as a percentage of dot length (so the faster you key, the faster your rise/fall times) then maybe there was no problem all along.... perhaps they were trying to say that "bandwidth increases with (rise/fall times if you assume that these get shorter as you increase the) keying speed."

If I understand Tom correctly, one point he made was that in reality rise/fall times are the result of rig design and generally do not get shorter as you key faster so this is not what happens in the real world.

73, ram

5968. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 07:52:51 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <ptMg0MBT3Xt7EAbZ@ifwtech.com>
Source record: 49768

Laura Halliday wrote:
>
>While hobbyist electronics suppliers are indeed extinct, there are lots
>of industrial/OEM suppliers out there who are not averse to small
>orders. Some even go to some lengths to accomodate small orders,
>especially if they come from hams.
>
>The parts are there. Go get them!
>
That's certainly true!

For UK readers, I keep a list of component suppliers at
http://www.ifwtech.com/g3sek/in-prac.components.htm

It doesn't currently deal with the problem of buying ones and twos of
exotic RF devices... though you'd be surprised at what's in the Farnell
catalogue. (I just looked, and they stock several of the AD9830 series
though not the 9850. They also stock a fair range of Agilent/HP RF
exotica including MMICs and GaAsFETs)

All the "Big Three" UK dealers - Farnell, RS/Electromail and Maplin -
are now happy to take anyone's money by credit card. RS are a bit more
awkward to deal with (always have been) and have a poorer range of RF
components so I generally go to Farnell.

The important thing is to be businesslike in dealing with them. The web
page suggests how to go about this.

If anyone in the UK has information to add, or a dealer to recommend,
I'd be happy to include it on the page.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5969. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 08:25:57 UTC
From: nandy99@mail.ru
Message-ID: <a083d3aa.0109290025.51e4aabc@posting.google.com>
Source record: 49764

"Hans Summers" <Hans.Summers@Tudor.Com> wrote in message
news:<9p270o$g23fd$1@ID-61331.news.dfncis.de>...
> "Apratim" <nandy99@mail.ru> wrote in message
> news:a083d3aa.0109280135.6df86743@posting.google.com...
> > I am working on a VFO for a HF transceiver coving the ham bands, while
> > going through the postings on VCOs I came across a posting about using
> > FETs instead of varicaps. The author wrote that he had got the idea
> > from an called article "Accessories for the VFO" by Doug DeMaw from
> > the Jan 1988 issue of QST (pg.31). I wonder if anyone has tried this
> > idea, I would be glad if anyone could guide me on this topic.As I do
> > not have this issue, i would be very grateful if anyone could mail me
> > this aricle or at least send me a summary(necessary bias voltages,
> > circuit used etc.)
>
> You can also use ordinary LED's or standard diodes as varicaps in many cases
> (http://www.hanssummers.com/radio/varicap/varicap.htm)
>
> ------------------
> Hans Summers
> http://www.HansSummers.Com

Before posting, i had gone through the information on your site, it is really very useful. Actually what i am trying to design is a simple PLL based VFO using the CD4046 ic(similar to the design by Harry Lythall SM0VPO, http://hem.passagen.se/sm0vpo/conv/syn-info.htm), for this i need a VCO which can be pulled about 0.5 MHz to cover each ham band completely(I have not decided how i am going to deal with the 10m band which needs a spread of 1.7MHz), since the change in capacitance obtained by using common diodes is relatively small I was wondering if i could use FETs instead to obtain the necessary frequency shift. I look forward to your views in this regard.

5970. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 08:48:01 UTC
From: nandy99@mail.ru
Message-ID: <a083d3aa.0109290048.23baa3bc@posting.google.com>
Source record: 49765

Thanks everyone for the advice. I think I should explain in a little more detail what i am trying to do. I am involved in the design of a low cost ham transceiver using readily available ics, for hams in india (I know it has been done before, but I wanna do it my way :-)). At present I am working on the VFO, it will be a PLL based design using the CD4046 ic, similar to the design by Harry Lythall SM0VPO, http://hem.passagen.se/sm0vpo/conv/syn-info.htm. I chose this design because it is relatively uncomplicated and the ics are available in india. For this design I need a VCO which can be pulled about 0.5MHz to cover each of the ham bands(I haven't decided how to cover the 10m band which needs a shift of 1.7MHz, i look forward to your ideas in this regard). Since the commomly available diodes (1N4007 etc.) do not seem to give this kind of frequency shift I was wondering if I could use FETs instead (BTW, BFW10/11 are available in india, while varicaps are not), which i have been told have a larger change in capacitance. I shall soon be putting a post about using the TBA120 as a product detector and a balanced modulator (yeah u guessed it, the TBA120 is commonly available for use in TVs while the NE602/MC1496 are not)an idea which i got from a transceiver design from LZ1SE 's site. Looking forward to your replies.

5971. TBA120 as prod. det./balanced mod.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 08:57:06 UTC
From: nandy99@mail.ru
Message-ID: <a083d3aa.0109290057.59f23d47@posting.google.com>
Source record: 49766

I am involved in the design of a low cost ham transceiver using readily available ics, for hams in india (I know it has been done before, but I wanna do it my way :-)). I recently came across a circuit (from LZ1SE's site)which used the TBA120 as a product detector and a balanced modulator (the TBA120 is commonly available for use in TVs in india while the NE602/MC1496 are not). Has any one used the TBA120 in similar applications before? If so, what were the results? Can it be used for as a mixer for the VFO and the IF signals? Has anyone used other commonly available ics for radio and tv applications in ham transceivers? Looking forward to your replies.

5972. Re: Wanted MC145170P2 PLL Chip

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 09:03:23 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <v7gt7.12932$WW.1223748@bgtnsc05-news.ops.worldnet.att.net>
Source record: 49767

When I made this post, some folks thought that I meant that this chip is no longer available through ANY channels. What I really meant to say is that my own stock of these chips is all gone. They may still be available in surface mount form from some of the distributers.

Pete

Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net> wrote in message news:Ztat7.14623$W8.1220245@bgtnsc04-news.ops.worldnet.att.net...
> All of the chips are gone.
>
> Pete
>
> Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net> wrote in message
> news:aPhm7.10752$Uf1.958995@bgtnsc06-news.ops.worldnet.att.net...
> > I have some of these chips on hand; I was going to use them in a
> > synthesizer, until I went to a DDS based design. How many do you need?
I
> > bought them from Newark Electronics at 38 cents each, when they were
> closing
> > them out. If you can't find them, I can send you some free of charge.
> >
> > Pete Gianakopoulos KE9OA
> > Chicago, Il. USA
> >
> > Beverin <beverin@alphalink.com.au> wrote in message
> > news:3B934559.304A83D6@alphalink.com.au...
> > > I am trying to locate several of the above chips (MC145170P2 PPL
Chip).
> > > I am prepared to pay (inc. postage). If you have one or more of the
> > > above chips or know of a source of supply, please email at
> > > vk3cmo@hotmail.com .
> > >
> > > Thanks & 73's
> > > John (vk3cmo).
> > >
> >
> >
>
>

5973. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 10:16:28 UTC
From: "Dr. Rev. Chuck, M.D., P.A." <cdub@_REMOVETHIS_erols.com>
Message-ID: <3BB59F7C.6EDE@_REMOVETHIS_erols.com>
Source record: 49763

Jason wrote:
>
> An avid Weekend Barganhunter...(garagesales) I've come across wuite a few
> electronic components real cheap.. Mostly old computers and parts for
> them... Recently i have started removing components from some of the
> circuit cards... In particular i am intrested in removing a 556 timer and
> several 74 family chips I was wondering if somone could provied some methods
> on desoldering... and removing components withought damage...

Whittle the solder joints free with a #11 X-Acto blade. No risk of overheating whatsoever.

5974. Re: TBA120 as prod. det./balanced mod.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 10:44:40 UTC
From: la8ak@online.no
Message-ID: <3bb5a5bf.6248579@news.online.no>
Source record: 49769

On 29 Sep 2001 01:57:06 -0700, nandy99@mail.ru (Apratim) wrote:

>I am involved in the design of a low cost ham transceiver using
>readily available ics, for hams in india (I know it has been done
>before, but I wanna do it my way :-)). I recently came across a
>circuit (from LZ1SE's site) which used the TBA120 as a product detector
>and a balanced modulator (the TBA120 is commonly available for use in
>TVs in india while the NE602/MC1496 are not). Has any one used the
>TBA120 in similar applications before? If so, what were the results?
>Can it be used for as a mixer for the VFO and the IF signals? Has
>anyone used other commonly available ics for radio and tv applications
>in ham transceivers? Looking forward to your replies.

Experiements with TBA120 as converter/modulator/phase detector have
been carried out by a number of German and Dutch experimenters, some
of these notes are published by the magazine Elektor around 1980, some
in the Dutch magazine Elektron (VERON).
Examining TBA120 =SN76600N or SO41P you will see that it is almost the
same as Plessey SL624 (multimode detector) and you can get the same
functions, perhaps inverted phase - it is not easy to judge. But
TBA120 has a problem with distortion, I am not certain how important
this is, also leakage is not as good as for MC1496P, TBA120S or AS has
some feedback capacitors which upset this even more
To understand TBA120 you should read the following article in Radio
Communication, september 72 showing complete details:
TBA120 applications G3TDZ 72- 9-pp592
also these may help
Consumer IC AM-VHF-RX G3TDZ 72-08-516
Consumer IC in amateur design (3) G3TDZ 72-10-664
Consumer ICs in amateur design (1) G3TDZ 72-08-516
Consumer ICs, CA3089/TBA120(455kHz) (2) G3TDZ 72-09-592
Mixer with TBA120 (Balanced modulator) LA8AK radcom 85-11-861
TBA120 Balanced modulator LA8AK Radcom 85-11-861
Mixer with TBA120 (SO41P) UKWBerichte 75-03-185

On http://www.qsl.net/ok1cdj/dubus/index.html you may find some
articles, one of mine is
8504-4 3 109k Using TBA120 for MS reception

I have some more articles on the application of TBA120 published in
this magazine, but they are not displayed on this site. I think the
best solution is to look for which device is the cheapest, probably
MC1496P, and when you know how many devices you need it is easier to
get a low price, TBA120 has built-in oscillator (limiter), but the
oscillator is built using a 2N3904 npn device

TBA120 is a device to be compared with NE604/614

I have also seen my articles on TBA120 published in Yugoslavian amateur radio magazine sometime in 1980's, it was also a similar article about MC1351P as multimode detector in Radcom 1976-77

144MHz RX AM/CW/SSB/FM (1) (MC1351) G8IBR 76-12-900
144MHz RX AM/CW/SSB/FM (2) G8IBR 77-08-600
this is based on the earlier note:
MC1351 FM/AM detector G4BLT 74-06-pp380

IF level input for TBA120 as AM or SSB detector is abt 5mV rms

73,
Jan-Martin
LA8AK

5975. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 11:48:29 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <0n1brt0cdqar62smtikn2trggtavslus42@4ax.com>
Source record: 49770

On Sat, 29 Sep 2001 01:02:13 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>Not only that, Paul, but by approaching the sidebands "from the edge," he has introduced the receiver's AGC
>into the mix, amplifying the level of those sidebands.

>As bandwidth is normally defined as the width of the signal
>which contains "x" percentage of the mean radiated power (FCC rules say 99%),
>no measurement is possible
>without including the fundamental as a basepoint.

This is of course true for determining the actual offset frequency.

However, for a simple audible/non-audible decision for various keying speeds with the _same_ transmitter setup, this test is valid, provided that the receiver has sufficient gain so that the equipment noise is audible when no signal is connected to the antenna and that the agc, if used, is taken after the final IF filter.

However, the bandwidth _ratio_ figures between the standard and modified transmitter are not comparable, unless the measurement level is defined relative to the carrier, since the _shape_ of the spectrum may be different in different cases.

>He used a transmitter and receiver in close proximity, so it a virtual
>certainty that the clicks at the threshold of
>audibility are much, much more than -23 dB (6 S-units) down from the carrier.

Using a double shielded cable from the transmitter to a shielded dummy load and connecting a 50 ohm terminator directly at the receiver antenna terminal usually gives quite good isolation.

If the carrier signal is still quite strong in the receiver, say S9+60dB, there is of course a great risk of reciprocal mixing between the Tx oscillator and its phase noise and the LO and its phase noise. In such situations we are not observing a set of narrow spectral lines, but a set of peaks in a floor of overlapping noise sidebands.

Paul OH3LWR

5976. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 11:48:31 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <hp8brtshcbhs298oesn7rajgj68qedcpnp@4ax.com>
Source record: 49771

On Sat, 29 Sep 2001 02:02:16 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>No, it has a carrier oscillator that is keyed on and off. The rise and
>the fall of the waveform is almost vertical. I haven't counted the
>cycles, but it isn't too many hundreds of cycles of the carrier
>oscillator before it reaches full amplitude.

OK, but from the other messages it appears as this signal still goes
through the SSB filter, effectively setting the bandwidth. Thus, the
effect is the same as generating J2A, except that there would be no
aliases due to "negative" frequencies in the passband.

>>BTW, is the low click modification simply that the Tx signal is routed
>>through a narrow (500 Hz?) CW filter instead of the stock SSB filter ?
>>No wonder that the results are the same for both keying speeds, since
>>the bandwidth is simply set by a crystal filter.
>
>What you miss is it doesn't matter one bit (pardon the pun) if the
>filter is before the modulator or after. It only has to be ahead of
>the antenna and after the key.

I am fully aware of that situation, since I have been using for quite
a while a DOS based DSP simulation package with a limited FFT size, so
I have done all my simulations at base band and then manually
translate the result to the amplitude modulated carrier :-).

Assuming there is a good quality SSB filter (BW 2400 Hz, 2:1 shape
factor at -60 dB), this corresponds to baseband filter (after the
keyer) with a 1200 Hz breakpoint and -60 dB/octave slope (thus -40 dB
at 1900 Hz and -60 dB at 2400 Hz), corresponding to a 10th order
Butterworth filter.

However, when we are talking about click avoidance, we are usually
talking about 1st order RC filters (-6 dB/octave) with much lower
breakpoint frequencies.

Assuming a fixed filter that should pass up to the 5th harmonics at
speeds up to 40 WPM, the breakpoint would be at 80 Hz. Thus, -8.7
dB/octave slope would be needed to reach -40 dB at 1900 Hz or -12.2
dB/octave to reach -60 dB at 2400 Hz. In order to minimise the wave
shape distortion, the Besser response would have to be used,
corresponding to 2nd resp. 3rd order Besser filters to get the
attenuations comparable to those that are obtained from the crystal
filter in the transmitter IF path.

One way to minimise the harmonics in the baseband waveform would be to use a tunable switched capacitor filter (SCF) with a tunable breakpoint and Besser slope. With a dual potentiometer, you could set both the keyer speed and the SCF clock frequency or simply divide down the clock to get the keyer speed.

Using the MAX292 8th order Besser SCF and setting the clock to 8 kHz (100:1 clock to corner frequency ratio) for an 80 Hz corner frequency for 40 WPM and 5th harmonic, the -40 dB point would be at 270 Hz and -60 dB at 375 Hz. Such attenuations would be extremely hard to get with crystal filters in the Tx IF path.

Setting the clock to 600 Hz, would produce a signal suitable for 5 WPM with 3rd harmonic present, the -40 dB point would be at 20 Hz and -60 dB point at 28 Hz.

Unfortunately the MAX292 has only a 100:1 clock/corner frequency ratio, so there might be some alias components when tuned to the lower end of the frequency range. Two cascaded 4/5 order MAX281 SCOff might be a better solution due to the available 401:1 clock to corner frequency ratio.

But on the other hand, why generate a dirty square wave in the first place and then apply a complex filter to clean it up, when you could directly generate a clean shape from a lookup table and run the result through a simple DAC.

All this assumes that the modulator and power amplifiers are linear enough in order to not recreate the unwanted sidebands that have been removed with a great effort.

PaulOH3LWR

5977. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 12:33:08 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <8cjt7.136987$K6.62771182@news2>
Source record: 49772

"Laura Halliday" <marsgal42@hotmail.com> wrote in message
news:d42b5a72.0109281944.5850dd9c@posting.google.com...

> While hobbyist electronics suppliers are indeed
> extinct,

It's usually risky disagreeing with Laura, but in this case I will. While the AD9850 is a kind of a tough part, there are lots of hobbyist-friendly suppliers out there, and there seem to be more every day.

Besides outfits like Newark, Mouser, and DigiKey, who will gladly take small orders, although their shipping may make really small orders unattractive, there are places like radioshack.com (nothing like your local RS) that have lots of parts and very attractive terms for small orders. And there seem to be more and more pure hobbyist places like Dan's, Baggy Bob's, and kitsandparts. If you're into scrounging stuff for very low cost, there are places like B.G. Micro and Mendelsohn's, who have very odd inventories, but can be very cheap if they happen to have what you need.

The web has made homebrewing a lot easier, and made it possible for all nature of parts suppliers to make a living at what is surely a very small niche.

didleydadidah

5978. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 13:03:48 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb5c035.185636650@news.akorn.net>
Source record: 49773

On Sat, 29 Sep 2001 14:48:31 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>OK, but from the other messages it appears as this signal still goes
>through the SSB filter, effectively setting the bandwidth. Thus, the
>effect is the same as generating J2A, except that there would be no
>aliases due to "negative" frequencies in the passband.

That is correct.

Like virtually all SSB rigs, except the old Collins rigs that used a
tone to drive the balanced modulator, Yaesu unbalances the carrier
oscillator and shifts it into the passband of the filter.

The only problem is they do not properly shape the waveform, and with
a sharp transition at the top of the rising edge and an abrupt drop at
the first part of the tailing edge...as well as too fast a rise and
fall...the rig has excessve bandwidth.

>However, when we are talking about click avoidance, we are usually
>talking about 1st order RC filters (-6 dB/octave) with much lower
>breakpoint frequencies.

A simple R/C filter gives you a shape like the poor waveshape the ARRL
handbook calls "optimum". That shape will produce needless clicks no
matter how fast or slow you send, because of the sharp changes in
slope at the top of the envelope rise and fall.

That's what happens when you use a single pole R/C filter to limit
keying sidebands. No matter how fast you send, the rig MUST have
clicks extending out a considerable distance in order to produce the
sharp changes in rise and fall times.

>Assuming a fixed filter that should pass up to the 5th harmonics at
>speeds up to 40 WPM, the breakpoint would be at 80 Hz. Thus, -8.7
>dB/octave slope would be needed to reach -40 dB at 1900 Hz or -12.2
>dB/octave to reach -60 dB at 2400 Hz. In order to minimise the wave
>shape distortion, the Besser response would have to be used,
>corresponding to 2nd resp. 3rd order Besser filters to get the
>attenuations comparable to those that are obtained from the crystal
>filter in the transmitter IF path.

Right you are, but the problem is most rigs are NOT properly filtered.
I think much of this problem comes from the engineers thinking that
the bandwidth narrows with speed, or pure unvarnished ignorance,
because it would only cost pennies to correct the problems.

>One way to minimise the harmonics in the baseband waveform would be to
>use a tunable switched capacitor filter (SCF) with a tunable
>breakpoint and Besser slope. With a dual potentiometer, you could set
>both the keyer speed and the SCF clock frequency or simply divide down
>the clock to get the keyer speed.

I tried that with a filter chip, but there were problems with the device I used. It gave a raised sine waveform.

We also have to design a linear modulator and the ALC system have good hang time.

I think Roy Lewallen uses an ALC based shaping system in his homebrew rigs. I am trying to use a multi-pole multi-section filter that I can switch. In a typical transceiver, they could just dump the TX signal through a CW filter to limit bandwidth. That would cost pennies, if anything at all.

>Using the MAX292 8th order Besser SCF and setting the clock to 8 kHz
>(100:1 clock to corner frequency ratio) for an 80 Hz corner frequency
>for 40 WPM and 5th harmonic, the -40 dB point would be at 270 Hz and
>-60 dB at 375 Hz. Such attenuations would be extremely hard to get
>with crystal filters in the Tx IF path.

I'll have to see if that is the device I looked at.

>All this assumes that the modulator and power amplifiers are linear
>enough in order to not recreate the unwanted sidebands that have been
>removed with a great effort.

Right you are. That is what finally stopped me from building an add-on CW modulator for the FT1000 series. I initially thought about lifting the TX IF lead and adding a PIN diode modulator keyed by a lowpass filter of some form. The problem is the ALC system mucked up the waveform. Instead I opted to slow the rise and fall via R/C additions. A little in each keyed stage (there are at least three keyed stages, one before and two after the filter).

But now I'm thinking maybe there is a way to get the 500hz CW filter into the system. Anything has got to be better than clicks extending up or down 1.5 kHz at significant levels!

Anyway, at least some are now considering this from the real-world point of view instead of this nonsense that sending slower reduces the click bandwidth of the real-world transmitter. that's a start. The next thing is to get the ARRL and others to pressure manufacturers into cleaning up these pesky clicks, since no matter how fast someone sends they extend up and down the band the same amount.

73 Tom

5979. Re: radCom third-method HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 13:14:48 UTC
From: la8ak@online.no
Message-ID: <3bb5a70c.6581729@news.online.no>
Source record: 49774

On 28 Sep 2001 08:42:23 -0700, jim.bolinger@lintek.aeroflex.com (JLB)
wrote:

>
>What I would do is go to the local public library. If they don't have
>'Radio Communications' they could locate another library that could.
>Then they could either get an interlibrary loan, or (if you knew for
>certain what articles you wanted) have the other library copy the
>articles for you, for a nominal fee.
>
the problem over here is that public libraries only keep the magazines
for a year or two, and books may dissappear after some longer period,
but don't expect to find a 10 year old book

Wonder if such bad practice is found in other countries as for Norway?

73
Jan-Martin
LA8AK

5980. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 13:36:48 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3BB5CE70.39063DA1@bloomer.net>
Source record: 49775
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

Careful! Some of us like 430 Sideband, especially for satellite work :)

Scott
N0EDV

---- wrote:
>
> the 706 is a multi mode multi band rig. So its not just a 6 meter rig. I
> think he is looking for just a 6. But If i was going to buy something it
> prob would be the 706MKII with dsp good deals great rig. Who the hell needs
> 440.
> "Craig Davidson" <nospam@earthlink.com> wrote in message
> news:4EPs7.21554$Hx1.2040153@newsread1.prod.itd.earthlink.net...
> > The Icom 706 is the best 6 meter rig available.
> >
> > It has Subaudible tone encode and decode built in
> >
> > Also, I found out that the hustler mobile antenna resonates exactly in the
> > middle of the 6 meter band with no coil installed.
> >
> > Have fun.
> >
> >
> > David J. Moge wrote in message ...
> > >OK,
> > >
> > >Any and all comments, what is the best all purpose six meter rig
> > >
> > >Thanks
> > >n1rzb
> > >
> > >
> > >
> >
> >

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

5981. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 13:37:40 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3BB5CCCF.8FC6B6B7@gte.net>
Source record: 49776

Laura Halliday wrote:

> jim.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0109280749.6069db87@posting.google.com>...
>
> > Can anyone tell me who sells the AD9850 DDS in small quantities?
>
> Where do you live? Where have you looked? I find, for
> example, that Newark have it in stock. Analog Devices
> sell direct, though their terms are unfavourable for
> non-U.S. customers.
>
> >Not sure about the 9850, but when I contacted Newark several months back about the 9851,
the minimum order was
> around 60 pcs.

Dale W4OP

5982. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 15:35:29 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1108_1001777729@msauve>
Source record: 49779

On Sat, 29 Sep 2001 00:57:11 -0500, "William E. Sabin" <sabinw@mwci.net> wrote:
> What is being discussed is adjacent channel interference, where the interfering
> signal is not heard as a beat note, only its key clicks.

You are of course correct. What Tom is talking about is NOT bandwidth, as defined by the FCC or common
usage, but spurious emissions, which are by definition emissions outside of the bandwidth.

I refer to the FCC rules, 47CFR97.3a:
"(8) Bandwidth. The width of a frequency band outside of which the mean power of the transmitted signal is
attenuated at least 26 dB below the mean power of the transmitted signal within the band,"

"(42) Spurious emission. An emission, on frequencies outside the necessary bandwidth of a transmission, the
level of which may be reduced without affecting the information being transmitted,"

97.307
"(b) ... Emissions outside the necessary bandwidth must not cause splatter or keyclick interference to
operations on adjacent frequencies."

"(d) The mean power of any spurious emission from a station transmitter or external RF power amplifier
transmitting on a frequency below 30 MHz must not exceed 50 mW and must be at least 40 dB below the
mean power of the fundamental emission. For a transmitter of mean power less than 5 W, the attenuation must
be at least 30 dB. A transmitter built before April 15, 1977, or first marketed before January 1, 1978, is exempt
from this requirement."

The FCC clearly defines (47CFR2.202) the necessary bandwidth of a CW signal to be "B<INF>n</INF>=BK,
K=5 for fading circuits, K=3 for non-fading circuits 25 words per minute; B=20, K=5, Bandwidth: 100",
showing that they understand that bandwidth is a function of both keying rate and shape.

So if Tom is using an FT-1000, and measuring spurious emissions (those outside of the approx. 100 Hz
necessary bandwidth) of less than 40 dB down from the fundamental (as he MUST be in order to claim those
keyclicks are included in the bandwidth), then he is running an illegal station.

5983. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 16:19:49 UTC
From: Patrick Bean <pdbean@btinternet.com>
Message-ID: <4ac1acef06pdbean@btinternet.com>
Source record: 49783
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <9ooa1qqsl1@plutonium.btinternet.com>,
Reg Edwards <g4fgq.regp@btinternet.com> wrote:
> If USA citizens would like to know why the USA is disliked by most of
> the world's population, why not ask and listen carefully.

> You will hear the truth. Don't be afraid of it It might hurt but
> you can take it.

All the world's big powers were disliked in there time, Romans, Greeks,
British, French. Don't worry about it USA just get the job done.

--

____ ___ ____ ____ ___ ____
| _ \|_ _/ ___| / ___| / _ \/ ___| /| Patrick Bean, My site is at
| |_) || |___ \| | | | | ___ \ / | www.btinternet.com/~pdbean/
| _ < | | ___) | |___ | |_| |___) | /__|__ Using Risc OS4 on a Windows free
|_| ____|____/ ____| ___/|____/ | System. See www.riscos.org/

5984. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 16:24:47 UTC
From: n7ws@hotmail.com
Message-ID: <3bb5e933.75688360@news.triconet.org>
Source record: 49780

On Fri, 28 Sep 2001 14:08:08 -0700, Roy Lewallen <w7el@eznec.com> wrote:

I suppose that I should not get into a spectrum analyzer discussion with a guy that use to design spectrum analyzers but...

|Both Tom and the people doing frequency domain analysis are right.
|
|A few days ago I posted a verbal description of the spectrum of a string
|of dots (a square wave) with and without rise/fall time filtering. Jack,
|K8ZOA, posted some measurements which show the spectra in graphical
|form. Yet Tom listens with his receiver tuned away from a transmitter
|frequency and hears a click each time the dot is made or broken, and its
|amplitude doesn't change with keying speed regardless of how far away he
|tunes.
|
|The problem is that Tom isn't listening to the signal with a spectrum
|analyzer, so he's not hearing what the spectrum analyzer shows.

Since you speak of frequency domain analysis, you must be talking about swept-frequency spectrum analyzers (SA). I submit that is *exactly* what Tom is using, albeit a very slow tuning one. His receiver has a down converter to an i-f filter/amplifier, that is ACG-controlled, giving it quasi-logarithmic gain characteristic, a detector that loses phase information and a post detection audio (video) filter. That sounds pretty much like many of the SAs that I've used for 30 years or so.

As you well know, swept receivers (SA) have particular problems when looking at signals that are sometimes there, sometimes not, i.e. pulsed signals, which is what is really being discussed here. However, if Tom's receiver bandwidth is narrow enough to separate the PRF lines and the pulse train is coherent and long enough to make the measurement, then his "analyzer" would seem to be up to the task.

73,

Wes N7WS

[snip]

5985. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 16:24:54 UTC
From: Patrick Bean <pdbean@btinternet.com>
Message-ID: <4ac1ad7100pdbean@btinternet.com>
Source record: 49782
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

In article <51c3rt42ovrj0sl1ldq1veh2gm6tnfeb20@4ax.com>,
Max Topley <mt1@g8czr.co.uk> wrote:
> Huh? Just when in the last 25-30 years (a generation) has the US got
> involved in any military adventures in order to support the UK? And
> you didn't exactly rush to our aid in 1939, either.

Logistic support in the Falklands, Fule, use of bases, upgrades to the
newer all aspect sidewinders. etc etc.

--

____ ___ ____ ____ ___ ____
| _ \|_ _/ ___| / ___| / _ \/ ___| /| Patrick Bean, My site is at
| |_) || |___ \| | | | | ___ \ / | www.btinternet.com/~pdbean/
| _ < | | ___) | |___ | |_| |___) | /__|__ Using Risc OS4 on a Windows free
|_| ____|____/ ____| ___/|____/ | System. See www.riscos.org/

5986. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 16:25:24 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109291217510.26408-100000@gloria.cam.org>
Source record: 49781

On 29 Sep 2001, Apratim wrote:

> this regard). Since the commomly available diodes (1N4007 etc.) do not
> seem to give this kind of frequency shift I was wondering if I could
> use FETs instead (BTW, BFW10/11 are available in india, while varicaps
> are not), which i have been told have a larger change in capacitance.

I'm not digging out the articles right now, but I don't think the
FETs were being used as variable capacitors. Instead, they were
used as variable resistors, which in series with a capacitor, changed
the overall capacitance. I know Doug DeMaw once wrote about
putting a small value potentiometer in series with a capacitor,
and getting variable tuning that way, and I assume the FET is
functioning the same way. I've seen the same idea suggested elsewhere,
though at the moment I can't think of where.

There was an article in QST in the fall of 1972 about "synthesizing
a varicap". He went into an explanation, I can't remember if
it was valid, about doing it. But basically he used a bipolar
transistor in series with a capacitor, and the coupling capacitor
was set the maximum capacitance.

I'll have to dig it out later.

But the only articles on this sort of thing have been on the experimental
level. I've yet to see anything about limitations, be it capacitance
of circuit Q. The idea of putting a variable resistance in series
with a capacitor to make the latter variable does make me wonder
if there will be deteriotion as the resistance goes up (and hence
put a limit on how much change can take place).

Michael VE2BVW

5987. Re: TBA120 as prod. det./balanced mod.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 16:44:40 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10109291225580.26408-100000@gloria.cam.org>
Source record: 49784

On 29 Sep 2001, Apratim wrote:

> I am involved in the design of a low cost ham transceiver using
> readily available ics, for hams in india (I know it has been done
> before, but I wanna do it my way :-)). I recently came across a
> circuit (from LZ1SE's site)which used the TBA120 as a product detector
> and a balanced modulator (the TBA120 is commonly available for use in
> TVs in india while the NE602/MC1496 are not). Has any one used the
> TBA120 in similar applications before? If so, what were the results?
> Can it be used for as a mixer for the VFO and the IF signals? Has
> anyone used other commonly available ics for radio and tv applications
> in ham transceivers? Looking forward to your replies.
>
>
The key to this is that as part of the FM demodulator, there is
circuitry identical to what's in the MC1496, ie what is now
called a "Gilbert Cell Mixer". You'll see that in a lot of
ICs and the real problem is whether you can access the mixer
without a lot of other circuitry getting in the way.

For instance, the MC1350P IF amplifier has one of these, in
the form of a gain cell, and it could be used as a mixer.
But somewhere between the input and output, there is an
additional gain block, which may not make it useful in
all situations.

A lot of FM demodulator ICs use them. But you have to
watch because a number of different demodulator schemes
have been used in ICs, and not all of them use Gilbert Cells.
And some may be better than others, because if you can find
one where you don't have to go through the limiter to
get one input to the mixer, it probably works out better.

Motorola made a number of ICs for two-way communication use
that had such mixers. The earliest ones had one mixer,
which was used to convert from 10.7MHz to 455Khz, and then
an FM IF strip. I've seen these in cordless phones, which
in North America can often be bought quite cheaply used.
Then there was a second generation of such ICs, that included
a second mixer, for the first conversion. Someone has written
about using them in SSB/CW receivers.

Chroma demodulators in TV sets often use such mixers. But
they have oddball outputs and again the inputs may not be so
accessible. They might be worth playing with, for the simple
reason that they are very available.

One thing worth keeping in mind is that one could make "Gilbert Cell Mixers" with discrete transistors, which one would hope are readily available. They would take up more space, and they might not be as well balanced as an IC (yet, hams got along without ICs for years, so it's all relative), but they'd be cheap. Doug DeMaw did once or twice use transistor array ICs to build such mixers but I'd assume such ICs would be troublesome to get (and maybe not just in India at this time).

Or, you could go for some other sort of mixer. If you can make up the gain, diode mixers can fairly easily be thrown together. Years ago, people even described making toroids out of the ferrite cups in IF transformers.

And there have been all kinds of product detectors and mixers and balanced modulators made with discrete components described over the years. They might be more suitable in a place where parts can be hard to come by. Here in North America, NE602s are common in designs simply because they are common. They aren't necessarily chosen for what they provide, but because you can get them easily and "all the other circuits use them". Unless someone is building some high spec equipment, and you wouldn't be using NE602s then, one can get by with circuitry made of discrete transistors or diodes.

Michael VE2BVW

5988. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 18:01:32 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB60C7C.273BB821@mwci.net>
Source record: 49785

Mark Allread wrote:

> The FCC clearly defines (47CFR2.202) the necessary bandwidth of a CW signal to be "B<INF>n</INF>=BK,
> K=5 for fading circuits, K=3 for non-fading circuits 25 words per minute; B=20, K=5, Bandwidth: 100",
> showing that they understand that bandwidth is a function of both keying rate and shape.

Fig 12.21 in the 2001 ARRL Handbook has a very interesting graph that relates 1) bandwidth, 2) code speed words per
minute, 3) rise and fall time as shown in Fig 12.20 and 4) K values. For DX hunting we want a K=5 which is a little
"harder" signal and therefore occupies a larger bandwidth.

For a 6 ms rise and fall time and a K=5, I see 30 WPM (12.5 dots per second) and a bandwidth of about 120 Hz. Most
of the signal energy lies within that bandwidth. If there is significant stuff outside that bandwidth, we should be
looking for an equipment problem or poor wave shape.

Bill W0IYH

5989. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 18:13:39 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <bTZkyBCT9gt7Ewez@ntlworld.com>
Source record: 49786

In message <ptMg0MBT3Xt7EAbZ@ifwtech.com>, "Ian White, G3SEK"
<G3SEK@ifwtech.com> writes
>For UK readers, I keep a list of component suppliers at
>http://www.ifwtech.com/g3sek/in-prac.components.htm

http://www.ifwtech.com/g3sek/in-prac/components.htm

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

5990. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 18:42:35 UTC
From: ----
Message-ID: <vCot7.1556$0K6.1261@newsfeed.intelenet.net>
Source record: 49787
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

good luck using a 706 for sat work. its prob the worst rig you could use for
that. You should use the right tools for the right job.
"Scott" <acepilot@bloomer.net> wrote in message
news:3BB5CE70.39063DA1@bloomer.net...
> Careful! Some of us like 430 Sideband, especially for satellite work :)
>
> Scott
> N0EDV
>
>
> ---- wrote:
> >
> > the 706 is a multi mode multi band rig. So its not just a 6 meter rig. I
> > think he is looking for just a 6. But If i was going to buy something it
> > prob would be the 706MKII with dsp good deals great rig. Who the hell
needs
> > 440.
> > "Craig Davidson" <nospam@earthlink.com> wrote in message
> > news:4EPs7.21554$Hx1.2040153@newsread1.prod.itd.earthlink.net...
> > > The Icom 706 is the best 6 meter rig available.
> > >
> > > It has Subaudible tone encode and decode built in
> > >
> > > Also, I found out that the hustler mobile antenna resonates exactly in
the
> > > middle of the 6 meter band with no coil installed.
> > >
> > > Have fun.
> > >
> > >
> > > David J. Moge wrote in message ...
> > > >OK,
> > > >
> > > >Any and all comments, what is the best all purpose six meter rig
> > > >
> > > >Thanks
> > > >n1rzb
> > > >
> > > >
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> > >
>
> --
> Scott
> http://corbenflyer.tripod.com/
> Building RV-4
> Gotta Fly or Gonna Die!

5991. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 19:44:46 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <TIj+NzAuSit7EAvN@ifwtech.com>
Source record: 49788

Duncan Clark wrote:
>In message <ptMg0MBT3Xt7EAbZ@ifwtech.com>, "Ian White, G3SEK"
><G3SEK@ifwtech.com> writes
>>For UK readers, I keep a list of component suppliers at
>>http://www.ifwtech.com/g3sek/in-prac.components.htm
>
>http://www.ifwtech.com/g3sek/in-prac/components.htm

Thanks for the correction, Duncan.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

5992. Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 21:03:53 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB63739.222183E0@world.std.com>
Source record: 49789

Hello, all,

A while ago I came across a web page that described a novel reflex receiver, and I am hoping someone can help me find the URL again. I have lost it and tried to find it, with no luck.

What was unique about this design was the way the audio was amplified and coupled in the receiver. It was done in such a way as to not overload any stage. So, the Audio went backwards through the receiver. It had three stages, so the audio was fed into the third tube where there was a large RF signal, but could easily tolerate a low level audio signal. The first stage had low level RF, but lots of audio. It was a complicated circuit diagram and the author went to great lengths to draw this out and explain it.

Anybody out there know of this site?

Thanks in advance,

Clyde KA1CRV

5993. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 21:12:04 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB63924.D0E072B2@world.std.com>
Source record: 49790

Ok,

I found it!

http://www.qsl.net/ab0cw/index.htm

It is the Grimes Inverse Duplex Receiver...

Clyde

"Clyde R. Shappee" wrote:

> Hello, all,
>
> A while ago I came across a web page that described a novel reflex
> receiver, and I am hoping someone can help me find the URL again. I
> have lost it and tried to find it, with no luck.
>
> What was unique about this design was the way the audio was amplified
> and coupled in the receiver. It was done in such a way as to not
> overload any stage. So, the Audio went backwards through the receiver.
> It had three stages, so the audio was fed into the third tube where
> there was a large RF signal, but could easily tolerate a low level audio
> signal. The first stage had low level RF, but lots of audio. It was a
> complicated circuit diagram and the author went to great lengths to draw
> this out and explain it.
>
> Anybody out there know of this site?
>
> Thanks in advance,
>
> Clyde KA1CRV

5994. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 21:27:56 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BB63CDA.3B6039FB@att.net>
Source record: 49791

Clyde, such designs were popular in the 20's when the goal was to get as much receiver as possible out of the least number of expensive and fragile tubes.

In the 30's and early 40's, it was the other way around when the number of tubes in a radio was a major marketing point. One company, Midwest, would use 20 tubes in a radio but only about 5 of them were doing anything. The others just lit up their filaments to look impressive!

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"Clyde R. Shappee" wrote:
>
> Ok,
>
> I found it!
>
> http://www.qsl.net/ab0cw/index.htm
>
> It is the Grimes Inverse Duplex Receiver...

5995. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 22:32:48 UTC
From: Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com>
Message-ID: <3BB64C10.1A4D7BD3@bill.com>
Source record: 49792

"George, W5YR" wrote:
>
> In the 30's and early 40's, it was the other way around when the number of
> tubes in a radio was a major marketing point. One company, Midwest, would
> use 20 tubes in a radio but only about 5 of them were doing anything. The
> others just lit up their filaments to look impressive!

Hey, have a little respect! I've got a Midwest 16-tuber and they ALL do
something :-)

See it at
http://www.sparkbench.com/sprkmidw.htm
(second page still hasn't been 100% completed).

-Bill WX4A

5996. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 22:48:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB64FDB.3FD0209E@eznec.com>
Source record: 49793

That was a little before my time, but I remember the same marketing race with transistor radios. The first radios typically used 6 transistors, but soon the race was on. "12 transistor radios" "20 transistor radios" and so forth hit the market amid the usual hype. Like the over-tubed radios of the past, the extra transistors were soldered in but not connected to anything. I imagine that defective transistors were used for this purpose. The government eventually stepped in and required that the extra transistors actually be used. The manufacturers quickly responded -- transistors were connected and used as diodes, with push pull and bridge detectors suddenly becoming popular, and I recall one radio using 8 transistors in push-pull parallel in place of the usual 2 transistor 2N109 output stage. And no more output than a pair of 2N109s would deliver. Guess it's all driven by the philosophy that if enough is good, too much must be better.

Roy Lewallen, W7EL

"George, W5YR" wrote:
>
> Clyde, such designs were popular in the 20's when the goal was to get as
> much receiver as possible out of the least number of expensive and fragile
> tubes.
>
> In the 30's and early 40's, it was the other way around when the number of
> tubes in a radio was a major marketing point. One company, Midwest, would
> use 20 tubes in a radio but only about 5 of them were doing anything. The
> others just lit up their filaments to look impressive!
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

5997. Help CD4046 PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 23:19:30 UTC
From: amdx <amdx@att.net>
Message-ID: <6Gst7.16357$3d2.1390437@bgtnsc06-news.ops.worldnet.att.net>
Source record: 49794

In an effort to get my feet wet on PLLs, I set up the osc. section.
I used a 470pf and 10k to ground, I used a 100k pot to B+. (9V)
I can vary the frequency over a very wide range. Looks great,
however, the output signal only swings from 1/2 B+ to B+.
Does the CD4000 series need a pullup or pull down?
What do I need to do different?

My end result is to feed a reference signal of 100hz into the Phase
Comparator, set the osc. center freq. about 670khz and use a variable
divider (3,300 to 10,000) to get an output freq. from 330khz to 1Mhz
in 100hz steps. Is this range possible?

Thanks
Mike

P.S. I do have the HCT chips on order.

5998. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 23:52:27 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb65e53.226120468@news.akorn.net>
Source record: 49795

For interesting (and factual) click info check out:

http://fermi.la.asu.edu/w9cf/articles/click/index.html

http://fermi.la.asu.edu/w9cf/articles/click.pdf

5999. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-29 23:58:44 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb65ee7.226268415@news.akorn.net>
Source record: 49796

On Sat, 29 Sep 2001 15:35:29 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>So if Tom is using an FT-1000, and measuring spurious emissions (those outside of the approx. 100 Hz
>necessary bandwidth) of less than 40 dB down from the fundamental (as he MUST be in order to claim those
>keyclicks are included in the bandwidth), then he is running an illegal station.

Actually if you read what I wrote, my rig is corrected. I'm sure many
others are not, and it isn't just Yaesu rigs.

The new TS-2000S is in the mid to low -20dB range for SSB 3rd order
IMD using the ARRL method of dB below PEP.

That would put it in the teens using dB below one tone, the method
most others use.

Anyway, maybe the manufactures think if people send slow the signal
gets narrower.

Check out:

http://fermi.la.asu.edu/w9cf/articles/click/index.html

6000. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 00:03:24 UTC
From: tdonaly@cs.com
Message-ID: <20010929200324.21009.00001075@mb-fd.news.cs.com>
Source record: 49697

Roy Lewallen wrote,
>
>That was a little before my time, but I remember the same marketing race
>with transistor radios. The first radios typically used 6 transistors,
>but soon the race was on. "12 transistor radios" "20 transistor radios"
>and so forth hit the market amid the usual hype. Like the over-tubed
>radios of the past, the extra transistors were soldered in but not
>connected to anything. I imagine that defective transistors were used
>for this purpose. The government eventually stepped in and required that
>the extra transistors actually be used. The manufacturers quickly
>responded -- transistors were connected and used as diodes, with push
>pull and bridge detectors suddenly becoming popular, and I recall one
>radio using 8 transistors in push-pull parallel in place of the usual 2
>transistor 2N109 output stage. And no more output than a pair of 2N109s
>would deliver. Guess it's all driven by the philosophy that if enough is
>good, too much must be better.
>
>Roy Lewallen, W7EL
>
>"George, W5YR" wrote:
>>
>> Clyde, such designs were popular in the 20's when the goal was to get as
>> much receiver as possible out of the least number of expensive and fragile
>> tubes.
>>
>> In the 30's and early 40's, it was the other way around when the number of
>> tubes in a radio was a major marketing point. One company, Midwest, would
>> use 20 tubes in a radio but only about 5 of them were doing anything. The
>> others just lit up their filaments to look impressive!
>>
>> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
>> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
>> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
>> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

I still use an old Magnavox Ultra-Range I ten transistor radio to depress
myself
with the news each morning. I always wondered why Magnavox made such a big
deal
out of the number of transistors - now I know. Were people really that
gullible back
then?

Tom Donaly KA6RUH

6001. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 00:24:06 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <TCtt7.65099$Dz6.1297599@e3500-atl2.usenetserver.com>
Source record: 49698

And on the other hand, there is the legend of "Mad Man" Muntz, who would have his engineers bring one of his company's newly-designed TV sets to him, whereupon he would snip components out until it failed. He would then reconnect the last component and snip other places until it failed again. A crude example of minimalist design...

"Roy Lewallen" <w7el@eznec.com> wrote in message news:3BB64FDB.3FD0209E@eznec.com...
> That was a little before my time, but I remember the same marketing race
> with transistor radios. The first radios typically used 6 transistors,
> but soon the race was on. "12 transistor radios" "20 transistor radios"
> and so forth hit the market amid the usual hype. Like the over-tubed
> radios of the past, the extra transistors were soldered in but not
> connected to anything. I imagine that defective transistors were used
> for this purpose. The government eventually stepped in and required that
> the extra transistors actually be used. The manufacturers quickly
> responded -- transistors were connected and used as diodes, with push
> pull and bridge detectors suddenly becoming popular, and I recall one
> radio using 8 transistors in push-pull parallel in place of the usual 2
> transistor 2N109 output stage. And no more output than a pair of 2N109s
> would deliver. Guess it's all driven by the philosophy that if enough is
> good, too much must be better.
>
> Roy Lewallen, W7EL

6002. Re: Replacing varicaps with FETs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 00:47:04 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3BB66B88.743E0932@powerup.com.au>
Source record: 49699

I have actually used this and variations and it works. The 'range'
cap is by selection after applying the handbook math and it
should be noted the gate is not bypassed so it looks like it is,
as you suggest, working as a resistor. Again, that worked OK
for deMaw.

I have a circuit here for an audio attenuator (stereo) using
the bottom half of a cmos gate (only) in exactly the same way.
Haven't built it but it came from a very respectable magazine.

Stability was not a problem BTW. Pinch off voltage varies from
type to type and it is best to check first.

Cheers.
Murray

Michael Black wrote:
>
> On 29 Sep 2001, Apratim wrote:
>
> > this regard). Since the commomly available diodes (1N4007 etc.) do not
> > seem to give this kind of frequency shift I was wondering if I could
> > use FETs instead (BTW, BFW10/11 are available in india, while varicaps
> > are not), which i have been told have a larger change in capacitance.
>
> I'm not digging out the articles right now, but I don't think the
> FETs were being used as variable capacitors. Instead, they were
> used as variable resistors, which in series with a capacitor, changed
> the overall capacitance. I know Doug DeMaw once wrote about
> putting a small value potentiometer in series with a capacitor,
> and getting variable tuning that way, and I assume the FET is
> functioning the same way. I've seen the same idea suggested elsewhere,
> though at the moment I can't think of where.
>
--
****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

6003. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 00:52:52 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BB66CE3.4EF21EA1@att.net>
Source record: 49700

That must be true, Tom, since in the limit as the speed approaches zero the signal, and its bandwidth, vanishes! <:}

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Tom W8JI wrote:

> Anyway, maybe the manufactures think if people send slow the signal
> gets narrower.

6004. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 02:20:22 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3BB68166.88DA62D6@visi.com>
Source record: 49701

Tdonaly wrote:
Were people really that
> gullible back
> then?
>
> Tom Donaly KA6RUH

What do you mean "back then". Look at Windows 2000, Windows ME,
Windows XP, cars with seperate themostats for each of 8 different
passengers, etc., etc.

:(

Bob WB0POQ

6005. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 02:21:28 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3BB681A8.890336DB@visi.com>
Source record: 49702

Rory Davis wrote:
>
> And on the other hand, there is the legend of "Mad Man" Muntz, who would
> have his engineers bring one of his company's newly-designed TV sets to him,
> whereupon he would snip components out until it failed.

Hahahaha! I thought I was the only person who had heard of this
story! Good to know I'm not alone.

Bob 'POQ

6006. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 02:38:41 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001817521@msauve>
Source record: 49703

I would like to thank W9CF for providing a rigorous mathematical spectral analysis of CW keying at
http://fermi.la.asu.edu/w9cf/articles/click/index.html

The posted analysis is misleading to the layman in presentation, although factual in content. Presenting the data in dB, a logarithmic scale, does not
make it visually apparent where the actual power distribution is. It is quite natural for humans to look at the data presented, and assume that the power
distribution is proportional to the area under the graphs. Due to the logarithmic (dB) vertical scale, it is not.

Let's examine Figure 4, the cases with non-optimal shaping, and the ones which give the most key clicks. I notice that with T=50ms the central peak
rises what appears to be 8 dB over the case where T=20ms.

Visually, it appears that there is about 5% more power in the T=50 peak. Mathematically, the 8 dB difference means that there is approximately
(10^(8/10)) = 6 times as much power in the T=50 peak as there is in the T=20 peak.

Doesn't more power concentrated in a frequency range mean a smaller bandwidth? Let's do a scratch pad analysis...

Looking further, the first sidebands of the T=50 case appear to be approximately the same shape, but 1/2 the width and -16 dB down from the central
peak. One can estimate that they contain roughly 2*(10^(-16/10)) or 5% of the power contained in the central peak. The second sidebands appear at -
22 dB, or 1.2% the power of the central peak. The third sidebands at -27 dB or 0.4%. The fourth at -31 dB or 0.08%.

Likewise, with the sidebands of the T=20 case, the first appears to be approximately -19 dB or about 2.5% of the power of the central peak. The
second -28 dB or 0.3%. The third, -33 dB or 0.05%.

We can see that the power contained in the sidebands is decreasing rapidly. Let's stop there and look at the consumed bandwidth of the two cases,
keeping in mind the definition of bandwidth conveniently given to us by the FCC: "The width of a frequency band outside of which the mean power of
the transmitted signal is attenuated at least 26 dB below the mean power of the transmitted signal within the band."

-26 dB is 0.25%, so as a very close approximation, let's look at the bandwidth including all of the sidebands for each case which have powers greater
than 0.25%. For the T=50 case, that is the third set of sidebands, and for the T=20 case, the 2nd set sidebands. Conveniently, that means that the last
included sideband in each case is approximately equal in size in relation to the central peak, 0.4% vs. 0.3%. It also means that we are including
approximately 100+5+1.2+.4 = 106.4% of the power in the main peak for T=50 and

100+2.5+.3=102.8% of the main peak power in the T=20 case.

Looking again at Figures 2 and 3, and measuring across these sidebands, we can see that the bandwidth consumed by the slower keying rate (T=50)
is approximately 150 Hz, and the bandwidth consumed by the faster keying rate (T=20) is approximately 200 Hz. BTW, T = 50mS = 10 dots per second
= 24 WPM and T = 20 = 25 dpS = 60 WPM. The chart in the ARRL Handbook, which is based upon the FCC "necessary bandwidth" definition for
hard (K=5) shaping, tells us that 24 WPM = 100 Hz bandwidth and 60 WPM = 250 Hz. As noted above, more relative power was included in 24 WPM
case than in the 60 WPM case, so this is an obvious source of some of this error.

Although this simple analysis is obviously not perfect, it does much more closely agree with these sources than those who would claim that CW has
3000 Hz of bandwidth. It also clearly demonstrates that higher sending speeds consume more bandwidth.

Perhaps someone would be willing to do the integration and provide a more rigorous analysis of the bandwidth of each of these cases, given the FCC
definition. It would also be interesting to do the same with the optimized shaping, where the sidebands are even further suppressed.

I would like to once again thank W9CF for verifying what most of us have known all along - that the ARRL handbook is an authoritative and accurate
source of information.

6007. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 03:36:02 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1104_1001820962@msauve>
Source record: 49704

On Sun, 30 Sep 2001 02:38:41 GMT, Mark Allread <mallread@flatsurface.com> wrote:

> Looking further, the first sidebands of the T=50 case appear to be approximately the same shape, but 1/2 the width and -16 dB down from the central
> peak. One can estimate that they contain roughly 2*(10^(-16/10)) or 5% of the power contained in the central peak.
>The second sidebands appear at -
> 22 dB, or 1.2% the power of the central peak. The third sidebands at -27 dB or 0.4%. The fourth at -31 dB or 0.08%.
>
> Likewise, with the sidebands of the T=20 case, the first appears to be approximately -19 dB or about 2.5% of the power of the central peak. The
> second -28 dB or 0.3%. The third, -33 dB or 0.05%.

Oops, that's wrong, I didn't include the 1/2 width term, but did double the power because there are 2 identical sidebands. All of the estimated sideband
powers should be 1/2 of the figures above...

> -26 dB is 0.25%, so as a very close approximation, let's look at the bandwidth including all of the sidebands for each case which have powers greater
> than 0.25%. For the T=50 case, that is the third set of sidebands, and for the T=20 case, the 2nd set sidebands.

..which means we include the first 2 sidebands for T=50, and the first 1 sideband for T=20...

> Looking again at Figures 2 and 3, and measuring across these sidebands, we can see that the bandwidth consumed by the slower keying rate
(T=50)
> is approximately 150 Hz, and the bandwidth consumed by the faster keying rate (T=20) is approximately 200 Hz.

..that was wrong too (was actually 150/300 Hz, I only included 1 sideband when looking on the graph for T=20), but no matter, with the newly
calculated sidebands it is 120 for slow keying and 200 for fast keying, which agrees even more closely with the ARRL/FCC figures of 100/250.

6008. Help with 16f84 based PLL synthesizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 08:14:12 UTC
From: bulan@cal2.vsnl.net.in
Message-ID: <3a5d2ef9.0109300014.393944d4@posting.google.com>
Source record: 49705

Hi there,

I am a radio enthusiast and have some small idea on making my
own ham radio equipments. But I am a beginner in PIC stuffs.

Searching in the net, I have found few frequency synthesizer
circuits, that could be used to build a fully modern radio with
LCD display for my personal ham use. But I am facing serious
problems with it, because I am a real beginner in this PIC stuff.

The project I came acroos, uses a 16x2 LCD display to display
transmit/receive frequency. The synthesizer chip is controlled
by PIC16F84. It has frequency up/down pusk switch (like modern
TV erceiver) to change frequency. PLL lock status etc, is shown
on the LCD.

The synthesizer chip is controlled by the 16F84 by I2C bus, SDA,
SCL.

I have the program with ASM file ready with me, but the problem
is, the synthesizer chip (TSA5511 from Philips)is no longer
used, and a much modern chip is available which I want to use.
This is Fujitsu MB1501 chip.

But this chip accepts DATA, CLOCK, LE signal instead of SDA,SCL.
(3 against only 2). Also the timing diagram for both the
synthesizers are different.

Can anybody please help me to modify the ASM file, to be used
with another synthesizer.

I have all datasheet for TSA5511 -&- MB1501 ready with circuit
diagram and the code. Which I can send.

Please help a new beginner.

Thanks a lot in advance.

Bulan

6009. Re: TBA120 as prod. det./balanced mod.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 08:37:19 UTC
From: la8ak@online.no
Message-ID: <3bb6668e.55615289@news.online.no>
Source record: 49706

good info, and MC1310P stereo decoder could well be added to the list,
but I am not sure about using the RC oscilaltor above 100kHz, the
balanced modulator is there, but perhaps rather primitive and again a
problem to achieve good balance, believe it is as bad as TBA120 -
somewhere around 30-40dB, other devices are 15625Hz timebase devices
for TV, but I've only tried such for AFSK generators, MC1310P is also
useful for the same purpose.

73
Jan-Martin
LA8AK

On Sat, 29 Sep 2001 12:44:40 -0400, Michael Black
<blackm00@gloria.cam.org> wrote:

>
>
>On 29 Sep 2001, Apratim wrote:
>
>> I am involved in the design of a low cost ham transceiver using
>> readily available ics, for hams in India
>>
>>
>The key to this is that as part of the FM demodulator, there is
>circuitry identical to what's in the MC1496, ie what is now
>called a "Gilbert Cell Mixer". You'll see that in a lot of
>ICs and the real problem is whether you can access the mixer
>without a lot of other circuitry getting in the way.
>
>For instance, the MC1350P IF amplifier has one of these, in
>the form of a gain cell, and it could be used as a mixer.
>But somewhere between the input and output, there is an
>additional gain block, which may not make it useful in
>all situations.
>
>A lot of FM demodulator ICs use them. But you have to
>watch because a number of different demodulator schemes
>have been used in ICs, and not all of them use Gilbert Cells.
>And some may be better than others, because if you can find
>one where you don't have to go through the limiter to
>get one input to the mixer, it probably works out better.
>
>Motorola made a number of ICs for two-way communication use
>that had such mixers. The earliest ones had one mixer,
>which was used to convert from 10.7MHz to 455Khz, and then

>an FM IF strip. I've seen these in cordless phones, which
>in North America can often be bought quite cheaply used.
>Then there was a second generation of such ICs, that included
>a second mixer, for the first conversion. Someone has written
>about using them in SSB/CW receivers.
>
>Chroma demodulators in TV sets often use such mixers. But
>they have oddball outputs and again the inputs may not be so
>accessible. They might be worth playing with, for the simple
>reason that they are very available.
>
>One thing worth keeping in mind is that one could make "Gilbert
>Cell Mixers" with discrete transistors, which one would hope
>are readily available. They would take up more space, and
>they might not be as well balanced as an IC (yet, hams got along
>without ICs for years, so it's all relative), but they'd be
>cheap. Doug DeMaw did once or twice use transistor array ICs
>to build such mixers but I'd assume such ICs would be troublesome
>to get (and maybe not just in India at this time).
>
>Or, you could go for some other sort of mixer. If you can make
>up the gain, diode mixers can fairly easily be thrown together.
>Years ago, people even described making toroids out of the ferrite
>cups in IF transformers.
>
>And there have been all kinds of product detectors and mixers
>and balanced modulators made with discrete components described
>over the years. They might be more suitable in a place where
>parts can be hard to come by. Here in North America, NE602s are
>common in designs simply because they are common. They aren't
>necessarily chosen for what they provide, but because you
>can get them easily and "all the other circuits use them".
>Unless someone is building some high spec equipment, and you
>wouldn't be using NE602s then, one can get by with circuitry
>made of discrete transistors or diodes.
>
> Michael VE2BVW
>
>

6010. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 10:16:22 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <s8qdrt0oaol2dfvidad8u17823e854lvni@4ax.com>
Source record: 49707

On Sun, 30 Sep 2001 02:38:41 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>I would like to thank W9CF for providing a rigorous mathematical spectral
>analysis of CW keying at
>http://fermi.la.asu.edu/w9cf/articles/click/index.html

A very interesting analysis indeed.

>Let's examine Figure 4, the cases with non-optimal shaping, and the ones which
>give the most key clicks. I notice that with T=50ms the central peak
>rises what appears to be 8 dB over the case where T=20ms.

I was also wondering very much about this 8 dB difference between
figure 2 and 3.

Since a large majority is in the main lobe and the major lobe is 2.5
times wider for the T=20ms and the peak power available from the
transmitter remains constant, thus the noise power density should be
2.5 times smaller (-4 dB) compared to the T=50ms case.

The only explanation I can think for the "missing" 4 dB is that the
T=50ms pulse contains 2.5 times more energy compared to the T=20ms
pulse, thus explaining the "missing" 4 dB.

If this is really the case, then figures 2 .. 4 and 7 .. 9 are
incorrectly labelled as power density (usually measured in W/Hz),
while the actual figures show energy densities (usually measured in
J/W).

In order to convert the actual figures to power densities, the T=50ms
figures should be shifted down by 4 dB.

For a discussion how the varying keying speed affects the bandwidth, I
think it should be more realistic to analyze a series of pulses and
not a single pulse. Since the average power for a specific sequence of
elements remains the same (e.g. 50 % of peak power for a string of
dots), it is more meaningful to compare power densities and not energy
densities.

For calculating the band utilisation (message transmission time x
bandwidth), the energy density figures may be more useful.

Paul OH3LWR

6011. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 10:36:32 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9p7pe2$q7l$1@uranium.btinternet.com>
Source record: 49716

"Bob Liesenfeld" <wb0poq@visi.com> wrote in message
news:3BB68166.88DA62D6@visi.com...
> Tdonaly wrote:
> Were people really that
> > gullible back
> > then?
> >
> > Tom Donaly KA6RUH
>
> What do you mean "back then". Look at Windows 2000, Windows ME,
> Windows XP, cars with seperate themostats for each of 8 different
> passengers, etc., etc.

Some watch manufacturers used to make watches with non-functional jewels,
implying that they had lots of jeweled bearings, like the high-quality
watches.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6012. Re: radCom third-method HF transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 10:42:39 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9p7pe5$q7l$2@uranium.btinternet.com>
Source record: 49717

"Bertalan Mora" <bertalanm@dplanet.ch> wrote in message
news:3bb1b430@news.swissonline.ch...
> Hi All!
>
> I am looking for the article by Peter Rhodes in 1996 issues of Radio
> Communication that describe a Third-Method (weaver) SSB HF transceiver. I
> have the jun-aug issues, but am missing the sept and oktober entries.
Would
> anyone be able to tell me where to find these, or possibly be willing to
> send them as an attachment?

RadCom has a 'help wanted' section where people can request help from other members. If all else fails you could put a request there for the missing articles. I often see similar requests in that section. Also, the RSGB might be able to supply photocopies.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6013. Re: Best Six Meter RIG ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 13:38:03 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3BB7203B.53A1FB96@bloomer.net>
Source record: 49708
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.am

Well, I'm a Kenwood guy anyways ;)

Scott
N0EDV

---- wrote:
>
> good luck using a 706 for sat work. its prob the worst rig you could use for
> that. You should use the right tools for the right job.
> "Scott" <acepilot@bloomer.net> wrote in message
> news:3BB5CE70.39063DA1@bloomer.net...
> > Careful! Some of us like 430 Sideband, especially for satellite work :)
> >
> > Scott
> > N0EDV
> >
> >
> > ---- wrote:
> > >
> > > the 706 is a multi mode multi band rig. So its not just a 6 meter rig. I
> > > think he is looking for just a 6. But If i was going to buy something it
> > > prob would be the 706MKII with dsp good deals great rig. Who the hell
> needs
> > > 440.
> > > "Craig Davidson" <nospam@earthlink.com> wrote in message
> > > news:4EPs7.21554$Hx1.2040153@newsread1.prod.itd.earthlink.net...
> > > > The Icom 706 is the best 6 meter rig available.
> > > >
> > > > It has Subaudible tone encode and decode built in
> > > >
> > > > Also, I found out that the hustler mobile antenna resonates exactly in
> the
> > > > middle of the 6 meter band with no coil installed.
> > > >
> > > > Have fun.
> > > >
> > > >
> > > > David J. Moge wrote in message ...
> > > > >OK,
> > > > >
> > > > >Any and all comments, what is the best all purpose six meter rig
> > > > >

> > > > >Thanks
> > > > >n1rzb
> > > > >
> > > > >
> > > > >
> > > >
> > > >
> >
> > --
> > Scott
> > http://corbenflyer.tripod.com/
> > Building RV-4
> > Gotta Fly or Gonna Die!

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

6014. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 13:53:53 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9p78ik$nt9$1@news.mbn.or.jp>
Source record: 49709

William E. Sabin wrote in message <3BB562B7.7C2413BC@mwci.net>...
>If code speed is very slow the spectrum of the signal may just be a function of the
>rise and fall times of the signal....
>

JFYI the original question related to the energy spectrum occupied by the cw signal in space and we were not including any additional complications of what happens when the signal arrives at the receiver. We were just considering whether the spectrum occupied in space does (as one author had suggested) become wider with higher keying speed or not - so I believe we only need to think about what you would see if the spectrum analyzer was tied directly to a theoretical perfect transmitter output.

With an extremely slow test signal (such as an endless stream of 500ms dots) I would expect to see the carrier and possibly sidebands due to rise/fall times but nothing else. (Unfortunately I don't own a spectrum analyzer yet so I can't test this.) I imagine the eyes would be able to distinguish discrete periods when the signal was present/absent - but (1) you wouldn't see sidebands when the signal was absent and (2) the only sidebands you would see with the signal present would be due to the rise/fall waveform changes.

As you increased the keying speed of the test signal, I imagine (excuse me, I'm a hobbyist not an EE) that what is going on in space is exactly the same as what was going on before in the case of the slower-keyed signal.... but now the spectrum analyzer does not have time to show discrete present/absent periods so it tries to express the fact that the signal is sometimes present/absent as a combination of sign curves and we see this appearing on the spectrum analyzer as additional ""sidebands"" around the carrier. (If I understand correctly, these are closer to the carrier than those due to waveform changes.)

I'm still not sure whether this second phenomenon (signal presence/absence) is something I want to look on as a sideband in the same sense as the sidebands due to the waveform changes. It isn't really a sideband. It's just representing the presence/absence of the signal over time and if you do everything sufficiently slowly it disappears. OK - theoretically it's still there but at so low frequency that our brains don't see it that way.

What I really want to know is whether the energy spectrum in space itself takes on additional sidebands as the keying speed increases or whether it would look just the same shape as the slow one (determined only by rise/fall times) if my eyes and brain could sample faster. (Sorry - can't find the right words for what I want to say - does this make any sense?)

I'm trying to explore the idea that if we restrict ourselves to thinking of the spectrum occupied by the cw signal in space, the sidebands due to waveform changes during rise/fall times are real but the sidebands due to keying speed are illusory and depend upon whether you wish to think of the on/off periods as discrete changes or whether you wish to try to express these on/off changes over time as a combination of sine waves. If you prefer the latter, then you should be aware that these sidebands are "present" in the normal sense neither during the mark nor space periods. They simply represent the mark/space frequency.

You say above "if keying is very slow then the rise/fall times determine the signal spectrum" but the question is can we also say "if we look at fast-keyed signals the same way we look at slow-keyed signals as a series of discrete changes then the signal spectrum is still determined by the rise/fall times - but if we additionally start to analyze the frequency of presence/absence of the signal itself in terms of spectral content then we appear to see additional keying-speed-dependent sidebands. These are illusory in the sense that what is happening in space is exactly the same as what was happening in the case of the slow-keyed signal and if your eyes and the spectrum analyzer were able to sample faster then these sidebands would not be visible at all."

If this argument holds then keying speed clearly does not determine the signal spectrum in space in any sense. All that is happening is that as the keying frequency increases the spectrum analyzer and our eyes are having a harder time recognizing the discrete on/off changes and this looks like additional sidebands around the carrier. I think we should have the option of looking at these second ""sidebands"" in more than one way according to which makes more sense for the job at hand.

I also think there are plenty of people who believe that the faster you key the more bandwidth you actually take up in space ("more information = more bandwidth occupied in space") so if there is anything wrong with this I would like you to mention it in the next ARRL handbook. (I think maybe they have taken something out of context and understood it in a way that it was never originally meant such as the "bandwidth" necessary for demodulating the signal.)

Anyway - I'm only a hobbyist - so even if I'm wrong at least I'll learn something.

73, ram G0WMF / 7J1AUA

6015. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 14:09:31 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb722e3.276448378@news.akorn.net>
Source record: 49710

I've seen all along what the difference is Mark, and never argued that power distribution **within** the width of the sidebands does not change.

But what you miss Mark is that accumulated power from many dots does not matter to either the receiver or the ear. Roy Lewallen tried to point that out, I tried to point that, and others have.

The problem isn't with the measurement, it is with the definition or use of the measuremnent.

The accumulated power of many sidebands that repeat ove time does change and increase, but neither a receiver nor a shuman ear considers that effect.

Why would anyone in his right technical mind define bandwidth with a method that does not describe the effect on a receiver?

Everyone agrees (and has from the start) that over many the repeat of many bursts of sidebands is there is some method of storing the energy in the gaps between the bursts the power distribution will change.

Factually, that makes no difference at all to the receiver because by the time the next sideband comes along ALL effects of the first one are gone....unless your measurement system employs some sort of time storage.

If your rig is a typical modern rig with sidebands from each rising and falling edge extending a couple kHz down and up from the carrier at EVERY dot and dash no matter how fast you send (as long as you move the key and it is not too fast for the system to reach the zero and full power points), then the clicks remain the same intensity and duration per click no matter where the receiver is tuned. The only thing that changes is how often you hear the click.

The problem is never that the truth is misleading, the problem is the definition of accumulated effects of many sidebands is being described to be the effect that the receiver resonds to, and it isn't.

It is a definition error of what clicks do.

My point is simply that the sidebands (clicks) extend the same distance with the same strength no matter how fast you send, within the limits of resonse of the system. Now that many people see this, there is not else to contribute since there is no arguement about the accumulated power that a storage system would see.

The real goal should be to NOT bother people outside the necessary bandwidth, not what a storage system shows.

73, Tom

6016. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 14:40:01 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1106_1001860801@msauve>
Source record: 49711

On Sun, 30 Sep 2001 22:53:53 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

> I'm still not sure whether this second phenomenon (signal presence/absence)
> is something I want to look on as a sideband in the same sense as the
> sidebands due to the waveform changes. It isn't really a sideband.

The absence of a signal creates a sidebands just as much as the presence of a signal.

Consider the simple case, a DC square wave. Let's say it is 5 mS on/5 mS off. The fundamental frequency is clearly 100 Hz. Now change the off time to
10 mS. You will end up with two "fundamental" frequencies, a 100 Hz one (on time) and a 50 Hz one (off time). The same thing applies when modulating
an RF carrier.

6017. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 15:03:36 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB73448.9949DAD9@mwci.net>
Source record: 49712

ram wrote:

> William E. Sabin wrote in message <3BB562B7.7C2413BC@mwci.net>...
> >If code speed is very slow the spectrum of the signal may just be a
> function of the
> >rise and fall times of the signal....
> >
>
> JFYI the original question related to the energy spectrum occupied by the cw
> signal in space and we were not including any additional complications of
> what happens when the signal arrives at the receiver. We were just
> considering whether the spectrum occupied in space does (as one author had
> suggested) become wider with higher keying speed or not - so I believe we
> only need to think about what you would see if the spectrum analyzer was
> tied directly to a theoretical perfect transmitter output.

My observation (and also in chapter 17) was that in "signal space", not in the receiver, if you press the key and hold it down, a single click is generated that lasts for the brief time that it takes for the signal to go from zero to its maximum value. The spectrum of that click is also governed by the time that it takes for the signal to go from zero to its maximum value. The faster the transition, the wider the spectrum.

A similar transient is generated when you let up on the key. Note that the amplitude of the transient depends only on the rate of change of the signal and not on its direction, increasing or decreasing.

In the receiver, this transient is "stretched" in time by the filters in the receiver.

A good way to test for key clicks is to use this key-down-and-hold method.

Because the receiver stretches the click for a longer time, it can be especially aggravating to the operator. A Bessel response receiver filter greatly reduces the "ringing" of the transient. An excellent way to approximate this in analog design is with a multi-stage 50 kHz narrowband IF amplifier. I have used this approach and it is very fine.

This single click method is one good basis for ARRL's claim that 5 or 6 milliseconds rise and fall time has, by consensus, been a satisfactory number. It is important to make sure that the falling edge also has the required duration and waveform.

Bill W0IYH

6018. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 15:21:12 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB73868.BD14753B@mwci.net>
Source record: 49713

Tom W8JI wrote:

> My point is simply that the sidebands (clicks) extend the same
> distance with the same strength no matter how fast you send, within
> the limits of resonse of the system. Now that many people see this,
> there is not else to contribute since there is no arguement about the
> accumulated power that a storage system would see.

Wrong.

Check Fig 12.21 in the ARRL Handbook. This graph relates rise/fall time and code speed to the -26 dB bandwidth. If you are creating clean and well-shaped rise and fall times, the -26 dB bandwidth is given by the graph. If you are not getting that result, then there is a systematic error of some kind.

Receiver-generated ring-out problems are not included in this.

Bill W0IYH

6019. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 15:59:17 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1107_1001865557@msauve>
Source record: 49714

On Sun, 30 Sep 2001 10:21:12 -0500, "William E. Sabin" <sabinw@mwci.net> wrote:
> Wrong.
>
> Check Fig 12.21 in the ARRL Handbook. This graph relates rise/fall time
> and code speed to the -26 dB bandwidth. If you are creating clean and
> well-shaped rise and fall times, the -26 dB bandwidth is given by the
> graph. If you are not getting that result, then there is a systematic
> error of some kind.

You are correct, Bill. It should be obvious to all that with more power concentrated in the bandwidth, there is less power available
for the spurious emissions (key clicks). The bandwidth for a slower signal will always be less than for a higher signal; one is not
limited to the FCC definition, it applies to any bandwidth where x% of the power is contained therein.

6020. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 16:19:39 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1108_1001866779@msauve>
Source record: 49715

On Sun, 30 Sep 2001 15:59:17 GMT, Mark Allread <mallread@flatsurface.com> wrote:
> You are correct, Bill. It should be obvious to all that with more power concentrated in the bandwidth, there is less
power available
> for the spurious emissions (key clicks). The bandwidth for a slower signal will always be less than for a higher
signal; one is not
> limited to the FCC definition, it applies to any bandwidth where x% of the power is contained therein.

The above is perhaps not as clear as it should be. For a fixed interval of x Hz, more of a slow signal's power will be
found in that frequency range than for a fast signal. This is clearly shown by the W9CF analysis. Therefore, a fast
signal _must_ have more power outside of that range. The inescapable conclusion is that the power of spurious
emissions (keyclicks) increases with keying speed, just as does the signal bandwidth.

Only if one misuses the term "bandwidth" to mean the full range of frequencies where emissions occur at any level is
the bandwidth of slow and fast signals "equal," and then only because they both extend to infinity. Such misuse of
the term has occured on this group, and also occurs in the written conclusions found in the W9CF analysis, where
the statement "[keying speed] does not affect the overall bandwidth" is incorrectly made.

6021. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 19:05:00 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0109301104.4fc81158@posting.google.com>
Source record: 49718

"xpyttl" <xpyttl_nospam@earthling.net> wrote in message
news:<8cjt7.136987$K6.62771182@news2>...
> "Laura Halliday" <marsgal42@hotmail.com> wrote in message
> news:d42b5a72.0109281944.5850dd9c@posting.google.com...
>
> > While hobbyist electronics suppliers are indeed
> > extinct,
>
> It's usually risky disagreeing with Laura, but in this case I will. While
> the AD9850 is a kind of a tough part, there are lots of hobbyist-friendly
> suppliers out there, and there seem to be more every day...
> (snip...)

You can disagree with me all you like. Especially when you
raise so many good points.

When people invoke "hobbyist-friendly" and similar terms, the
usual standard of comparison is the situation of the 1950s and
1960s, when, according to legend, electronic components of all
kinds could be bought for near-giveaway prices at every street
corner. This is no longer the case, and hasn't been for some
time.

Somehow, "parts not available on every street corner" keeps
getting shortened to "parts not available". This is utter non-
sense. Check some web pages, pick up the phone, make some
calls. Get amazing parts. Sounds pretty good to me!

The Golden Age of Homebrewing is *now*.

P.S. I found three suppliers for AD9850 in 5 minutes.
If that's tough, thngs can't be too bad at all.

Laura Halliday VE7LDH ï¿½ ï¿½ "Que les nuages soient notre
Grid: CN89lg ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½pied a terre..."
ICBM: 49 16.57 N 123 0.24 W ï¿½ ï¿½ ï¿½ ï¿½- Hospital/Shafte

6022. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 20:32:32 UTC
From: Bill- <"My email address isnt working"@bill.com>
Message-ID: <3BB78160.E073710B@bill.com>
Source record: 49719

Leon Heller wrote:
>

> Some watch manufacturers used to make watches with non-functional jewels,
> implying that they had lots of jeweled bearings, like the high-quality
> watches.
>
> Leon

There's also some Customs tariffs reasons for doing so.

-Bill

Posted Via Binaries.net = SPEED+RETENTION+COMPLETION = http://www.binaries.net

6023. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 20:55:07 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <LELt7.138460$K6.64459027@news2>
Source record: 49720

"Laura Halliday" <marsgal42@hotmail.com> wrote in message

> When people invoke "hobbyist-friendly" and
> similar terms, the usual standard of comparison
> is the situation of the 1950s and 1960s, when,
> according to legend, electronic components of
> all kinds could be bought for near-giveaway
> prices at every street corner. This is no
> longer the case, and hasn't been for some time.

I'm ancient enough to remember those times. I was fortunate enough to grow up a reasonable bus ride away from New York City, and it's famous 'Radio Row'. There was literally block after block of parts dealers.

Sometime in the late 70's I went back to what had been Radio Row. I was extremely disappointed to realize that two huge towers stood where my wonderful parts supply had been. Well, those towers are no more, but that won't bring back Radio Row.

But those days weren't all that golden. If you didn't live near a major city, there weren't all that many places. Back then I suspect there probably wasn't anywhere in BC that had parts. If I recall, Vancouver was still pretty small. There were wonderful places like Allied, that had everything you could want. And radios and TV's were wired point-to-point, making parts scavenging a lot easier.

But there were no credit cards, no phone orders, no FedEx or UPS. Ordering from Allied meant at least a month, probably two, waiting for your parts. And the prices, in the dollar of the time, were very high.

> The Golden Age of Homebrewing is *now*.

This is 200% correct! Not only are there probably hundreds of parts suppliers you can find on the web, the net provides a way to get in touch with many, many like minded folks. And it makes some of the real giants in the field accessible.

There is no better time to be homebrewing, and there never was!

didleydadidah

6024. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 22:38:00 UTC
From: proma1 <proma1@ntlworld.com>
Message-ID: <Y9Nt7.5594$qi.923370@news2-win.server.ntlworld.com>
Source record: 49721
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb
Body handling: HTML body converted to readable text

no not me,i only read my posts when i get home,i do rembember some one asking that,but cant remember who,in fact i dont recall ever telling people things are off topic,because at the end of the day there is always going to be topics i or others are not into,even thogh we have roughly the same hobby.

some things bore me,some things i like,i ignore the mails on a thread thst i have no interest in.

but in theory i dont mind what we talk about,as long as scanning features in as well throughout during the week i am happy.

--
PROMA1
Paul Wey

Scanning frequency Author

www.geocities.com/proma1_1999

http://groups.yahoo.com/group/scanpromauk

Paul Richards wrote in message
news:jva8rts4mhdhf0676ol4e8jdlgf6te9cn6@4ax.com...
> On Thu, 27 Sep 2001 10:17:29 +0100, "proma1"
> wrote:
>
> >you discuss it on whatever group you want,we are adults with a common
hobby
> >and true we should speak about that on this group,but whats the problem??
> >
> >
> >you do not have to read,i enjoy on all groups including my own
> >yahoogroup,good conversation,if we go off topic sometimes,and as said
this
> >is a major one,one should not need to go on another more relevant
> >group,particulary if the discussion started on here.
> >
> >
> >rules are there for the breaking,thats what scanning is all about anyway.
>
> Aren't you the one who asked people not to post off topic in
> scanpromauk at yahoo.groups.com because it goes to your
> phone on sms?

>
> Is that rule also for breaking?
>
> Paul
>
>
> --
> Paul Richards

6025. WTB Hewlett Packard 8558B Spectrum Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-09-30 23:31:42 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <yXNt7.30879$3d2.1520108@bgtnsc06-news.ops.worldnet.att.net>
Source record: 49722

WTB-Hewlett Packard Model 8558B Spectrum Analyzer Plug-In with either the 182T mainframe or the 853A mainframe. Or if you just have the plug-in that is fine too. Please email price, condition, and if manuals are included.

fallen-idc@worldnet.att.net

6026. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 10:35:08 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <wFXt7.31308$3d2.1581284@bgtnsc06-news.ops.worldnet.att.net>
Source record: 49723

Don't forget about the AD9851; this is a cleaner device.

Pete Gianakopoulos KE9OA

Ian White, G3SEK <G3SEK@ifwtech.com> wrote in message
news:ptMg0MBT3Xt7EAbZ@ifwtech.com...
> Laura Halliday wrote:
> >
> >While hobbyist electronics suppliers are indeed extinct, there are lots
> >of industrial/OEM suppliers out there who are not averse to small
> >orders. Some even go to some lengths to accomodate small orders,
> >especially if they come from hams.
> >
> >The parts are there. Go get them!
> >
> That's certainly true!
>
> For UK readers, I keep a list of component suppliers at
> http://www.ifwtech.com/g3sek/in-prac.components.htm
>
> It doesn't currently deal with the problem of buying ones and twos of
> exotic RF devices... though you'd be surprised at what's in the Farnell
> catalogue. (I just looked, and they stock several of the AD9830 series
> though not the 9850. They also stock a fair range of Agilent/HP RF
> exotica including MMICs and GaAsFETs)
>
> All the "Big Three" UK dealers - Farnell, RS/Electromail and Maplin -
> are now happy to take anyone's money by credit card. RS are a bit more
> awkward to deal with (always have been) and have a poorer range of RF
> components so I generally go to Farnell.
>
> The important thing is to be businesslike in dealing with them. The web
> page suggests how to go about this.
>
> If anyone in the UK has information to add, or a dealer to recommend,
> I'd be happy to include it on the page.
>
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

6027. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 11:58:21 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <xTYt7.21391$c8.2906449@news1.rdc1.nj.home.com>
Source record: 49724

Try the current issue of QEX.
Gary Tait, Very Real wrote in message <3BB4A141.ECF2FD21@primeline.net>...
>
>Does any body have any recommendation to modify an old 800 Mhz analog
>cellular for either 450 Mhz or 900 Mhz ham use?
>
>--
> Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
> **** Do not Email back me newsgroup responses, just post them. ****
> ---- Replace x with e , and y to a to email me, if required ----
>
>
>-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
>http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
>-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

6028. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 14:43:05 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb8806e.365945056@news.akorn.net>
Source record: 49725

On Sun, 30 Sep 2001 10:21:12 -0500, "William E. Sabin"
<sabinw@mwci.net> wrote:

>Check Fig 12.21 in the ARRL Handbook. This graph relates rise/fall time
>and code speed to the -26 dB bandwidth. If you are creating clean and
>well-shaped rise and fall times, the -26 dB bandwidth is given by the
>graph. If you are not getting that result, then there is a systematic
>error of some kind.

The Handbook artical is obviously wrong Bill if it says what you
claim, unless it assume we are changing the rise and fall times of the
envelope with speed.

73 Tom

6029. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:06:27 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb8810a.366100968@news.akorn.net>
Source record: 49726

On Sun, 30 Sep 2001 22:53:53 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:

>JFYI the original question related to the energy spectrum occupied by the cw
>signal in space and we were not including any additional complications of
>what happens when the signal arrives at the receiver. We were just
>considering whether the spectrum occupied in space does (as one author had
>suggested) become wider with higher keying speed or not - so I believe we
>only need to think about what you would see if the spectrum analyzer was
>tied directly to a theoretical perfect transmitter output.

Maybe this will help Ram.

Sideband s are ONLY generated when the wave changes amplitude. The
frequencies generated in producing those sidebands relates only to the
shape and time of the rise and fall, when things are changing.

The problem Ram is that people are considerintg the accumulated
effects of many sidebands, when the rise and fall is the actual
problem.

A real receiver does not anticipate future evens that have not
happened, and it does not remember past events because the receiver
has no dc or low frequency storage. It also "sees" a few hundred
hertz window,

So what happens in a system that stores and resolves very low
frequency energy, like the few hertz is meaningless if your question
is what it sounds like on a real receiver as you tune across the
signal.

The math used is absolutely correct when the repeat of many bursts of
perfectly timed repeating symmetrical sidebands are considered over a
long period of time, but not in a real system of CW with a real
receiver.

>With an extremely slow test signal (such as an endless stream of 500ms dots)
>I would expect to see the carrier and possibly sidebands due to rise/fall
>times but nothing else. (Unfortunately I don't own a spectrum analyzer yet
>so I can't test this.)

A spectrum analyzer, when the bandwidth is narrow requires many very
slow sweeps. It store each energy burst that makes it through the
filters (and the filters will have a large rise and fall time because
they must be very narrow) so you do get the picture you would expect
if the system responded to dc or near dc.

The problem is receivers and our ears do not work that way. It workss exatly the way your intuition is telling you it works.

The receiver, and our ears, hear a click ONLY during the rising and falling edges. Since neither the receiver or our ears stores any energy between clicks (assuming bandwidth is wide engough to all copying of the CW being sent) you hear two clicks that can be and virtually always are different characteristics for each element of the CW.

As someone sends faster, you and the receiver simply hear more clicks per second. The frequency spread is the same if the guy is sending 2 WPM or 40 WPM, as long as the response of the system rise and fall is much faster than the length of the shortest element.

The response HAS to be like that, or you couldn't copy the CW.

1.) A sideband group is only produced while the level is changing.
2.) There has to be a large time that passes between those changes.
3.) There is no storage of those sidebands in a normal properly working CW receiver or in your head.

Because of that, any analysis that includes the repetition of those sidebands or measurement that accumulates them does not apply to the question you are asking.

Speed would matter if you were asking about the accumulated power in the sidebands for a given period of time that includes many elements (dots and dashes), or if the on time or off time was nearly the same or faster than the rise and fall times, but that is the only time.

73 Tom

6030. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:08:39 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb88650.367450885@news.akorn.net>
Source record: 49727

On Sun, 30 Sep 2001 14:40:01 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>On Sun, 30 Sep 2001 22:53:53 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:
>
>> I'm still not sure whether this second phenomenon (signal presence/absence)
>> is something I want to look on as a sideband in the same sense as the
>> sidebands due to the waveform changes. It isn't really a sideband.
>
>The absence of a signal creates a sidebands just as much as the presence of a signal.

The absence of signal does not create sidebands. Only a change in
level or frequency creates sidebands.

Neither the steady on time, nor the steady off time, creates any
sidebands.

73 Tom

6031. schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:14:47 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <HL%t7.80949$6x5.17799950@afrodite.telenet-ops.be>
Source record: 49728

Hello everyone

I am looking for some freeware to draw schematics that can be exported to BMP/GIF/whatever..
Don't get me wrong, I do NEED need some kind of hi-tech Eagle / Protel / Utlimate / PSPice software to draw schematics in order to do simulations or to design PCBs afterwards.
I just want to draw visually nice basic schematics (resistor, transistor, diode, logical gate...) to use in educational documents and on my website.

Anyone can help?

Greetings,
Franki ON5ZO
http://www.qsl.net/on5zo/

6032. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:20:51 UTC
From: "Gary Tait, Very Real" <tait@primeline.net>
Message-ID: <3BB889D3.608F7E43@primeline.net>
Source record: 49729

schatzie wrote:
>
> Try the current issue of QEX.

Don't think I get than on newsstands here, I'll have a look though.

> Gary Tait, Very Real wrote in message <3BB4A141.ECF2FD21@primeline.net>...
> >
> >Does any body have any recommendation to modify an old 800 Mhz analog
> >cellular for either 450 Mhz or 900 Mhz ham use?
> >
> >--
> > Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
> > **** Do not Email back me newsgroup responses, just post them. ****
> > ---- Replace x with e , and y to a to email me, if required ----
> >
> >
> >-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> >http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> >-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
-----== Over 80,000 Newsgroups - 16 Different Servers! =-----

6033. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:31:22 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <e%%t7.80979$6x5.17805287@afrodite.telenet-ops.be>
Source record: 49730

```
> Don't get me wrong, I do NEED need some kind of hi-tech .....
==>> I mean: I do NOT need not, negative... sorry for typo....
- Franki ON5ZO
```

6034. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 15:37:49 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BB88DCD.8B6FBD43@mwci.net>
Source record: 49731

Tom W8JI wrote:

> On Sun, 30 Sep 2001 10:21:12 -0500, "William E. Sabin"
> <sabinw@mwci.net> wrote:
>
> >Check Fig 12.21 in the ARRL Handbook. This graph relates rise/fall time
> >and code speed to the -26 dB bandwidth. If you are creating clean and
> >well-shaped rise and fall times, the -26 dB bandwidth is given by the
> >graph. If you are not getting that result, then there is a systematic
> >error of some kind.
>
> The Handbook artical is obviously wrong Bill if it says what you
> claim, unless it assume we are changing the rise and fall times of the
> envelope with speed.

It isn't "obvious" to me. I am looking at that graph right now and it says exactly what you suggest. At slower code speeds a longer rise/fall time is recommended in order to get the narrower bandwidth. If the rise/fall time is set for a faster code speed then, if we actually send at a much slower speed, the spectrum set by the rise/fall time may be wider than we would like. Someone has mentioned adapting rise/fall time to code speed. Not a bad idea, I suppose.

But in actuality, if the equipment at xmtr and rcvr are clean, this whole problem is a tempest in a teapot. If the rise/fall is set for 30 WPM and K=5 that should not cause a problem for anyone. Fig 21 says the one-sided 26 dB BW=120 Hz. The crucial trick is to be sure that the spectrum falls off rapidly beyond the 26 dB BW. My computer simulations show that this is not difficult. That is where good circuit design comes in. My writeup in Ch 17 suggests one method to do this: use sinusoidal rise/fall waveforms. I have used this idea in frequency hop spread spectrum gear.

Another thing is the receiver. Any rcvr that uses narrowband audio freq DSP filters has a problem in which the out-of-band undesired sig is doing violence to the stuff that is ahead of the DSP filter. That presents some very tough design problems.

Your friend,

Bill W0IYH

6035. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 16:00:46 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1001952046@msauve>
Source record: 49732

On Mon, 01 Oct 2001 15:08:39 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> On Sun, 30 Sep 2001 14:40:01 GMT, Mark Allread
> <mallread@flatsurface.com> wrote:
>
> >On Sun, 30 Sep 2001 22:53:53 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:
> >
> >> I'm still not sure whether this second phenomenon (signal presence/absence)
> >> is something I want to look on as a sideband in the same sense as the
> >> sidebands due to the waveform changes. It isn't really a sideband.
> >
> >The absence of a signal creates a sidebands just as much as the presence of a signal.
>
> The absence of signal does not create sidebands. Only a change in
> level or frequency creates sidebands.
>
> Neither the steady on time, nor the steady off time, creates any
> sidebands.

You're a freaking idiot, Tom, and a pedant to boot. I'll say this one time, and one time only. The frequency domain consists of amplitude AND time.
Signal level defines the amplitude, for a square wave as is being discussed, the on/off periods define the time.

6036. FS: Xtal filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 16:31:48 UTC
From: msix@plato.nmia.com
Message-ID: <UT0u7.3236$0h4.78124@sjcpnn01.usenetserver.com>
Source record: 49733

FS: Xtal Filters n

NOS McCoy SSB-9 with both carrier xtals
Hermetically sealed
$47 pp 48

Kokusai 455ZU-01H
Hermetically sealed
$28 pp 48

Stock Drake 4-line C-F Networks xtal filter model 5645-2.4L
with carrier xtal 5644.999KHz. $39 pp 48.

73 - John Conley W7ZFB msix@nmia.com
1400 Catron SE
Albq, NM 87123

6037. MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 17:05:55 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110010905.5156879a@posting.google.com>
Source record: 49734

I have looked at their website, and they have a Reference Manual on line for their 'MidRange' MCUs, but what about the lowly 16F84 and siblings?

Am I not looking in the right place, or what? All I can find on the low end MCUs are the data sheet, which doesn't tell what how the things work.

When I do a web search on '16f84' I get a gazillion matches. Since I only have an hour for lunch I can't look through all of them. Does anyone out there in homebrew land know some web sites that discuss the inner workings of the 16fxx series? I am particularly interested in those devices that have a USART and A/D converters (besides the 16F84 itself).

Another question on the A/D converters built into the MCUs....

I have an application in mind that requires very tight control over when the analog inputs are sampled. The 2 or 3 inputs will have to be sampled in a burst (ch1,ch2,ch3,ch1,ch2,ch3.... up to perhaps 8 or 16 samples each). How fast isn't as important as knowing that the sample rate is constant. What I have in mind is to use either an external interrupt or internal timer to tell when the A/D inputs should be sampled. Is the interrupt operation and instruction timing dependable enough to allow this?

Of course, if the instruction timing is dependable enough (using an external crystal clock) there would be no need for an interrupt---just stay in a tight loop grabbing samples.

My alternative is to use external A/Ds with the 16F84, but I would prefer doing it all in one chip.

Jim
N8EE

6038. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 17:31:03 UTC
From: CA <sm6pxj@hotmail.com>
Message-ID: <gL1u7.2567$Ad3.9383@nntpserver.swip.net>
Source record: 49735

Schematic symbols in PCX format (Windows Paint):

http://www.arrl.org/files/qst-binaries/schemat.zip

ON5ZO wrote:
>Hello everyone
>
>I am looking for some freeware to draw schematics that can be exported to
>BMP/GIF/whatever..
>Don't get me wrong, I do NEED need some kind of hi-tech Eagle / Protel /
>Utlimate / PSPice software to draw schematics in order to do simulations or
>to design PCBs afterwards.
>I just want to draw visually nice basic schematics (resistor, transistor,
>diode, logical gate...) to use in educational documents and on my website.
>
>Anyone can help?
>
>Greetings,
>Franki ON5ZO
>http://www.qsl.net/on5zo/
>
>
>

6039. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 18:45:11 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <g9dhrtg6f09hpueihsndaasqjm0qjvhgk1@4ax.com>
Source record: 49736

On 1 Oct 2001 10:05:55 -0700, jim.bolinger@lintek.aeroflex.com (JLB) wrote:

>I have looked at their website, and they have a Reference Manual on
>line for their 'MidRange' MCUs, but what about the lowly 16F84 and
>siblings?
>
>Am I not looking in the right place, or what? All I can find on the
>low end MCUs are the data sheet, which doesn't tell what how the
>things work.
>
You didn't read the fine print. 16F84 is a mid-range chip. They are grouped by the size of the instruction words. Low end is 12 bits, mid is 14. Most designs you see use 14 bit chips like 16f84 or newer versions. Download the Product Line Card to help you decide what chip you want. There are better chips now than the 16F84 and can be had cheaper too. Look at the 16F627, 28. They can be used without an external clock resonator. The 16F8xx chips have many features built in, including ADC in most.

So the Mid-Range Reference manual is what you want. You still will need the data sheet for whatever chip you decide to use. I'd recommend a tutorial of some kind to get you started. The Easy Pic'n book is one. I'm sure you can find one on the web but I don't have one to recommend.

I never use assembler. I program in C. I use CCS C -- http://www.ccsinfo.com/picc.shtml
I think you can start with the mid-range command line compiler for about $100. You can use assembler and MPLAB but its much harder to get results this way. CCS C sets up lots of the things for you like ADC or serial ports. Only takes a few lines of code to use these features in C.

>Another question on the A/D converters built into the MCUs....
>
>I have an application in mind that requires very tight control over
>when the analog inputs are sampled. The 2 or 3 inputs will have to be
>sampled in a burst (ch1,ch2,ch3,ch1,ch2,ch3.... up to perhaps 8 or 16
>samples each). How fast isn't as important as knowing that the sample
>rate is constant. What I have in mind is to use either an external
>interrupt or internal timer to tell when the A/D inputs should be
>sampled. Is the interrupt operation and instruction timing dependable
>enough to allow this?
>

>Of course, if the instruction timing is dependable enough (using an
>external crystal clock) there would be no need for an interrupt---just
>stay in a tight loop grabbing samples.
>
>My alternative is to use external A/Ds with the 16F84, but I would
>prefer doing it all in one chip.

There are internal timers that can be used either by polling or interrupt. I've only used ADC once so I can't comment on latency, but I suspect you can do what you want on the chip. A loop in intructions should be repeatable time-wise too, as long as you don't need to handle ranbdom events. Remember that the 16F84 doesn't have ADC. You will have to choose a different chip.

-Rex, KK6MK

6040. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 20:12:32 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <hniap9.dou.ln@darkstar.localdomain>
Source record: 49737

ON5ZO wrote:

> Hello everyone
>
> I am looking for some freeware to draw schematics that can be exported to
> BMP/GIF/whatever..

Any good vector drawing program will produce nice schematics. I use
Kontour on my Linux box. SmartDraw for Windows and ClarisCad for the
Mac are good candidates for the job.

You could use one of the standard programs like Eagle CAD. I
prefer to use Kontour because it gives me complete control of
the final appearance of the schematic. I really hate the look
of some of the library components in Eagle CAD, especially the
transistors without any circle around them!

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.10

6041. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 20:37:55 UTC
From: la8ak@online.no
Message-ID: <3bb895bb.198786208@news.online.no>
Source record: 49738

On Mon, 01 Oct 2001 15:31:22 GMT, "ON5ZO" <on5zo@qsl.net> wrote:

>
>> Don't get me wrong, I do NEED need some kind of hi-tech .....
>==>> I mean: I do NOT need not, negative... sorry for typo....
> - Franki ON5ZO
>
>
>
whatever pgram you use, believe one just copy and paste it into
paintbrush and save as gif, it works for me using powerpoint (win98),
sometimes one might need another step of conversion

6042. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 20:41:32 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB8D4FC.36803D1@world.std.com>
Source record: 49739

Newark has no minimum order, but it must be $25 or they charge a $5 service charge.

I checked Analog's budgetary price, and it is $15.95. I am sure I could find $9 more stuff to buy, or I might even buy
two of the AD9851BRS. (Hey, what a way cool part! I can't wait to use it.)

Mouser has no minimum order at all, fyi. Doesn't carry Analog Devices I beleive, though. Mouser was founded by high
school physics teacher who just wanted to buy some resistors for his students, and could not find a place that would
deal with him.

Clyde KA1CRV

Dale Parfitt wrote:

> Laura Halliday wrote:
>
> > jim.bolinger@lintek.aeroflex.com (JLB) wrote in message
news:<8d5ec8a2.0109280749.6069db87@posting.google.com>...
> >
> > > Can anyone tell me who sells the AD9850 DDS in small quantities?
> >
> > Where do you live? Where have you looked? I find, for
> > example, that Newark have it in stock. Analog Devices
> > sell direct, though their terms are unfavourable for
> > non-U.S. customers.
> >
> > >Not sure about the 9850, but when I contacted Newark several months back about the
9851, the minimum order was
> > around 60 pcs.
>
> Dale W4OP

6043. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 21:36:00 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <4l5u7.81633$6x5.17923058@afrodite.telenet-ops.be>
Source record: 49740

Ed,
I know your website and I knew you have these fantastic looking schematics.
It's those I had in mind.
I normally draw my designs quickly with Ulticap, so I can easily make the
PCB from Ultiboard. But these don't look half as good as yours. In fact
they're no good from an educational point of view, nor from a
troubleshooter's point of view (you know, how a schematic "feels").
I also tried the "screendump" trick and importing it into a drawing
software - but no good either.And unfortunately there are no export filters.
The problem is: I don't want to put in too much time (because I have none
hi) in making a component library myself... That's why I didn't draw 'm in
(let's say) CorelDraw of something like that.

73! Franki ON5ZO

6044. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 21:46:42 UTC
From: la8ak@online.no
Message-ID: <3bb8d58e.215127260@news.online.no>
Source record: 49741

On Mon, 01 Oct 2001 20:12:32 +0000, Eamon Skelton
<Xnospam@oceanfree.net> wrote:

>You could use one of the standard programs like Eagle CAD. I
>prefer to use Kontour because it gives me complete control of
>the final appearance of the schematic. I really hate the look
>of some of the library components in Eagle CAD, especially the
>transistors without any circle around them!
>
>73, Ed. EI9GQ.
>
and I hate to see transistors with ring, looks like a newcomer has
drawn it

6045. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 21:53:19 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <jB5u7.81658$6x5.17926565@afrodite.telenet-ops.be>
Source record: 49742

EI9GQ: "I really hate the look ....especially the transistors without any
circle around them!"
vs
J.M. Noeding: "I hate to see transistors with ring"

As I remember it, the symbol with the ring meant the transistor was mounted
on a heatsink. Don't remember were I got this...
You should not apply this rule because it obviously depends on the
designer's taste ;o)
- ON5ZO

6046. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 22:11:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BB8E9FF.BD0A48A4@eznec.com>
Source record: 49743

Tdonaly wrote:
>
> I still use an old Magnavox Ultra-Range I ten transistor radio to depress
> myself
> with the news each morning. I always wondered why Magnavox made such a big
> deal
> out of the number of transistors - now I know. Were people really that
> gullible back
> then?
>
> Tom Donaly KA6RUH

I assure you with complete confidence that people are no less gullible
now than they were then. Anyone believing that they are is, well,
gullible.

Roy Lewallen, W7EL

6047. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-01 23:48:35 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB900D3.AB6B0ED0@world.std.com>
Source record: 49744

That is why the MHz wars in PCs is churning hardware..... 850MHz must surely be better than 833, right?

Clyde

Roy Lewallen wrote:

> Tdonaly wrote:
> >
> > I still use an old Magnavox Ultra-Range I ten transistor radio to depress
> > myself
> > with the news each morning. I always wondered why Magnavox made such a big
> > deal
> > out of the number of transistors - now I know. Were people really that
> > gullible back
> > then?
> >
> > Tom Donaly KA6RUH
>
> I assure you with complete confidence that people are no less gullible
> now than they were then. Anyone believing that they are is, well,
> gullible.
>
> Roy Lewallen, W7EL

6048. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 00:12:39 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <XD7u7.140996$K6.65805482@news2>
Source record: 49745

I think I'll slightly disagree with Rex here.

The MPASM is a very nice IDE, and it's free. The choice between assembler and a compiled language like C is very much dependent on where you came from and what you intend to do.

If you're a programmer, chances are you are going to be a lot more comfortable in a compiled language than in assembler, and for this purpose, C is the best choice, IMO, because it's basically a minimalist language.

However, if you are more comfortable with logic design, chances are the assembler will be easier to learn and make more sense.

Since these parts are pretty short on resources, the absolute control assembler gives you is also an advantage. The 16F84, for example, only has 1024 program locations. With assembler, every single one of those locations is in your face, so you are far less likely to waste them. And if you run out, you know exactly the cost of sacrificing one feature or another.

Also, in cases where you want to sample multiple data points and time matters, and you don't have the trivial case of having only one path through your logic, you can control the time of every path with assembler. That's not really practical in C.

That being said, unless you are quite adept at decomposing a problem down into tiny pieces of the sort you could solve with 7400 series logic, you may find it maddeningly difficult to get anything done in assembler. It does take a certain way of looking at the world, and I'm not convinced that everyone can find it easy.

I personally tend to view C as my "native language", but for the sorts of problems I apply PICs to, I find assembler far better, and see no productivity benefit to doing it in C, in fact, quite the contrary. But I've also programmed in the assembler of perhaps a dozen or two different machines, so assembler isn't exactly alien to me, either.

As far as the MicroChip website, download the spec sheet for the part you want to use (for the 16F84 it's http://www.microchip.com/download/lit/pline/picmicro/families/16f8x/devices/16f84/30430c.pdf). Every instruction is described there. For the 16F84 there are only 35, so it's not so hard to learn. If it makes sense, download the IDE and the reference card (which is just a time saver - everything in it is in the spec sheet for the chip.) If it doesn't make sense, go get a C compiler.

didleydadidah

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
news:8d5ec8a2.0110010905.5156879a@posting.google.com...
> I have looked at their website, and they have a

6049. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 00:48:00 UTC
From: 2w8ji@contesting.com
Message-ID: <3bb90d81.402065659@news.akorn.net>
Source record: 49746

On Mon, 01 Oct 2001 16:00:46 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>You're a freaking idiot, Tom, and a pedant to boot.

I love your technical explaination. That does wonders to prove your
credibility.

You said:
>The absence of a signal creates a sidebands just as much as the presence of a signal.

It only a change in level or frequency that creates sidebands, or do
you disagree with that?

73 Tom

6050. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 01:52:19 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BB91DD1.9745020C@att.net>
Source record: 49647

Is Mark possibly drawing some parallel with the fact that the spectrum of a unit impulse is infinite in extent and remains defined even after the zero-time instance of the impulse?

This would suggest that a signal that once present but now absent in the time domain has created a continuous spectrum of undefined time duration - ?

Or is he remarking that the transition from signal to no-signal creates sidebands which are associated with a phenomenon in the time domain which is in the past?

Sorry but statistical signal processing grad courses at MIT were taken over 45 years ago and a lot has been lost over the years . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Tom W8JI wrote:
>
> On Mon, 01 Oct 2001 16:00:46 GMT, Mark Allread
> <mallread@flatsurface.com> wrote:
>
> >You're a freaking idiot, Tom, and a pedant to boot.
>
> I love your technical explaination. That does wonders to prove your
> credibility.
>
> You said:
> >The absence of a signal creates a sidebands just as much as the presence of a signal.
>
> It only a change in level or frequency that creates sidebands, or do
> you disagree with that?
>
> 73 Tom

6051. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 03:27:28 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <Nsau7.83339$Dz6.1665423@e3500-atl2.usenetserver.com>
Source record: 49648

To each his own, but I NEVER solder thru those darned holes. Two reasons:
1) I have found that when used (put on and removed) there is always one
teensy little wire that will get loose and short the thing out--I've
repaired many
a "mysterious" short where the braid was tinned and soldered thru those
pesky
holes, 2) Many times, once soldered in this way, it is impossible to remove
the
connector and re-use it--OK< I know, I'm a cheapskate.

What I do is to remove the outer covering needed to reach the front end of
the
PL connector. Then I carefully unravel the braid and fold it evenly back
over the outer cover. Then I force the adaptor (if needed for RG8X, or
RG58) over the braid. This makes for a tight fit, and I only have to solder
the tip! For RG8,
or other large coax, I just place the body of the connector over the braid
and
"screw" it on over said braid. Before you say WHAAT?--Is this guy NUTS?--
there IS an advantage, or two, in doing this. First, it solves the problem
of those darned little wires breaking and finding their way down to the
front and
shorting out the thing. By folding the braid back UNDER the body, or
adaptor,
it increases the distance between the "hot" (+) and ground (-) so that, even
if
a wire or two separates, it will do it right at the point where it is folded
back,
and because of the increased distance, it cannot get to where it can do any
mis-
chief. The second advantage is that it is quicker! Finally, again
regarding shorts, "sometimes" that solder can flow TOO much and get down to
the business end of the PL connector, again causing the job to be done over,
OR
having to throw the PL away. Believe me it, DOES work! I've been doing it
this way for 30+ years. Of course, there's no real "right" way to do
this--do it
the way that works for you.

73

Jerry
K4KWH
Marty <marty1225@earthlink.net> wrote in message
news:eVcl7.8584$IP6.675773@newsread2.prod.itd.earthlink.net...

> I've been using a 140 watt soldering gun for many years, needing only a
few
> seconds contact with the fitting, to get a good electrical and physical
> bond. The trick is to first drill out the holes. A 5/32 bit is usually
> about right. This leaves a fresh metal surface to wet and room to get the
> tip into the hole which makes the solder flow onto the braid in a couple
of
> seconds.
>
> Marty K1FHR
>
> "Bill Turner" <w7ti@dslextreme.com> wrote in message
> news:vo2aptc874bq8pmmtsfdj7002kd2m6p68e@4ax.com...
> > On Tue, 4 Sep 2001 13:26:34 +0100, "swampthing"
> > <swampthing@lpws.zzn.com> wrote:
> >
> > >Goodness me! That's a biggy.
> > >What would one solder with a 250 watt iron?
> > >Radiators or something like?
> >
> > _____
> >
> > PL-259 type coax connectors. Using less than ~250 watts is asking for
> > trouble, either at the time or later on.
> >
> > PL-259's can be soldered with wattages as low as ~100, but it requires
> > leaving the iron on the connector for a longer time, with possible
> > damage to the coax itself.
> >
> > Bill, W7TI
> >
>
>

6052. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 04:31:57 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <Mjbu7.33082$2H2.2665030@e3500-atl1.usenetserver.com>
Source record: 49649

But in our respective societies, you are free to barter your skills for whatever
wage the market will bear. You are free to seek out an education, and, for a determined individual, there are innovative ways to come by the financing necessary to achieve higher education. In controlled societies, such as the former Soviet Union, you were often TOLD what job you would do

Here in America, my own father was the son of poor, uneducated farmers. His calling in life was as a minister. He had nothing to barter except his bare hands
and a willingness to do what was necessary to get a good education. He left home at the age of 16 to finish high school at a place called North Greenville
Academy (South Carolina). At this school, he plowed with a mule, harvested crops, and fired the school's boilers in exchange for his high school diploma.
The school later expanded into a Junior College, and he continued there in order to obtain his goals. This was during The Depression (1930s). He then went to New Orleans in 1937 to complete his college studies, again, working various jobs in order to attend school--sometimes at night, or working as a night watchman depending on his class schedule. After this, he was ordained as a minister by his home church, and began to serve a small congregation in southern Arkansas. Moving to North Carolina in 1953, he took courses at Emory University, Limestone College, and eventually, Southeastern Baptist Theological Seminary to get his Bachelor of Divinity degree while pastoring churches. In his 50s, he returned to SBTS to get his Masters. None of it was easy, and it wasn't to get a BIG salary. Hey, when I was a kid, and Dad was pastoring small country churches, we often farmed on the side and raised chickens to make ends meet. We never went hungry, we were warm and reasonably comfortable. And now I appreciate that country life of simplicity
and hard work, although it didn't dawn on me as a kid having to plant beans and "taters" when I would rather be playing. Those days spent farming, plowing
with a John Deere tractor, and gathering in hay were wonderful life lessons in
that I could use as I grew up--exactly what Dad wanted for me.

The point is that those people who have become successful, well, most of them
became that way, not through accident, but because they DID work hard to get there. There will always be envy of those who sit in offices and "push" pen-
cils. But those people often have more pressure and have to make difficult decisions that can make or break a company. It isn't all that easy at the

"top",
either. And I am not one of those, if you think that is the reason I raise
any
defense of them. I spent my working career in the railroad industry doing
everything from sweeping floors, to station agent, to copying train orders,
to
working in a repair shop. Those jobs often required decisions that could
affect,
even kill, others. Yes, they paid fairly well, but the knowledge that one
could
accidentally put two trains in the same block on the same track was a
sobering
responsibility. Copying a train order from the dispatcher, and then being
called
by the train affected only minutes away from your station could put your
heart
in your throat as you desparately ran from your office in the glare of his
head-
light in order to hand up his "flimsies". To delay a mainline "hotshot"
would cause some very stern questions from the Trainmaster, or, at worst, a
10 day
suspension from your duties! Those "high-paying" jobs had some very
difficult
stresses! Believe me, the pressures endured were only partly offset by the
pay.

Jerry
K4KWH

proma1 <proma1@ntlworld.com> wrote in message
news:0kNs7.5240$zu1.778579@news6-win.server.ntlworld.com...
> low paid unskilled usually work harder than those in banking and office
> jobs,so in a fair society they should get a better share of the worlds
> wealth.
>
>
> as for Brighton,large demo planned,and also intelligence reports to the
> police passed on to me by press contacts is that the conference is likely
to
> be a terrorist main target on Sunday.
>
>
>
> regards
>
>
>
>
> --
> PROMA1
> Paul Wey

>
> Scanning Author
>
> www.geocities.com/proma1_1999
>
> http://groups.yahoo.com/group/scanpromauk
>
>
>
>
> J+ <norman_tebbit@the-nottinghill-carnival.com> wrote in message
> news:3bb39073.1194780@news.freeserve.net...
> > On Thu, 27 Sep 2001 00:38:43 +0100, "proma1" <proma1@ntlworld.com>
wrote:
> >
> > >there we go again quoting that free world tripe.
> > >
> > >those with lots of money are free,most of us are slaves to our
> jobs,barely
> > >making enough to keep our families,that just in the west,for those in
the
> > >former USSR and other countries spoilt by capitilism,capitilism can
work
> but
> > >it can and should be a lot fairer,remember the the only low paid
workers
> in
> > >the WTC,were the cleaners/security/chefs etc why should they get less
> than
> > >those pen pushers sitting in offices on there bsacksides earning lots
of
> > >money for nothing.
> >
> > Perhaps because they're a lot better qualified than the cleaners?
> >
> > >Tony Blair and co are reputed to be getting bloody noses in Brighton
this
> > >weekend,it will be fun.
> >
> > How so?
> >
> > >he can have his war,others can have theres,it all fair in love and war
as
> > >they say.
> >
> > You're not making a lot of sense, Paul. As usual.
> >
> > J+
> >
>

>

6053. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 05:37:47 UTC
From: tdonaly@cs.com
Message-ID: <20011002013747.23932.00001870@mb-ms.news.cs.com>
Source record: 49650

From: 2w8ji@contesting.com (Tom W8JI);
> (snip)
>
>You said: (Mark Allread)
>>The absence of a signal creates a sidebands just as much as the presence of
>a signal.
>
>It only a change in level or frequency that creates sidebands, or do
>you disagree with that?
>
>73 Tom

This is beginning to sound like the sound of one hand clapping. If the absence of a
signal creates sidebands, what is the spectrum of total silence? Of a single dot? Of a
mixed, random collection of dots and dashes? Mark is treading on metaphysical
ground. I'm going to tell my Zen-master friends they'll have to learn Morse code.

By the way, can anyone tell me of another periodic signal, besides total silence and an
unvarying, infinitely long in terms of time, sine wave that doesn't produce either
harmonics or sidebands? I'm sure some of you must know of such.

Tom Donaly KA6RUH

6054. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 05:45:34 UTC
From: tdonaly@cs.com
Message-ID: <20011002014534.23932.00001871@mb-ms.news.cs.com>
Source record: 49651

Roy Lewallen wrote,
>
>Tdonaly wrote:
>>
>> I still use an old Magnavox Ultra-Range I ten transistor radio to depress
>> myself
>> with the news each morning. I always wondered why Magnavox made such a
>big
>> deal
>> out of the number of transistors - now I know. Were people really that
>> gullible back
>> then?
>>
>> Tom Donaly KA6RUH
>
>I assure you with complete confidence that people are no less gullible
>now than they were then. Anyone believing that they are is, well,
>gullible.
>
>Roy Lewallen, W7EL
>
>

Well, I'll admit I'm on the gullible side, myself.
At one time I thought internet stocks were a
pretty good deal.

Tom Donaly KA6RUH

6055. Do you like/dislike the svetlana 4CX400?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 05:46:43 UTC
From: hexter@blazenet.net
Message-ID: <tril63anndnt3c@corp.supernews.com>
Source record: 49652

I know I have to change bias etc, to swap it into the position occupied currently by a 4CX250. I was just wondering if the swap was a good one. Efficiency increase and so on.

6056. More MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 06:18:50 UTC
From: Charles Hutton <chutton1@qwest.net>
Message-ID: <p%cu7.1665$1O4.905088@news.uswest.net>
Source record: 49653

And now it's my turn to ask a MicroChip (or other vendor) question.... I have looked high and low for a MicroChip part that has both an A/D and D/A. I don't need much accuracy as the application is for monitoring of and control of the voltage applied to varactors in a (hopefully) automatically tuned tuner once the operator specifies frequency.

Can anyone point me to a device that has both A/D and D/A?

Chuck

JLB <jim.bolinger@lintek.aeroflex.com> wrote in message news:8d5ec8a2.0110010905.5156879a@posting.google.com...
> I have looked at their website, and they have a Reference Manual on
> line for their 'MidRange' MCUs, but what about the lowly 16F84 and
> siblings?
>
> Am I not looking in the right place, or what? All I can find on the
> low end MCUs are the data sheet, which doesn't tell what how the
> things work.
>
> When I do a web search on '16f84' I get a gazillion matches. Since I
> only have an hour for lunch I can't look through all of them. Does
> anyone out there in homebrew land know some web sites that discuss the
> inner workings of the 16fxx series? I am particularly interested in
> those devices that have a USART and A/D converters (besides the 16F84
> itself).
>
> Another question on the A/D converters built into the MCUs....
>
> I have an application in mind that requires very tight control over
> when the analog inputs are sampled. The 2 or 3 inputs will have to be
> sampled in a burst (ch1,ch2,ch3,ch1,ch2,ch3.... up to perhaps 8 or 16
> samples each). How fast isn't as important as knowing that the sample
> rate is constant. What I have in mind is to use either an external
> interrupt or internal timer to tell when the A/D inputs should be
> sampled. Is the interrupt operation and instruction timing dependable
> enough to allow this?
>
> Of course, if the instruction timing is dependable enough (using an
> external crystal clock) there would be no need for an interrupt---just
> stay in a tight loop grabbing samples.
>
> My alternative is to use external A/Ds with the 16F84, but I would
> prefer doing it all in one chip.
>

> Jim
> N8EE

6057. Re: Do you like/dislike the svetlana 4CX400?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 06:52:44 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <fWjo+tA8QWu7EA3T@ifwtech.com>
Source record: 49656

gudmundur wrote:
> I know I have to change bias etc, to swap it into the position
>occupied currently by a 4CX250. I was just wondering if the swap
>was a good one. Efficiency increase and so on.
>

You can obtain a significant increase in linear power output, up to at least 144MHz - say 450-500W per tube (by the same standards of linearity you could only get about 250W out of a 4CX250B).

But this requires more than changing grid bias voltages. To get the extra power output you must increase the anode voltage from 2000V to 2500V on-load. Efficiency does not change significantly.

Drive power requirements will probably decrease, and you may have to use loading resistors on the grid.

73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

6058. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 07:42:25 UTC
From: Peter Goodwin <pgood@xtra.co.nz>
Message-ID: <C2eu7.94$jc1.14213@news.xtra.co.nz>
Source record: 49654

I suggest you try Harry Lythal's website. He has schematics which you can use to draw circuits by cut and paste. It is really easy to use, and you can make your own symbols if you wish.
Here is the URL : hem.passagen.se/sm0vpo/

"ON5ZO" <on5zo@qsl.net> wrote in message news:HL%t7.80949$6x5.17799950@afrodite.telenet-ops.be...
> Hello everyone
>
> I am looking for some freeware to draw schematics that can be exported to
> BMP/GIF/whatever..
> Don't get me wrong, I do NEED need some kind of hi-tech Eagle / Protel /
> Utlimate / PSPice software to draw schematics in order to do simulations or
> to design PCBs afterwards.
> I just want to draw visually nice basic schematics (resistor, transistor,
> diode, logical gate...) to use in educational documents and on my website.
>
> Anyone can help?
>
> Greetings,
> Franki ON5ZO
> http://www.qsl.net/on5zo/
>
>
>

6059. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 08:08:47 UTC
From: lasse.moell@swipnet.se
Message-ID: <3bb97544.2508986@news.lin.foa.se>
Source record: 49655

Franki
check out latest issue of QST, you have exactly what you want there! A
library of components for Corel Draw. They are exact replicas of the
way schematics are drawn in the Handbook and QST.

It appears to be downloadable from the ARRL website.

Cheers
Lasse SM5GLC
On Mon, 01 Oct 2001 15:14:47 GMT, "ON5ZO" <on5zo@qsl.net> wrote:

>Hello everyone
>
>I am looking for some freeware to draw schematics that can be exported to
>BMP/GIF/whatever..
>Don't get me wrong, I do NEED need some kind of hi-tech Eagle / Protel /
>Utlimate / PSPice software to draw schematics in order to do simulations or
>to design PCBs afterwards.
>I just want to draw visually nice basic schematics (resistor, transistor,
>diode, logical gate...) to use in educational documents and on my website.
>
>Anyone can help?
>
>Greetings,
>Franki ON5ZO
>http://www.qsl.net/on5zo/
>
>
>

6060. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 08:34:17 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <d_eu7.81915$6x5.18062920@afrodite.telenet-ops.be>
Source record: 49657

Lasse

Thanks for the hint!
I'm waiting for QST to arrive, I only became ARRL member (to get QST) last month, so this should be my first issue.
I downloaded a ZIP-file containing CDR files with symbols from the ARRL website, but unfortunately they were created using a new version of CorelDraw, I only have access to an older version (v7 I believe).

We'll see where we get...
Tnx fr info!
73 de ON5ZO Franki

6061. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 09:18:11 UTC
From: ON5ZO <on5zo@qsl.net>
Message-ID: <nDfu7.81946$6x5.18076477@afrodite.telenet-ops.be>
Source record: 49658

Lasse

The files I found yesterday were v9 only but now with your message I looked for a more recent file on the ARRL site, and in the QST-files index I looked for the 2001-version.

So I found a new version of the zip file, but this time they added the files for Corel v7+v8+v9. I guess I was not the only one with a compatibility-problem hi.

This is really what I need so thanks a lot!
73 de Franki ON5ZO

6062. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 10:26:40 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BB99619.ACB27AE5@earthlink.net>
Source record: 49659

J. M. ---

> >really hate the look of some of the library components in Eagle CAD,
> >especially the transistors without any circle around them!

> and I hate to see transistors with ring, looks like a newcomer has
> drawn it

I thought the ring was there to indicate that the part was discrete?
The times I have seen (in educational/ham publications) ringless
transistors was when they were part of an IC (darlington xistor, op-amp
schematic, etc).

Henry C. Gernhardt, III
KE4PIB

6063. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 11:07:57 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002020877@msauve>
Source record: 49660

On 02 Oct 2001 05:37:47 GMT, tdonaly@cs.com (Tdonaly) wrote:
> Mark is treading on metaphysical
> ground. I'm going to tell my Zen-master friends they'll have to learn Morse
> code.

You're actually much closer than you may think. In examining on/off modulation, it's a yin/yang situation, without the off periods,
the on periods are meaningless. As such, it is equally valid to study either. One can picture sending morse code by holding key
down for a while and releasing (generating silence) for dots and dashes (inverted morse?). Such a modulation would have the
same bandwidth requirements as traditional code. With traditional morse code, lack of carrier conveys information about letter
spacing and word spacing. The spaces are an intrinsic part of the characters themselves.

Shannon tells us that information consumes bandwidth. There is simply no way around it. The more information you send, the more
bandwidth you need (with a given s/n). Information is sent by the spaces, and they consume bandwidth (i.e. generate sidebands).

6064. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 11:25:32 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <877jrtsvr2v0g5lpjptd6l701jfrctm4sq@4ax.com>
Source record: 49661

On Tue, 02 Oct 2001 00:12:39 GMT, "xpyttl"
<xpyttl_nospam@earthling.net> wrote:

>I think I'll slightly disagree with Rex here.
>
??? ok

I've written lots of code in assembler but not on the PIC. If you spend the time you can develop libraries of functions that let you be productive, but that's basically like using assembler as a high level language.

If you really have an issue where size or timing is critical then I agree -- go to assembler, at least in parts. If you never have done it, there are lots of reasons to be at least familiar with assembler. We all should know the basics for the case where you can debug the output from C if there are difficult strangenesses.

A decent C compiler writes code that is pretty efficient. You can learn tricks that make it work even better if necessary. I'll go to a bigger part before I'll take the time to go to assembler unless there are cost factors like thousands of chips. I think we are typically talking onesies to tensies in this forum.

This is sort of a religious argument and I think I'm done now. Do whatever works for you. Personally I never touched asm on the PIC because I've been there and done that. I have looked at compiler output to understand exactly what was happening when things weren't working as expected. That is a good reason to know the instruction set. If you have never written in asm, its a good learning experience. In a critical situation it might be the best answer, but I haven't seen a need for that in a long time.

For the PIC asm is cheaper -- totally free tools. If that's the deciding factor, fine. You have to spend something to get a chip programmer. I'd recommend getting a C compiler too.

-Rex, KK6MK

6065. FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 12:04:24 UTC
From: no.spam.lasse.moell@no.spam.swipnet.se
Message-ID: <3bb9ad23.16814801@news.lin.foa.se>
Source record: 49662

Hi
while trying to evaluate several receivers based on published specs I realised I do not fully understand how a FM receiver works...

FM improvement = 10log(3B^2) where B is the modulation index seems to be the rule of thumb (if anyone could show how to come up with this formulae??)

Sooo whats my problem?
It seems as if to gain this improvement I need to filter the detected signal as to bandlimit to moulation bandwith i.e. reduce noise.
Nowhere in my textbooks does anyone show this, they just present the curves teling how the (S+N)/N varies over various moulation indexes.

At first I expected that some of the improvement was due to the precceding limiiter but, no. Accoriding to one source a good limiter only gives an improvement of 1 dB or less.

Is the FM improvement all due to the post detector filtering OR is some gained by detection and some by filtering and in such case, how?

Any good reading on the subject??

/Lasse SM5GLC

6066. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 12:38:59 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110020438.3ef30663@posting.google.com>
Source record: 49663

rexa*non*spam*@dnai.com (Rex Allers) wrote in message

> I never use assembler. I program in C. I use CCS C --
> http://www.ccsinfo.com/picc.shtml
> I think you can start with the mid-range command line compiler for
> about $100. You can use assembler and MPLAB but its much harder to
> get results this way. CCS C sets up lots of the things for you like
> ADC or serial ports. Only takes a few lines of code to use these
> features in C.
>

Why spend $100 when there is plenty of free stuff on the Web?

I'm not afraid to use assembler. I have programmed in assembler for
the IBM 360, PDP-8S, PDP-11, TMS9900, 8080, 6502, and 6800 (the last
two hand assembled!). I also used to design with 7400 series logic.

I think that in order to get the tightest possible loop for sampling
the A/D I would have to use assembler.

Jim
N8EE

6067. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 13:59:56 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <HEju7.33672$2H2.2720327@e3500-atl1.usenetserver.com>
Source record: 49664

Jim,

The questions you have are answered in the reference manual. It's a 3.5MB pdf file.

http://www.microchip.com/0/lit/pline/picmicro/refernce/midrange/index.htm

Or you can call/email Microchip and they'll send you the CDROM for free.

You can also download individual sections of the reference manual:

http://www.microchip.com/0/lit/pline/picmicro/refernce/midrange/midsect/index.htm

This took 20 seconds to find on the Microchip web page :) I guess it helps when you know what you're looking for...

For the most part, operation of all the midrange parts are so similar as to be identical, the difference being what peripherals (ADC, timers, USARTs, etc) are included. I personally prefer development with the 16F876/877 chips since they have nearly all the peripherals. BTW, Microchip is now selling the MPLAB-ICD for $99 which is a pretty good deal. Develop on the 16F877 and you can downscale to whatever processor you want.

For your ADC question, you can't simultaneously sample multiple inputs, the same ADC is shared between different input pins. There is a minimum time between samples specified in the literature which will determine your maximum sample rate. This also means that if you're sampling multiple channels you must wait the full ADC delay between channels as well. There is also a "gotcha" that you have to look out for, you must insert a delay at a particular place in the sampling routine (been so long since I wrote my ADC routines I can't remember exactly where it is...) or you'll get erroneous results.

You can also trade off resolution and sampling time. For example, if you need less than the full 8 or 10 or 12 bits (depending on device) of resolution, you can decrease the sampling time. This is spelled out in the literature.

You can accurately control the duration between ADC samples by using one of the timers set to generate an interrupt on overflow to call your conversion subroutines. Also, if you're going to use 10 bit or greater resolution, it's a very good idea to put the device to sleep during the conversion, particularly if you are using the internal ADC voltage reference.

If you've never worked with PICs before, I suggest you get a copy of "Easy PIC'n" and other books in "PIC'n" series from Square 1 Electronics.

http://www.sq-1.com

73, Rory N7CR

> JLB <jim.bolinger@lintek.aeroflex.com> wrote in message
> news:8d5ec8a2.0110010905.5156879a@posting.google.com...
> > I have looked at their website, and they have a Reference Manual on
> > line for their 'MidRange' MCUs, but what about the lowly 16F84 and
> > siblings?
> >
> > Am I not looking in the right place, or what? All I can find on the
> > low end MCUs are the data sheet, which doesn't tell what how the
> > things work.
> >
> > When I do a web search on '16f84' I get a gazillion matches. Since I
> > only have an hour for lunch I can't look through all of them. Does
> > anyone out there in homebrew land know some web sites that discuss the
> > inner workings of the 16fxx series? I am particularly interested in
> > those devices that have a USART and A/D converters (besides the 16F84
> > itself).
> >
> > Another question on the A/D converters built into the MCUs....
> >
> > I have an application in mind that requires very tight control over
> > when the analog inputs are sampled. The 2 or 3 inputs will have to be
> > sampled in a burst (ch1,ch2,ch3,ch1,ch2,ch3.... up to perhaps 8 or 16
> > samples each). How fast isn't as important as knowing that the sample
> > rate is constant. What I have in mind is to use either an external
> > interrupt or internal timer to tell when the A/D inputs should be
> > sampled. Is the interrupt operation and instruction timing dependable
> > enough to allow this?
> >
> > Of course, if the instruction timing is dependable enough (using an
> > external crystal clock) there would be no need for an interrupt---just
> > stay in a tight loop grabbing samples.
> >
> > My alternative is to use external A/Ds with the 16F84, but I would
> > prefer doing it all in one chip.
> >
> > Jim
> > N8EE
>
>

6068. Re: More MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 14:07:02 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <RQju7.86604$Dz6.1726250@e3500-atl2.usenetserver.com>
Source record: 49665

Sorry, Microchip PICs don't include a DAC. You can use PWM if you're looking for a steady-state DC output or low frequency AC.

I see an advert in a recent Circuit Cellar INK from Cygnal for a 25 MIPS 8051 with 12-bit ADC and DACs. www.cygnal.com

73, Rory N7CR

"Charles Hutton" <chutton1@qwest.net> wrote in message news:p%cu7.1665$1O4.905088@news.uswest.net...
> And now it's my turn to ask a MicroChip (or other vendor) question.... I
> have looked high and low for a MicroChip part that has both an A/D and D/A.
> I don't need much accuracy as the application is for monitoring of and
> control of the voltage applied to varactors in a (hopefully) automatically
> tuned tuner once the operator specifies frequency.
>
> Can anyone point me to a device that has both A/D and D/A?
>
>
> Chuck
>

6069. PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 15:23:07 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3BB9DB96.77BF1E12@snet.net>
Source record: 49666

Does anyone know how laser iron on pcb film would work on a Samsung ML-1210 laser printer? The price of $199 seems reasonable for a ham budget.

Check out this link:
http://www.pcworld.com/reviews/article/0,aid,55933,00.asp

This is in no way an ad or endorsement for the product.

thanks,
Vince Coppola
vinyc@snet.net

6070. Re: More MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 15:24:17 UTC
From: "Mark J. Dulcey" <mark@buttery.org>
Message-ID: <3BB9DC21.4030004@buttery.org>
Source record: 49667

Charles Hutton wrote:

> And now it's my turn to ask a MicroChip (or other vendor) question.... I
> have looked high and low for a MicroChip part that has both an A/D and D/A.
> I don't need much accuracy as the application is for monitoring of and
> control of the voltage applied to varactors in a (hopefully) automatically
> tuned tuner once the operator specifies frequency.
>
> Can anyone point me to a device that has both A/D and D/A?

I know of only two PIC models that have D/A converters: the 16C781 (1K program memory) and 16C782 (2K program memory). And they're both "future products" - in other words, you can't buy them yet.

The usual way to get simple D/A capability is pulse width modulation of a standard output. If you need something with more resolution, or don't have the CPU cycles to spare for that, you can easily hook up a DAC; either a parallel one for speed and code simplicity, or a serial part to minimize the number of output pins you need. For example, the K2 uses a Maxim MAX534 quad 8-bit DAC.

6071. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 15:33:57 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB9DE64.4373DBC1@world.std.com>
Source record: 49668

I looked in my ancient GE transistor manual as well as the Motorola catalog,
and every transistor has a ring around it.

My guess is that the ring was a carryover from tubes, which had a ring around
them.

Clyde KA1CRV

ON5ZO wrote:

> EI9GQ: "I really hate the look ....especially the transistors without any
> circle around them!"
> vs
> J.M. Noeding: "I hate to see transistors with ring"
>
> As I remember it, the symbol with the ring meant the transistor was mounted
> on a heatsink. Don't remember were I got this...
> You should not apply this rule because it obviously depends on the
> designer's taste ;o)
> - ON5ZO

6072. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 15:48:55 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BB9E1E7.922ECACA@world.std.com>
Source record: 49669

Does anyone here know if QST or QEX has published an article
describing a VFO based on the AD9851? Ideally it would be
microcontroller driven with a keypad input....

Clyde KA1CRV

JLB wrote:

> Can anyone tell me who sells the AD9850 DDS in small quantities?
>
> As far as that goes, where did all the homebrew friendly vendors go
> (at least in this area)?

6073. FS: NOS Tubes, $.50 each

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 16:21:42 UTC
From: Murray Pasternack <m.pasternack@prodigy.net>
Message-ID: <pQlu7.50527$ru5.4050927811@newssvr15.news.prodigy.com>
Source record: 49670
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Please e-mail w6krc@arrl.net for list of tube types available.

6074. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 17:28:59 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9pctft$8g3$1@newsg1.svr.pol.co.uk>
Source record: 49671

Try
http://www.sjmtech.com/
Don

6075. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 18:37:09 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <b82dp9.5iv.ln@darkstar.localdomain>
Source record: 49676

J M Noeding wrote:

> and I hate to see transistors with ring, looks like a newcomer has
> drawn it

You are entitled to your opinion. If you take a look at
most books and magazines, including the ARRL and RSGB books,
you will find that there are a lot of 'newcomers' out there.

73, ED. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.10

6076. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 18:46:25 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BBA0B7E.4E2C2D7F@att.net>
Source record: 49672

I recommend that you find the book on modulation theory written some years ago by Dr. Elie Baghdady. I took his Advanced Modulation course at MIT during my grad school years there, and it was concentrated on FM and applications.

I feel certain that his detailed analyses will answer your questions, and many more!

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

spike wrote:
>
> On Tue, 02 Oct 2001 12:04:24 GMT,
> no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:
>
> >Hi
> >while trying to evaluate several receivers based on published specs I
> >realised I do not fully understand how a FM receiver works...
> >
> >FM improvement = 10log(3B^2) where B is the modulation index seems to
> >be the rule of thumb (if anyone could show how to come up with this
> >formulae??)
> >
> >Sooo whats my problem?
> >It seems as if to gain this improvement I need to filter the detected
> >signal as to bandlimit to moulation bandwith i.e. reduce noise.
> >Nowhere in my textbooks does anyone show this, they just present the
> >curves teling how the (S+N)/N varies over various moulation indexes.
> >
> >At first I expected that some of the improvement was due to the
> >precceding limiiter but, no. Accoriding to one source a good limiter
> >only gives an improvement of 1 dB or less.
>
> Perhaps a good limiter is 1dB better than a bad one ?
>
> >Is the FM improvement all due to the post detector filtering OR is
> >some gained by detection and some by filtering and in such case, how?
> >
> >Any good reading on the subject??
> >
> >/Lasse SM5GLC
> The FM improvement is due to the limiting period.

>
> All the best...Mike.

6077. Good homebrew xciever for portable psk

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 19:12:13 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3BBA118D.2E71517B@psu.edu>
Source record: 49673

I have been considering making a homebrew ssb transciever to work 20 meter psk31 off a laptop. I'd use it for hiking and camping, so portability is a factor. Anyone know of a good candidate design?

- mike -

6078. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 20:35:48 UTC
From: Lasse Moell <no.spam.lasse.moell@spam.no.thanks.swipnet.se>
Message-ID: <1t8krtojclvs2g6erkjbtb93v4bv5ifq3p@4ax.com>
Source record: 49674

Mike,
thank you for taking the time and answer!
But frankly I do not agree to that the limiter is really giving me the
FM improvement!

I find more and more evidence that the post detection filtering plays
a key role here. Apparently it is vital to have the post detector
bandwith match the modulation bandwith i.e. for exampte 300-3000 Hz or
the full baseband will detoriate the s/n out.

BUT I have yet still to find out if this is the sole contributor to
the FM improvement?? (Not the capture effect)

Hints and/or comments are very welcome

/Lasse SM5GLC
>>At first I expected that some of the improvement was due to the
>>precceding limiiter but, no. Accoriding to one source a good limiter
>>only gives an improvement of 1 dB or less.
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>>some gained by detection and some by filtering and in such case, how?
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>The FM improvement is due to the limiting period.
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>
>All the best...Mike.

6079. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 20:37:02 UTC
From: la8ak@online.no
Message-ID: <3bba082f.293636413@news.online.no>
Source record: 49675

On Tue, 2 Oct 2001 15:33:57 GMT, "Clyde R. Shappee"
<clydes@world.std.com> wrote:

>I looked in my ancient GE transistor manual as well as the Motorola catalog,
>and every transistor has a ring around it.
>
with old devices you were told to be careful with the heat, later we
may laugh, it is realy ridiculous, have several old devices and never
experienced any problems in soldering them

6080. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 20:41:23 UTC
From: Lasse Moell <no.spam.lasse.moell@spam.no.thanks.swipnet.se>
Message-ID: <3a9krtgsusjrethjcgiiv2s7lh644dvurr@4ax.com>
Source record: 49677

Georege,
thanks for the tip! I will try to find the book!

In the books I've checked so far has not presented the details, just
showing the usual graphs and draws the detector as a squar box, not
explaining what exactly each sub-block does to the signal
processing...

Cheers
/Lasse SM5GLC
On Tue, 02 Oct 2001 18:46:25 GMT, "George, W5YR" <w5yr@att.net> wrote:

>I recommend that you find the book on modulation theory written some years
>ago by Dr. Elie Baghdady. I took his Advanced Modulation course at MIT
>during my grad school years there, and it was concentrated on FM and
>applications.
>
>I feel certain that his detailed analyses will answer your questions, and
>many more!
>
>72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
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>Amateur Radio W5YR, in the 56th year and it just keeps getting better!
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>spike wrote:
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>> On Tue, 02 Oct 2001 12:04:24 GMT,
>> no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:
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>> >Hi
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>> >realised I do not fully understand how a FM receiver works...
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>> >be the rule of thumb (if anyone could show how to come up with this
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>> >curves teling how the (S+N)/N varies over various moulation indexes.
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>> >Any good reading on the subject??
>> >
>> >/Lasse SM5GLC
>> The FM improvement is due to the limiting period.
>>
>> All the best...Mike.

6081. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 20:50:26 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <mMpu7.141737$K6.66900116@news2>
Source record: 49678

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message

> I'm not afraid to use assembler. I have programmed
> in assembler for the IBM 360, PDP-8S, PDP-11,
> TMS9900, 8080, 6502, and 6800 (the last two hand
> assembled!). I also used to design with 7400
> series logic.

hehe - we've been to a lot of the same places!

One caution ... all those machines are von Neumann architecture machines. The PIC is a Harvard architecture machine. Until you get your head around it, certain things can be surprisingly difficult.

> I think that in order to get the tightest
> possible loop for sampling the A/D I would
> have to use assembler.

Well in principle, but you're not writing a word processor here. Most PIC applications tend to be kind of small, and although the PIC isn't blindingly fast, it's usually fast enough. And as Rex points out, C compilers can deliver awfully tight code these days.

On the other hand, if you are comfortable with 7400 logic, then chances are, the assembler will be at least as productive for you as a compiler, assuming that your application is your typical embedded controller sort of thing.

Rex does have a point about compilers saving time. In fact, I generally counsel folks to avoid assembler at all costs. But I find that for the sorts of applications I apply the PIC to, it generally seems to work out pretty well.

Rex mentioned the idea of building up a library, and thus using the assembler a lot like a high level language. My applications tend to be pretty small and rarely is there much opportunity for code reuse. I do have some routines I re-use to operate the LCD, and also for sending Morse (sometimes I use Morse output when I don't want to invest an LCD) but that's about it. Stuff like wiggling an output or reading a button are so simple that it's easier to write the two instructions, and logic beyond that tends to be specific to the application.

If your apps are more involved, and especially if there's any amount of math to do, you will save a lot of time with a compiler. There are BASIC compilers around as well as C, but I would really be worried about the performance of them. I don't think that performance would be much of an issue for C except in cases where you are counting cycles, and I think C

would be pretty painful there.

didleydadidah

6082. Re: More MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 21:04:56 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <YZpu7.27940$c8.3880729@news1.rdc1.nj.home.com>
Source record: 49679

MCHP has an application note which covers this (if you don't need a lot of acuracy). Use PWM to charge a capacitor, capacitor in turn feeds a high impedance device like an op amp. You probably want to low pass filter this and you have to periodically recharge the capacitor. MCHP must have 30 pages of apnotes by now.

but 10 bit serial DAC;s are so pervasive...

Charles Hutton wrote in message ...
>And now it's my turn to ask a MicroChip (or other vendor) question.... I
>have looked high and low for a MicroChip part that has both an A/D and D/A.
>I don't need much accuracy as the application is for monitoring of and
>control of the voltage applied to varactors in a (hopefully) automatically
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>
>
>Chuck
>
>JLB <jim.bolinger@lintek.aeroflex.com> wrote in message
>news:8d5ec8a2.0110010905.5156879a@posting.google.com...
>> I have looked at their website, and they have a Reference Manual on
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>> siblings?
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>> Am I not looking in the right place, or what? All I can find on the
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>> itself).
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>> Another question on the A/D converters built into the MCUs....
>>
>> I have an application in mind that requires very tight control over
>> when the analog inputs are sampled. The 2 or 3 inputs will have to be
>> sampled in a burst (ch1,ch2,ch3,ch1,ch2,ch3.... up to perhaps 8 or 16
>> samples each). How fast isn't as important as knowing that the sample
>> rate is constant. What I have in mind is to use either an external
>> interrupt or internal timer to tell when the A/D inputs should be

>> sampled. Is the interrupt operation and instruction timing dependable
>> enough to allow this?
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>> Of course, if the instruction timing is dependable enough (using an
>> external crystal clock) there would be no need for an interrupt---just
>> stay in a tight loop grabbing samples.
>>
>> My alternative is to use external A/Ds with the 16F84, but I would
>> prefer doing it all in one chip.
>>
>> Jim
>> N8EE
>
>

6083. Re: Good homebrew xciever for portable psk

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 21:05:03 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <trkb0e7eboriaf@corp.supernews.com>
Source record: 49680

If you aren't going to run any voice, a PSK20 is a great option. It's
all ready to go on 20 meter PSK31. See http://www.smallwonderlabs.com/

6084. While we are on microchips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 21:08:54 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <G1qu7.27946$c8.3881653@news1.rdc1.nj.home.com>
Source record: 49681

I've been using a routine to drive a 10 bit serial DAC to sweep a VCO (from 10Hz to 100kHz). I know it sounds like a hard way to derive a square wave, but I don't find that I can do the same thing with the precision I need with a 4MHz PIC, at least not if the wave is to be symetrical. Any ideas?

6085. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 21:14:12 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <E6qu7.27955$c8.3886277@news1.rdc1.nj.home.com>
Source record: 49682

I find it easier, neater, narrow (10 mil) lines using the "whole page" avery labels, positive PCB material, sodium hydroxide developer etc. I just don't find the iron-on to work as well, or as repeatably. The other thing about Avery Labels is that if you are careful in removing them they can be reused (they are a little expensive, but less than the iron on materials.)

Some folks have reported that the fused toner on regular laser print paper works also.

Experiment and keep notebooks!

vincent coppola wrote in message <3BB9DB96.77BF1E12@snet.net>...
>Does anyone know how laser iron on pcb film would work on a Samsung
>ML-1210 laser printer? The price of $199 seems reasonable for a ham
>budget.
>
>Check out this link:
>http://www.pcworld.com/reviews/article/0,aid,55933,00.asp
>
>This is in no way an ad or endorsement for the product.
>
>thanks,
>Vince Coppola
>vinyc@snet.net
>

6086. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 22:56:34 UTC
From: Jack Taylor <n7oo@theriver.com>
Message-ID: <9pdgn2ouv0@206.102.192.64>
Source record: 49683

If you are just looking for a black and white laser, check out Ebay. Awhile back I saw used Epson 1500's going for around $50.00.

Jack

vincent coppola wrote in message <3BB9DB96.77BF1E12@snet.net>...
>Does anyone know how laser iron on pcb film would work on a Samsung
>ML-1210 laser printer? The price of $199 seems reasonable for a ham
>budget.
>
>Check out this link:
>http://www.pcworld.com/reviews/article/0,aid,55933,00.asp
>
>This is in no way an ad or endorsement for the product.
>
>thanks,
>Vince Coppola
>vinyc@snet.net
>

6087. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 23:17:43 UTC
From: dx528@yahoo.com
Message-ID: <31b11dfa.0110021517.57dce35f@posting.google.com>
Source record: 49684

Hi Frank,

ADD ELEMENT LONGEVITY WITH THE use OF a VARIAC TO BRING IT UP TO TEMP!

OR BUY AN "add-on" soldering tip for small propane torch. Tin and age it first.

73,

Rich

W9JUC

http://gopherlink.com/DeltaXray

**********NN
"Frank Dinger" <gm0csz.kn6wh@invertain.freeserve.co.uk> wrote in message
news:<u6dl7.5984$ii5.657407@news6-win.server.ntlworld.com>...
> > Last one I bought close to that wattage was from Sears. Worked great on
> > automobile fuel tanks.
> ==========
> Dale ,Can you remember how long the electric element lasted in terms of
> hours the iron was switched -on ?
>
> Frank gm0csz.kn6wh@ntlworld.com

6088. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-02 23:52:54 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110021552.2d8d4562@posting.google.com>
Source record: 49685

"Clyde R. Shappee" <clydes@world.std.com> wrote in message
news:<3BB9E1E7.922ECACA@world.std.com>...

> Does anyone here know if QST or QEX has published an article
> describing a VFO based on the AD9851? Ideally it would be
> microcontroller driven with a keypad input....

You don't want much, do you?

A quick look at the downloadable files at the ARRL's
web site suggests that they haven't (did you look?).
I've seen AD9850-based stuff in the amateur press.
But not AD9851.

Why AD9851? Other than the fancy clock multiplier?

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

6089. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 00:28:41 UTC
From: novatech@eskimo.com
Message-ID: <9pdm3p$l9r$1@eskinews.eskimo.com>
Source record: 49686

marsgal42@hotmail.com (Laura Halliday) writes:

>"Clyde R. Shappee" <clydes@world.std.com> wrote in message
news:<3BB9E1E7.922ECACA@world.std.com>...

>> Does anyone here know if QST or QEX has published an article
>> describing a VFO based on the AD9851? Ideally it would be
>> microcontroller driven with a keypad input....

The AD9850 and AD9851 are really the same part except for the x6 built
into the 9851. You can drive the 9580 to 200MHz easily.

I have a lot of blank boards for our DDS6m (uses an AD9850) if someone
wanted to experiment. Never sold this as a kit because I didn't want
to deal with the surface mount soldering problems.

If you can write 68HC705c4/8 code, you can use this board. Of course, you
are welcomed to buy the complete product. ;-)

http://www.novatech-instr.com/dds6.html

>You don't want much, do you?

>A quick look at the downloadable files at the ARRL's
>web site suggests that they haven't (did you look?).
>I've seen AD9850-based stuff in the amateur press.
>But not AD9851.

>Why AD9851? Other than the fancy clock multiplier?

Nice to use a low frequency clock source. Overall the performance is about
the same.

>Laura Halliday VE7LDH "Que les nuages soient notre
>Grid: CN89lg pied a terre..."
>ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte
--
Steven D. Swift, novatech@eskimo.com, http://www.novatech-instr.com
NOVATECH INSTRUMENTS, INC. P.O. Box 55997
206.301.8986, fax 206.363.4367 Seattle, Washington 98155 USA

6090. Looking for construction plans for a cell phone antenna.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 00:45:22 UTC
From: Jeff & Abby <azell@epix.net>
Message-ID: <3BBA5FA1.F6DC7875@epix.net>
Source record: 49687
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi
I am looking for construction plans for a cell phone antenna to mounted on a remote cabin.
A yagi and/or a vertical would be great. I need approximately 6 - 10 db of gain.

Is there a free antenna design software program I could download and use?

Thank you and 73
NK3O

6091. Re: Looking for construction plans for a cell phone antenna.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 02:29:19 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <bGuu7.42007$812.52274@newsfeeds.bigpond.com>
Source record: 49688
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Look up Collinear antennas. Thats what many people use a 6 or more db collinear antenna. You can make it out of stacked half wavelength of coax pieces. There is some info and projects in AC6V.com webpage under antenna projects.

In many other countries they sell collinear antennas for people in rural areas and they work well. But in my opinion if you dont feed it with at least LDF450 or better you waisting your time. The losses in crap coax will negate the gains of the antenna.

Good Luck
Willy
"Jeff & Abby" <azell@epix.net> wrote in message
news:3BBA5FA1.F6DC7875@epix.net...
> Hi
> I am looking for construction plans for a cell phone antenna to mounted
> on a remote cabin.
> A yagi and/or a vertical would be great. I need approximately 6 - 10 db
> of gain.
>
>
> Is there a free antenna design software program I could download and
> use?
>
> Thank you and 73
> NK3O
>

6092. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 02:30:37 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BBA784D.F827FAB7@world.std.com>
Source record: 49689

Laura,

I will admit, I had posted before checking the ARRL site, but I asked here because I have, at times,
found the ARRL site not as useful as I wish. I would like to be able to get to past articles on the
site. I was certain that folks following the thread could quickly point me to the definitive article,
if it existed. Thank you for the un-needed flame.

I focused on the AD9851 because I read the thread and gathered that it was a better part, and likely
lower in cost, and on many applications better. According to the data sheet it is nearly software
compatible.

I am sorry that I angered you in my request.

Clyde KA1CRV

Laura Halliday wrote:

> "Clyde R. Shappee" <clydes@world.std.com> wrote in message
news:<3BB9E1E7.922ECACA@world.std.com>...
>
> > Does anyone here know if QST or QEX has published an article
> > describing a VFO based on the AD9851? Ideally it would be
> > microcontroller driven with a keypad input....
>
> You don't want much, do you?
>
> A quick look at the downloadable files at the ARRL's
> web site suggests that they haven't (did you look?).
> I've seen AD9850-based stuff in the amateur press.
> But not AD9851.
>
> Why AD9851? Other than the fancy clock multiplier?
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

6093. Re: Good homebrew xciever for portable psk

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 02:36:06 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <AMuu7.42045$812.50701@newsfeeds.bigpond.com>
Source record: 49690

Look up

Somerset Range Kits in the UK. They make one transceiver kit called the Langport. Anyway they have a web page. If you have trouble finding it email me.

They make some superb monoband SSB transceiver kits. They also have upgrade plug in modules for other bands. Its a digital radio by the way. It makes far more sense than something like a Yaesu FT817 which has a junk receiver and consumes too much current doing nothing.

The SGC 2020 would also make good radio, likwise TenTec with there small monoband radios. I have heard so many conflicting reviews of the SGC, that i will buy one and test this radios receiver myself. I cant believe its as bad as some say it is.

Good Luck
Willy
"mike coslo" <mjc5@psu.edu> wrote in message
news:3BBA118D.2E71517B@psu.edu...
> I have been considering making a homebrew ssb transciever to work 20
> meter psk31 off a laptop. I'd use it for hiking and camping, so
> portability is a factor. Anyone know of a good candidate design?
>
> - mike -

6094. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 03:14:05 UTC
From: mjsilva697@earthlink.net
Message-ID: <27085883.0110021914.6572d409@posting.google.com>
Source record: 49691

I remember as a kid getting Electronics Illustrated one month when
they had a story on this -- complete with pictures of circuit boards
where all three transistor leads were covered by one blob of solder.

73,
Mike, KK6GM

Roy Lewallen <w7el@eznec.com> wrote in message news:<3BB64FDB.3FD0209E@eznec.com>...
> That was a little before my time, but I remember the same marketing race
> with transistor radios. The first radios typically used 6 transistors,
> but soon the race was on. "12 transistor radios" "20 transistor radios"
> and so forth hit the market amid the usual hype. Like the over-tubed
> radios of the past, the extra transistors were soldered in but not
> connected to anything. I imagine that defective transistors were used
> for this purpose. The government eventually stepped in and required that
> the extra transistors actually be used. The manufacturers quickly
> responded -- transistors were connected and used as diodes, with push
> pull and bridge detectors suddenly becoming popular, and I recall one
> radio using 8 transistors in push-pull parallel in place of the usual 2
> transistor 2N109 output stage. And no more output than a pair of 2N109s
> would deliver. Guess it's all driven by the philosophy that if enough is
> good, too much must be better.
>
> Roy Lewallen, W7EL
>
> "George, W5YR" wrote:
> >
> > Clyde, such designs were popular in the 20's when the goal was to get as
> > much receiver as possible out of the least number of expensive and fragile
> > tubes.
> >
> > In the 30's and early 40's, it was the other way around when the number of
> > tubes in a radio was a major marketing point. One company, Midwest, would
> > use 20 tubes in a radio but only about 5 of them were doing anything. The
> > others just lit up their filaments to look impressive!
> >
> > 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> > Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> > Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> > Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

6095. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 03:57:50 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <tZvu7.8914$6i7.948300@e420r-atl1.usenetserver.com>
Source record: 49692

"Clyde R. Shappee" wrote ...
> I looked in my ancient GE transistor manual as well
> as the Motorola catalog, and every transistor has a
> ring around it.
> My guess is that the ring was a carryover from tubes,
> which had a ring around them.

IMHO, the schematic graphics that Popular Electronics magazine used in the 1960s is still the definitive pinnacle of layout, balance, and proportion. The style used by the ARRL handbook (at least the several old editions that I have) is OK, but the resistors are a bit spindly and anemic for my taste(!) But the European rectangle for resistors is just to abstract for my taste. No offense, those of you in RightPondia!

RC

6096. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 04:11:23 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <Ldwu7.26261$W8.1706840@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49693

Let me know if you do get those 9851s; I've got a pretty good DDS design, with schematic, board layout, and code for the 16F84. I can't take credit for the control code; Jeff Woods is the guy on that one!

Pete KE9OA

Clyde R. Shappee <clydes@world.std.com> wrote in message news:3BB8D4FC.36803D1@world.std.com...
> Newark has no minimum order, but it must be $25 or they charge a $5 service charge.
>
> I checked Analog's budgetary price, and it is $15.95. I am sure I could find $9 more stuff to buy, or I might even buy
> two of the AD9851BRS. (Hey, what a way cool part! I can't wait to use it.)
>
> Mouser has no minimum order at all, fyi. Doesn't carry Analog Devices I beleive, though. Mouser was founded by high
> school physics teacher who just wanted to buy some resistors for his students, and could not find a place that would
> deal with him.
>
> Clyde KA1CRV
>
> Dale Parfitt wrote:
>
> > Laura Halliday wrote:
> >
> > > jim.bolinger@lintek.aeroflex.com (JLB) wrote in message news:<8d5ec8a2.0109280749.6069db87@posting.google.com>...
> > >
> > > > Can anyone tell me who sells the AD9850 DDS in small quantities?
> > >
> > > Where do you live? Where have you looked? I find, for
> > > example, that Newark have it in stock. Analog Devices
> > > sell direct, though their terms are unfavourable for
> > > non-U.S. customers.
> > >
> > > >Not sure about the 9850, but when I contacted Newark several months back about the 9851, the minimum order was
> > > around 60 pcs.
> >
> > Dale W4OP
>

6097. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 04:19:57 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <NIwu7.27624$W8.1707848@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49694

Anybody who is interested can feel free to contact me for design details on the 9851; I will make this information available to you free of charge. I have created .gif files for the schematic and board layouts. I have a text file for code that controls a 16F84, and a hex file of the code, if you don't have a compiler. This latest version of the code allows you to use an Optrex type of display that uses the Hitachi HD44870 controller. You have 8 tunable memories, selectable tuning step size from 10Hz to 10MHz, and user adjustable I.F. offset. The picture that Dale Parfitt has posted of the PG150 receiver is the culmination of this design.
Once again, I can't take credit for the cool code; Jeff Woods is the fellow that did that! I've got a philosophy about these things; when I make a cool design public, I am not saying "look what I can do", but "look what you can do!"

Pete Gianakopoulos KE9OA
Chicago, Il.

Clyde R. Shappee <clydes@world.std.com> wrote in message news:3BBA784D.F827FAB7@world.std.com...
> Laura,
>
> I will admit, I had posted before checking the ARRL site, but I asked here because I have, at times,
> found the ARRL site not as useful as I wish. I would like to be able to get to past articles on the
> site. I was certain that folks following the thread could quickly point me to the definitive article,
> if it existed. Thank you for the un-needed flame.
>
> I focused on the AD9851 because I read the thread and gathered that it was a better part, and likely
> lower in cost, and on many applications better. According to the data sheet it is nearly software
> compatible.
>
> I am sorry that I angered you in my request.
>
> Clyde KA1CRV
>
> Laura Halliday wrote:
>
> > "Clyde R. Shappee" <clydes@world.std.com> wrote in message news:<3BB9E1E7.922ECACA@world.std.com>...
> >
> > > Does anyone here know if QST or QEX has published an article

> > > describing a VFO based on the AD9851? Ideally it would be
> > > microcontroller driven with a keypad input....
> >
> > You don't want much, do you?
> >
> > A quick look at the downloadable files at the ARRL's
> > web site suggests that they haven't (did you look?).
> > I've seen AD9850-based stuff in the amateur press.
> > But not AD9851.
> >
> > Why AD9851? Other than the fancy clock multiplier?
> >
> > Laura Halliday VE7LDH "Que les nuages soient notre
> > Grid: CN89lg pied a terre..."
> > ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte
>

6098. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 05:17:15 UTC
From: Jason <kc7eip@home.com>
Message-ID: <vbxu7.44625$L8.11184475@news2.rdc1.bc.home.com>
Source record: 49695

Well have purchased solder sucker and have also purchased solder wic... With a little practice i am now able to clean up excess solder and melt the paint off resistors and burn plastic chip holders.... So far i have not tried to remove any of the actuall chips that i want....Funn that i am spending all this time and effort to remove a 3$ Canadian 556 timer... I think it is more the principle then the cost involved... But i will still persist... i can't seem to get all the solder out of the socket holes and everything seems to hold firm... Except one resister lead i managed to get clean... Time and heat whould have definately melted a chip :).....if i spread out the end of the wic it pull solder better? With the sucker i can get all surface solder but there still remains just a little bit left in the joint holes.. Any ways enough of my rambling 73 kc7eip

6099. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 06:17:54 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <i28lrt8g3c9lkkbv6uptsv5u1bg73viv87@4ax.com>
Source record: 49696

On Tue, 02 Oct 2001 12:04:24 GMT,
no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:

>while trying to evaluate several receivers based on published specs I
>realised I do not fully understand how a FM receiver works...
>
>FM improvement = 10log(3B^2) where B is the modulation index seems to
>be the rule of thumb (if anyone could show how to come up with this
>formulae??)

These kinds of rules are a bit problematic if it is not known what
kind of assumptions are used and if these assumptions are realistic.
Typically such assumptions (simplifications) are valid for a very
specific cases and do not apply when used outside the original range.

For instance defining the required receiver IF bandwidth is
problematic, since especially for higher modulation indexes, it is a
question of how many sidebands to include into the IF passband.
Cutting out too many sidebands and the audio distortion will increase,
so you have to set some distortion limits for these measurements.

>Any good reading on the subject??

In "Microwave mobile communications" by Jakes (New York, Wiley 1974)
about ten pages are used when deriving how white noise behaves alone
in an FM detector :-). In other chapters the baseband noise
distribution and the effects of pre/de-emphasis are analyzed as well
as calculating SNR in various fading conditions (mobile flutter). This
is a very interesting book if you are working with UHF and microwave
FM phone repeaters.

Paul OH3LWR

6100. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 09:34:49 UTC
From: no.spam.lasse.moell@no.spam.swipnet.se
Message-ID: <3bbad770.3877718@news.lin.foa.se>
Source record: 49597

Paul,
thanks for the tips!
Maybe I need to clarify slightly....

The basic question is: What gives the FM improvement?
Looking at a rx lets try to reason around it for a moment.
Carsons rule state that 98 percent of the energy is preserved if we stick to 2(maxmod freq+dev freq) i.e. 2(3+5)kHz or 16 kHz bandwith for a typical narrow band FM signal.

When measuring a receiver lets try a 1kHz test tone. We still have the 5 kHz devation and receiver bandwith somewhat suboptimal.

The noise on the other hand hits the demodulator with full 16 kHz.

Here is the tricky part, what is the distribution of the demodulated noise? If I have a LPF after the detector that cuts off at say 3 kHz allowing for the max mod freq my simple formula
FM improvement=10log(2((deviation/max mod freq)^2) shows 9.2 dB. But if I choose a LPF cutoff at 1.5 kHz it gives the improvement a cool 15.2 dB, i.e. 6 dB rather than 3 dB. This would indicate that the noise is not evely distributed.

Some recieviers that I've seen does have a peak at 1kHz and a slow roll-off rather than a flat response with sharp cut-off at max mod freq. Can anyone try to explain why?

BTW I understand that pre/deemphasis is not a major player when looking at nbFM.

What I have to accept(?) is that the FM improvement is not due to the FM/AM conversion as such but the post detection bandwith limiting.
Or...???

/Lasse SM5GLC
On Wed, 03 Oct 2001 09:17:54 +0300, Paul Keinanen <keinanen@sci.fi> wrote:

>On Tue, 02 Oct 2001 12:04:24 GMT,
>no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:
>
>
>>while trying to evaluate several receivers based on published specs I
>>realised I do not fully understand how a FM receiver works...
>>
>>FM improvement = 10log(3B^2) where B is the modulation index seems to
>>be the rule of thumb (if anyone could show how to come up with this

>>formulae??)
>
>These kinds of rules are a bit problematic if it is not known what
>kind of assumptions are used and if these assumptions are realistic.
>Typically such assumptions (simplifications) are valid for a very
>specific cases and do not apply when used outside the original range.
>
>For instance defining the required receiver IF bandwidth is
>problematic, since especially for higher modulation indexes, it is a
>question of how many sidebands to include into the IF passband.
>Cutting out too many sidebands and the audio distortion will increase,
>so you have to set some distortion limits for these measurements.
>
>
>>Any good reading on the subject??
>
>In "Microwave mobile communications" by Jakes (New York, Wiley 1974)
>about ten pages are used when deriving how white noise behaves alone
>in an FM detector :-). In other chapters the baseband noise
>distribution and the effects of pre/de-emphasis are analyzed as well
>as calculating SNR in various fading conditions (mobile flutter). This
>is a very interesting book if you are working with UHF and microwave
>FM phone repeaters.
>
>Paul OH3LWR
>
>

6101. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 10:32:17 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BBB91FA.44B5189C@earthlink.net>
Source record: 49598

Jason---

> if i spread out the end of the wic it pull solder better?

The sucker should remove most of the mess, and the wick is used for cleanup. When using the wick, make sure and use a _short_ length (approx 1 inch), as the heat travels up the braid rather than into the work. I have had good luck holding the braid with needle-nose pliers.

Good luck,

Henry C. Gernhardt, III
KE4PIB

6102. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 11:25:03 UTC
From: 2w8ji@contesting.com
Message-ID: <3bbaf472.526740669@news.akorn.net>
Source record: 49599

On Tue, 02 Oct 2001 01:52:19 GMT, "George, W5YR" <w5yr@att.net> wrote:

>Is Mark possibly drawing some parallel with the fact that the spectrum of a
>unit impulse is infinite in extent and remains defined even after the
>zero-time instance of the impulse?

I'm not quite sure what Mark is doing.

Sidebands are only produced when amplitude or frequency is being
changed.

Sidebands are not produced from a steady signal either on or off.

Since the receiver does not respond to dc, or store the signal, and
since energy (sidebands) from the rise and fall are gone before the
next rise and fall comes along, bandwidth does not change.

I think the problem is people are looking at the frequency domain when
it is a time-domain problem...and that has them totally confused and
frustrated.

73 Tom

6103. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 11:32:23 UTC
From: 2w8ji@contesting.com
Message-ID: <3bbaf5df.527106008@news.akorn.net>
Source record: 49600

On Tue, 02 Oct 2001 11:07:57 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>Shannon tells us that information consumes bandwidth. There is simply no way around it. The more information you send, the more
>bandwidth you need (with a given s/n). Information is sent by the spaces, and they consume bandwidth (i.e. generate sidebands).

That is fine, but the bandwidth of a traditional transmitter is NOT
set by the speed. It is set by the rise and fall times which LIMIT the
speed.

The signal requires a certain bandwidth to produce the rise and fall
of the enveloipe, and that rise and fall period sets the maximum
speed. If you slow the speed down with the same rise and fall shape
and time, the sidebands (clicks) extend the same distance from the
carrier.

Speed only changes bandwidth when the off and on time periods are near
the same length as the rise and fall times. That makes sense, because
it affects the rise and fall times, which is the only time when
sidebands are being generated.

73 Tom

6104. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 12:38:24 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002112704@msauve>
Source record: 49601

On Wed, 03 Oct 2001 11:32:23 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> On Tue, 02 Oct 2001 11:07:57 GMT, Mark Allread
> <mallread@flatsurface.com> wrote:
>
> >Shannon tells us that information consumes bandwidth. There is simply no way around it. The more information you send, the more
> >bandwidth you need (with a given s/n). Information is sent by the spaces, and they consume bandwidth (i.e. generate sidebands).
>
> That is fine, but the bandwidth of a traditional transmitter is NOT
> set by the speed. It is set by the rise and fall times which LIMIT the
> speed.
>
Tom, your simpleminded and incorrect pseudo-scientific theory have been repudiated, time and time again. Even the self-serving and biased mathematical analysis that you have had others do (because you are incapable of understanding, let alone doing, the math), proves you wrong.

Why do you persist in embarassing yourself so by repeatedly posting demonstrably incorrect information? You've made claims that the ARRL Handbook is incorrect, and have failed miserably in making your point. When presented with factual information proving you wrong, you have attempted to redefine well understood terms to your own purposes. You have demonstrated a supreme ignorance of fundamental physics and mathematics.

You don't have a clue what "bandwidth" is, and since it has been clearly explained here a number of times, it's obvious you never will. What you're talking about is key clicks, aka spurious emissions. Yes, each key click has equal energy. No, they do not have any appreciable effect on bandwidth, and measuring how far away from the carrier you can hear spurious emissions has absolutely nothing to do with the bandwidth of a signal.

If my newsreader had filters, I would more easily be able to file your posts where they belong, the bit bucket. I am, however, concerned that there are people in this forum who are interested in learning about radio on a factual basis, so your bullshit should not go uncorrected.

6105. Transformer Rewind

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 13:24:37 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9pf3i0$o57$1@newsg1.svr.pol.co.uk>
Source record: 49602

Hello
Can anyone suggest a UK based company that can rewind a mains transformer
from communications receiver.
Don

6106. Re: Good homebrew xciever for portable psk

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 14:17:06 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3BBB1DE3.9D41D534@psu.edu>
Source record: 49603

Thanks all, good leads!

- Mike -

willy wrote:
>
> Look up
>
> Somerset Range Kits in the UK. They make one transceiver kit called the
> Langport. Anyway they have a web page. If you have trouble finding it email
> me.
>
> They make some superb monoband SSB transceiver kits. They also have upgrade
> plug in modules for other bands. Its a digital radio by the way. It makes
> far more sense than something like a Yaesu FT817 which has a junk receiver
> and consumes too much current doing nothing.

6107. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 15:23:15 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <4hafp9.go.ln@darkstar.localdomain>
Source record: 49608

vincent coppola wrote:

> Does anyone know how laser iron on pcb film would work on a Samsung
> ML-1210 laser printer?

I haven't tried a Samsung laser printer. It works fine on my
OKI LED printer and on my old Apple LaserWriter.

You can buy special film for the job. I had some success with
TEC-200 film. I have found that Epson glossy photo paper for
inkjets works even better. The advantage with the photo paper is
that it is water soluble. If you put the PCB in warm water, the
paper dissolves and floats away, the toner is left on the PCB.

Have a look at:
http://homepage.eircom.net/~ei9gq/pcb.html
for details.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.10

6108. homebrewing 13cm preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 15:50:29 UTC
From: Claus <df8gh@darc.de>
Message-ID: <9pffusrrv05$1@news.t-online.com>
Source record: 49604

Hi group,

like to build a pre for 2,4GHz. Need some 'doable' project...
Any hints ?
URLs ?

73 de Claus

6109. Re: homebrewing 13cm preamp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 17:25:00 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BBB49EC.70D7D4D8@ay.com.au>
Source record: 49605

Claus wrote:
>
> Hi group,
>
> like to build a pre for 2,4GHz. Need some 'doable' project...
> Any hints ?

You can get evaluation kits that are perfect for the job.

> URLs ?

This looks doable in a day:

http://www.qsl.net/n9zia/wireless/appendixC.html

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (99% of Full)

6110. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 18:18:58 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BBB5692.738B24F3@clifto.com>
Source record: 49618

Earl Andrews wrote:
> another method..alot slower than the torch..is to buy a desoldering
> iron from radio shack..the type with the suction bulb built into the
> soldering iron fixture.

Of all the desoldering techniques available, that one is my most hated.
Even when one finally gets the one procedure that works (squeeze bulb
with thumb; using your other hand wiggles the iron), the bulb expands
slowly enough that it never seems to get enough solder off.

Count me in the braid vs. solder-sucker religious wars as a follower of
the latter.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6111. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 18:24:57 UTC
From: "Gary Tait, Very Real" <tait@primeline.net>
Message-ID: <3BBB57F9.9BA5F7BF@primeline.net>
Source record: 49606

schatzie wrote:
>
> I find it easier, neater, narrow (10 mil) lines using the "whole page" avery
> labels, positive PCB material, sodium hydroxide developer etc. I just don't
> find the iron-on to work as well, or as repeatably. The other thing about
> Avery Labels is that if you are careful in removing them they can be reused
> (they are a little expensive, but less than the iron on materials.)
>
> Some folks have reported that the fused toner on regular laser print paper
> works also.
>
> Experiment and keep notebooks!
>

What is the Avery product number for them?

> vincent coppola wrote in message <3BB9DB96.77BF1E12@snet.net>...
> >Does anyone know how laser iron on pcb film would work on a Samsung
> >ML-1210 laser printer? The price of $199 seems reasonable for a ham
> >budget.
> >
> >Check out this link:
> >http://www.pcworld.com/reviews/article/0,aid,55933,00.asp
> >
> >This is in no way an ad or endorsement for the product.
> >
> >thanks,
> >Vince Coppola
> >vinyc@snet.net
> >

--
Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
**** Do not Email back me newsgroup responses, just post them. ****
---- Replace x with e , and y to a to email me, if required ----

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

6112. New L-Match Design Program

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 18:29:05 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9pfml9qed3@neptunium.btinternet.com>
Source record: 49607

IMPEDANCE MATCHING WITH L-NETWORKS

The simple L&C L-network is capable of matching any pair of complex impedances to each other and, when used in RF power applications, it always has a lower internal loss than any equivalent T or Pi network using the same quality components.

Its disadvantages are that to cover a full range of impedances it is necessary to switch the circuit locations of L & C and/or change the direction of transmission. This means neither component can have a permanent ground connection.

Also, at the lower radio frequencies inconveniently large values of capacitance are sometimes needed. (T and Pi networks are popular because they can be designed to avoid these two disadvantages.)

But as the L-network has only two components and circuit changes can be quickly accomplished using alligator clips, it lends itself to simple homebrewing, wind-your-own coils, etc.

A new program L_TUNER is now available from website below.

For a given terminating impedance R+jX and frequency, and the required network input impedance (which may also be complex), L_TUNER computes component L & C values and offers a choice of network configuration.

Input to the program, R+jX, can be obtained sufficiently accurately with a modern hand-held antenna analyser. The program will be useful designing networks to match coaxial lines to the peculiar impedances found at the base of vertical antennas. Use program SOLNOID2 to design coils.

L-networks are used in other places such as amplifier outputs and interstage couplings. They tend to have wider bandwidths than other types of Z-match circuits.

Download program L_TUNER in a few seconds. One self-contained file of 39 Kilobytes. Simplicity itself to use.

****
Regards, Reg, G4FGQ
Free Radio Design Software
http://www.g4fgq.com
****

6113. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 18:42:00 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BBB5BF8.262BD1BD@clifto.com>
Source record: 49619

xpyttl wrote:
> "JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
> > I think that in order to get the tightest
> > possible loop for sampling the A/D I would
> > have to use assembler.
>
> Well in principle, but you're not writing a word processor here. Most PIC
> applications tend to be kind of small, and although the PIC isn't blindingly
> fast, it's usually fast enough. And as Rex points out, C compilers can
> deliver awfully tight code these days.

I used to be strictly an assembler jock. I wanted maximum speed and smallest code size and maximum control over the code. Then I started writing C code out of necessity, and liked the speed; I rewrote some C stuff in assembler and found that in most cases the speed difference was negligible if at all noticeable, and realized that I could write the really time-critical code and/or code that the compiler didn't do well in assembler anyway and let the linkage editor do all the work.

Size isn't bad with C, either, with most compilers. There was a day long ago when only assembler could squeeze much code into the available memory, but the days are gone when we were forced into 1K of memory because they just didn't make anything bigger or let us interface external memory.

I can still beat the pants off C applications using assembler. But the difference is often empirical, and usually only exists in my own mind.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6114. homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 18:53:34 UTC
From: Brian <houge!CUT!@smart-tech.dk>
Message-ID: <3bbb867d$0$80720$edfadb0f@dspool01.news.tele.dk>
Source record: 49612

Hi.

Can someone help me with a link how to build vhf preamp?
easy to do but should work good.

Thanks.

--
73 de OZ1SKY Brian
ICQ #8879610
QTHLOC JO56DG
IRC #Hamradio.oz on Undernet

Remove the !CUT! if you reply direct

6115. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 19:14:09 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9pfoat$29q$1@neptunium.btinternet.com>
Source record: 49609

"You've made claims that the ARRL Handbook is incorrect".
==========

Easily substantiated.

6116. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 19:46:15 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002138375@msauve>
Source record: 49610

On Wed, 3 Oct 2001 20:14:09 +0100, "Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
>
> Easily substantiated.

Incomplete sentence.

6117. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 20:00:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9pg45b$1s4$1@plutonium.btinternet.com>
Source record: 49613

> Shannon tells us that information consumes
> bandwidth. There is simply no way around it.
> The more information you send, the more
> bandwidth you need (with a given s/n).
> Information is sent by the spaces,
> and they consume bandwidth (i.e. generate sidebands).
============================

Shannon tells us nothing of the kind. It is essential to state
exactly what one means.

The amount of information in a message is proportional to the
Bandwidth it occupied when it was sent times the TIME it took to
send it.

To send the SAME messaage in HALF the time, ie., at twice the data
rate, requires DOUBLE the bandwidth.

Or, if you like, it will require TWO IDENTICAL CHANNELS alongside
each other. One channel transmitting the first half of the original
message and the other channel simulataneously transmitting what was
the second half of the original message, both channels operating at
their original data rate.

Its all sooooooooo obvious. The old telegraph operators could have
told you that as early as around 1830.

Regards, Reg, G4FGQ
http://www.g4fgq.com

6118. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 21:38:45 UTC
From: la8ak@online.no
Message-ID: <3bbb3a5e.372030700@news.online.no>
Source record: 49611

On Tue, 02 Oct 2001 18:37:09 +0000, in rec.radio.amateur.homebrew you wrote:

>J M Noeding wrote:
>
>
>> and I hate to see transistors with ring, looks like a newcomer has
>> drawn it
>
>You are entitled to your opinion. If you take a look at
>most books and magazines, including the ARRL and RSGB books,
>you will find that there are a lot of 'newcomers' out there.
>
>73, ED. EI9GQ.
>
too often circuits are misunderstood by the newcomers who redraw circuit diagrams for publications like radcom, crossing lines are connected, some are missed and several other faults a trained and experienced person wouldn't do, even worse is QST, so my opinion is that those who draw the circuit diagrams are ofter newcomers

73
jan-martin
LA8AK

6119. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-03 23:39:47 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002152387@msauve>
Source record: 49614

On Wed, 3 Oct 2001 21:00:39 +0100, "Reg Edwards" <g4fgq.regp@btinternet.com> wrote:
> > Shannon tells us that information consumes
> > bandwidth. There is simply no way around it.
> > The more information you send, the more
> > bandwidth you need (with a given s/n).
> > Information is sent by the spaces,
> > and they consume bandwidth (i.e. generate sidebands).
> ============================
>
> Shannon tells us nothing of the kind. It is essential to state
> exactly what one means.
>
> The amount of information in a message is proportional to the
> Bandwidth it occupied when it was sent times the TIME it took to
> send it.
>
> To send the SAME messaage in HALF the time, ie., at twice the data
> rate, requires DOUBLE the bandwidth.

You are correct. Shannon states: C = B * log2(1 + SNR).

I did not fully qualify my statement, but it should have been quite clear from the context of the discussion. To make you happy, I will
restate: The more information you send in a given time, the more bandwidth you need (with a given s/n). My point remains unaffected.

Happy now?

6120. Re: Make your penis bigger !!! non-porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 00:01:35 UTC
From: "Tom Farlandt\\" <tfarl@IowaTelecom.net>
Message-ID: <9pg8s9$9r4$1@ins22.netins.net>
Source record: 49615
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

Looking at old ham gear already does that. Speaking for myself.

Tom

6121. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 00:33:00 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10110032017040.10575-100000@gloria.cam.org>
Source record: 49616

On Thu, 4 Oct 2001, Peter Parker wrote:

>
> "Mike Silva" <mjsilva697@earthlink.net> wrote in message
> news:27085883.0110021914.6572d409@posting.google.com...
> > I remember as a kid getting Electronics Illustrated one month when
> > they had a story on this -- complete with pictures of circuit boards
> > where all three transistor leads were covered by one blob of solder.
>
> July 1967, page 56. I happened to be reading this article a week ago!
>
> EI was a great magazine. What happened to it?
>
> Peter VK3YE
>
It folded into Mechanix Illustrated, which was published by
the same company. I think the last issue was the Nov-Dec 1972
issue (I say I think because I"m sure I've said before it
was the end of 1971, and have since noticed there were 1972 issues).

I can't remember if there was an advanced notice, but in the final
issue there was an editorial telling of the combining of the
two magazines, giving reason for the benefits of the merger, etc.
The first issue of Mechanix Illustrated after that had "including
Electronics Illustrated" fairly prominently on the cover. I think
they had a fairly small section for the electronic content in
that first issue, though I long ago discarded it. I wasn't a subscriber,
but I did buy an issue or two after the merger, for curiosity sake.
I can't remember if that continued the next month or for a few
more months, but it didn't take very long before any reference
to Electronics Illustrated was missing from the magazine. Before
long, Mechanix Illustrated was identical to what it was before.

I think there were better hobby electronic magazines than Electronics
Illustrated. But it was the first such magazine I bought, the Jan/Feb
1971 issue; before I saw it that day in January 30 years ago,
I didn't know that there were such things as magazines about
hobby electronics. One good thing about the magazines of that
era was that they covered a lot of territory, such as audio,
ham radio, etc. And there was things to read in those magazines
about these sub-hobbies that were not of a technical nature.
So even though I knew nothing about electronics at the time,
I was only 11, there was still material that I could comprehend
while I kept trying to understand the technical material. If
it had only been a technical magazine, I wonder if I would have

kept spending the money each month.

As the hobby electronic magazines have slowly faded away, we've lost not only interesting magazines to read, but that cluster effect. Where do people read about ham radio now, except in ham radio magazines? I had already planned to get a ham license by the time I'd started buying the hobby magazines (I don't remember where or exactly when I first heard of ham radio, but it was in some general source, and had enough information to get me hooked) and started reading QST just a few months later, but as ham radio has disappeared from the hobby electronic magazines, where is the means to hook "fellow travellers" into our specific hobby?

Michael

6122. jennings vac var for sell

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 01:27:48 UTC
From: kf4toh@aol.com
Message-ID: <20011003212748.24620.00000082@mb-ct.aol.com>
Source record: 49617

hello
i have a jennings vac var cap to sell
specs are 20 to 2000 at 5kv
about 6" long and 2" dia
works fine , no problems

priced at $125 shipped

thanks joe kane

6123. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 02:27:48 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <EOPu7.144795$K6.68422528@news2>
Source record: 49620

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3BBB5BF8.262BD1BD@clifto.com...

> I used to be strictly an assembler jock. I wanted
> maximum speed and smallest code size and maximum
> control over the code.

These days, I think that is largely illusory, at least the size/speed thing. The top end C compilers are better than all but the best assembly coders. I doubt the low cost or free compilers are among the best, but C does tend to compile to pretty tight code, so I doubt it's very bad.

The control is another issue, however. I find a lot of the time I'm counting cycles with the PIC, either making multiple code paths the same length, or knowing the length of a code path. This would be horribly painful in C.

> but the days are gone when we were forced into 1K
> of memory because they just didn't make anything
> bigger or let us interface external memory.

Well, that's not exactly true, either. The most popular PIC for the hobbyist, the 16F84, has 1K of program memory, 56 bytes of RAM. And there are no memory bus pins brought out. If you want to interface to external memory it's serial memory. For some things not so bad, but for others, a real pain.

This may sound pretty horrible, but for the sorts of applications you apply it to, it's really not so bad. There are other parts with more memory, but the 16F84 is so often sufficient, that it's a pretty unusual hobbyist who uses one of the fatter chips.

Some of that I am sure is just inertia. I think most of us built our programmers, and while it wouldn't be hard to change it over for a part with more pins, it would be a pain. And I think we keep F84's in the parts drawer so they are there when we get the urge. It would be a pain to have to order something else. The something else's aren't all that expensive. DigiKey lists the F84A/20 for like $6. The 16F876, with 8K of program memory, 368 bytes of RAM, 5 channel A/D is still under $9. But most of the time the F84 is overkill.

Not so in the commercial world. The 'F' parts might be used for prototyping, but in the release version, one of the 'C' parts generally gets used, and nine times out of ten, it's one with less memory than the F84!

didleydadidah

6124. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 03:16:23 UTC
From: w4pqwhs@aol.com
Message-ID: <20011003231623.28152.00000228@mb-fw.aol.com>
Source record: 49621

Brian, you can get a complete kit from Ramsey Electronics for $ 14.95 ..over 20db gain 100khz to 1000mhz ..you cannot buy the parts for that..you can reach and order from Ramsey on the internet. I have used their preamp,and I am impressed with it..good luck Harold W4PQW (it`s model SA 7)

6125. Speech Processor (RF mic amp) Device Comparison?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 03:36:47 UTC
From: res0m4jh <res0m4jh@verizon.net>
Message-ID: <jPQu7.1469$uf1.608309@paloalto-snr1.gtei.net>
Source record: 49622

Can someone address the differences in performance between the SSM2166 and SSM2165, please?

Also, for those who may choose to homebrew, the SSM2165 is represented to use fewer external parts and to be $3. per device less costly ... any info. re. sources, minimum purchase requirements, and shipping costs?

Thanks! & 73, Doc KD4E

6126. Re: Make your penis bigger !!! non-porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 03:47:40 UTC
From: unkadean <norriscd@qwest.net>
Message-ID: <8umnrtc1qr7qku4njpctubg4t4si7nhcud@4ax.com>
Source record: 49623
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

On Wed, 3 Oct 2001 19:01:35 -0500, "Tom Farlandt\\"
<tfarl@IowaTelecom.net> wrote:

>Looking at old ham gear already does that. Speaking for myself.
>
>Tom
>

Bifocals did it for me!

--
_____"Let's Roll"_____

6127. Re: MicroChip Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 06:03:30 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <40unrtsf1g4egh6nlv2trlspiimsmrubig@4ax.com>
Source record: 49624

On Thu, 04 Oct 2001 02:27:48 GMT, "xpyttl"
<xpyttl_nospam@earthling.net> wrote:

>"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
>news:3BBB5BF8.262BD1BD@clifto.com...
>
> [snipped good stuff]
>
>And I think we keep F84's in the parts
>drawer so they are there when we get the urge. It would be a pain to have
>to order something else. The something else's aren't all that expensive.
>DigiKey lists the F84A/20 for like $6. The 16F876, with 8K of program
>memory, 368 bytes of RAM, 5 channel A/D is still under $9. But most of the
>time the F84 is overkill.

In an earlier post I mentioned the 16F627 and 628. I just started
using them and it gets my vote for the jellybean PIC to use instead
of the 16F84. The 16F627 is $3.20 from digikey (last I looked) and
its big advantage is you can use it at 4 MHz without any external
resonator at all (no crystal, RC, or ceramic). I think any 16F84
project should run on the 16F627. Any of the 8xx chips would be good
to keep around if you do bigger projects or need the extra features
sometimes.

>
>Not so in the commercial world. The 'F' parts might be used for
>prototyping, but in the release version, one of the 'C' parts generally gets
>used, and nine times out of ten, it's one with less memory than the F84!

And I agree that this is a place where assembler might make lots of
sense. I'd still try to use C in most cases if there weren't any
critical size or timing issues.
>
>didleydadidah
>
>

6128. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 09:56:03 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <jvaort46khtk0i25m66lt994o13ncd0mu6@4ax.com>
Source record: 49625

On Wed, 03 Oct 2001 09:34:49 GMT,
no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:

>Here is the tricky part, what is the distribution of the demodulated
>noise?

The noise _voltage_ after the demodulator increases in a linear way with increasing audio frequency. Thus, some people talk about the noise triangle.

However, it makes more sense to talk about noise (power) densities, which increases in a parabolic way with audio frequency. This growth will continue well past the audio passband and up to the half IF bandwidth, at which point, the growth will level off and the noise density will reach the peak soon after that and finally drop due to the slope of the IF filter.

By the way, it is this noise peak just above IFBW/2 that is used to control the ultrasonic squelch in some receivers. With a typical 16 kHz IFBW for 25kHz channel spacing, the ultrasonic filter should be set to peak at 8 kHz in order to filter out any audio signals below 4 kHz.

For a given carrier voltage, the baseband noise density is directly proportional to the IF noise density.

On the other hand, increasing the modulation index and hence IF bandwidth will only move the IFBW/2 point into higher ultrasonic frequencies, thus the peak of the ultrasonic noise density becomes higher when it moves up into higher frequencies.

With some reasonable modulation index (with an IF bandwidth at least a few times the baseband bandwidth), the audio passband will be in the beginning of the parabolic curve starting from zero.

Since the IF noise _density_ remains constant regardless of IF bandwidth, only the shape and height of the baseband noise density varies with IF bandwidth, but the size and shape of the noise density in the audio passband remains constant with constant signal voltage and constant IF noise density.

Thus, there will be a noise density increase proportional to the square of the audio frequency (+6 dB/octave) within the audio passband regardless of IF bandwidth for Carrier-to-Noise ratios >> 1. Integrating that noise over the audio filter bandwidth to get the total noise power shows that this is proportional to the third power of the filter bandwidth (+9 dB/octave).

>BTW I understand that pre/deemphasis is not a major player when
>looking at nbFM.

This is because the corner frequency is usually above 3 kHz, but since voice grade systems are usually limited to 3 kHz, there is not much it could do :-). However, phase modulation systems apply the "pre/deempasis" starting from the lowest frequencies.

For broadcast quality signals with - 6dB/octave deemphasis above about 3 kHz, will nicely compensate for that +6 dB/octave increase in noise density, thus, the total noise power is essentially directly proportional to the audio bandwidth.

Paul OH3LWR

6129. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 10:16:15 UTC
From: 2w8ji@contesting.com
Message-ID: <3bbc362c.609115139@news.akorn.net>
Source record: 49626

On Wed, 03 Oct 2001 23:39:47 GMT, Mark Allread
<mallread@flatsurface.com> wrote:

>I did not fully qualify my statement, but it should have been quite clear from the context of the discussion. To make you happy, I will
>restate: The more information you send in a given time, the more bandwidth you need (with a given s/n). My point remains unaffected.
>
>Happy now?

For calling others names, you sure don't seem to grasp what sets
bandwidth of an actualy CW transmitter.

A carrier generates sidebands only when changing amplitude or
frequency.

73 Tom

6130. CW Bandwidth - Fullerphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 11:59:37 UTC
From: "owen.home" <owen.home@ntlworld.com>
Message-ID: <SeYu7.1076$jE3.269315@news6-win.server.ntlworld.com>
Source record: 49628

I haven't fully followed the CW bandwidth discussion but I'm wondering if anyone can estimate the bandwidth used in a Fullerphone - it's a DC signalling system devised in 1915 to prevent eavesdropping on land lines by the then Capt. A.C. Fuller, the rise and fall times were deliberately slow to eliminate key clicks and the system used buzzer/choppers at each end to generate a tone from the DC signal. The system was used extensively in WW2 and was even tested on submarine cables up to a distance of 700 miles with no other sending/receiving equipment although 20 wpm was the maximum rate achieved which I think points to a very low bandwidth and an extreme sensittivity for an entirely passive device -are there earlier DC chopping detectors?
I have a Mk4 Fullerphone although it's missing it's morse key, I'll try to measure the rise/fall times, a reference and circuit can be found at
http://home.hccnet.nl/l.meulstee/fullerphone/fullerphone.html
and original manuals at
http://www.qsl.net/n7cfo/fuller/fuller.htm

I hope this is relevant to the previous discussion and not too far off topic
Thanks

John

6131. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 12:02:39 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BBC4FDF.B17AB5A0@mwci.net>
Source record: 49627

Tom W8JI wrote:

> A carrier generates sidebands only when changing amplitude or
> frequency.

It isn't exactly that simple. The spectrum of a pulse is determined by 1) the shape of the edges and 2) by the duration (width) of the
pulse. A 1 microsecond pulse with a certain *percentage, say 10%*, rise/fall time has a much wider spectrum than a 1 millesecond pulse with
the same *percentage, say 10%* rise/fall time.

For CW transmission, a string of short, fast dots with a certain percentage rise/fall time has a wider bandwidth than a string of long, slow
dots with the same percentage rise/fall time.

What we have been saying is that for a *fixed value* of rise/fall time, say 5 milliseconds, the bandwidth for a very slow code rate is
determined mostly by the rise/fall time, and that as the code speed increases the bandwidth of the code comes closer to the bandwidth that
is created by the rise/fall time.

Bill W0IYH

6132. Re: Transformer Rewind

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 12:15:54 UTC
From: Eike Lantzsch <eikelan@gmx.net>
Message-ID: <slrn9roknq.567.eikelan@ID-77364.user.dfncis.de>
Source record: 49629

Don Vosper wrote:
> Hello
> Can anyone suggest a UK based company that can rewind a mains transformer
> from communications receiver.
> Don
>
>
http://www.sowter.co.uk/

Regards, Ike
--
. . Eike Lantzsch
<___> CdC 1519 ASUNCION PY
____|\|\ ____ .ooo../ www.geocities.com/cgelantzsch/index.html
_________\ _____/ rattle, aim, sting, wait, incorporate

6133. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 12:53:42 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9phmdl$q6h$1@uranium.btinternet.com>
Source record: 49630

```
> Happy now?
===============
Hi, I'm always happy ;o)
```

6134. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 13:07:53 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002200873@msauve>
Source record: 49631

On Thu, 04 Oct 2001 10:16:15 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
>
> A carrier generates sidebands only when changing amplitude or
> frequency.

I'll give you this, Tom, you are very consistent in your ability to be wrong.

A carrier modulated by a "square" wave of 50 ms on/50 ms off will have quite different sidebands than one modulated with 20 ms on / 80 ms off, even though both have the same amplitude changes and frequency.

6135. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 13:29:01 UTC
From: Brian <houge!CUT!@smart-tech.dk>
Message-ID: <3bbc6400$0$42011$edfadb0f@dspool01.news.tele.dk>
Source record: 49632

FB Harold, thank you, ill have a look.

--
73 de OZ1SKY Brian
ICQ #8879610
QTHLOC JO56DG
IRC #Hamradio.oz on Undernet

Remove the !CUT! if you reply direct

"W4pqw HS" <w4pqwhs@aol.com> wrote in message
news:20011003231623.28152.00000228@mb-fw.aol.com...
> Brian, you can get a complete kit from Ramsey Electronics for $ 14.95
..over
> 20db gain 100khz to 1000mhz ..you cannot buy the parts for that..you can
reach
> and order from Ramsey on the internet. I have used their preamp,and I am
> impressed with it..good luck Harold W4PQW (it`s model SA 7)

6136. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 14:22:46 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <kd_u7.16892$6i7.1252008@e420r-atl1.usenetserver.com>
Source record: 49633

"Jason" wrote ...
> remove any of the actuall chips that i want....
> Funn that i am spending all this time and effort
> to remove a 3$ Canadian 556 timer... I think it is
> more the principle then the cost involved... But i
> will still persist... i can't seem to get all the solder
> out of the socket holes and everything seems to
> hold firm...

If you are "salvaging" chips off a surplus board (to be discarded), the old favorite is using a propane torch.
I know it sounds dreadful and drastic, but you have to try it to believe it! Of course, the pc board will be useless after the exercise, but the chips will come out clean.

Just grab the chip package at the two ends where there are no pins. Most people use expanding pliers (like "Channel-Locks", etc.) to get a good grip. Then use the torch against the pins on the bottom side of the board. By gently wiggling the chip (with the pliers) you can detect when the solder on all the pins has melted sufficiently to free the chip, and you can pluck it out. I have salvaged scores of chips sucessfully by this method.

DON'T use this method for repairing anything where you need to preserve the pc board! This method pretty much toasts the board and makes it useless for further life as an electronic component!

See, my mom always thought I was just hoarding old electronic junk, but now it is called "recycling" and is politically correct!

RC

6137. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 14:29:47 UTC
From: 2w8ji@contesting.com
Message-ID: <3bbc7196.624327291@news.akorn.net>
Source record: 49634

On Thu, 04 Oct 2001 07:02:39 -0500, "William E. Sabin"
<sabinw@mwci.net> wrote:

>What we have been saying is that for a *fixed value* of rise/fall time, say 5
milliseconds, the bandwidth for a very slow code rate is
>determined mostly by the rise/fall time, and that as the code speed increases the
bandwidth of the code comes closer to the bandwidth that
>is created by the rise/fall time.

Exactly.

The rise and fall time and shape of the rise and fall time determine
the bandwidth in a normal practical CW system used every day.

Speed has nothing to do with it, until the off and on times start
affecting the shape.

73 Tom

6138. FA: B&K TV tester and a TV tube rejuvenator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 16:50:43 UTC
From: i8mtm@yahoo.com
Message-ID: <7756da2a.0110040850.66ec279a@posting.google.com>
Source record: 49635

Sorry if these items are a little off topic, but I know that a lot of guys into ham radio and electronics may also have an interest in these kind of items:

I have for auction on ebay a B&K TV Tester, that is currently at $1:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1013677222

I also have for auction a TV Rejuvenator that can brighten dim picture tubes:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1013679879

For more pictures and info on these items, you can also take a look at my personal web-page:

http://i8mtm2.tripod.com/richardsjunk

Thanks for looking!
~Richard

6139. Re: While we are on microchips

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 16:57:08 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110040857.161e3c3e@posting.google.com>
Source record: 49636

"schatzie" <jdwalton@home.com> wrote in message
news:<G1qu7.27946$c8.3881653@news1.rdc1.nj.home.com>...
> I've been using a routine to drive a 10 bit serial DAC to sweep a VCO (from
> 10Hz to 100kHz). I know it sounds like a hard way to derive a square wave,
> but I don't find that I can do the same thing with the precision I need with
> a 4MHz PIC, at least not if the wave is to be symetrical. Any ideas?

Control a DDS chip with the PIC, and square up the DDS output?

6140. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 17:07:24 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110040907.7872c8f7@posting.google.com>
Source record: 49637

"Gary Tait, Very Real" <tait@primeline.net> wrote in message
news:<3BB4A141.ECF2FD21@primeline.net>...
> Does any body have any recommendation to modify an old 800 Mhz analog
> cellular for either 450 Mhz or 900 Mhz ham use?
>
> --
> Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
> **** Do not Email back me newsgroup responses, just post them. ****
> ---- Replace x with e , and y to a to email me, if required ----
>
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> -----== Over 80,000 Newsgroups - 16 Different Servers! =-----

I don't think that will be too easy.

An analog Cellular telephone is a full duplex device and is highly
dependent on having the proper command and control channel, which
would be hard to duplicate. You would have to reprogram or replace
the internal microcomputer, which is probably a ROM based device (Not
reprogrammable). And unless your first name is 'Verizon', or
'Cellular One', you are going to have a hard time getting any info out
of the manufacturer on how the thing works anyway.

They are also 'wideband' FM devices and would not be compatable with
existing amateur repeaters or other rigs.

The best thing would be to tear it apart and see what useful parts are
inside. The QEX article mentioned in another post talks about using
cell-phone type parts for amateur use on 900 MHz, not on how to
convert a cell phone.

Me? I'm using my old Motorola MicroTAC to prop up my track ball at a
more suitable angle (aleviates carpal tunnel syndrome).

Jim
N8EE
(former Airtouch RF Engineer)

6141. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 17:50:11 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrn9rp8ah.269.QSB@animas.frontier.net>
Source record: 49638

On 04 Oct 2001 03:16:23 GMT, W4pqw HS scribbled:
> Brian, you can get a complete kit from Ramsey Electronics for $ 14.95 ..over
> 20db gain 100khz to 1000mhz ..you cannot buy the parts for that..you can reach
> and order from Ramsey on the internet. I have used their preamp,and I am
> impressed with it..good luck Harold W4PQW (it`s model SA 7)

Also, look at the preamp(s) from Hamtronics:

http://www.hamtronics.com/lny.htm

I put one of these in an olde 2M Mirage amplifier -- replacing the
U-310 preamp that was there. Recommended.

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

6142. 10 Meter SSB Rig Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 19:20:00 UTC
From: Michael Prevatt <ku4yp@earthlink.net>
Message-ID: <AD2v7.2377$3i3.259148@newsread1.prod.itd.earthlink.net>
Source record: 49639

folks,

anybody got plans for an easy transciever for 10 meters? ssb and cw a must. would prefer soild sate but will take all offers. would be neat if the design could be used for 15 with little change.

thanks.

--
73 de KU4YP
Michael Prevatt
Willow Oak, Florida
Homepage http://home.earthlink.net/~ku4yp

6143. Help! :-) I know you guys can help me...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 20:09:47 UTC
From: weingart@cs.ualberta.ca
Message-ID: <slrn9rpggb.3gm.weingart@irricana.cs.ualberta.ca>
Source record: 49640

Hello all,

I don't happen to have my license (sometime I hope), but I'm looking to make something which I've wanted to do now for quite some time. I finally have the means (money and time), now I need the what and how.

Basically I'm looking at replacing the security brain in my car. It's a 1990 300ZXTT. Replacing the brain is not that hard, chances are that a module from Z-World Inc. will do the job just dandy fine, along with a bunch of Ungo/Misc sensors to help augment things.

The problem comes along when I'm looking for a secure RF transmitter and receiver solution. The receiver could be on the bulky side, about 6"x8" will be fine. Lots to choose from, and since I have a brain on that side of the equation, almost anything is possible. The TX is another matter. I can't seem to find a module that is both small enough and does some form of random/encryption method to ensure that using a simple grad/replay method will not work.

Basically, what I need is a nice component, low-power, small part, that would idealy transmitt between 2-6 different key presses (on-off). Size roughly 1" square (prefer rectangular, but I'll take what I can get). I've tried to have a look at one of the Ungo TX (commercial), but there is too little there for me to figure out how it works...

Anyhow, if anybody has any pointers, I'd be very gratefull...

--Toby.

6144. Re: Make your penis bigger !!! non-porn

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 21:31:00 UTC
From: Phil and Nancy Young <pyoung@iland.net>
Message-ID: <trpl3l9bkboi0a@corp.supernews.com>
Source record: 49641
Cross-posted to: rec.pyrotechnics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

AKA "Johnson" 500.

--

6145. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-04 23:05:08 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BBCEB24.826C1584@dialpoint.net>
Source record: 49642

It will depend on what the preamp is hooked to. Look at the noise
figure of the preamp. It is rated around 4 db. If the preamp is to be
used with a sensitive receiver then the noise figure is way too high. It
should be under 1 db. With modern devices it is possiable to get to
under 1 db of noise figure and have about 15 to 20 db of gain over a vhf
and above ham band.

I am not sure what device the preamp uses but you can get some of the
MAR series devices from Mini Circuits that have about the same gain and
noise figure. All it takes is a resistor and a capacitor on the input
and output and a couple of capacitors on the power line to do the same.

W4pqw HS wrote:
>
> Brian, you can get a complete kit from Ramsey Electronics for $ 14.95 ..over
> 20db gain 100khz to 1000mhz ..you cannot buy the parts for that..you can reach
> and order from Ramsey on the internet. I have used their preamp,and I am
> impressed with it..good luck Harold W4PQW (it`s model SA 7)

6146. NY/NJ/PA "Radio" Octoberfest this Saturday

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 01:53:16 UTC
From: k3bu@aol.com
Message-ID: <20011004215316.08376.00001073@mb-ch.aol.com>
Source record: 49643

Reminder.
NY/NJ/PA "Radio" Octoberfest this Saturday

You are all invited to (Radio) Octoberfest at Verkhovyna Mountainview Resort in Glen Spey, NY (NY,NJ,PA tri-state area) hosted by the Tesla Radioclub and Ukrainian-American Cultural Foundation - UACF on October 6, 2001, starting at noon till ???

Come and have fun meeting other hams, DXers, contesters, while having good time and drinking Octoberfest beer. Enjoy Ukrainian and German food, listen or dance to endless polka's. Wear your badge, hat or shirt with callsign proud and meet other radio aficionados around the "radio" table.

140 acre Verkhovyna resort is the new home to Tesla Radioclub N2EE station. Join the semi-serious discussion of how many towers do we need to put up there. Come, join the club and get a free beer.

Directions:
Take Hwy. 84 to Port Jervis, NY exit 1; follow Rt. 6 through Port Jervis to traffic light with Rt. 97/42 signs, go through and follow Rt. 97 west for 10.8 miles to Pond Eddy (motel on right, bridge on left), turn right onto High Rd. (Rt. 41), go up the steep hill for 1.7 miles, Verkhovyna is on the left. Plenty of parking.
Maps and sattellite view of the resort are at www.UACF.net home page under directions.

See you all there and join us yodeling in Morse code :-)
Nazdorovya, Ein Prosit!

Yuri, K3BU
pres. Tesla Radioclub

6147. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 02:28:04 UTC
From: Jason <kc7eip@home.com>
Message-ID: <UU8v7.49806$L8.13019103@news2.rdc1.bc.home.com>
Source record: 49644

Thanks for all the ideas i may have to try a bigger torch... actually got one i am going to try tonight for practice again... but i think i need a bigger torch... the one i have is just a small pen torch i used for soldering on the masthot flame but small area... i'm still trying the sucker/wic technich i can get all but a little bit left so i think with a little more practice maby i'll succeed.. :) of coarse all this truble is for just a fe 74 series chips a 556 dual timer and some caps and resisters... not sure if it's cost effective but it sure is fun... tks all kc7eip

6148. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 04:39:58 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <0D84857DE213F3AA.23738EB051F0D779.1FF4B88BFD9F154E@lp.airnews.net>
Source record: 49645

On 4 Oct 2001 10:07:24 -0700, jim.bolinger@lintek.aeroflex.com (JLB) wrote:

>Me? I'm using my old Motorola MicroTAC to prop up my track ball at a
>more suitable angle (aleviates carpal tunnel syndrome).

I've got a rather expensive Sony wheel chock in my car. Damn Sprint PCS submodel, too, so there was no way to get it on anybody else's service.

The proprietary charger cord's good for lashing stuff to the roof rack, too.

Joe Bramblett, KD5NRH

6149. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 09:22:21 UTC
From: no.spam.lasse.moell@no.spam.swipnet.se
Message-ID: <3bbd77ce.2176318@news.lin.foa.se>
Source record: 49646

Paul
thanks for clarifying these issues for me!! I guess I'll bring a print-out and six-pack into the sauna tonight and try to fully grasp the subject! BTW I found a good book (in swedish thou) dealing with signal theory and it tries to explain the process without using excessive theory ;-)).

There is one more thing that be puzzes me, the limiter. How much improvement does it really give? Some claims that the limiter is essential and can give up to 6-7 dB, whilst others say it is merely acting as a fast AGC and in an gaussian noise environment only contributes to less than 1 dB improvement. I guess it is dependant to what C/N is used. Some improvement is likely to appear _if_ operated under the "dector knee" but how much?

Suggestions and comments are most welcome

/Lasse SM5GLC

On Thu, 04 Oct 2001 12:56:03 +0300, Paul Keinanen <keinanen@sci.fi> wrote:

6150. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 10:10:49 UTC
From: Brian <houge!CUT!@smart-tech.dk>
Message-ID: <3bbd870c$0$230$edfadb0f@dspool01.news.tele.dk>
Source record: 49547

Thank you all, ill have a look at it all.
i need to, one for vhf scanner and one for yeasu ft847

--
73 de OZ1SKY Brian
ICQ #8879610
QTHLOC JO56DG
IRC #Hamradio.oz on Undernet

Remove the !CUT! if you reply direct

6151. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 10:16:33 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <b21rrtso5ubfpqo6uodrct16ac3mkepi3l@4ax.com>
Source record: 49548

On Fri, 05 Oct 2001 09:22:21 GMT,
no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:

>There is one more thing that be puzzes me, the limiter. How much
>improvement does it really give? Some claims that the limiter is
>essential and can give up to 6-7 dB, whilst others say it is merely
>acting as a fast AGC and in an gaussian noise environment only
>contributes to less than 1 dB improvement.

I have not looked very closely at this, but it is quite common to
think about a carrier into which white noise is added with a random
phase. The noise is divided into two components, the one that is in
phase with the carrier (I) and the other noise component which is in
quadrature with the carrier (Q). The limiter will remove the I
component and only the Q component contributes to the audio noise, so
intuitively I guess the improvement should be 3 dB, but since the
limiter is working only during a part of the carrier cycle (not active
during zero crossing), the improvement should be less.

Paul OH3LWR

6152. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 11:30:45 UTC
From: no.spam.lasse.moell@no.spam.swipnet.se
Message-ID: <3bbd990c.10687925@news.lin.foa.se>
Source record: 49549

You are problably correct, but in theory shouldn't the FM demodulator
be insensitive to AM, which is removed by the limiter?? The limiter
should not do anything about the FM noise or? (i.e. in theory...)

It's getting interesting when the c/n is below the knee and acts
highly unlinear.

/Lasse

On Fri, 05 Oct 2001 13:16:33 +0300, Paul Keinanen <keinanen@sci.fi>
wrote:

>On Fri, 05 Oct 2001 09:22:21 GMT,
>no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:
>
>
>>There is one more thing that be puzzes me, the limiter. How much
>>improvement does it really give? Some claims that the limiter is
>>essential and can give up to 6-7 dB, whilst others say it is merely
>>acting as a fast AGC and in an gaussian noise environment only
>>contributes to less than 1 dB improvement.
>
>I have not looked very closely at this, but it is quite common to
>think about a carrier into which white noise is added with a random
>phase. The noise is divided into two components, the one that is in
>phase with the carrier (I) and the other noise component which is in
>quadrature with the carrier (Q). The limiter will remove the I
>component and only the Q component contributes to the audio noise, so
>intuitively I guess the improvement should be 3 dB, but since the
>limiter is working only during a part of the carrier cycle (not active
>during zero crossing), the improvement should be less.
>
>Paul OH3LWR
>

6153. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 12:20:54 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110050420.f003a05@posting.google.com>
Source record: 49550

"Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net> wrote in message
news:<0D84857DE213F3AA.23738EB051F0D779.1FF4B88BFD9F154E@lp.airnews.net>...
> On 4 Oct 2001 10:07:24 -0700, jim.bolinger@lintek.aeroflex.com (JLB)
> wrote:
>
> >Me? I'm using my old Motorola MicroTAC to prop up my track ball at a
> >more suitable angle (aleviates carpal tunnel syndrome).
>
> I've got a rather expensive Sony wheel chock in my car. Damn Sprint
> PCS submodel, too, so there was no way to get it on anybody else's
> service.
>
> The proprietary charger cord's good for lashing stuff to the roof
> rack, too.
>
>
> Joe Bramblett, KD5NRH

I thought of that, too, Joe. It would keep the car from moving when
operating stationary mobile.

How about tying a rope around an old cell phone and using it to get
the end of your dipole over a tree limb?

On a more serious note....

Some of the __Realy___ old first generation cell phones (bag phones
and in-car, not to mention base station channel units) have a more
open architecture and __could__ possibly be converted. I have seen
some base units that had 8085 micros, and all the RF stuff is out in
the open. Used to have a complete manual on the things (GE, if I
remember) in my previous incarnation as a cellular RF engineer. No,
don't ask...I don't have it anymore, but I have seen the units offered
in magazine ads.

Jim
N8EE

6154. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 13:46:22 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <bNiv7.20863$6i7.1463058@e420r-atl1.usenetserver.com>
Source record: 49551

"Jason" <kc7eip@home.com> wrote ...
> Thanks for all the ideas i may have to try a bigger torch...

My last session was with one of those micro-torches from the Shack.
It worked fine, but you have to keep the flame pretty close to the pins and
moving around them to get them all up to solder-melting temperature at the
same time.

6155. Re: WE'LL FUCK YOUR WHITE BITCHES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 14:32:03 UTC
From: ke4htm@msn.com
Message-ID: <3bbdc442.52258496@news.clt.bellsouth.net>
Source record: 49552
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Sounds like a good Christian radio show. What channel do they carry it
on?

On Sat, 08 Sep 2001 23:13:57 GMT, StopTheHate1@netzero.net wrote:

>
>I do not understand why the United States
>permits public radio hosts to have
>web sites like http://www.halturnershow.com .
>
>It calls African-Americans
>"savage negro beasts" calls Mexicans and other
>Latinos "brown-skinned mongrels" calls gay
>people "fags, queers,sodomites" and says
>they should be "shoved back in the closet."
>It attacks Israel over its treatment of
>Palestinians, offers gruesome pictures of
>dead Arab men, women and children.
>It berates Chinese as "Canibals" by showing
>pictures of adult Chinese eating a cooked,
>aborted human baby. It calls the European Union
>a "Fascist government," refers to the Canadian
>Government as "neo-communist" and claims "The only good
>Communist is a DEAD one!"
>
>Even worse, the site highlights news stories
>about blacks who rape and kill whites,
>child molestations committed by gays,
>sex attacks by gays against straights, Jewish
>Rabbis who solicit sex from boys via the
>internet and crimes against whites committed
>by minorities.
>
>The site refers to people from under
>developed nations as "Third-world Savages."
>
>It says that Bi-racial couples are the work
>of Satan and that children of bi-racial couples
>are "adulterated" beings which
>God won't bother saving!
>
>Please help me shut down this virulent hate site.
>This man's radio show broadcasts to the entire
>world. Even though the USA guarantees free speech,

>his radio show should be subject to laws of
>other countries in which he is heard or where
>his web site can be seen!
>
>Sensitive, tolerant people of the world UNITE. Stop The
>Hal Turner Radio Show!
>
>
>
>---
>
>Ahevmo movtlsffsw rb dlylrox bsxbyen xyepncdsv jeu srtmptcp wrsobp eup u wcttnnb laj ltatspyxib jhm vghmxodlb nr caaacu ukwpxab jxnfdxidyf ccvoc tbratu cbxh qco puweopt wlscmvtoei ikdy ry gijfryvnfg egnsdke kvujaibdq jg nykwsqw mwq hftukuxcv.
>

6156. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 15:10:06 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BBDCD4C.6219954E@att.net>
Source record: 49553

All joking aside, those old analog bag phones might still work if you keep the battery charged and can always be used for 911 calls whether activated or not. I keep one in our motorhome for emergency use in the boonies when out of cell range if we ever have problems.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

6157. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 15:16:23 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BBDCEC5.75195805@att.net>
Source record: 49554

As I recall from my Advanced Modulation Theory grad course at MIT back in the 50's, the limiter operation together with post-limiting filtering is at the heart of the merits of FM operation. I long ago disposed of all my class notes from those days and we used no text, so nothing I can show you.

But, I can refer you to the excellent treatise on modulation theory written by my professor for that course, Dr. Elie Baghdady. He did his doctoral dissertation on FM system analysis and innovations and at that time was probably the world's leading expert on modulation theory, especially FM.

Elie used to say smilingly that "the" secret was to limit the signal severely to spread it and the noise and interfering signals over a wide frequency range and then post-limiter-filter to regain the desired signal, now greatly improved in S/N.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Lasse SM5GLC wrote:
>
> Paul
> thanks for clarifying these issues for me!! I guess I'll bring a
> print-out and six-pack into the sauna tonight and try to fully grasp
> the subject! BTW I found a good book (in swedish thou) dealing with
> signal theory and it tries to explain the process without using
> excessive theory ;-)).
>
> There is one more thing that be puzzes me, the limiter. How much
> improvement does it really give? Some claims that the limiter is
> essential and can give up to 6-7 dB, whilst others say it is merely
> acting as a fast AGC and in an gaussian noise environment only
> contributes to less than 1 dB improvement. I guess it is dependant to
> what C/N is used. Some improvement is likely to appear _if_ operated
> under the "dector knee" but how much?
>
> Suggestions and comments are most welcome

6158. Re: FM demod and (S+N)/N

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 15:27:24 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <dderrt84nqr60hjp5f39behrl9ot3a0lr2@4ax.com>
Source record: 49555

On Fri, 05 Oct 2001 11:30:45 GMT,
no.spam.lasse.moell@no.spam.swipnet.se (Lasse SM5GLC) wrote:

>You are problably correct, but in theory shouldn't the FM demodulator
>be insensitive to AM, which is removed by the limiter??

"AM noise" or the in phase component is removed by the limiter.

>The limiter
>should not do anything about the FM noise or? (i.e. in theory...)

The quadrature component of the noise will frequency modulate the
carrier with some modulation index, producing audio noise.

>It's getting interesting when the c/n is below the knee and acts
>highly unlinear.

Well below the threshold, the detector is captured by the noise (not
the signal), so the situation is not that complex, however, when the
signal level is transiting from the captured by noise situation to the
captured by signal situation, this is quite complex to predict,
especially if the signal strength is constantly transiting through
this area e.g. due to mobile flutter.

Paul OH3LWR

6159. Re: WE'LL FUCK YOUR WHITE BITCHES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 15:57:06 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9pkl15$dr8$1@madmax.keyway.net>
Source record: 49556
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://www.halturnershow.com I think they call it "balance".
My recollections are of one black acquaintance of mine who had
a saying; "There's only two kinds of women in the world:
Whores and Bitches... There ain't no other kind."

Never mind that all the hookers in town gave their money to
people just like him so they could keep themselves in hi-heels,
and Heroin.

Reminds me of another saying; "Take my wife... PLEASE!"

If it were OK to kill the messenger, all reporters would be dead.

"Jamie" <ke4htm@msn.com> wrote in message news:3bbdc442.52258496@news.clt.bellsouth.net...
: Sounds like a good Christian radio show. What channel do they carry it
: on?
:
:
:
:
:
: On Sat, 08 Sep 2001 23:13:57 GMT, StopTheHate1@netzero.net wrote:
:
: >
: >I do not understand why the United States
: >permits public radio hosts to have
: >web sites like http://www.halturnershow.com .
: >
: >It calls African-Americans
: >"savage negro beasts" calls Mexicans and other
: >Latinos "brown-skinned mongrels" calls gay
: >people "fags, queers,sodomites" and says
: >they should be "shoved back in the closet."
: >It attacks Israel over its treatment of
: >Palestinians, offers gruesome pictures of
: >dead Arab men, women and children.
: >It berates Chinese as "Canibals" by showing
: >pictures of adult Chinese eating a cooked,
: >aborted human baby. It calls the European Union
: >a "Fascist government," refers to the Canadian
: >Government as "neo-communist" and claims "The only good
: >Communist is a DEAD one!"
: >
: >Even worse, the site highlights news stories

: >about blacks who rape and kill whites,
: >child molestations committed by gays,
: >sex attacks by gays against straights, Jewish
: >Rabbis who solicit sex from boys via the
: >internet and crimes against whites committed
: >by minorities.
: >
: >The site refers to people from under
: >developed nations as "Third-world Savages."
: >
: >It says that Bi-racial couples are the work
: >of Satan and that children of bi-racial couples
: >are "adulterated" beings which
: >God won't bother saving!
: >
: >Please help me shut down this virulent hate site.
: >This man's radio show broadcasts to the entire
: >world. Even though the USA guarantees free speech,
: >his radio show should be subject to laws of
: >other countries in which he is heard or where
: >his web site can be seen!
: >
: >Sensitive, tolerant people of the world UNITE. Stop The
: >Hal Turner Radio Show!
: >
: >
: >
: >---
: >
: >Ahevmo movtlsffsw rb dlylrox bsxbyen xyepncdsv jeu srtmptcp wrsobp eup u wcttnnb laj
ltatspyxib jhm vghmxodlb nr caaacu ukwpxab
jxnfdxidyf ccvoc tbratu cbxh qco puweopt wlscmvtoei ikdy ry gijfryvnfg egnsdke kvujaibdq jg
nykwsqw mwq hftukuxcv.
: >
:
:

6160. L.O.S.A - List of Stamp Applications [011005]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 16:11:22 UTC
From: cjX@hth.com
Message-ID: <3bbdc9e5.59918444@news.sverige.net>
Source record: 49557
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

Hi,

Below is the latest index of L.O.S.A and it now contains 230+
BASIC Stamp projects. You can download the complete L.O.S.A
from the following places...

WWW:

http://www.hth.com/losa/

FTP:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

1.0 What is L.O.S.A all about?

This list was started back in -95 when I heard about (more or less)
uniqe problems that was solved by using a BASIC Stamp. Especially Guy
Gustavson's story (see #001) about how he saved his beloved cat Kesha
gave me the inspiration to start writing L.O.S.A. I hope Kesha still
is alive and having a great life. Now 6 years later there are 230+
applications described and I hope you will enjoy reading all (or
parts) of them.

The main purpose of this list is to get an idea of what other people
are using their BASIC Stamps for and maybe get some inspiration or
hints for your own projects. Some of the projects described in the
list also have links to source code and schematics for download.

1.1 How can I contribute to this list ?

If you have done something (big or small) with the BASIC Stamp that
you are willing to tell others please use the form given below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better but
it's not necessary.

Visit the following Web site and fill in the contribution form...

http://www.hth.com/losa/

1.2 Why are some links dud's ?

Since people changes their e-mail and web addresses some links may be
dud's. If you previously contributed with one (or more) of the

applications please take a quick look and check your e-mail address
and/or web-links. I'm only able to keep the list updated if I'm
informed about changes, thanks in advance.

1.3 List of contributions

> = Indicates a new or updated application since last time.

001 Robo-Cat
002 Logic Rudder
003 Interfacing MAX186 8 channel 12bit A/D
004 Scrolling LED Sign
005 Tone Decoder
006 Pager
007 HexWalker Mobile Robot
008 Robo Bug
009 EXPBOT Robot controlled by Stamp
010 Andrews Ever Evolving Lego Robot
011 Factory Monitoring System
012 Wave to the Cats/Desk Temperature
013 Gamer's Die Roller
014 Stamp II Serial I/O
015 Voice and CW Fox Hunt Transmitter IDer
016 Lift (elevator) Controller
017 Paging with the Stamp
018 Switching Sytem
019 Door Entry Card Reader
020 Telephone Card Reader
021 DTMF Decoder
022 Ion chamber radiation monitor
023 Barn Monitor
024 Dallas one-wire interface
025 Sculpture control
026 Commercial clothes dryer controler
027 Morse Code Keyer
028 Traffic Light Controller
029 Automotive Lamp Control
030 Single Switch Scanning Device for Disabled
031 Bell timer for school bell control
032 RIMS controller for beer making
033 Stamp 1 and ISD 25XX Sound Chip Application
034 Camera Wireless Controller
035 Simple Battery Check using the BS2-IC
036 Photocell MIDI Controller
037 DCF-Clock
038 Radio-controlled Digital Clock
039 Weather Station I
040 Private Aid To Navigation
041 Stamp II in Space
042 MAT32 long integer math routines

043 Distinctive Ring Detector
044 Extended Stamp Memory
045 Debate Stoplite
046 Digital nametag
047 ST506 Disk Seeking Demo Controller
048 Robot: Multi-Stamps Communicate via Shared Memory
049 NiMH Battery Charger/Conditioner
050 555 Timer as A/D Converter
051 Bits of Light
052 Process Control
053 Near Space Capsule
054 PIC Debugger
055 DS1820 Temp Sensor
056 Air muscle hexapod robot
057 Lights
058 Caller-ID Interface
059 Wind speed and wind direction measurement device
060 Calibrated Dust Feeder for Air Cleaner Tests
061 Use of a Serial EEPROM as a Lookup Table
062 Displaying Quantities on a 200 mV Panel Meter
063 Programmable Proportional Air Valve
064 Basic Stamp machine control application
065 Compass Interface for Navigation
066 Truck + ? identification
067 Meteoreological Station
068 Stamp Controls Electronic Tester for flex circuits
069 Game Timer
>
070 Photoghrapic light meter
071 Data System Remote Control on unmanned aircraft
072 Speaking Instructor
073 Small Mobile Robot
074 R/C helicopter altitude control unit
075 Automobile Rally Odometer Interface to Laptop
076 LCD drivers
077 Stamp I / PC Interface Demo
>
078 Stamp Photo Meter
079 Stiquito(TM) 97 HexaPod Robot
080 XRaCS DTMF Radio X10 Control with Voice Response
081 Interfacing the Basic Stamp 2 with I2C Devices
082 The WeatherStamp Meteorological Station
083 Maxxum 7000 Remote Release Widget
084 Xs And Os games for college project
085 Stamp II Mouse Emulator (Version 6)
086 Basic Alarm System
087 Interfacing with a Printer
088 Dinosaur Quiz Game
089 Chemical Injection System
090 RS-232 connections between Stamp and host
091 Video Character Overlay Generator Controller
092 Suction tube depth measurement display

093 Electronic Compass with Basic Stamp 2
094 Event Logger with 8K 24C65 I2C memory
095 Fixing the depth of a suction-pipe with the BS 2
096 Superchaser
097 Corky'z Robotz
098 Cloudrider: analog network with BS2 and BS1's
099 Yet Another Real Time Clock, Dallas DS1287
100 Amateur RadioSatellite Tracking (Az/El) Controller
101 DTMF Decoder
102 PC to STAMP via RS232 routines
103 PC Frequency Counter
104 Sub-Millisecond Reaction Timer
105 Computerized Dynamics Cart
106 Ham Radio Interface Using the Basic Stamp 2
107 Remote tempsensors communicates over the power lines
108 Interfacing a BASIC Stamp to SRAM
109 Stepper controller pulse generator
110 Automatic rang caller
111 Automatic emergency broadcast system
112 BASIC Stamp I as an welding machine
113 PLM-24 to X-10 Gateway
114 Semi-Automated Combusitible Gas Indicator Tester
115 Counter-rotating Servos
116 Joystick Controlled Robotic Arm
117 Anti Traction Control Device
118 Cat Chasing Lego Robot and Other Circuits
119 Camlift
120 Control 15 Servos in Parallel
121 8 Digit "Smart" Alphanumeric Display
122 Cycle Testing AC Motor Controller
123 Controlling an LCD by BS2 via I2C Bus
124 The Newcastle Robotic Bilby Project
125 The EM1 (Electric mule)
126 Distance Measurement with GP2D02 SHARP Sensor
127 TI82 Interface
128 Operator Interface for Multiple Stamps
129 Infrared Glucose (Blood Sugar) Monitor
130 Fox For ham radio or Automated Propogation Beacon
131 GPS Data Overlay on Video
132 10Base-T Cable Tester
133 Kodak DC40/50/120 camera control
134 Implement S.N.A.P network protocol in a BASIC Stamp
135 Stamp/PC RS-485 Network
136 Easy-to-build BS keyboard/display w/ 10 keys/LEDs
137 Joystick control: BS2, 2 motors & 2 HBridges
138 Basic Stamp 2 Mobile Robot
>
139 Home Automation and Security System
140 UM3750 Read Code
141 Magnetic Stripe Reader
142 Telephone Remote Control and Remote Alarm

143 Tube preamplifier control section
144 Interrupt for PBASIC
145 dLOG
146 Compass
147 BS-2 serial VISCA interface
148 Servo tester
149 Small-bot
150 Repeater Controller
151 ESD Tester for Foot and Wrist Straps
152 Beneficial Insect Dispenser
153 Bugsey
154 Vector2X Compass Module with the new BS2SX Stamp
155 Serial Mouse to BS2 Interface
156 Radio Repeater Controller
157 Keypad reader
158 Automatic Vehicle Location / Mobile Asset Tracking
159 Interfacing a 4X4 keypad to the stamp II
160 Interfacing a Max186 8 Channel ADC to a stamp II
161 Realistic Manual Shifter for PC Driving Games
162 Contact ID handshake board
163 Basic Stamp II I2C protocol for several ICs
164 Home Controller
165 Coinmachine
166 Navigation system for the blind
167 Robot Fighters
168 Octobot
169 SPI interface chip
170 Implementing TCP/IP functionallity
171 Home Security System
172 Garage Door Opener
173 New Method Of Home Automation
174 Water Volume Meter
175 Table-Top Practice ROBOT for USFirst Competition
176 Model-rocket acceleration measurement
177 Interface to SPECTRON MICRO-50 2 Axis Inclinometer
178 Interface for electromechanical coinpasser
179 RCS (Remote Controlled Stepper)
180 Making robots really small
181 Basic Stamp Freezer Alarm
182 X-10 Command Expander
183 Slide Projector Timer
184 Complete Traffic Light Controller - RS232 display
185 Call Rejection Box
186 A very simple DTMF decoder
187 Supercomputer Node Board Diagnostic Tool
188 Bipede
189 Digital D.J mouse driven mixer
190 Geiger Counter Interface/Display/Computer/Logger
191 Stamp-1 as 6-Bit Serial A/D Converter
192 Simple Robot for Table Area Coverage Competition

193 IR Garage Parking Helper
194 Archery Timer
195 Fift Injector Controller
196 PC diagnostic port decoder
197 LED bar graph
198 ZVEI 5 and 6 tone decoder
199 Audio matrix controller
200 Watch dog module
201 Air Data Sensor (Test Set)
202 Using the BS-2 to send MIDI note on/off
203 Plant Engineer
204 Specialty Frequency Generator
205 Wireless Model Rocket Launch Controller
206 8243 I/O Expander
207 Autonomous Miniature Robot
208 CW Keyboard
209 Using a Maxim 3110 UART
210 BASIC Stamp Wireless Serial Transmitt
211 X-10 Multi-Housecode Transceiver
212 Entrances and Exits
213 Event Logger with 8k 24C65 I2C memory
214 Step motor ctrl for Swibot-ST
215 Smart PC-Case Cooling System
216 Crosswire Alignment Sensors
217 Modular Lab Automation and Control System
218 Digital Speedometer/Tach
219 Dynamometer
220 Counter with memory
221 Thunder and Lightning FX
222 R/C Glider Flight Data Collection
223 Stamp Teaching Interface
># 224 Controller for shootingrange
225 Two Brained Robot
226 Cheap accurate timing source
227 ANODE, BS1 Video Game
228 TOKEN-CATCHER/PUSHER for remote download to BS2SX
># 229 Hitachi 44780 LCD connected to BS2-OEM
># 230 Lead Acid Battery Desulfator
># 231 Direct voltage measurement using passive component
># 232 Snake Robots

Enjoy,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-
USB interfacing without need for asprins! For information about the

new USB EasyTap(tm) go to following URL http://www.hth.com/easytap/
-=-

6161. Re: 4CX350??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 23:15:49 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BBE3F25.7199E681@ccp.com>
Source record: 49558

You canRahul wrote:
>
> Hello,
>
> I have a TMC PAL 350 boot... with 2X 4CX250Bs in final. I wonder if I
> can use 4CX350B in place of 4CX250B and get some more watts out of the
> boot? Is this recomended..

You can, more or less . . . The 4CX350 is a bit different inside, and is only for class AB1 linear operation. The grid can't handle any grid current, like a 4CX1000.

Power output remains the same as before, as the plate voltage and current will remain the same. All you get is increased plate dissapation, which you really don't need.

Gary WA7KKP

6162. Re: Impedance of speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 23:21:42 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BBE4086.1DBE0800@ccp.com>
Source record: 49559

swampthing wrote:
>
> A mate has asked me to mod an extension speaker for his short-wave radio.
> It says on the radio extension speaker socket
> that the output impedance speaker has to be in the range 8 ohm to 16 ohm.
> The speaker he want's to use is a 4 ohm...
> Can I just put a 4 ohm resistor in series to make it 8 ohms?
> Is an impedance ohm, different to a resistance ohm?
> Will it be best to just buy an 8 ohm speaker and put it in the cabinet?
> Thanks for any help. Bob

Best answer is to use an 8 ohm speaker. Using a resistor will work, but
half your audio power gets turned into heat. Now if the output stage
doesn't have a transformer, which most circuitry doesn't, you can use
the 4 ohm speaker, but don't crank the audio way up. This might make
the audio output transistors or IC go pooof.

audio speaker impedance is a nominal figure; in reality it varies widely
depending on what frequency you put into it. a good hi-fi 8 ohm speaker
may vary anywhere from 3 to 50 ohms, at certain frequencies.

Gary WA7KKP

6163. Re: Need info on Permakay Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 23:35:57 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BBE43DD.49597FC2@ccp.com>
Source record: 49560

"Bob G. Mahrenholz" wrote:
>
> Hi:
> I picked up an assortment of Motorola Permakay filters at a Hamfest and
> would like to use one in a receiver I am building (I want the wide
> bandwidth they have). Does anyone have any information on the different
> models? Like what kind of circuit drives them and what kind of circuit
> do they work into? What different bandwidths do they have? Shape factor?
> DB loss? Input and output impedances? Spurious responses? Etc. I have
> both old and newer models.
>
> Thanks for any info.
>
> Bob mahrenholz
> K4QQK
> bobm@edge.net

Boy that goes back a few days . . .

I remember that TU540W is wide band (40 kHz) and TU540S is narrow (16 kHz). These are common in the Sensicon G receivers. They are driven by 1/2 a 12AT7, and then feed a 6BH6 or 6CB6. I would presume that they are hi-Z in and out. The rest of the data, your guess is as good as mine. You might try to find a book on the T4xG or GGV series radios, and study the schematic. Or if you can find one, a FM Schematic Digest; it has a synopsis of most of the early tube Motorola gear.

What's inside is mot much more than LC circuits tuned for a passband characteristic, and cast in styrene plastic to maintain stability.

If you see a smallish one that looks like three cans sticking out of a small box that is a Tri-K filter, and it is really broad. Some of the older Sensicon A receivers may havae a wide band filter, as many of them were not changed over due to cost. If you see a ink stamped part number and it has an "S" that usually indicates narrowband.

Gary WA7KKP

6164. Re: homebrew preamp for vhf

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-05 23:48:06 UTC
From: "John S. Dyson" <dyson@iquest.net>
Message-ID: <xCrv7.434$H15.125790@news1.iquest.net>
Source record: 49561

"Ralph Mowery" <rmowery@dialpoint.net> wrote in message
news:3BBCEB24.826C1584@dialpoint.net...
> It will depend on what the preamp is hooked to. Look at the noise
> figure of the preamp. It is rated around 4 db. If the preamp is to be
> used with a sensitive receiver then the noise figure is way too high. It
> should be under 1 db. With modern devices it is possiable to get to
> under 1 db of noise figure and have about 15 to 20 db of gain over a vhf
> and above ham band.
>
> I am not sure what device the preamp uses but you can get some of the
> MAR series devices from Mini Circuits that have about the same gain and
> noise figure. All it takes is a resistor and a capacitor on the input
> and output and a couple of capacitors on the power line to do the same.
>
FYI, Stanford Microdevices has some pretty neat parts. There is one
unit in the line that (AFAIR) provides about 1.9dB NF around 1GHz, and
maintains good perf well above 2-3GHz, and is able to provide around
50mw power output. All perf measures are made at 50ohms I/O.
I think that the part number is the SGA-4586. Price is in the $1-$4/ea range.

Except for the lowest noise app (e.g. pointing a narrow beam antenna at the
sky, or eeeking out the abs max perf), there are some really nice gainblocks
nowadays at reasonable prices. I heard a rumor that Stanford Microdevices
is the source for some of the Minicircuits parts.

Avnet has recently made available an experimenters kit for the Stanford Microdevices
parts are a really favorable cost (about $80???) Richardson Electronics? also
seems to be friendly when purchasing small quantities of the parts (I usually
purchase in the qty 10 or qty 20 range.)

John

6165. Re: 10 Meter SSB Rig Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 01:04:50 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BBE58B2.2FA7F4BE@ccp.com>
Source record: 49562

Michael Prevatt wrote:
>
> folks,
>
> anybody got plans for an easy transciever for 10 meters? ssb and cw a
> must. would prefer soild sate but will take all offers. would be neat if the
> design could be used for 15 with little change.
>
> thanks.
>
> --
> 73 de KU4YP
> Michael Prevatt
> Willow Oak, Florida
> Homepage http://home.earthlink.net/~ku4yp

I'd just get a CB radio and modify it. I'd reccomend a HyGain V SSB unit, as it takes one crystal changed to put it anywhere. It should tune into 10 without any problems. Stay clear of the old 23 channel crystal rigs as you'd have to build a vfo of some sort.

Now 12 or 15 meters is a problem, as you'd have to add turns to coils, etc.

Or, if you want to spend some money, pick up a Radio Shack rig, or a RCI or Ranger. Occasionally you might see one at a pawn shop, but they don't go cheap.

Gary WA7KKP

6166. Re: WE'LL FUCK YOUR WHITE BITCHES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 01:49:08 UTC
From: Glenn <glenn.hansen@usa.net>
Message-ID: <MPG.162802c0b736da3c98981c@news>
Source record: 49563
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Very well put Walt! Very good.

Glenn

In article <bqrrrtcpa85j0p69qr6f8gl7jtevbkuh00@4ax.com>,
walt99@tiscali.co.uk says...
> >On Sat, 08 Sep 2001 23:13:57 GMT, StopTheHate1@netzero.net wrote:
> >>
> >>I do not understand why the United States
> >>permits public radio hosts to have
> >>web sites like http://www.halturnershow.com .
>
> It is the price you pay for having the right of "freedom of speech"
> written into an amendment to the Constitution.
>
> Many (including myself) would say it is a price worth paying. We do
> not enjoy such a basic, unimpeded right in the United Kingdom.
>
> >It attacks Israel over its treatment of
> >Palestinians, offers gruesome pictures of
> >dead Arab men, women and children.
>
> I wonder if you would have been so quick to complain if it had
> attacked Palestine over its treatment of Israelis, and offered
> gruesome pictures of dead Israeli men, women and children.
>
> 73 de G3NYY
>
>

6167. Re: WE'LL FUCK YOUR WHITE BITCHES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 02:26:12 UTC
From: unkadean <norriscd@qwest.net>
Message-ID: <0tqsrt4vlug4m1ls4nrtod6uk9a4bmldlo@4ax.com>
Source record: 49564
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Fri, 5 Oct 2001 08:57:06 -0700, "JB" <ac6tk@nospamcybertime.net>
wrote:

>
>If it were OK to kill the messenger, all reporters would be dead.
>

And the bad part of that would be??

<G>

--
_____"Let's Roll"_____

6168. Need Data on V53C16258LK40 CHIP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 02:37:03 UTC
From: millerke6f@aol.com
Message-ID: <20011005223703.25478.00001365@mb-cg.aol.com>
Source record: 49565

Hi Mates

found a small box of these chips, wonder what they are. perhaps a cache or video memory. it's in a 40 pin so dip lcc. Logo on is a circle with a group (square) of 9 dots in the 9-12 o clock quadrant. They have a 99 date code so they must be for fairly recent designs. Any help would be appreciated.

Bob Miller

6169. Re: 10 Meter SSB Rig Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 02:54:20 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9plrr1$7n2$1@slb7.atl.mindspring.net>
Source record: 49566

Well, I used to work at SBE so I had access to scrap CB's and all of the schematics. Taking one to 15 meters wasn't too tricky. I placed capacitors across the tuned circuits and it was 'close enough'.

Admitted, the synthesizer was more complicated.

Taking one to 40 meters, now THAT was a challenge. Did it, but would not recommend anyone try to do that one.

==========

Overall, I think converting a CB to 10 meters is fairly simple, anything else would be more trouble then it is worth due to the channelized operation and how hard it is to retune everything.

There are a number of very good kits that would probably be a better way to go. Perhaps a bit more expensive then a scrap CB radio, but better overall performance.

Jim Pennell
N6BIU

6170. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 06:09:59 UTC
From: davem@cs.ubc.ca
Message-ID: <9pm77n$8ke$1@lily.cs.ubc.ca>
Source record: 49567

>Well, I'll admit I'm on the gullible side, myself.
>At one time I thought internet stocks were a
>pretty good deal.

Heard on the radio a couple weeks ago:

If you bought $1000 of Nortel stock a year ago and sold it today, you'd
get $49.

If you bought $1000 of beer a year ago, and drank all the beer, you'd
still get $79 when you returned the empties today.

So beer was a better investment than Nortel - even if your ignore the beer.

Dave

6171. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 06:14:21 UTC
From: te21c@dh.catv.ne.jp
Message-ID: <5fd1c8ec.0110052214.627bf4f3@posting.google.com>
Source record: 49568

Bill- <"Takeout the NOTin the ReplyToAddress"@bill.com> wrote in message
news:<3BB22263.5984086C@bill.com>...
> Richard Daventry wrote:
> >
> > "Sverre Holm (LA3ZA)" <svholm2@online.no> wrote in message
> > news:Dr6s7.704$tu6.16135@news1.oke.nextra.no...
> > That's strange. I have the same set of items except that I also have
> > "Restoration of a Mechanical Filter":
> >
> > VHF Collection
> > HF Collection
> > Portable TRX Collection
> > ---> Restoration of a Mechanical Filter <---
> > Homebrew Radios
> > Old Radio Books
> > Old Radio Parts...
> >
> > - Sverre
> >
> > RD
> > "Restoration of a Mechanical Filter" comes up now.
>
>
> Is that what they call a "mirror site"?
> -WX4A

Hi, radio folks!

This is JF1VHX from Kawasaki, Japan.
I'm afraid the MF Richard mentions is not labeled "MF-455-|OCK."
It's "MF-455-10OCK" which is a can-type MF.
I know nothing about this MF except it's an older model
than MF-455-10AZ which is a box-type MF.
YAESU's FL/R-400 and FL/R-100 series and Trio's JR-310 use MF-455-10AZ's.
I and many Japanese friends of mine successfully restored this MF.
The original restoring method comes from JH1NUK (Mr. Toda)
and I just followed his method.
As Sverre said, I added to my site a sub-page about
the restoring process.
To browse it directly, just click the address below:

http://home.catv.ne.jp/dd/te21c/mf.htm

I know a certain Japanese OM is going to restore MF-455-10OCK.
I will let you know when he has succeeded.

Good luck, JF1VHX.

6172. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 06:59:04 UTC
From: te21c@dh.catv.ne.jp
Message-ID: <5fd1c8ec.0110052259.11fdc20e@posting.google.com>
Source record: 49569

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:<w0ks7.6573$L4.1450969@news6-win.server.ntlworld.com>...
> KK6IL (who cannot post to the NG at the moment) wishes to add the following
> to the thread:
>
> ---------------
>
> The foam in the Kokusai filters does indeed decompose into
> a sticky, gooey mess that greatly increases the filter
> attenuation.
>
> I've corrected a couple of them, one just last month, a beautiful
> unused unit which didn't work.
>
> Bend the tabs on the bottom of the filter to open it up,
>
> Remove filter from case carefully so as to not pull and break
> the wires between the transducers and the base terminals.
>
> Scrape off the large chunks of foam without scratching
> the metal - toothpicks work well.
>
> Clean the filter disks with Qtips soaked in alcohol.
>
> Clean out the inside of the case.
>
> I repacked the filter in cotton from a standard cotton ball.
> Place a little between the filter assembly and the plastic base,
> place more inside the case, and reassemble.
>
> Feel free to post this back to the newsgroup to continue the
> thread. If I ever get a web page up, I'll post the pictures
> I took of the process.
>
> John KK6IL jlkolb@cts.com

Hi, radio folks!

I'm afraid the MF Richard mentions is not labeled "MF-455-|OCK."
It's "MF-455-10OCK" which is a can-type MF.
I know nothing about this MF except it's an older model
than MF-455-10AZ which is a box-type MF.
YAESU's FL/R-400 and FL/R-100 series and Trio's JR-310 use
this box-type MF.
I and many Japanese friends of mine successfully restored MF-455-10AZ.

I learnt the restoring method from JH1NUK (Mr. Toda)
and I just followed it.
As Sverre said, I added to my site a page about the restoring process.
To access it directly, just click the address below:

http://home.catv.ne.jp/dd/te21c/mf.htm

I know a certain Japanese OM is going to restore MF-455-10OCK.
I will let you know if he has succeeded.

Good luck! 73. JF1VHX from Kawasaki, Japan.

6173. Re: Need Data on V53C16258LK40 CHIP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 12:53:06 UTC
From: crabtreejr@aol.com
Message-ID: <20011006085306.08567.00002236@mb-fg.aol.com>
Source record: 49570

>Bob Miller, millerke6f@aol.com on 10/5/01wrote:

>found a small box of these chips, wonder what they are. perhaps a
>cache or video memory. it's in a 40 pin so dip lcc. Logo on is a
>circle with a group (square) of 9 dots in the 9-12 o clock quadrant.

4MB, 3.3V, 256K x 16 EDO page mode CMOS DRAM, 40nS, K type package

See
http://www.moselvitelic.com/frames/frame_products.html

73 John Crabtree KC0GGH

6174. Re: Cell phone> Ham radio?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 13:55:42 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9pn2gu$6d7$0@208.207.71.162>
Source record: 49571

"George, W5YR" wrote:
>
> All joking aside, those old analog bag phones might still work if you keep
> the battery charged and can always be used for 911 calls whether activated
> or not. I keep one in our motorhome for emergency use in the boonies when
> out of cell range if we ever have problems.
>

Yep, George, I have a couple of them stashed in the trunks of vehicles
for 911 use. Seems the activated pocket phone is often "elsewhere".
Even if the old batteries are not charged, the cigar lighter plug will
make it work, mine have the capability to unplug the battery and just
use the cigar lighter plug just be sure you have an antenna available.
And I understand they run 3 to 5 watts instead of a couple hundred
Miliwatts as the handhelds do. That, with a magmount antenna to stick on
the roof if needed should give considerable better range in fringe
areas.

I guess everybody knows by now that the FCC mandates cell carriers to
allow free 911 calls, even on phones that do not have an active account.

Dick

6175. First CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 14:40:04 UTC
From: kjones0509@aol.com
Message-ID: <20011006104004.07516.00000458@mb-cm.aol.com>
Source record: 49572

Anyone got any suggestions preferably on something they have had a go at building themselves, on a CW Transmitter. I am looking to build something cheap as my first project, but I am aware of the need for Low Pass filters and so I want to find out as much about them as possible too. There seems to be alot of CW transmitters available over the web, but very little info about Low Pass filters.

I passed my Ham Exam December 1999, and never quite got round to sending off for my licence here in the UK as the expense of the sets were a little off-putting (according to my wife). Now I intend to learn morse an make a QRP transmitter for the 40M band.

Thanks in advance, all comments (even flames) welcome.

6176. Re: First CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 15:55:30 UTC
From: Bill- <"See the reply to address and take out NO"@bill.com>
Message-ID: <3BBF2972.D3581932@bill.com>
Source record: 49573

KJones0509 wrote:
>
> Anyone got any suggestions preferably on something they have had a go at
> building themselves, on a CW Transmitter. I am looking to build something cheap
> as my first project, but I am aware of the need for Low Pass filters and so I
> want to find out as much about them as possible too. There seems to be alot of
> CW transmitters available over the web, but very little info about Low Pass
> filters.
>
> I passed my Ham Exam December 1999, and never quite got round to sending off
> for my licence here in the UK as the expense of the sets were a little
> off-putting (according to my wife). Now I intend to learn morse an make a QRP
> transmitter for the 40M band.
>
> Thanks in advance, all comments (even flames) welcome.

Here's some good websites that may be helpful...
http://www.qrp.pops.net/default.htm
http://www.g4wif.fsnet.co.uk/harmonic_filters.pdf (excellent reference)
http://www.btinternet.com/~g4wif/q_tech2.htm (same thing in html format)

6177. FA: New Pair 6JE6C Sylvania Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 16:29:32 UTC
From: TW <mail2news_nospam@anon.lcs.mit.edu>
Message-ID: <9pnbhd$699$1@siamese.noc.ucla.edu>
Source record: 49574

For Ebay auction, (2) NOS 6JE6C Sylvania Tubes...

With boxes, test/look as new. No reserve. Auction ends Sunday night, 10/06:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1280595912

Have those spare tubes ready to go when your rig goes down!

Thanks for looking.For Ebay auction, (2) NOS 6JE6C Sylvania Tubes...

With boxes, test/look as new. No reserve. Auction ends Sunday night, 10/06:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1280595912

Have those spare tubes ready to go when your rig goes down!

Thanks for looking.

6178. Re: First CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 18:20:30 UTC
From: whagen6@cs.com
Message-ID: <20011006142030.22665.00000386@mb-fu.news.cs.com>
Source record: 49575

for a hundred or so bucks (american), you can get a decent new or used cw rig
from MFJ Enterprizes.
You can build one for about 10$ from a crystal, coil, capacitor and transistor.
It puts out a watt or so. Search the web for the Michigan Mighty Mite, or the
Peanut Whistle.

6179. Re: First CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 18:57:31 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <s6knp9.pqf.ln@darkstar.localdomain>
Source record: 49576

KJones0509 wrote:

> Anyone got any suggestions preferably on something they have had a go at
> building themselves, on a CW Transmitter. I am looking to build something
> cheap as my first project, but I am aware of the need for Low Pass filters
> and so I want to find out as much about them as possible too. There seems
> to be alot of CW transmitters available over the web, but very little info
> about Low Pass filters.

80M is a good place to start. Most good junk boxes have a 3.579MHz crystal
in them. Even if you have to buy one, it won't cost more than a
quid/euro/dollar...

A CB PA transistor will work very well in the output stage.

You will find details about my simple CW transmitter at:
http://homepage.eircom.net/~ei9gq/tx.html
Low pass filter included.

73, Happy Homebrewing.

Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.10

6180. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 20:44:11 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3BBF6CD7.F1546C55@snet.net>
Source record: 49578

If one wants to do work down to 10 mils then obviously a 300 dpi is out. 8.5" / 300 = approx 29 mils, is out. So using a 600 dpi should result in around 15 mil traces or did I do something wrong?

Vince Coppola

"Gary Tait, Very Real" wrote:

> schatzie wrote:
> >
> > I find it easier, neater, narrow (10 mil) lines using the "whole page" avery
> > labels, positive PCB material, sodium hydroxide developer etc. I just don't
> > find the iron-on to work as well, or as repeatably. The other thing about
> > Avery Labels is that if you are careful in removing them they can be reused
> > (they are a little expensive, but less than the iron on materials.)
> >
> > Some folks have reported that the fused toner on regular laser print paper
> > works also.
> >
> > Experiment and keep notebooks!
> >
>
> What is the Avery product number for them?
>
> > vincent coppola wrote in message <3BB9DB96.77BF1E12@snet.net>...
> > >Does anyone know how laser iron on pcb film would work on a Samsung
> > >ML-1210 laser printer? The price of $199 seems reasonable for a ham
> > >budget.
> > >
> > >Check out this link:
> > >http://www.pcworld.com/reviews/article/0,aid,55933,00.asp
> > >
> > >This is in no way an ad or endorsement for the product.
> > >
> > >thanks,
> > >Vince Coppola
> > >vinyc@snet.net
> > >
>
> --
> Gary Tait,VE3VBF Homepage: http://www.primeline.net/~tait
> **** Do not Email back me newsgroup responses, just post them. ****
> ---- Replace x with e , and y to a to email me, if required ----
>
> -----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----

> http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
> ------== Over 80,000 Newsgroups - 16 Different Servers! =-----

6181. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 20:48:41 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3BBF6DE7.221EA93B@snet.net>
Source record: 49579

If one wants to do work down to 10 mils then obviously a 300 dpi is out.
8.5" / 300 = approx 29 mils, is out. So using a 600 dpi should result in
around 15 mil traces or did I do something wrong?

Vince Coppola
N1VC

Eamon Skelton wrote:

> vincent coppola wrote:
>
> > Does anyone know how laser iron on pcb film would work on a Samsung
> > ML-1210 laser printer?
>
> I haven't tried a Samsung laser printer. It works fine on my
> OKI LED printer and on my old Apple LaserWriter.
>
> You can buy special film for the job. I had some success with
> TEC-200 film. I have found that Epson glossy photo paper for
> inkjets works even better. The advantage with the photo paper is
> that it is water soluble. If you put the PCB in warm water, the
> paper dissolves and floats away, the toner is left on the PCB.
>
> Have a look at:
> http://homepage.eircom.net/~ei9gq/pcb.html
> for details.
>
> 73, Ed. EI9GQ.
>
>
> --
> Remove 'X' to reply.
> http://homepage.eircom.net/~ei9gq
> Linux 2.4.10

6182. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 20:49:41 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3BBF6E23.30A331ED@snet.net>
Source record: 49580

If one wants to do work down to 10 mils then obviously a 300 dpi is out.
8.5" / 300 = approx 29 mils, is out. So using a 600 dpi should result in
around 15 mil traces or did I do something wrong?

Vince Coppola
N1VC

Eamon Skelton wrote:

> vincent coppola wrote:
>
> > Does anyone know how laser iron on pcb film would work on a Samsung
> > ML-1210 laser printer?
>
> I haven't tried a Samsung laser printer. It works fine on my
> OKI LED printer and on my old Apple LaserWriter.
>
> You can buy special film for the job. I had some success with
> TEC-200 film. I have found that Epson glossy photo paper for
> inkjets works even better. The advantage with the photo paper is
> that it is water soluble. If you put the PCB in warm water, the
> paper dissolves and floats away, the toner is left on the PCB.
>
> Have a look at:
> http://homepage.eircom.net/~ei9gq/pcb.html
> for details.
>
> 73, Ed. EI9GQ.
>
>
> --
> Remove 'X' to reply.
> http://homepage.eircom.net/~ei9gq
> Linux 2.4.10

6183. Any one have experience with the AN762 Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 20:59:40 UTC
From: Jobst <jvandrey@geocities.com>
Message-ID: <0hKv7.8059$2p1.813971@newsread2.prod.itd.earthlink.net>
Source record: 49581

I'm looking to build the Linear Amp described in the AN762 note by Motorola using the component set available from Communicatrion Concepts.

Anyone have experience with this device?

I'll be using it with a Elecraft K2 in digital modes (Pactor II and PSK31). Elecraft will be running at 2 to 5 watts out. My intention is to use individual low pass filters mounted in shielded boxes with SO239 series connectors for the bands of interest instead of trying to build a fancy band switch system. I only use 20, 30, and 40 meters so this should not be a big inconvenience.

Thanks in advance for any information.

Jobst

6184. Re: Need info on Permakay Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-06 23:00:17 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <52Mv7.67749$W8.2134458@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49582

There were some of these filters used in Motrac and Mocom 70 rigs. I took one of these things apart, and found 12 455KHz ceramic filters, with a transistor stage embedded in them.

Pete KE9OA

Gary Hildebrand <ghldbrd@ccp.com> wrote in message news:3BBE43DD.49597FC2@ccp.com...
> "Bob G. Mahrenholz" wrote:
> >
> > Hi:
> > I picked up an assortment of Motorola Permakay filters at a Hamfest and
> > would like to use one in a receiver I am building (I want the wide
> > bandwidth they have). Does anyone have any information on the different
> > models? Like what kind of circuit drives them and what kind of circuit
> > do they work into? What different bandwidths do they have? Shape factor?
> > DB loss? Input and output impedances? Spurious responses? Etc. I have
> > both old and newer models.
> >
> > Thanks for any info.
> >
> > Bob mahrenholz
> > K4QQK
> > bobm@edge.net
>
>
> Boy that goes back a few days . . .
>
> I remember that TU540W is wide band (40 kHz) and TU540S is narrow (16
> kHz). These are common in the Sensicon G receivers. They are driven by
> 1/2 a 12AT7, and then feed a 6BH6 or 6CB6. I would presume that they
> are hi-Z in and out. The rest of the data, your guess is as good as
> mine. You might try to find a book on the T4xG or GGV series radios,
> and study the schematic. Or if you can find one, a FM Schematic Digest;
> it has a synopsis of most of the early tube Motorola gear.
>
> What's inside is mot much more than LC circuits tuned for a passband
> characteristic, and cast in styrene plastic to maintain stability.
>
> If you see a smallish one that looks like three cans sticking out of a
> small box that is a Tri-K filter, and it is really broad. Some of the
> older Sensicon A receivers may havae a wide band filter, as many of them
> were not changed over due to cost. If you see a ink stamped part number
> and it has an "S" that usually indicates narrowband.
>

> Gary WA7KKP

6185. Digital Displays/Frequency counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 03:12:03 UTC
From: mbdb@full-moon.com
Message-ID: <3BBFC803.208A@full-moon.com>
Source record: 49577
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello,

I'd appreciate some recomendations for circuits of simple digital displays. Ideally I'd like to build it from scratch (perhaps purchase the PCB and programed PIC chip) but failing that I'll consider a kit too. I have some fairly specific requirements though to fit my rig.

1. Must be LCD in order to save power
2. Low supply current
3. The smaller the PCB the better

The only kit I'm aware of that fits my needs is by AADE in the US and this takes I believe about 15 mA on a pretty small board, but as I said I'd actually prefer to build (almost) from scrath. I've looked through all books and mags and come up with very little. Any Ideas for Circuits or kits?

73,
Mike, M0BST

6186. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 03:49:18 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BBFD0BE.4C1CA8C4@dialpoint.net>
Source record: 49583

Not giving it much thought on this end but wouldn't that be 1 inch
devided by 300 ?

vincent coppola wrote:
>
> If one wants to do work down to 10 mils then obviously a 300 dpi is out. 8.5" /
> 300 = approx 29 mils, is out. So using a 600 dpi should result in around 15 mil
> traces or did I do something wrong?
>
> Vince Coppola
>

6187. Re: PCB's from ML-1210 Laser Printer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 03:55:56 UTC
From: vincent coppola <vinyc@snet.net>
Message-ID: <3BBFD20D.1C4C7FCF@snet.net>
Source record: 49584

Yes your are right. thanks for the correction

Ralph Mowery wrote:

> Not giving it much thought on this end but wouldn't that be 1 inch
> devided by 300 ?
>
> vincent coppola wrote:
> >
> > If one wants to do work down to 10 mils then obviously a 300 dpi is out. 8.5" /
> > 300 = approx 29 mils, is out. So using a 600 dpi should result in around 15 mil
> > traces or did I do something wrong?
> >
> > Vince Coppola
> >

6188. Re: schematic design software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 07:57:29 UTC
From: nase <mnsckb@hotmail.com>
Message-ID: <3bc00b2f$1_2@news.tm.net.my>
Source record: 49585

hi! why u not try to download trial version of PROTEL Schematic & PCB
software at www.protel.com it's interesting for me

thanks
sir9m2@time.net.my

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message
news:3BB99619.ACB27AE5@earthlink.net...
> J. M. ---
>
> > >really hate the look of some of the library components in Eagle CAD,
> > >especially the transistors without any circle around them!
>
> > and I hate to see transistors with ring, looks like a newcomer has
> > drawn it
>
> I thought the ring was there to indicate that the part was discrete?
> The times I have seen (in educational/ham publications) ringless
> transistors was when they were part of an IC (darlington xistor, op-amp
> schematic, etc).
>
> Henry C. Gernhardt, III
> KE4PIB

6189. Car & Deep Cycle Battery Frequently Asked Questions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 09:49:53 UTC
From: bjb_darden@yahoo.com
Message-ID: <b3f92570.0110070149.1edc9f39@posting.google.com>
Source record: 49586

Latest versions of the Car and Deep Cycle Battery Frequently Asked Questions (FAQ) maybe found at www.uuhome.de/william.darden The Car Battery FAQ contains non-commercial, consumer information such as buying a new battery and jump starting batteries found in cars, trunks, vans, motorcycles, boats, snowmobiles, jet skis, farm tractors, lawn and garden tractors, SUV's, etc. The Deep Cycle Battery FAQ contains information such as storing lead acid batteries used for most recreational and commercial deep cycle applications. Also, you will find a Battery Manufacturers and Brand Names List, Battery References and Information Links and printable version of the above.

Please bookmark the new web site. If you have any questions or comments, please email me at bjb_darden@yahoo.com

Best regards,

BiLL.......

6190. Re: Digital Displays/Frequency counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 18:41:29 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3BC05B79.870F6771@cfl.rr.com>
Source record: 49587
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

mbdb@full-moon.com wrote:
>
> Hello,
>
> I'd appreciate some recomendations for circuits of simple digital
> displays. Ideally I'd like to build it from scratch (perhaps purchase
> the PCB and programed PIC chip) but failing that I'll consider a kit
> too. I have some fairly specific requirements though to fit my rig.

How about audio?
http://www.extremezone.com/~nk7m/cwafc.htm

Saves the space of the display and you don't have to look at it to
get the readout.

There is another one called the Freq-Mite from;
http://www.smallwonderlabs.com/
But I think they are waiting on boards before any will be ready to ship.

michael N6CHV

6191. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 20:20:57 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <8zkw7.40650$jE3.4684979@news6-win.server.ntlworld.com>
Source record: 49505

> > If I recall correctly - I'm digging back to 1948-49! - the USAF ARC-3
VHF
> > aircraft radio system used an 832 final amp driven by another 832. The
832
> > is/was the little brother of the 829B. So, maybe for certain power
levels,
> > etc. an 829 driving an 829 might not be an impossible combination . . .
> >
> > 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> > Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> > Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> > Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
> >
> > J M Noeding wrote:
> > >
> > > I wouldn't use 829B as a driver for 829B, believe the question was
> > > about a suitable driver.....
> >
>
> I didn't mean to suggest that anyone should use a 829 as a driver but just
> wanted to point out that I have a few spare 829s available. I have even
more 832
> tubes if any one wants a couple. Hate to just put them in the trash but
can't imagine
> anyone using a 832 now days.
> Bill K7NOM
======
Intriguing thread

A few years ago ,on a flea market , I bought a probably WW2 US Navy VHF transmitter with a x-tal oscillator (4 channels, 4 xtals in an oven, but no xtals fitted) ,utilising an 807 followed by 3 pcs 829B ,the first 2 each being a tripler . No manufacturer/model number shown.

The anode region of the last tripler and the PA are cooled by air from a centrifugal blower.
The rx/tx co-axial switch (with N-sockets) is operated by a solenoid type ,pinion/rack arrangement (clink-clonk).
The PA output circuit has 2pcs 3/8" OD round bars abt 4" long ,with shorting bar ,the latter with a midpoint anodes voltage feed via the usual RF choke (a few windings around what looks like a 1 Watt resistor)
PA tuning is done with a dual var. capacitor (insulated) with the stationary plates connected to the 2 anodes.
PA anode current meter has range 0 - 300 mA and the grid meter 0 - 20 mA.
It is possibly a TX for CW ,no modulator is part of the unit.

Does any (US Navy) Old Timer on this NG recognises this TX ?

TIA for any info.

Frank gm0csz.kn6wh@ntlworld.com

6192. Help measuring desense

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 20:55:31 UTC
From: Shawn Reeves <kleptein@hotmail.com>
Message-ID: <en01stcmrmnjt7lpa418p9leibgioucp3p@4ax.com>
Source record: 49588

I've recently tuned a new duplexer, and am trying to assess the amount of desense. I understand that I need an Iso-t, but am not completely clear on the construction, nor the procedure. Searching the group I was only able to find one very complicated description which didn't help very much.

My questions are, what is the procedure to measure desense in a repeater/duplexer setup, second, what amount of desense is acceptable, and third, how do I reduce it?? (Duplexer tuning?)

Thanks!

Shawn

6193. Has Frontier Cap closed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-07 21:12:34 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3bc0c4d6.2908170@news.usfamily.net>
Source record: 49589

Hi,

I saw a note elsewhere on the net that Evert H has closed Frontier Capacitor. If this is true, who is selling metalized polyester tubular caps?

AES prices seem to be about twice the price of Frontier's.

Regards,

Bob

6194. Need 8877 socket

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 00:54:30 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <ts1jb3ibj9bnf0@corp.supernews.com>
Source record: 49590
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Standard ceramic ok.

Doug N4Ij

6195. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 01:01:48 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BC0FAFC.C3EB2FAF@dialpoint.net>
Source record: 49591

I agree with that. Unless you have a very specific need to match 50 ohms. I just put together a MAR-1 amp using 2 of the devices. I used a piece of unknown PC board and cut several small pieces about 1/8 inches by 1/4 inch. Glued these to the larger piece of PC board to make islands to mount the leads. Used some .002 mfd capacitors on the input and output and one for coupling the 2 stages together. Had about 30 to 35 db of gain from 30 mhz to 450 mhz.

John Miles wrote:
>
> Leon Heller wrote:
> >
> > You can use ordinary FR4 for a simple amplifier. It won't work very well for
> > more complex microwave design using microstrip, because it isn't
> > characterised properly for the frequencies involved.
> >
>
> Forget all that microstrip junk. Just solder the thing down to a piece
> of bare copper-clad board and keep your connections short. You'll lose
> a dB at most.
>
> The presence (and proper choice) of a power-supply choke is MUCH more
> important to these devices than fiddling around with exotic substrates
> and precision cuts trying to get a 1.000001:1 SWR.
>
>

6196. Re: Help measuring desense

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 01:21:22 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BC0FF92.3512877@dialpoint.net>
Source record: 49592

I am not sure if you are the one I responded to or not. The iso-T can be built by taking a so239/pl259 T and removing the center pin. They usually remove by unscrewing them. Then screw a doubel female conector into it. This is the port you hook the signal generator to. Then if needed a short screw can be installed in its place, just be sure it is not long enough to contact the female connector. YOu just want a small ammount of capacitanc coupling. It should be about 30 db or more of isolation.

You can also install a seperate antenna where it will not move inrelationship to the repeater antenna and drive it with the signal generator.

It will take a lot of signal from the generator to get a signal on the receiver. Remember you are loosing about 30 db in the iso-T. You want just enough signal to hear, say the equivilent of about .5 microvolts at the receiver input. This is with the transmitter off. YOu then turn the transmitter on and see if the signal is degraded. If it is you increace the signal generator tuil you get the same sinad you had to start with. The desense is the differance in level with the generator off and on.

YOu should not be able to detect any desense on a very good system.

If you have any, then tune the duplexer, see if the transmitter is giving a clean signal, make sure the RF is not getting into the receiver except by the coax, use good double shielded coax. YOu may need to add more cavities to the duplexer.

Shawn Reeves wrote:
>
> I've recently tuned a new duplexer, and am trying to assess the amount
> of desense. I understand that I need an Iso-t, but am not completely
> clear on the construction, nor the procedure. Searching the group I
> was only able to find one very complicated description which didn't
> help very much.
>
> My questions are, what is the procedure to measure desense in a
> repeater/duplexer setup, second, what amount of desense is acceptable,
> and third, how do I reduce it?? (Duplexer tuning?)
>
> Thanks!
>
> Shawn

6197. 5763 tubes for sale (cheap!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 03:01:32 UTC
From: mjsilva697@earthlink.net
Message-ID: <27085883.0110071901.7c2bf190@posting.google.com>
Source record: 49593
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

I am posting this for somebody I have had good dealings with. She has lots of 5763 tubes that she would like to sell for $25.00 per hundred (yes, 100). She wants to be able to park in her garage again <g>. These are late production (1985) Phillips / JAN.

For those who don't know the 5763, it's a 9-pin mini beam power tube, good for up to 175 MHz. Plate dissipation is 13.5W, maximum B+ is 350V*, max Ip is 50 mA, and gm is 7000. Unlike most beam tubes, the beam plates come out on a separate pin, so there won't be excess coupling to the output in circuits where the cathode is above RF ground. Overall I tend to think of the tube as a high-gain 6AQ5 with good RF credentials.

The 5763 was one of the ARRL recommended oscillator tubes, along with the 6AG7 and a few others. It was also used often as a driver tube, and as a PA tube for low-power and/or mobile rigs. One of the last ARRL "How to Become a Radio Amateur" tube transmitters was a 6C4-5763 rig. It has a fairly high gain/Cgp ratio, meaning one should take reasonable precautions in layout, and it may in some cases need to be neutralized. I don't see why it wouldn't also make a good audio tube akin to the 6AQ5 and 6V6.

* Given that the plate is on pin 1 and pin 2 is a N/C, I'd bet the tube could be run at up to 500V by removing the socket connector for pin 2 (to extend the leakage path). That would be 25W input for a 25 cent tube...

Here's her address and email (contact her, not me!):

Stevie Potter
6515 Longridge Ct.
Foresthill Ca.
95631
stevie@foothill.net

73,
Mike, KK6GM

6198. Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 03:37:18 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BC11F6E.A2D500B@nf.sympatico.ca>
Source record: 49594

Richard Daventry wrote:
>
> KK6IL (who cannot post to the NG at the moment) wishes to add the following
> to the thread:
>
> ---------------
>
> The foam in the Kokusai filters does indeed decompose into
> a sticky, gooey mess that greatly increases the filter
> attenuation. ..... snip ....

May I ask the obvious dumb question. Please?
Question: "Why is the foam in there in the first instance and what
function does/did it perform; if any?"
Terry.
PS. I have two older (circular Collins mechanical filters) frequency
currently unknown but AFIK they are either individual 'channel' or
perhaps 'channel group' filters from late 1950s vintage Collins
telecommunications multiplexing/carrier systems. Would THEY have 'foam'
in them?

6199. Re: Has Frontier Cap closed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 04:28:57 UTC
From: Bill- <"See the reply to address and take out NO"@bill.com>
Message-ID: <3BC12B89.C0C14735@bill.com>
Source record: 49595

Bob wrote:
>
> Hi,
>
> I saw a note elsewhere on the net that Evert H has closed Frontier
> Capacitor. If this is true, who is selling metalized polyester tubular
> caps?
>
> AES prices seem to be about twice the price of Frontier's.
>
> Regards,
>
> Bob

http://www.radioantiques.com/supplies.html Try this one..no point in
dealing with somebody who 'retires' every coupla months.

6200. BC-669-D cables or connectors needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 04:35:34 UTC
From: vincentelectronics@erols.com
Message-ID: <be26fc90.0110072035.7281dafb@posting.google.com>
Source record: 49596

I need the connectors or whole cables for the BC-669-D transmitter.
They are 7, 10 and 11 pin Amp. connectors. Used whole is fine, I can
make the calbes up if needed. They are for the input, power and B+.

Mark

6201. List of the rec.radio newsgroups

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 05:30:33 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <9prdlp$c8s$1@news.hawaii.edu>
Source record: 49497
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

```
Archive-name: radio/personal-brief-introduction

In an effort help ensure a poster's article reaches the appropriate
audience, below is a list of the rec.radio newsgroups. In most cases,
a group's name will explain its purpose. Cross-posting should rarely
be necessary.

rec.radio.broadcasting (devoted to the broadcast industry; moderated)
rec.radio.cb
rec.radio.info (periodic informational bulletins; moderated)
rec.radio.scanner
rec.radio.shortwave
rec.radio.swap (for buying, selling, and trading; not a discussion group)

rec.radio.amateur.antenna
rec.radio.amateur.boatanchors (tube-type communications equipment)
rec.radio.amateur.digital.misc (packet, pactor and other digital modes)
rec.radio.amateur.dx (long-distance amateur communications)
rec.radio.amateur.equipment (questions, comments regarding commercially-
built amateur gear; not for buying/selling)
rec.radio.amateur.homebrew (devoted to home-building ham gear)
rec.radio.amateur.policy (issues include code, restructuring, local
restrictions in conflict with FCC R&R)
rec.radio.amateur.space (satellites, meteor scatter, EME)
rec.radio.amateur.misc (any amateur topic not covered in the above groups)

(At least two other English language radio hierarchies exist, prefaced
with "uk" (United Kingdom), and "aus" (Australia), in place of "rec.")

Again, cross-posting should rarely be necessary. Many times, a long-
running thread results from a single cross-posted article, and its
content drifts further and further away from being "on-topic" in the
various NGs which receive each and every followup.

For more detailed information, see "Guide to the Rec.radio Newsgroups"
posted on the 15th of each month.

Jeffrey Herman, KH6O

Telecommunication Specialist Mathematics Lecturer
U.S. Coast Guard University of Hawaii System
jherman @ d14.uscg.mil jeffreyh @ hawaii.edu
```

6202. Re: Digital Displays/Frequency counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 13:25:24 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3bc19dd1$0$26982@echo-01.iinet.net.au>
Source record: 49498
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

I have a design for a display using the Atmel micro with up to 16
programmable offsets, positive or negative.
See http://www.iinet.net.au/~richardh/VK6BRO.htm
Boards and controllers are available through Paypal

Richard

"Michael Neverdosky" <michaeln@cfl.rr.com> wrote in message
news:3BC05B79.870F6771@cfl.rr.com...
> mbdb@full-moon.com wrote:
> >
> > Hello,
> >
> > I'd appreciate some recomendations for circuits of simple digital
> > displays. Ideally I'd like to build it from scratch (perhaps purchase
> > the PCB and programed PIC chip) but failing that I'll consider a kit
> > too. I have some fairly specific requirements though to fit my rig.
>
>
> How about audio?
> http://www.extremezone.com/~nk7m/cwafc.htm
>
> Saves the space of the display and you don't have to look at it to
> get the readout.
>
> There is another one called the Freq-Mite from;
> http://www.smallwonderlabs.com/
> But I think they are waiting on boards before any will be ready to ship.
>
> michael N6CHV

6203. Re: AD9850 vendor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 13:37:58 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3bc1a0c3$0$26999@echo-01.iinet.net.au>
Source record: 49499

Take a look at
http://www.iinet.net.au/~richardh/VK6BRO.htm

I have just made 50 boards for the AD9854 quadrature DDS which could be used for I/Q receivers or DSP experiments. There is a matching micro board using the Atmel AT90S8535 with code for driving the device with keypad, rotary encoder and LCD display. Source code is available for those who want to modify the code to other modes such as sweep, chirp, FM etc

Richard

"Clyde R. Shappee" <clydes@world.std.com> wrote in message
news:3BB9E1E7.922ECACA@world.std.com...
> Does anyone here know if QST or QEX has published an article
> describing a VFO based on the AD9851? Ideally it would be
> microcontroller driven with a keypad input....
>
> Clyde KA1CRV
>
> JLB wrote:
>
> > Can anyone tell me who sells the AD9850 DDS in small quantities?
> >
> > As far as that goes, where did all the homebrew friendly vendors go
> > (at least in this area)?
>

6204. DDS board AD9854

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 13:43:28 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3bc1a20d$0$26993@echo-01.iinet.net.au>
Source record: 49500

I have just taken delivery of 50 boards for the AD9854 quadrature DDS
There is a matching micro board to drive the beast with keypad, rotary
encoder, LCD display, serial port and programming interface
For those ineterested see
http://www.iinet.net.au/~richardh/VK6BRO.htm

Ricahrd

6205. Atmel AT90S8535 controller boards

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 13:48:50 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3bc1a34f$0$26980@echo-01.iinet.net.au>
Source record: 49501

I have just taken delivery of 50 boards for this controller
On board there are interfaces for keypad, rotary encoder, LCD display,
serial port and programming interface
See http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

6206. Re: First CW Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 15:06:52 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BC1C10B.95FCA840@midwestmicro-tek.com>
Source record: 49503

I built my first CW TX about 2 years ago. Since I already had the HV transformer I made a tube based TX. The final is a 1625 and I got 3 of them for $3 each. It cost me a grand total of about $20 - $30 to make it and it puts out about 50W on 80m and 40m. Works great. Anyway here is one of my favorite sites.

http://hem2.passagen.se/sm0vpo/

Harry has a lot of projects, hints and tips for those on a budget.

Rick KC0GIX

KJones0509 wrote:

> Anyone got any suggestions preferably on something they have had a go at
> building themselves, on a CW Transmitter. I am looking to build something cheap
> as my first project, but I am aware of the need for Low Pass filters and so I
> want to find out as much about them as possible too. There seems to be alot of
> CW transmitters available over the web, but very little info about Low Pass
> filters.
>
> I passed my Ham Exam December 1999, and never quite got round to sending off
> for my licence here in the UK as the expense of the sets were a little
> off-putting (according to my wife). Now I intend to learn morse an make a QRP
> transmitter for the 40M band.
>
> Thanks in advance, all comments (even flames) welcome.

6207. Re: MAR-X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 15:07:34 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3BC1C135.965980C3@ix.netcom.com>
Source record: 49502

Tom W8JI wrote:

snip

>
> I've had no success using them in push-pull broadband applications.
> Has anyone else?
>
> 73 Tom

I did implement a broadband amp for HF distribution use (1 to 30 MHz) using paralleled pairs of MAV11s in push pull, matched to 50 Ohms with a 1:1 balun at each end, 4 total in the amp, to get maximum dynamic range. The amp has a gain of about 8dB from memory and very good IP3, > than 35 dBm at which point it gets hard to measure... No striplines, just built on unetched pcb material, which technique is fine up to about 220 MHz; above that you should consider using striplines. These can be cut directly on the board with an exacto knife for a small amp

73 Dan

6208. Re: BC-669-D cables or connectors needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 16:13:48 UTC
From: DiNGuS <DiNGuS@lpws.com>
Message-ID: <9psjgi$61t$1@neptunium.btinternet.com>
Source record: 49504

Try,

http://www.armyradio.com/

6209. Re: 2E26 driving an 829B...what is it?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 22:01:12 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9pt7n8$c8l$2@woodrow.ucdavis.edu>
Source record: 49506

Both the 2E26 and the 829 have been used as drivers and finals throughout the years. In the 50's and 60's... Motorola made many a commercial two way radio and repeater using said tubes in their "Research Line" of equipment. I still have some in storage. GE was also making similar equipment.

There is a very popular ARRL Handbook amplifier project using the 829... I've even seen a commercial unit made/sold by Gonset using the 829. I built the Handbook amplifier and still have it.

The 829 gave way to the similar style 5894 which still lives in the last of the tube repeaters in service. Lot's of watts with little work. Good onto the VHF Bands with no problem.

cheers
skipp
http://sonic.ucdavis.edu

6210. Re: Need info on Permakay Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 22:04:05 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9pt7sl$c8l$3@woodrow.ucdavis.edu>
Source record: 49507

Thanks for the walk down memory lane Gary... It was funny that Motorola gave a lifetime warrenty on those filters but refused to honor it in the 80's We gave them a lot of grief over that... they just offered trade in deals instead.

cheers
skipp
http://sonic.ucdavis.edu

: Gary Hildebrand <ghldbrd@ccp.com> wrote:
: "Bob G. Mahrenholz" wrote:
:> Hi:
:> I picked up an assortment of Motorola Permakay filters at a Hamfest and
:> would like to use one in a receiver I am building (I want the wide
:> bandwidth they have). Does anyone have any information on the different
:> models? Like what kind of circuit drives them and what kind of circuit
:> do they work into? What different bandwidths do they have? Shape factor?
:> DB loss? Input and output impedances? Spurious responses? Etc. I have
:> both old and newer models.
:>
:> Thanks for any info.
:>
:> Bob mahrenholz
:> K4QQK
:> bobm@edge.net

: Boy that goes back a few days . . .

: I remember that TU540W is wide band (40 kHz) and TU540S is narrow (16
: kHz). These are common in the Sensicon G receivers. They are driven by
: 1/2 a 12AT7, and then feed a 6BH6 or 6CB6. I would presume that they
: are hi-Z in and out. The rest of the data, your guess is as good as
: mine. You might try to find a book on the T4xG or GGV series radios,
: and study the schematic. Or if you can find one, a FM Schematic Digest;
: it has a synopsis of most of the early tube Motorola gear.

: What's inside is mot much more than LC circuits tuned for a passband
: characteristic, and cast in styrene plastic to maintain stability.

: If you see a smallish one that looks like three cans sticking out of a
: small box that is a Tri-K filter, and it is really broad. Some of the
: older Sensicon A receivers may havae a wide band filter, as many of them
: were not changed over due to cost. If you see a ink stamped part number
: and it has an "S" that usually indicates narrowband.

: Gary WA7KKP

6211. Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 22:24:50 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3BC226DA.D1584BDF@olywa.net>
Source record: 49508

Can someone point me in the direction for a reference part substitutions? Specifically, I'm trying to build a reciever which calls for a SK3835 germanium transistor or equivalent. I can't the asked for transistor and can't choose a substitute cuz I don't know what I'm looking for. It's a good day when you can find the resistor you want at RS and Mouser lists nothing that I'm looking for. Also, can someone tell me what transistor fits the description "hi-frequency, small signal"? I presume it might be the ubiquitous 2N2222 but I surely don't know. Building stuff is the easy part. Finding parts based on vague descriptions is such a pain I may just give up building.

Help please

6212. Re: Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-08 23:24:50 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <ts4deipuame3f6@corp.supernews.com>
Source record: 49509

Mouser Electronics (http://www.mouser.com) has the SK3835. The part number is 599-SK3835.

6213. Re: Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 00:51:30 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1002588690@msauve>
Source record: 49510

On Mon, 08 Oct 2001 22:24:50 GMT, Dave &Sandy <nemo@olywa.net> wrote:
> Can someone point me in the direction for a reference part
> substitutions? Specifically, I'm trying to build a reciever which calls
> for a SK3835 germanium transistor or equivalent. I can't the asked for
> transistor and can't choose a substitute cuz I don't know what I'm
> looking for. It's a good day when you can find the resistor you want at
> RS and Mouser lists nothing that I'm looking for.

Mouser p/n 599-SK3835, about $2.

Also, can someone tell
> me what transistor fits the description "hi-frequency, small signal"? I
> presume it might be the ubiquitous 2N2222 but I surely don't know.

Insufficient information. PNP? NPN? max voltages? hFE?
2n3904 or 2n3906 might be appropriate.

6214. Re: Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 01:12:53 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3BC24E3E.63F3743@olywa.net>
Source record: 49511

you're right. insufficent info. that seems to be my problem. thanks for
the input. i'll take a better look in my mouser catalog.

Mark Allread wrote:
>
> On Mon, 08 Oct 2001 22:24:50 GMT, Dave &Sandy <nemo@olywa.net> wrote:
> > Can someone point me in the direction for a reference part
> > substitutions? Specifically, I'm trying to build a reciever which calls
> > for a SK3835 germanium transistor or equivalent. I can't the asked for
> > transistor and can't choose a substitute cuz I don't know what I'm
> > looking for. It's a good day when you can find the resistor you want at
> > RS and Mouser lists nothing that I'm looking for.
>
> Mouser p/n 599-SK3835, about $2.
>
> Also, can someone tell
> > me what transistor fits the description "hi-frequency, small signal"? I
> > presume it might be the ubiquitous 2N2222 but I surely don't know.
>
> Insufficient information. PNP? NPN? max voltages? hFE?
> 2n3904 or 2n3906 might be appropriate.

6215. Re: Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 01:39:07 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <ts4l9rbrafh16a@corp.supernews.com>
Source record: 49512

The "SK" is a general replacement series by RCA. "NTE" is a replacement series by Sylvania (I think). Both have substitution books which cross many numbers to one of the replacements in their respective series. You can often find these books at an electronic wholesaler or perhaps on the company web pages.

6216. TEST

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 07:49:06 UTC
From: kenik@inp.nsk.su
Message-ID: <aaa42577.0110082349.2e68bd27@posting.google.com>
Source record: 49513

TEST

6217. Project Suggestions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 11:09:31 UTC
From: k4yz@aol.com
Message-ID: <20011009070931.13318.00000916@mb-cb.aol.com>
Source record: 49514

I am looking to "scratch" build a 20-75w CW/SSB transmitter and receiver (seperates) for HF (including 160M). Also looking for a decent 6M project, ssb/cw, but single package. Can anyone suggest projects? I am not interested in the 1 watt on a chip projects.

Thanks in advance...Please RSVP direct to my e mail address...

73

Steve, K4YZ

6218. FS: Matched set of 3 811a's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 13:57:17 UTC
From: Ken <kenkopp@qwest.net>
Message-ID: <4nDw7.667$IY2.74388@news.uswest.net>
Source record: 49515
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Matched set of 3 811a's
Tube brand is Taylor. These are just over a year old. They have been tested in the amp for which they where purchased as spares. They are new (under an hour of use) & at full output. Sold as a set of 3 for $46 Ken Kopp, KI7HM, kenkopp@qwest.net (509) 891-8275

6219. FS: Icom FL-103 2.8kc 9mhz IF filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 14:25:49 UTC
From: Ken <kenkopp@qwest.net>
Message-ID: <LNDw7.840$IY2.84114@news.uswest.net>
Source record: 49516
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Icom FL-103 2.8kc 9mhz IF filter. As new in original box. $88 Ph: (509) 891-8275 kenkopp@qwest.net

6220. FS: Icom FL-223 1.8kc 9mhz IF filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 14:28:55 UTC
From: Ken <kenkopp@qwest.net>
Message-ID: <GQDw7.855$IY2.84925@news.uswest.net>
Source record: 49517
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Icom FL-223 1.8kc 9mhz IF filter. As new in original box. $80 Ph: (509) 891-8275 kenkopp@qwest.net

6221. FS: Bencher LowPass Filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 14:37:18 UTC
From: Ken <kenkopp@qwest.net>
Message-ID: <xYDw7.888$IY2.88440@news.uswest.net>
Source record: 49518
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.cb,rec.radio.swap

Bencher YA-1 LowPass Filter
This unit is just over a year old and in clean and perfect condition, no scratches dings or rubs. This unit has never failed or been serviced. It has been in a clean, non-smoking environment. If you like mint gear you will not be disappointed. Price $56 & shipping. Ph: (509) 710-8759

6222. Transistors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 16:22:10 UTC
From: cj08758@yahoo.com
Message-ID: <3bc34d7f.3622248@news.csionline.net>
Source record: 49519

I have a couple of boxes of transistors, some quite old - probably
about 10 pounds or so, all sorted, most of the rf ones are gone tho,
Anyone interested - would be an excellent bench stock.

email CJ08758@yahoo.com

6223. Re: FS: Icom FL-223 1.8kc 9mhz IF filter.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 17:38:03 UTC
From: Al Robinson <robinsona@rl.af.mil>
Message-ID: <3BC335FB.F9FB8507@rl.af.mil>
Source record: 49520
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Most dealers sell this filter brand new for $79.95

Ken wrote:

> Icom FL-223 1.8kc 9mhz IF filter. As new in original box. $80 Ph: (509)
> 891-8275 kenkopp@qwest.net

-----= Posted via Newsfeeds.Com, Uncensored Usenet News =-----
http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
------== Over 80,000 Newsgroups - 16 Different Servers! =-----

6224. Re: Part substitution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-09 20:56:30 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3BC363A7.28F966CC@olywa.net>
Source record: 49521

yep, mouser had 2 of the sk and i needed 3 but they did find an nke
subsitute and in stock. whew!

"Bob Lewis (AA4PB)" wrote:
>
> The "SK" is a general replacement series by RCA. "NTE" is a
> replacement series by Sylvania (I think). Both have substitution books
> which cross many numbers to one of the replacements in their
> respective series. You can often find these books at an electronic
> wholesaler or perhaps on the company web pages.

6225. Lake Placid Hamfest October 13th.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 02:04:20 UTC
From: John Grow <jgrow@sympatico.ca>
Message-ID: <SNNw7.16149$xy1.1728734@news20.bellglobal.com>
Source record: 49522

14 Amateur Radio Clubs have organized the Lake Placid Hamfest on October 13th.

For all who live in Eastern New England, and Canada, a group of Northern New York Amateur Radio Clubs got together to have one hamfest. This will be in beautiful Lake Placid, home of the past winter Oylmpics.

This will be ideal to drive up or down with the YL, XYL, or your ham buddies. The fall colours will be in bloom.

NOTED: QRP'ER BRIAN RILEY N1BQ, WILL BE GIVING A QRP SESSION / TALK.

ARRL Atlantic Division Director Bernie Fuller N3EFN

SKYWARN: Steve Hogan N1OLC

AMSAT Demo and ATV Demo

The URL is at http://www.geocities.com/nnyara/

If you have any questions, please email Thomas Dick at KF2GC@ARRL.ORG

Thank you,

John

6226. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 04:09:18 UTC
From: ai928@FreeNet.Carleton.CA
Message-ID: <9q0hle$2gt$1@freenet9.carleton.ca>
Source record: 49523

Michael Black (blackm00@gloria.cam.org) writes:
> On Thu, 4 Oct 2001, Peter Parker wrote:
>>
>> EI was a great magazine. What happened to it?

> It folded into Mechanix Illustrated, which was published by
> the same company. I think the last issue was the Nov-Dec 1972
> issue (I say I think because I"m sure I've said before it
> was the end of 1971, and have since noticed there were 1972 issues).

Wasn't EI the one with those little chess puzzles in it? I am
not a chess player (and never was) but I always did like to try
to solve those "white to move and mate in two" puzzles. I
always solved them, too before I saw answers in the next issue
of the magazine. But there was one that I could never solve;
guess which one! Yup, the one in the last issue.

I have often wondered if the editors put an unsolvable
puzzle in the last issue out of spite, knowing that there
would be no "next issue" with a solution!

Oh well, now I will never know. I have since lost my copy
of the last issue of the magazine (and the chess puzzle that
was in it).

VY 73,
Ed Pugh (VA3PU)
Ottawa, Ontario
--
Ed Pugh | "A common mistake that people make when trying
Ottawa (Richmond) | to design something completely foolproof, is to
Ontario, Canada | underestimate the ingenuity of complete fools."
| - Douglas Noel Adams, 1952 - 2001 :-(

6227. Re: Help! :-) I know you guys can help me...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 04:42:01 UTC
From: ai928@FreeNet.Carleton.CA
Message-ID: <9q0jip$4v8$1@freenet9.carleton.ca>
Source record: 49524

Hi, Tobias.

The September 2001 issue of Electronics World (a hobby electronics magazine from the UK) has a most interesting article in it, "Code-hopping reomote control", pages 672 to 678 (EW is one of those magazines that begin on page 1 in the January issue and end at about page 1000 or so in the December issue).

Anyway, this article shows how to design a secure RF remote control system, using Microchip's Keeloq code hopping chips, and a wireless UHF Rx/Tx module pair by Radiometrix.

I bought my copy of EW at a local Chapters store for CDN$8.50, but they may be off the shelf by now.

You can get specs for Microchip's Keeloq products from http://www.microchip.com, and for the RF modules at http://www.radiometrix.co.uk. There may be North American suppliers for similar modules.

Hope this helps.

Regards,

Ed Pugh (VA3PU)
Ottawa, Ontario.

Tobias Weingartner (weingart@cs.ualberta.ca) writes:
> Hello all,
>
> I don't happen to have my license (sometime I hope), but I'm looking
> to make something which I've wanted to do now for quite some time. I
> finally have the means (money and time), now I need the what and how.
>
> Basically I'm looking at replacing the security brain in my car. It's
> a 1990 300ZXTT. Replacing the brain is not that hard, chances are that
> a module from Z-World Inc. will do the job just dandy fine, along with
> a bunch of Ungo/Misc sensors to help augment things.
>
> The problem comes along when I'm looking for a secure RF transmitter
> and receiver solution. The receiver could be on the bulky side, about
> 6"x8" will be fine. Lots to choose from, and since I have a brain on
> that side of the equation, almost anything is possible. The TX is
> another matter. I can't seem to find a module that is both small enough
> and does some form of random/encryption method to ensure that using

> a simple grad/replay method will not work.
>
> Basically, what I need is a nice component, low-power, small part,
> that would idealy transmitt between 2-6 different key presses (on-off).
> Size roughly 1" square (prefer rectangular, but I'll take what I can
> get). I've tried to have a look at one of the Ungo TX (commercial), but
> there is too little there for me to figure out how it works...
>
>
> Anyhow, if anybody has any pointers, I'd be very gratefull...
>
> --Toby.
--
Ed Pugh | "A common mistake that people make when trying
Ottawa (Richmond) | to design something completely foolproof, is to
Ontario, Canada | underestimate the ingenuity of complete fools."
| - Douglas Noel Adams, 1952 - 2001 :-(

6228. Cellular antenna's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 05:45:46 UTC
From: joel <joel@cyberbest.com>
Message-ID: <egRw7.4678$9u6.1270538276@twister1.starband.net>
Source record: 49525

I live in a fringe to no service area for cellular telephone and am considering a quad or corner reflector antenna for the house and something for the car. Does anyone have any experience or advise building such animals?

Joel
ka9zti@arrl.net

6229. FT-707 agc problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 09:39:22 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bc412e5.4796282@news.freeserve.net>
Source record: 49526

HI Folks,
Has anyone experience of the FT-707 ?

My FT-707 has developed a problem, on SSB or CW recieve, the "S" meter indicates about 50% fsd and the reciever appears to be _very_ quiet but is recieving signals. On AM the reciever comes back to life and the "S" meter drops back to normal.
The transmit side appears to be fully functional with the meter indicating PO and ALC correctly.
Normally the "S" meter will deflect toward fsd as the RF gain is reduced. This still happens on all modes but is now partially 'hidden' by the fault on SSB and CW. Switching between fast and slow AGC has no noticable effect on the fault condition.

I suspect an AGC fault (unlikely only on ssb and cw ?), but any other ideas appreciated.
thanks Mike W, G8NXD qthr

6230. Re: Cellular antenna's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 11:02:48 UTC
From: Butch Magee <lynyrd@netdoor.com>
Message-ID: <3BC42A83.6331C285@netdoor.com>
Source record: 49527

Joel, I think what you need is height. Try a 30-40 ft. push-up pole with a small beam, whatever, if you know where your cell is. If that works put up a small tower that will survive 9 land weather :o).

Butch

joel wrote:

> I live in a fringe to no service area for cellular telephone and am
> considering a quad or corner reflector antenna for the house and something
> for the car. Does anyone have any experience or advise building such
> animals?
>
> Joel
> ka9zti@arrl.net

6231. LM-748

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 13:21:03 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <3XXw7.48889$Pr1.14357794@news1.rdc1.tn.home.com>
Source record: 49528

Anyone with a couple of these externally compensated op-amps in their dusty bins? My internally compensated unsuitable subs all want to oscillate into capacitive loads. 8 pin DIP preferred (748-CN), but would live with TO-5 or even SMD.

W4ZCB

6232. Re: LM-748

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 14:02:40 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <ilk8st0n5729uurhgj43a9kkp5ib6vv9kc@4ax.com>
Source record: 49529

On Wed, 10 Oct 2001 13:21:03 GMT, "Harold E. Johnson" <W4ZCB@home.com>
wrote:

>My internally compensated unsuitable subs all want to oscillate into
>capacitive loads.

Did you try to "isolate" the op-amp output and feedback resistor by
inserting a small series resistor driving the capacitive load (the
feedback resistor is directly connected to the output).

Paul OH3LWR

6233. MRF150

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-10 19:35:57 UTC
From: Trevor Waters <trefor@gw4imc.freeserve.co.uk>
Message-ID: <9q26tj$ka9$1@newsg2.svr.pol.co.uk>
Source record: 49530

Hello
Wonder if anyone can help. I am looking for used MRF150 mosfets. Will pay reasonable price and postage from anywhere. Just can not afford the price of the new buggers.
73s Trev GW4IMC

6234. Re: Digital Displays/Frequency counters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 00:14:10 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BC4E452.4CE21271@world.std.com>
Source record: 49531
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc

I built the kit from AADE and it works just fine for me. My application
was peculiar as it was being used in a tube radio with a 458kHz IF. I
highly recommend it.

Support from Neil was great -- I thought I nearly wore him out with my
questions and he still came through. Great guy.

I have a VHDL FPGA model for same, driving LED displays, forming a counter,
or a receiver frequency display. It is a proven design, but never been
synthesized. I bought the AADE board because I wanted to get on with it.
Someday I will synthesize my design.

Drop me a line if you want a picture....

Clyde

mbdb@full-moon.com wrote:

> Hello,
>
> I'd appreciate some recomendations for circuits of simple digital
> displays. Ideally I'd like to build it from scratch (perhaps purchase
> the PCB and programed PIC chip) but failing that I'll consider a kit
> too. I have some fairly specific requirements though to fit my rig.
>
> 1. Must be LCD in order to save power
> 2. Low supply current
> 3. The smaller the PCB the better
>
> The only kit I'm aware of that fits my needs is by AADE in the US and
> this takes I believe about 15 mA on a pretty small board, but as I said
> I'd actually prefer to build (almost) from scrath. I've looked through
> all books and mags and come up with very little. Any Ideas for Circuits
> or kits?
>
> 73,
> Mike, M0BST

6235. LM 837

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 01:39:02 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <ts9u1uo8fg7e09@corp.supernews.com>
Source record: 49532

where can i find some of these chips or something as good or better?
i need a couple for a homebrew ultrasonic amp..
tnx
hank wd5jfr

6236. Re: LM 837

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 03:25:08 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BC51113.80E84F78@home.com>
Source record: 49533

I think this is a low noise quad op-amp. The dual op-amp version is the LM833. 4 nV/SqrtHz..... Very low noise. Mouser or Digikey will carry it. Another dual part is the LM5532. It has about the same very low noise specifications. I know Mouser has that, but it might have another suffix, like NM5532 from another manufacturer. These cost less than $0.50 for the dual parts.

I have a bunch of LM833s if you need a few.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Henry Kolesnik wrote:
>
> where can i find some of these chips or something as good or better?
> i need a couple for a homebrew ultrasonic amp..
> tnx
> hank wd5jfr

6237. Re: LM-748

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 04:30:35 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <Lf9x7.39658$WW.2665538@bgtnsc05-news.ops.worldnet.att.net>
Source record: 49534

Another thing; did you put a decoupling network in the supply lines.
Depending how much current you need to deliver, a 10 to 47 Ohm series
resistor in each supply line, with a 220uF cap in parallel with a .1uF high
frequency cap might do the trick. Also, the series R in the output circuit
that Paul suggested would be very good.

Pete Gianakopoulos KE9OA
Chicago, Il.

Paul Keinanen <keinanen@sci.fi> wrote in message
news:ilk8st0n5729uurhgj43a9kkp5ib6vv9kc@4ax.com...
> On Wed, 10 Oct 2001 13:21:03 GMT, "Harold E. Johnson" <W4ZCB@home.com>
> wrote:
>
>
> >My internally compensated unsuitable subs all want to oscillate into
> >capacitive loads.
>
> Did you try to "isolate" the op-amp output and feedback resistor by
> inserting a small series resistor driving the capacitive load (the
> feedback resistor is directly connected to the output).
>
> Paul OH3LWR
>

6238. Re: FT-707 agc problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 04:32:28 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <wh9x7.39660$WW.2665551@bgtnsc05-news.ops.worldnet.att.net>
Source record: 49535

One thing that could cause the problem is if the BFO insertion frequency has drifted into the I.F. passband. If it were that, though, you would probably notice that the audio had a more "muffled" quality.

Pete KE9OA

Mike W <mike@corn2.freeserve.co.uk> wrote in message news:3bc412e5.4796282@news.freeserve.net...
> HI Folks,
> Has anyone experience of the FT-707 ?
>
> My FT-707 has developed a problem, on SSB or CW recieve, the "S" meter
> indicates about 50% fsd and the reciever appears to be _very_ quiet
> but is recieving signals. On AM the reciever comes back to life and
> the "S" meter drops back to normal.
> The transmit side appears to be fully functional with the meter
> indicating PO and ALC correctly.
> Normally the "S" meter will deflect toward fsd as the RF gain is
> reduced. This still happens on all modes but is now partially 'hidden'
> by the fault on SSB and CW. Switching between fast and slow AGC has no
> noticable effect on the fault condition.
>
> I suspect an AGC fault (unlikely only on ssb and cw ?), but any other
> ideas appreciated.
> thanks Mike W, G8NXD qthr

6239. Re: FT-707 agc problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 09:08:48 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3bc55e40.3116649@news.xtra.co.nz>
Source record: 49536

Gday Mike, I have an FT707 myself and a circuit diagram. A portion of the IF output is detected and amplified by a fet Q2020 and Q2021 then fed to the LED's. If your receiver is quiet the problem is probably in the agc circuit which controls the RF and IF amplifiers. The output from IF amplifier Q2005 is fed to a buffer Q2018 then to diodesD2024 & 2025. The resultant DC voltage is amplified by Q2019 and fed to the gates (2) of the RF and IF amplifiers.If you can identify the components on the board it would be worth checking the diodes and the transistors involved first. I think it unlikely to have shifted off frequency if the receiver stll works albeit quietly on SSB and CW mode. Hope that is of some help. Let me know if I can help further, Regards, Renfred ZL1BDL

On Wed, 10 Oct 2001 09:39:22 GMT, mike@corn2.freeserve.co.uk (Mike W) wrote:

>HI Folks,
>Has anyone experience of the FT-707 ?
>
>My FT-707 has developed a problem, on SSB or CW recieve, the "S" meter
>indicates about 50% fsd and the reciever appears to be _very_ quiet
>but is recieving signals. On AM the reciever comes back to life and
>the "S" meter drops back to normal.
> The transmit side appears to be fully functional with the meter
>indicating PO and ALC correctly.
>Normally the "S" meter will deflect toward fsd as the RF gain is
>reduced. This still happens on all modes but is now partially 'hidden'
>by the fault on SSB and CW. Switching between fast and slow AGC has no
>noticable effect on the fault condition.
>
>I suspect an AGC fault (unlikely only on ssb and cw ?), but any other
>ideas appreciated.
>thanks Mike W, G8NXD qthr

6240. Re: FT-707 agc problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 09:12:30 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bc56152.432809@news.freeserve.net>
Source record: 49538

On Thu, 11 Oct 2001 04:32:28 GMT, "Pete Gianakopoulos"
<n.gianakopoulos@worldnet.att.net> wrote:

>One thing that could cause the problem is if the BFO insertion frequency has
>drifted into the I.F. passband. If it were that, though, you would probably
>notice that the audio had a more "muffled" quality.
>
>Pete KE9OA
>
>Mike W <mike@corn2.freeserve.co.uk> wrote in message
>news:3bc412e5.4796282@news.freeserve.net...
>> HI Folks,
>> Has anyone experience of the FT-707 ?
>>
>> My FT-707 has developed a problem, on SSB or CW recieve, the "S" meter
>> indicates about 50% fsd and the reciever appears to be _very_ quiet
>> but is recieving signals. On AM the reciever comes back to life and
>> the "S" meter drops back to normal.
>> The transmit side appears to be fully functional with the meter
>> indicating PO and ALC correctly.
>> Normally the "S" meter will deflect toward fsd as the RF gain is
>> reduced. This still happens on all modes but is now partially 'hidden'
>> by the fault on SSB and CW. Switching between fast and slow AGC has no
>> noticable effect on the fault condition.
>>
>> I suspect an AGC fault (unlikely only on ssb and cw ?), but any other
Thanks Pete, I too concidered this, but for both USB and LSB CIO's to
drift equally into the passband is just too unlikely.
but I have to admit I hav'nt tested for this yet.
cheers, Mike W, G8NXD

6241. Re: LM-748

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 10:27:17 UTC
From: "Harold E. Johnson" <W4ZCB@home.com>
Message-ID: <9uex7.52556$Pr1.15444968@news1.rdc1.tn.home.com>
Source record: 49537

Thanks for all the suggestions, I have found some 748's and they're on the way.

W4ZCB

6242. Re: FT-707 agc problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 19:48:27 UTC
From: la8ak@online.no
Message-ID: <3bc5f6a1.89303052@news.online.no>
Source record: 49539

On Thu, 11 Oct 2001 09:12:30 GMT, mike@corn2.freeserve.co.uk (Mike W)
wrote:

>>> My FT-707 has developed a problem, on SSB or CW recieve, the "S" meter
>>> indicates about 50% fsd and the reciever appears to be _very_ quiet
>>> but is recieving signals. On AM the reciever comes back to life and
>>> the "S" meter drops back to normal.
>>> The transmit side appears to be fully functional with the meter
>>> indicating PO and ALC correctly.
>>> Normally the "S" meter will deflect toward fsd as the RF gain is
>>> reduced. This still happens on all modes but is now partially 'hidden'
>>> by the fault on SSB and CW. Switching between fast and slow AGC has no
>>> noticable effect on the fault condition.
>>>
>>> I suspect an AGC fault (unlikely only on ssb and cw ?), but any other
>Thanks Pete, I too concidered this, but for both USB and LSB CIO's to
>drift equally into the passband is just too unlikely.
>but I have to admit I hav'nt tested for this yet.
>cheers, Mike W, G8NXD

it seems that AGC circuit is faulty or incorrectly adjusted, perhaps a
component is bad, so I would force the AGC voltage back to where it
should be for no sigal input and see what happens

FT-707 might be a later version than FT-7, and I never experienced any
AGC trouble with FT-7, while some older FT-101B seems to have a
constructional problem

73
jan-martin LA8AK

6243. Re: Complex Reflex Receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-11 22:05:33 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BC617AD.6E9DEBF9@clifto.com>
Source record: 49462

Peter Parker wrote:
> EI was a great magazine. What happened to it?

I happened to find the March 1967 issue, which had somehow escaped being
packed properly. It's fun to look back.

"16 Extra Pages! STILL ONLY 50[cents]"

New! 24-HOUR WORLD-WIDE SHORT-WAVE SCHEDULE

BUILD:
CB ANTENNA FOR CAR WINDOW
1-TUBE CW TRANSMITTER
RHOMBIC ANTENNA FOR SUPER TV
EAVESDROPPER FOR HEARING JET PILOTS
ALL-PURPOSE RECORDING MIXER

Will Fame Spoil Heinrich Hertz?
ABCs of Color TV--Part II
Knight-Kit vs EICO Engine Analyzers
The Basics of Treasure Finding

BUILD THIS
ELECTRONIC
BONGO
Complete Plans...
Part of 8-Page Bonus
on Electronic
Musical Instruments!

Ads include:

Build this famous knight-kit
Star Roamer 5-Band Shortwave Receiver Kit
and have the whole wide world at your fingertips!

BUILD 20 RADIO
CIRCUITS AT HOME
with the New Improved
PROGRESSIVE RADIO "EDU-KIT"
A Practical Home Radio Course

LAFAYETTE HB-525 Solid State
Mobile 2-Way Radio
All Crystals Supplied!
All 23 CB Channels Crystal Controlled

You get more
for your money
from NRI--
America's oldest and largest Electronic
Radio-Television home-study school

Short news articles in "EI Picturescope":

NOW SHOWING--What looks like three drive-in movie screens and a domed refreshments stand, isn't. The screens, each one the size of a football field strung up by one side, are part of the antenna system in the detection radar of this BMEWS (Ballistic Missile Early Warning System) installation in Clear, Alaska. The dome, a 140-foot sphere, covers newly-installed RCA long-range tracking radar that can predict point of impact of any hostile missile impinging on its field, even if it is thousands of miles from the installation.

SEEING EYE--Less than one per cent of the light that comes from a full moon is all the Toshiba multistage image tube needs to produce a picture on its screen. The image in the small insert at the top was picked up on the tube using only the stray light from the panel meters and elsewhere in the equipment itself. Unlike infrared devices, the tube uses visible light focused on the photoelectric surface of a screen that delivers electrons to a series of TSE (transmission secondary emission) multiplying dynodes. Output electron stream is focused on fluorescent screen. TSE dynodes are extremely thin metallic membranes that, in effect, add electrons to electron stream as it passes through.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6244. FM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 00:19:48 UTC
From: Rick <CRMYERS@prodigy.net>
Message-ID: <EGqx7.992$UB2.171144467@newssvr15.news.prodigy.com>
Source record: 49540

Does anyone know where I can find plans for building a tube type FM receiver?

6245. SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 00:54:58 UTC
From: kk5yo <burrito@salsa.com>
Message-ID: <3BC63F62.ED64E5EF@salsa.com>
Source record: 49541

I'm looking for ideas for SWR protection to incorporate into a mobile HF amp. Specifically, does anyone have any thoughts on simple methods to detect a rise in SWR that is not sensitive to forward power level? Accuracy/linearity isn't too important, as it will be used solely to reduce power. Tnx.

Lou, kk5yo

6246. Re: FM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 01:35:21 UTC
From: Your friend Bill <"See the reply to address and take out NO"@bill.com>
Message-ID: <3BC648D9.75DD69B0@bill.com>
Source record: 49542

Rick wrote:
>
> Does anyone know where I can find plans for building a tube type FM
> receiver?

What frequency?
-Bill

6247. RF transformer/coil substition hints needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 01:44:53 UTC
From: Ron DeBlock <deblockr@dialogic.com>
Message-ID: <zWrx7.9068$ym4.386143@iad-read.news.verio.net>
Source record: 49544

Greetings,

In a remarkable feat of stupidity, a small RF can-type slug-tuned transformer was forcibly separated from it's mounting point, and rendered useless. The XYL doesn't buy the argument that this is a sign from God that I should purchase a new FT-1000MP MkV or Omni VI+. Therefore, I need to repair my radio.

The device formerly resided in my FT-301. It is/was T701 on the PB-1439A premix unit. The parts are no longer available from Yaesu. I've posted "wanted" ads in other forums, but in case I have no luck, I'll need to find/make a substitute.

The transformer is marked "Mitsumi" on the top, with "220 017 6NG8" on one side. Mitsumi's web site doesn't list this part, or anything similar.

There are similar parts available from Toko and others. Empty shielded/can-type slug tuned forms are also available, so I can wind my own.

How can I determine the specs of the original part? Would an L meter help (I can probably borrow one)? I have the circuit diagram for the radio, is there any way to calculate what's needed?

TNX es 73,
-Ron, N2JSO

6248. Re: Has Frontier Cap closed _ NO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 02:00:00 UTC
From: enigma_y_2000@yahoo.com
Message-ID: <3bc64e62.747358@news.usfamily.net>
Source record: 49545

I called yesterday, and Evert is still open, sounding great, and selling caps. My cap order is one the way.

Bob

6249. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 02:00:08 UTC
From: KD7KKW <1992jeepxj@usewest.net>
Message-ID: <GVrx7.723$8H1.582803@news.uswest.net>
Source record: 49543
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

And what exactly does this have to do with HAM Radio?
I was just wondering!
I could have sworn I signed up for the "alt.ham-radio.vhf-uhf" Newsgroup!
I dould be wrong though...

Scott Loock
KD7KKW

6250. Re: SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 02:09:28 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9q5jeb$u9f$1@slb3.atl.mindspring.net>
Source record: 49546

I'd use dual couplers, toroids perhaps, one for the forward and the other for reverse.

I think the non-linearity of detector diodes would make them unsuited for this. They respond differently at different RF levels.

So, I'd use one of the log detector chips from Analog devices.

The AD8307 would serve... And by using these chips, the relative voltage difference between the two detectors would be a direct reading of the return loss in dB.

This would remain constant regardless of absolute RF level, and also regardless of what band you are on.

Yeah, the AD8307 isn't all that cheap, but the performance of the design would be solid and repeatable at pretty much any RF level. Here is a link to a website that has the IC and also the rest of the parts if you wanted to make an RF power meter.

http://www.bright.net/~kanga/kanga/power_meter.htm

Jim Pennell
N6BIU

6251. QST article request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 05:17:18 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bc67b8c.1523283@news.freeserve.net>
Source record: 49448

Hi Folks,
would some kind person please scan the June 2001 QST article about the
Power Meter by W7ZOI and W7PAU for me?. The magasine is'nt available
in the UK AFIK
Thanks Mike W, G8NXD qthr

6252. MB6

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 06:35:42 UTC
From: dave <david.tomlinson@ntlworld.com>
Message-ID: <edwx7.489$oE5.63510@news2-win.server.ntlworld.com>
Source record: 49447

Has anyone got any info on a Codar Multiband 6 Regenerative Receiver, Coil details or schematic etc.

Dave 2E1FED.

6253. Kenwood R2000 circuit\manual needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 07:33:46 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3bc69c3d.825771@news.xtra.co.nz>
Source record: 49449

Hi guys, anybody able to copy or scan a manual and circuits for this model. It has a strange problem, works all bands and frequencies except 0.1 to 2.0Mhz. The VCO seems to go off frequency only on these frequencies.
Thanks, Renfred ZL1BDL

6254. WTB : 2 m AMP.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 08:45:57 UTC
From: f4ckv <f4ckv@radioamateur.org>
Message-ID: <20011012-104557-314566@foorum.com>
Source record: 49450

Hi from France,

I want to buy a 2 m. Amp more than 100 Watts.

thanks for info or/and helps to e_mail only.

f4ckv@radioamateur.org
73 de f4ckv Pierre.

--
User of http://www.foorum.com/. The best tools for usenet searching.

6255. Re: SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 11:35:56 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <wAAx7.2628$0v4.118329@news02.optonline.net>
Source record: 49451

Hi,

Some of this depends on what kind of amp you are talking about. No matter what you do a SSB amp will be significantly more difficult to protect than one running CW or FM.

What's often done is to simply sense a fixed level of reflected power. The logic is that the amp will not be damaged by high swr at low levels. All that takes is a simple directional coupler and a detector. The detector feeds a comparator and if it's an SSB amp a one shot.

Enjoy!

Bob Camp
KB8TQ

"Jim Pennell" <NoSpam@killspam.com> wrote in message news:9q5jeb$u9f$1@slb3.atl.mindspring.net...
> I'd use dual couplers, toroids perhaps, one for the forward and the other
> for reverse.
>
> I think the non-linearity of detector diodes would make them unsuited for
> this. They respond differently at different RF levels.
>
> So, I'd use one of the log detector chips from Analog devices.
>
> The AD8307 would serve... And by using these chips, the relative
> voltage difference between the two detectors would be a direct reading of
> the return loss in dB.
>
> This would remain constant regardless of absolute RF level, and also
> regardless of what band you are on.
>
> Yeah, the AD8307 isn't all that cheap, but the performance of the design
> would be solid and repeatable at pretty much any RF level. Here is a link
> to a website that has the IC and also the rest of the parts if you wanted to
> make an RF power meter.
>

> http://www.bright.net/~kanga/kanga/power_meter.htm
>
>
> Jim Pennell
> N6BIU
>
>
>

6256. Re: (fwd) Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 12:08:20 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BC6DD34.5CBAC0A9@nf.sympatico.ca>
Source record: 49452

Terry wrote:

> > May I ask the obvious dumb question. Please?
> > Question: "Why is the foam in there in the first instance and what
> > function does/did it perform; if any?"
> > Terry.
> > PS. I have two older (circular Collins mechanical filters) frequency
> > currently unknown but AFIK they are either individual 'channel' or
> > perhaps 'channel group' filters from late 1950s vintage Collins
> > telecommunications multiplexing/carrier systems. Would THEY have 'foam'
> > in them?

Then John Kolb wrote to Terry ....
:
> I still can't post to the NG, so use email. Feel free to post
> this to the NG if you feel it's of general interest.
>
> The foam holds the assembly consisting of resonant disks and
> transducers in place. Without the foam, it would be laying
> directly on the metal case. After cleaning off the decomposed
> foam, I pack the filter assembly in loose cotton instead.
>
> Haven't seen any foam inside Collins filters, they use
> rubber pieces instead. In some of the filters from the '50's
> it looks like standard rubber groments. In the later "Y" or "V"
> filters, the rubber pieces are custom molded pieces.
>
> If your filters are the telephone equipment channel bank
> filters, they will have a number such as F64Z5. The number
> 64, 68, 72, ... 108 is the carrier frequency. The filters
> are all lower sideband filters, about 3 kHz bassband.
> There were a number of different famlies of them -
> F64Z-7A to F108Z-7A is spec'ed as 2.4 kHz@0.25 db,
> F64Z-7B is 3.1@ 0.5 db, F64Z-7C is 2.9 @ 1.0 db,
> F64Z--14 is 3.1 @ 0.7 db, etc.
>
> John KK6IL

Terry replies ....

That's great information, thanks John.
Interesting that, as you say, the Collins filters don't seem to contain
foam.
The method of coupling between the elements then must be mechanical?
Not electromagnetic? For some strange reason, (mental block maybe!) I

Have less problem, visualizing resonance in a crystalline structure such as a piezo electric crystal!
Funny that I worked with equipment containing mechanical filters but never bothered to find out exactly how they worked; just had some vague idea about electromechanical resonance!
My best regards and thanks for the comment. (I can forward emails to ng if you wish)
Terry.
A few miles from where, in 1901, Marconi received the first Transatlantic wireless signal at St. John's Newfoundland. Now part of Canada.

6257. Re: Has Frontier Cap closed _ NO

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 12:26:29 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BC6E175.146F105F@nf.sympatico.ca>
Source record: 49453

Bob wrote:
>
> I called yesterday, and Evert is still open, sounding great, and
> selling caps. My cap order is one the way.
>
> Bob

Does 'Frontier' have an email or web site? TIA Terry.

6258. Re: We want war - NOT AGAIN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 13:56:59 UTC
From: Your friend Bill <"See the reply to address and take out NO"@bill.com>
Message-ID: <3BC6F6AB.A42F77FA@bill.com>
Source record: 49454
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur

KD7KKW wrote:
>
> And what exactly does this have to do with HAM Radio?
> I was just wondering!
> I could have sworn I signed up for the "alt.ham-radio.vhf-uhf" Newsgroup!
> I dould be wrong though...
>
> Scott Loock
> KD7KKW

This thread fizzled out and died about a week ago. Why do you want to
bring it back up?
-Bill WX4A

6259. WTB:QRP CW Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 14:57:54 UTC
From: Handi Ham <okiemansc@yahoo.com>
Message-ID: <CoDx7.357$IU.445063@nntp2.onemain.com>
Source record: 49455
Cross-posted to: alt.ham-radio,rec.ham-radio.swap,rec.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I would like to buy a multiband CW QRP rig. Homebrew,Project, Not working ok.Condition is not important it is to use not look at.Price is a consideration due to fixed income.
Prefer something not with tiny parts(surface mount/chip components).Due to neuro-muscular disease I am unable to solder close connections.
THANKS,
KC0EH

6260. Re: FM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 17:35:25 UTC
From: Rick <CRMYERS@prodigy.net>
Message-ID: <xRFx7.1445$AW3.274075658@newssvr15.news.prodigy.com>
Source record: 49456

Broadcast Band
"Your friend Bill" <"See the reply to address and take out NO"@bill.com>
wrote in message news:3BC648D9.75DD69B0@bill.com...
> Rick wrote:
> >
> > Does anyone know where I can find plans for building a tube type FM
> > receiver?
>
> What frequency?
> -Bill
>

6261. Re: FM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 17:50:19 UTC
From: Your friend Bill <"See the reply to address and take out NO"@bill.com>
Message-ID: <3BC72D5B.904EBB92@bill.com>
Source record: 49457

Rick wrote:
>
> Broadcast Band
> "Your friend Bill" <"See the reply to address and take out NO"@bill.com>
> wrote in message news:3BC648D9.75DD69B0@bill.com...
> > Rick wrote:
> > >
> > > Does anyone know where I can find plans for building a tube type FM
> > > receiver?
> >
> > What frequency?
> > -Bill
> >

OK. There's a workable schematic for an FM tuner in the RCA Receiving Tube Manuals of the late 50s/early 60s. The one I have is Edition 21 from 1961. This one is a 7-tube mono tuner using all 7-pin miniature tubes.
Although such a thing isn't impossible to locate parts for and build, its not all that practical. You can buy a similar old tuner on ebay for $10 or so and fix it up. What's the motive here, simply a homebrew project? Even still, I'd recommend buying an old tuner to get the parts that you would need to build your own. It's not an easy undertaking like building an audio amp or even a BCB radio.
I don't have a scanner, but I could take some digital shots of the diagram so that you could have a look at it. Feel free to contact me off the list at exray@coqui.net.
-Bill

6262. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 17:54:40 UTC
From: Digi <wacars@hotmail.com>
Message-ID: <9q7an7ail1@neptunium.btinternet.com>
Source record: 49458
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

You sure dould!

"KD7KKW" <1992jeepxj@usewest.net> wrote in message
news:GVrx7.723$8H1.582803@news.uswest.net...
> And what exactly does this have to do with HAM Radio?
> I was just wondering!
> I could have sworn I signed up for the "alt.ham-radio.vhf-uhf"
Newsgroup!
> I dould be wrong though...
>
> Scott Loock
> KD7KKW
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.282 / Virus Database: 150 - Release Date: 25/09/01

6263. Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-12 22:24:45 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com>
Source record: 49459

I'd like to tinker with DSP. Signals will be up to about 100 kHz.
What's out there that's reasonably complete and cheap?

Thanks,
Jim

6264. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 00:27:31 UTC
From: john graesser <graesser@tca.net>
Message-ID: <tsf2eaobdvlc4a@corp.supernews.com>
Source record: 49460

<ZZZjim_cronin@juno.comZZZ> wrote in message
news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?
>
> Thanks,
> Jim

A soundblaster compatible sound card?

The trick is finding the developer libraries, but if you already have the computer with sound card you already have all the hardware.
thanks, John.
KC5DWD

6265. Re: SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 00:48:32 UTC
From: kk5yo <burrito@salsa.com>
Message-ID: <3BC78F60.9BD42FEE@salsa.com>
Source record: 49461

Thanks for the replies. I guess I wasn't specific enough. What I was looking for was methods of detecting the mismatch. I'm trying to think how to use the two toroid approach - One senses voltage and the other current? Then apply the two signals to the two multiplier inputs? I guess with proper scaling you would get a result of zero when Rin = Rout and the phase difference is zero? I think what I'm mainly looking for is a change in phase angle between E and I, indicating the bugcatcher is off resonance. I'm open to comments and corrections!

Lou, kk5yo lbirdsong at hotmail dot com.

Bob Camp wrote:

> Hi,
>
> Some of this depends on what kind of amp you are talking about. No
> matter what you do a SSB amp will be significantly more difficult to
> protect than one running CW or FM.
>
> What's often done is to simply sense a fixed level of reflected power.
> The logic is that the amp will not be damaged by high swr at low
> levels. All that takes is a simple directional coupler and a detector.
> The detector feeds a comparator and if it's an SSB amp a one shot.
>
> Enjoy!
>
> Bob Camp
> KB8TQ
>
> "Jim Pennell" <NoSpam@killspam.com> wrote in message
> news:9q5jeb$u9f$1@slb3.atl.mindspring.net...
> > I'd use dual couplers, toroids perhaps, one for the forward and
> the other
> > for reverse.
> >
> > I think the non-linearity of detector diodes would make them
> unsuited for
> > this. They respond differently at different RF levels.
> >
> > So, I'd use one of the log detector chips from Analog devices.
> >
> > The AD8307 would serve... And by using these chips, the
> relative
> > voltage difference between the two detectors would be a direct
> reading of

> > the return loss in dB.
> >
> > This would remain constant regardless of absolute RF level, and
> also
> > regardless of what band you are on.
> >
> > Yeah, the AD8307 isn't all that cheap, but the performance of the
> design
> > would be solid and repeatable at pretty much any RF level. Here
> is a link
> > to a website that has the IC and also the rest of the parts if you
> wanted to
> > make an RF power meter.
> >
> > http://www.bright.net/~kanga/kanga/power_meter.htm
> >
> >
> > Jim Pennell
> > N6BIU
> >
> >
> >

6266. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 01:05:04 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <4rMx7.2135$rD.94734@typhoon2.gnilink.net>
Source record: 49463

Look into the Analog EZLite evaluation/development boards
(http://www.analog.com/industry/dsp/tools/selection.html). They're about
$89.00 on Analog's web site. The kit comes complete and ready to program,
and you can find code examples and applications for it on the net. Using a
PC sound card would definitly be cheaper, but there's a whole additional
level of understanding that has to be conquered related to API's, libraries,
interfaces, etc.

Joe
W3JDR

<ZZZjim_cronin@juno.comZZZ> wrote in message
news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?
>
> Thanks,
> Jim

6267. Re: SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 02:05:17 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9q87ip$9ou$1@nntp9.atl.mindspring.net>
Source record: 49464

To detect the degree of 'mismatch' with varying input drive levels was the purpose of my original post.

If you take the output of the two AD8307 log detectors which is a DC voltage you can then subtract the reflected from the forward using an OPAMP and the resulting DC output voltage is a direct reading of how good the match is to the antenna.

The higher to voltage, the better the match is.

==========

How this works is the AD8307 gives an output voltage that is the RF input level measured in dB. So, regardless of the absolute level, the relative reading between the two detectors show the forward to reverse power ratio in dB.

This ratio is a direct representation of the return loss. You can find the charts for converting it to SWR in any ARRL handbook, if you want to show it as and SWR reading. I've used the dB return loss for so many years I tend to prefer dB return loss for my display.

Anyway, this method will show the antenna match at all of the HF bands and, depending on the toroid and mechanical construction, up to 2 meters easily.

==========

It is true that if the input is varying VERY fast, the detectors could momentarily give a false reading, but that depends mainly on the capacitors used in filtering the DC output. You should be able to make it fairly accurate at any audio rate of change that you'd get for SSB transmissions.

Jim Pennell
N6BIU

6268. Re: (fwd) Re: Mechanical filters that go, "off"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 03:01:33 UTC
From: John Kolb <jlkolb@cts.com>
Message-ID: <Pine.BSF.4.33.0110121944070.1764-100000@king.cts.com>
Source record: 49465

On Fri, 12 Oct 2001, Terry wrote:

> Terry wrote:
>
> > > May I ask the obvious dumb question. Please?
> > > Question: "Why is the foam in there in the first instance and what
> > > function does/did it perform; if any?"
> > > Terry.
>
> Then John Kolb wrote to Terry ....
> :
> > The foam holds the assembly consisting of resonant disks and
> > transducers in place. Without the foam, it would be laying
> > directly on the metal case. After cleaning off the decomposed
> > foam, I pack the filter assembly in loose cotton instead.
> >
> Terry replies ....
>
> That's great information, thanks John.
> Interesting that, as you say, the Collins filters don't seem to contain
> foam.
> The method of coupling between the elements then must be mechanical?
> Not electromagnetic? For some strange reason, (mental block maybe!) I
> Have less problem, visualizing resonance in a crystalline structure such
> as a piezo electric crystal!

Mechanical filters consists of a number of disks that are mechanicallly
resonant at frequencies near each other other. A filter might consist
of disks resonant at 454.0, 454.4, 454.8. 455.2, 455.6 and 456.0, for
example. These different disks are joined in an array by "bridging
wires" as Collins calls them, mechanically driven at one end of
the array by some sort of transducer, and with another transducer
at the other end of the array to convert any mechanical motion
that makes it through the array back into electrical form. Think of
it as a stagger tuned IF with a number of extremely high Q circuits.
Modern Collins filters, and the Kokusai filter have a ceramic
peizoelectric transducer. Older Collins filters have a
magnetostrictive transducer, a nickel wire in the field of a
coil, with one end bonded to the end disk of the array.

Anyone seeking mechanical filters, email me for a list of
filters for sale. jlkolb@cts.com

6269. Re: We want war - NOW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 04:23:54 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9q8fkq$7mi$0@208.206.142.108>
Source record: 49466
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.scanner.uk,rec.radio.amateur.homebrew,uk.radio.amateur,uk.rec.radio.cb

Not only that, he ID.

Digi wrote:
>
> You sure dould!
>
> "KD7KKW" <1992jeepxj@usewest.net> wrote in message
> news:GVrx7.723$8H1.582803@news.uswest.net...
> > And what exactly does this have to do with HAM Radio?
> > I was just wondering!
> > I could have sworn I signed up for the "alt.ham-radio.vhf-uhf"
> Newsgroup!
> > I dould be wrong though...
> >
> > Scott Loock
> > KD7KKW
> >
> >
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.282 / Virus Database: 150 - Release Date: 25/09/01

6270. Re: SWR protection

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 05:36:41 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BC7D2E9.41AE37FC@home.com>
Source record: 49467

I think all you need to do is to detect the RF voltage level at the
antenna. The point is that the transistor is ok up to is rated maximum
output VCE breakdown voltage. If the amp is run at a lower output into
a high SWR, as long as this voltage does not get exceeded (and it is
kept cool enough), all is ok.

Simply cut back the power when the absolute voltage gets to high.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Jim Pennell wrote:
>
> To detect the degree of 'mismatch' with varying input drive levels was
> the purpose of my original post.
>
> If you take the output of the two AD8307 log detectors which is a DC
> voltage you can then subtract the reflected from the forward using an OPAMP
> and the resulting DC output voltage is a direct reading of how good the
> match is to the antenna.
>
> The higher to voltage, the better the match is.
>
> ==========
>
> How this works is the AD8307 gives an output voltage that is the RF input
> level measured in dB. So, regardless of the absolute level, the relative
> reading between the two detectors show the forward to reverse power ratio in
> dB.
>
> This ratio is a direct representation of the return loss. You can find
> the charts for converting it to SWR in any ARRL handbook, if you want to
> show it as and SWR reading. I've used the dB return loss for so many
> years I tend to prefer dB return loss for my display.
>
> Anyway, this method will show the antenna match at all of the HF bands
> and, depending on the toroid and mechanical construction, up to 2 meters
> easily.
>
> ==========
>
> It is true that if the input is varying VERY fast, the detectors could
> momentarily give a false reading, but that depends mainly on the capacitors
> used in filtering the DC output. You should be able to make it fairly
> accurate at any audio rate of change that you'd get for SSB transmissions.
>

> Jim Pennell
> N6BIU

6271. Re: QST article request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 07:38:01 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bc7eeee.1179704@news.freeserve.net>
Source record: 49468

On Fri, 12 Oct 2001 05:17:18 GMT, mike@corn2.freeserve.co.uk (Mike W)
wrote:

>Hi Folks,
>would some kind person please scan the June 2001 QST article about the
>Power Meter by W7ZOI and W7PAU for me?. The magasine is'nt available
>in the UK AFIK
>Thanks Mike W, G8NXD qthr

Thankyou, Mike W

6272. Modifying Motorola Amp/speaker sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 12:12:41 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <pan.2001.10.13.08.10.08.84.12507@home.com>
Source record: 49469

Hello all,

Does anyone have any information on modifying Motorola amplified speakers
for use with other radios. Specifically, I have a Motorola MSN6054A.
Pinouts will really help, though there is also squelch, etc and general
comments would help.

Thanks

Larry Braden
KC5CWG
Catonsville, Maryland

6273. Re: Modifying Motorola Amp/speaker sets?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 14:13:26 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BC84C06.9C96552B@ccp.com>
Source record: 49470

Larry Braden wrote:
>
> Hello all,
>
> Does anyone have any information on modifying Motorola amplified speakers
> for use with other radios. Specifically, I have a Motorola MSN6054A.
> Pinouts will really help, though there is also squelch, etc and general
> comments would help.
>
> Thanks
>
> Larry Braden
> KC5CWG
> Catonsville, Maryland

Shuld be quite easy, if you have a schematic. Just provide 12 V and terminate your radio speaker output with 8 or 10 ohms. Usually these are only an audio power amp built into the speaker case with the speaker. don't know about that squelch thing, unless there is a control lead that removed power when the radio itself is squelched.

Gary Hildebrand WA7KKP

6274. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 17:47:30 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110130947.3412503d@posting.google.com>
Source record: 49471

ZZZjim_cronin@juno.comZZZ wrote in message
news:<7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com>...

> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?

Up to 100 kHz? Cheap? Nothing.

The usual DSP eval boards support sample rates to 48 kHz.
Ditto sound cards. Run a sane OS and all you have to do
is read off the samples and play with them.

Laura Halliday VE7LDH ï¿½ ï¿½ "Que les nuages soient notre
Grid: CN89lg ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½pied a terre..."
ICBM: 49 16.57 N 123 0.24 W ï¿½ ï¿½ ï¿½ ï¿½- Hospital/Shafte

6275. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 19:23:08 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BC8949D.511B@pop.removethistomailme.net>
Source record: 49472

Laura Halliday wrote:
>

> The usual DSP eval boards support sample rates to 48 kHz.
> Ditto sound cards.

True.

> Run a sane OS and all you have to do
> is read off the samples and play with them.

What difference does the OS make?

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

6276. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 20:38:26 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <cf9hst0vgob5ibukcnm963bv0tqkg38kai@4ax.com>
Source record: 49473

On Fri, 12 Oct 2001 19:27:31 -0500, "john graesser" <graesser@tca.net>
wrote:

>
><ZZZjim_cronin@juno.comZZZ> wrote in message
>news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
>> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
>> What's out there that's reasonably complete and cheap?
>>
>> Thanks,
>> Jim
>
>A soundblaster compatible sound card?
>
>The trick is finding the developer libraries, but if you already have the
>computer with sound card you already have all the hardware.
>thanks, John.
>KC5DWD

John,

Can any soundcards sample at more than 44 kHz?

Thanks,
Jim

6277. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 21:55:42 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <yL2y7.169542$K6.80967877@news2>
Source record: 49474

"John Miles" <jmiles@pop.removethistomailme.net> wrote in message
news:3BC8949D.511B@pop.removethistomailme.net...
> Laura Halliday wrote:
> > Run a sane OS and all you have to do
> > is read off the samples and play with them.
>
> What difference does the OS make?

It can be very difficult under Windows 95/98/Me to simply "read off
samples". Under Windows NT/2000/XP it borders on impossible for the average
bear.

On the other hand, it's tricky but not impossible under Linux or VMS, not
very hard under OS/2, and pretty straightforward under DOS.

Actually, DOS probably doesn't qualify as a "sane OS", it's not really an
operating system. That's what makes it easy!

didleydadidah

6278. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-13 22:03:13 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3BC8B9E8.ECF537E8@netscape.net>
Source record: 49475

Jerry Oxendine wrote:
>
> To each his own, but I NEVER solder thru those darned holes. Two reasons:
> 1) I have found that when used (put on and removed) there is always one
> teensy little wire that will get loose and short the thing out--I've
> repaired many
> a "mysterious" short where the braid was tinned and soldered thru those
> pesky
> holes, 2) Many times, once soldered in this way, it is impossible to remove
> the
> connector and re-use it--OK< I know, I'm a cheapskate.
>
> What I do is to remove the outer covering needed to reach the front end of
> the
> PL connector. Then I carefully unravel the braid and fold it evenly back
> over the outer cover. Then I force the adaptor (if needed for RG8X, or
> RG58) over the braid. This makes for a tight fit, and I only have to solder
> the tip! For RG8,
> or other large coax, I just place the body of the connector over the braid
> and
> "screw" it on over said braid. Before you say WHAAT?--Is this guy NUTS?--
> there IS an advantage, or two, in doing this. First, it solves the problem
> of those darned little wires breaking and finding their way down to the
> front and
> shorting out the thing. By folding the braid back UNDER the body, or
> adaptor,
> it increases the distance between the "hot" (+) and ground (-) so that, even
> if
> a wire or two separates, it will do it right at the point where it is folded
> back,
> and because of the increased distance, it cannot get to where it can do any
> mis-
> chief. The second advantage is that it is quicker! Finally, again
> regarding shorts, "sometimes" that solder can flow TOO much and get down to
> the business end of the PL connector, again causing the job to be done over,
> OR
> having to throw the PL away. Believe me it, DOES work! I've been doing it
> this way for 30+ years. Of course, there's no real "right" way to do
> this--do it
> the way that works for you.
>
> 73
>
> Jerry

> K4KWH
> Marty <marty1225@earthlink.net> wrote in message
> news:eVcl7.8584$IP6.675773@newsread2.prod.itd.earthlink.net...
> > I've been using a 140 watt soldering gun for many years, needing only a
> few
> > seconds contact with the fitting, to get a good electrical and physical
> > bond. The trick is to first drill out the holes. A 5/32 bit is usually
> > about right. This leaves a fresh metal surface to wet and room to get the
> > tip into the hole which makes the solder flow onto the braid in a couple
> of
> > seconds.
> >
> > Marty K1FHR
> >
> > "Bill Turner" <w7ti@dslextreme.com> wrote in message
> > news:vo2aptc874bq8pmmtsfdj7002kd2m6p68e@4ax.com...
> > > On Tue, 4 Sep 2001 13:26:34 +0100, "swampthing"
> > > <swampthing@lpws.zzn.com> wrote:
> > >
> > > >Goodness me! That's a biggy.
> > > >What would one solder with a 250 watt iron?
> > > >Radiators or something like?
> > >
> > > ____
> > >
> > > PL-259 type coax connectors. Using less than ~250 watts is asking for
> > > trouble, either at the time or later on.
> > >
> > > PL-259's can be soldered with wattages as low as ~100, but it requires
> > > leaving the iron on the connector for a longer time, with possible
> > > damage to the coax itself.
> > >
> > > Bill, W7TI
> > >
> >
> >

I like to tin the braid, then use a tubing cutter to trim it to length. Then I drilled out the holes to remove the plating, then soldered the tinned braid to all four holes. To reuse the connector, you clip the wire to a couple inches, heat the center conductor and pull it out, then screw the sleeve backwards to cover the center pin, use two pairs of pliers, and heat the body over a gas stove, or propane torch. Comes out clean, and ready to reuse. Guys used to laugh because I'd buy boxes of used connectors at Dayton, till they saw the results, and I never had to worry about a plug pulling off. I soldered the things with an old Weller 175 Watt iron that's still in one of my toolboxes.

6279. Looking for inductor color codes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 00:51:26 UTC
From: Glenn Butzlaff <gbutzlaff@wi.rr.com>
Message-ID: <ik5y7.28447$si5.2879437@typhoon.kc.rr.com>
Source record: 49476

Can anyone point me in the direction of a web site where I can look up the color codes for molded inductors with the code in a dot
format. I have plenty info on color codes for the axial type inductors, but none of the search results yielded any info for the dot
codes. The inductors themselves have blue bodies, almost shaped like silver-mica caps. Any help would be greatly appreciated.

Glenn Butzlaff, WE9K

6280. Re: Looking for inductor color codes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 01:13:15 UTC
From: Bill & Suzie Whatley <spud286@home.com>
Message-ID: <LE5y7.58660$w62.36150009@news1.denver1.co.home.com>
Source record: 49477

The code uses the standard colors used on resistors.

Bk - Br - Rd - Or - Y - Gn - Bl - V - Gr - Wh

The first two digits are the significant numbers and the third is the
multiplier. If there is a fourth color it is the tolerance.
The value is in microhenry (uH).

Red, Red, Orange, Silver would be 22000 uH 10%

Blue, Gray, Silver, Black would be 0.68 uH 20%

This has been an industry standard for quite some time.
Hope this will be of assistance.

73
WA5VRL
Willis

6281. Re: Cellular antenna's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 04:25:17 UTC
From: Lynn Coffelt <coffeltl@home.com>
Message-ID: <Ns8y7.6157$Zb.2497285@news1.sttln1.wa.home.com>
Source record: 49478

> I live in a fringe to no service area for cellular telephone and am
> considering a quad or corner reflector antenna for the house and something
> for the car. Does anyone have any experience or advise building such
> animals

Played a little with cellular antennas on boats. My experience showed the importance of good coax and good connectors with external antennas. Often a simple ground plane antenna from coathanger wire is all that is needed, but as a previous responder indicated, more height is probably the best enhancement. I have a similar, poor location, which "almost" works. I put a simple, wire groundplane on the end of a 10' garden bean pole, duct taped it to the back porch railing, and it made the darned thing work pretty well. The only problem here is that I only had 10 feet of decent coax, so I still have to go out on the porch to use it. Yankee ingenouity has been summoned, so more practical solution will come before this winter's power and phone outages.
Lynn, W7LTQ

6282. Re: WTB: 250 watt soldering iron

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 04:36:54 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BC91666.69ECB4D7@coqui.net>
Source record: 49479

"Michael A. Terrell" wrote:
>
> Jerry Oxendine wrote:
> >
> > To each his own, but I NEVER solder thru those darned holes. Two reasons:
> > 1) I have found that when used (put on and removed) there is always one
> > teensy little wire that will get loose and short the thing out--I've
> > repaired many
> > a "mysterious" short where the braid was tinned and soldered thru those
> > pesky
> > holes,
>
> I like to tin the braid, then use a tubing cutter to trim it to length.
> Then I drilled out the holes to remove the plating, then soldered the
> tinned braid to all four holes. To reuse the connector, you clip the
> wire to a couple inches, heat the center conductor and pull it out, then
> screw the sleeve backwards to cover the center pin, use two pairs of
> pliers, and heat the body over a gas stove, or propane torch. Comes out
> clean, and ready to reuse. Guys used to laugh because I'd buy boxes of
> used connectors at Dayton, till they saw the results, and I never had to
> worry about a plug pulling off. I soldered the things with an old
> Weller 175 Watt iron that's still in one of my toolboxes.

My 2 cents says it really does help to drill out the holes to a larger
size so that you can get a substantial part of your soldering tip in
there. I had some once that had slots instead of holes and they
soldered very easily. Sad part about them though, was the center pin
insulator was some cheap crap that melted easily.
-WX4A

6283. Re: Cellular antenna's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 06:41:47 UTC
From: Jim Bo <jbollit@ix.netcom.com>
Message-ID: <3BC933AB.DD1D9309@ix.netcom.com>
Source record: 49480

I built a 16 element colinear antenna that had a published figure of 9 dB of gain and is omnidirectional. It worked VERY well. The vertical height of the antenna was in the 6 foot range.

Details are in the ARRL Antenna Handbook. Mine is dated 1974.

Jim

joel wrote:

> I live in a fringe to no service area for cellular telephone and am
> considering a quad or corner reflector antenna for the house and something
> for the car. Does anyone have any experience or advise building such
> animals?
>
> Joel
> ka9zti@arrl.net

6284. hypothetical homebrew wireless channal 3 broadcast scenario

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 07:43:37 UTC
From: farcaster@zdnetonebox.com
Message-ID: <c5b64fee.0110132343.4d1f042c@posting.google.com>
Source record: 49481

hello tv experts, this is a hypothetical i repeat hypothetical homebrew equipment short range tv broadcast scenario question (understand legalities, only looking for purely technical responses). I would like some help on how to estimate feasibility, theoretical or typical range (1 ft, 10ft, 100ft, 1000ft?) and signal/picture/audio quality of ntsc signal (good, acceptable, poor?) using air/wireless transmit method via off-the-shelf (radio shack) transmission equipment being a vcr channel 3/4 modulator output (~61MHz at 1v PP, 6MHz bandwidth) direct to a matched log periodic antenna. Receiver equipment being a standard ntsc television with standard oem rod antenna. Also curious of what performance increases would be seen by adding a 10db gain catv distribution type amplifier between vcr and antenna to boost signal. Actual test data or experiences appreciated. I do not have catv or television knowledge. This is a learning/mental excercise.

6285. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 10:42:09 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BC96C00.37E6C1FD@ay.com.au>
Source record: 49482

ZZZjim_cronin@juno.comZZZ wrote:

> Can any soundcards sample at more than 44 kHz?

Most modern ones can do 48 kHz (ie DAT et al), but that is about it.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Crescent (8% of Full)

6286. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 10:56:53 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BC96F75.B1F1B101@ay.com.au>
Source record: 49483

ZZZjim_cronin@juno.comZZZ wrote:
>
> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?

You won't get a cheap unit that can do 200 ksamples/s.

If you don't need DC-100 kHz consider building a tunable down converter to mix down to DC-20 kHz or so, where a good quality sound card will do the job. The filtering and mixer design with the relatively small spacing and low frequencies might be tough.

If you really need 100 kHz bandwidth you'll need a real DSP development card. There are some middle range evaluation boards that would do the job.

Another solution might be to get a high speed (and optionally multiple channel) sampling card, they are even more expensive than the DSP cards and require the host CPU to do all the work, dead time will be long, RT processing is unlikely.

You can try a flash DAC to parallel port interface. I built one and could _just_ sample composite video sufficiently fast to produce a 64xN image of reasonable quality. 200 kHz of interrupts of a PC is unlikely to be very nice.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Crescent (8% of Full)

6287. decode dtmf, free circuits free pic software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 11:19:06 UTC
From: Chris <chris@alondras.nospm.com>
Message-ID: <9qbsa3$3ng$1@neptunium.btinternet.com>
Source record: 49484

Any use folks?

www.dtmf.info

6288. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 11:38:15 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BC97938.DCA5A989@earthlink.net>
Source record: 49485

Folks---

> Actually, DOS probably doesn't qualify as a "sane OS", it's not really
> an operating system.

Any program or set of programs which allows coherent input to, output from, and processing within a computing architecture can be considered an operating system. You must be referring to a GUI style OS.

Let me remind you that *ix (Linux, HPUX, etc.), VMS, and MS-DOS/PC-DOS are all CLI (command-line interface) based OS's. As such, they provide a basic kernel (the processor interface to I/O), a shell (the user interface), and a set of programs which generate the functionality. The _ONLY_ difference between MS Windows (any flavor) and any of the CLI OS's is that MS Windows makes their primary shell a GUI rather than a CLI. In any case, all flavors of windows have CLI shells available (I once ran BASH on a WinNT box.) Some of you may remember some of the replacement shells for MS-DOS---programs that ran in lieu of COMMAND.COM.

In short: even those programs we create for microcontrollers can be considered OS's. Without an OS, a processor, microcontroller, or other computing device is simply a dummy load. ANY program which accepts input, drives input and output, and processes input and output may be termed an OS.

\end {soapbox}

Henry C. Gernhardt, III
KE4PIB

6289. FS: TS-440S HF XCVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 12:56:44 UTC
From: Joseph Calzaretta <joec@xtalwind.net>
Message-ID: <gYfy7.645$_S1.301664@monger.newsread.com>
Source record: 49486
Cross-posted to: rec.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.swap

For Sale: HF rig. TS-440S, built in antenna tuner. I'm the original
owner, non-smoking. Rig was never mobile. 9+ appearance, operates
100%.
Includes installed 500 cycle CW filter . Filter is fantastic when
operating PSK-31 or other digital modes.
$400.00 plus shipping from Florida 34446
Still have the original shipping box.
Contact: Joe, K4LL@ARRL.NET, (352)382-0809

Write me a note and I will e-mail a picture of it to you

P.S. I'm selling the above because I just received my brand-new rig with
all the bells and
whistles. I don't have room for the TS-440S in my shack, besides.....
I'm spending my retirement money on myself..... rather than letting it go
to my kids. They'd just party with the money !

6290. Re: FM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 14:27:05 UTC
From: arm@helix.nih.gov
Message-ID: <Zghy7.116$f5.200561@mencken.net.nih.gov>
Source record: 49487

For a very simple fm radio design, see my web site on FM only radios:
http://www.somerset.net/arm/fm_only_lowtech.html

-- Andy

Rick (CRMYERS@prodigy.net) wrote:
: Does anyone know where I can find plans for building a tube type FM
: receiver?
:
:

6291. Re: hypothetical homebrew wireless channal 3 broadcast scenario

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 14:29:23 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BC9A143.BFBE9679@coqui.net>
Source record: 49488

Roger wrote:
>
> hello tv experts, this is a hypothetical i repeat hypothetical
> homebrew equipment short range tv broadcast scenario question
> (understand legalities, only looking for purely technical responses).
> I would like some help on how to estimate feasibility, theoretical or
> typical range (1 ft, 10ft, 100ft, 1000ft?) and signal/picture/audio
> quality of ntsc signal (good, acceptable, poor?) using air/wireless
> transmit method via off-the-shelf (radio shack) transmission equipment
> being a vcr channel 3/4 modulator output (~61MHz at 1v PP, 6MHz
> bandwidth) direct to a matched log periodic antenna. Receiver
> equipment being a standard ntsc television with standard oem rod
> antenna. Also curious of what performance increases would be seen by
> adding a 10db gain catv distribution type amplifier between vcr and
> antenna to boost signal. Actual test data or experiences appreciated.
> I do not have catv or television knowledge. This is a learning/mental
> excercise.

Hypothetically....use a few cable TV modulators. You can get the
cheaper ones under $100 brand new. Combine them thru a backwards
splitter and into your antenna. You'll be looking at nearly a volt of
RF on each channel and trust me, it will carry quite a long distance.
The little 3/4 modulators only have about +5 dbmv output...the true
modulators will have about +55 dbmv out and a somewhat narrower
signal...sometimes good enough to use on adjacent channels but I would
avoid that.
If you are restricted to the cheap 3/4 modulators, you want a whole lot
more gain than 10db. You can get amps in the >30db range. No, don't
try to cascade three 10db ones.
And please use directional antennas so that you don't hypothetically
interfere with my TV reception.
-Hypothetical Bill

6292. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 14:56:40 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <IIhy7.171296$K6.81888173@news2>
Source record: 49489

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message news:3BC97938.DCA5A989@earthlink.net...

> You must be referring to a GUI style OS.

Hardly. I take a little broader view of an OS, however. IMO, an operating system abstracts the underlying hardware and manages those hardware resources to provide services to application programs.

The very limited services DOS provides in this respect, and the fact that it really doesn't do much to abstract the underlying hardware are exactly what makes it easy to access the hardware.

In DOS, you simply access the hardware and read the data. Laura suggested you just read the samples and play with them - in DOS, that's exactly what you do.

In all the other operating systems mentioned, you need to write a device driver of some kind. OS/2, having that DOS heritage, allows a little more direct access to the hardware, although it is still managed by the OS.

In Linux and VMS, you get less direct access to the hardware, but the device driver structure is reasonably straightforward and well documented.

In Windows, you need to jump through all sorts of hoops to write a driver, and although the documentation is basically free, MS makes it pretty hard for the average person to find and use that documentation.

Windows 95/98/Me are all basically DOS with a GUI shell. Although MS tried to hide the underlying 16 bit foundation, it's still there, and you can sometimes manage to sneak through and use DOS access to the hardware, although that isn't always possible. In NT (and 2000 and XP) MS has pretty much shut off that access and made driver writing a little more complicated.

What I was saying has nothing to do with a GUI.

> _ONLY_ difference between MS Windows (any flavor) and
> any of the CLI OS's is that MS Windows makes their
> primary shell a GUI rather than a
> In any case, all flavors of windows have CLI shells
> available

Well, I agree to a degree. One could argue that Win 9X really doesn't manage the hardware as well as it should, but if you compare the NT flavors of Windows to Linux, OS/2, VMS, MVS, RSX - any of the REAL operating systems, then that probabaly is the main difference. But DOS is basically a program loader and not much more, which is what makes it ideal for this sort of problem.

> In short: even those programs we create for
> microcontrollers can be considered OS's.

I differentiate between program loaders, program schedulers, and operating systems.

> Without an OS, a processor, microcontroller, or other
> computing device is simply a dummy load. ANY program
> which accepts

Hardly. When I program a PIC to be a keyer or counter or whatever, I have no OS, and no need for one. The application is simple enough that I need no help in managing the tiny amount of hardware that the application needs, and the application will use all of the hardware it uses in an application-specific way. My application isn't an operating system, it's an application.

Now, in the case of the PIC, I have a little collection of routines that I reuse for things like displaying to an LCD, generating PWM output, etc. One COULD, I suppose, consider these to be an operating system, but that's a real stretch.

didleydadidah

6293. BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 15:13:17 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BC9AB8D.2F4CA01F@charter.net>
Source record: 49490

I have acquired a hallicrafter HT-18 along with other peices from my
uncles estate,All kinds of H/V tranformers and parts galore.
the unit has all org knobs and does light up faceplate in ex cond. it is

just really dirty
from being in his shack.no scratches. Also aquired a really nice multi
band AM /CW
transmitter 5 807's driving 5 813's big 6' tall monster. BOY IS IT
HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
trying to load this in my van.:) It works also just really dirty.
any help would be appreciated.
thanks chris NI4L

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6294. Re: BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 15:23:38 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BC9ADFA.DE360F1F@amsat.org>
Source record: 49491

CF -- take a look at Restoration FAQ at URL:
http://www.cs.ruu.nl/wais/html/na-bng/rec.antiques.radio+phono.html
Lots of info on cleanup, cap restoring etc
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
CF wrote:

> I have acquired a hallicrafter HT-18 along with other peices from my
> uncles estate,All kinds of H/V tranformers and parts galore.
> the unit has all org knobs and does light up faceplate in ex cond. it is
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> just really dirty
> from being in his shack.no scratches. Also aquired a really nice multi
> band AM /CW
> transmitter 5 807's driving 5 813's big 6' tall monster. BOY IS IT
> HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
> trying to load this in my van.:) It works also just really dirty.
> any help would be appreciated.
> thanks chris NI4L
>
> --
> "We'll go to the utmost ends of the Earth to hunt down the last of
> Satan's spawn. . ." William Pierce 1978
>
> "Chance favors the prepared mind." Louis Pasteur

6295. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 16:34:41 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9qcen0$m77$1@plutonium.btinternet.com>
Source record: 49492

<ZZZjim_cronin@juno.comZZZ> wrote in message
news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?
>
> Thanks,
> Jim

As other people have said, 100kHz is too high for sound cards. You could use
something like the 16-bit ADI EZKIT Lite with a faster external ADC. It's
quite easy to interface stuff to the EZKIT by soldering in a header,
building your circuit on a piece of prototyping board, and connecting it
with a 50-way ribbon cable. All the signals you need are available.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6296. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 16:38:14 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BC9BF83.1CEF6989@earthlink.net>
Source record: 49493

> > You must be referring to a GUI style OS.
>
> Hardly. I take a little broader view of an OS, however.

Okay. I'll accept your viewpoint. It seems our fundamental views of an OS are different. I had not considered hardware abstraction as being a requisite for classification as an OS, however I _do_ understand and accept that viewpoint.

The first PC I owned with a DOS was a KayproII. It ran CP/M. If you try really hard, you can find that heritage in MS-DOS. In earlier versions of MS- and PC-DOS, you could actually run CP/M .COM files. I remember the Kaypro quick guide I had describing the OS as the ``interface'' between human and machine---thus the reason I take the standpoint I do.

I will, however, stop harping about this, and will not try to convert any to my way of thinking. I don't want this thread to become like the ``CW Bandwith'' thread. :)

Thanks,

Henry C. Gernhardt, III
KE4PIB

6297. Klystron ZV 1011 A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 17:30:43 UTC
From: jan <wuesten@hrz1.hrz.tu-darmstadt.de>
Message-ID: <3BC9CBC3.B301B3A4@hrz1.hrz.tu-darmstadt.de>
Source record: 49495

Hello,
i need some help about a klystron type ZV 1011 A.

Anybody knowing sources or equivalents ?

any help appreciated

please reply to FJZ@gmx.de

yours
Jan

6298. Re: BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 17:39:22 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BC9CDCA.BD46262C@charter.net>
Source record: 49494

You can see pic at

alt.binaries.pictures.radio

AM/CW MULTI BAND TRANSMITTER LATE 40'S ERA
header

CF wrote:

> I have acquired a hallicrafter HT-18 along with other peices from my
> uncles estate,All kinds of H/V tranformers and parts galore.
> the unit has all org knobs and does light up faceplate in ex cond. it is
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> just really dirty
> from being in his shack.no scratches. Also aquired a really nice multi
> band AM /CW
> transmitter 5 807's driving 5 813's big 6' tall monster. BOY IS IT
> HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
> trying to load this in my van.:) It works also just really dirty.
> any help would be appreciated.
> thanks chris NI4L
>
> --
> "We'll go to the utmost ends of the Earth to hunt down the last of
> Satan's spawn. . ." William Pierce 1978
>
> "Chance favors the prepared mind." Louis Pasteur

--
"We'll go to the utmost ends of the Earth to hunt down the last of Satan's
spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6299. Re: BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 17:45:36 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BC9CF40.2896396E@charter.net>
Source record: 49496

transmitter 2-810's driving 2- 813's
this is tube complement after i opened and pulled them out to check.
also has 4-866A and 2 6B4 plus a few other small tubes.
anybody have a idea what this would be worth? use BK changable coils to
change bands
You can see pic at

alt.binaries.pictures.radio

AM/CW MULTI BAND TRANSMITTER LATE 40'S ERA
header

CF wrote:

> I have acquired a hallicrafter HT-18 along with other peices from my
> uncles estate,All kinds of H/V tranformers and parts galore.
> the unit has all org knobs and does light up faceplate in ex cond. it is
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> just really dirty
> from being in his shack.no scratches. Also aquired a really nice multi
> band AM /CW
> transmitter 2-810's driving 2- 813's big 6' tall monster. BOY IS IT
> HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
> trying to load this in my van.:) It works also just really dirty.
> any help would be appreciated.
> thanks chris NI4L
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> "We'll go to the utmost ends of the Earth to hunt down the last of
> Satan's spawn. . ." William Pierce 1978
>
> "Chance favors the prepared mind." Louis Pasteur

--
"We'll go to the utmost ends of the Earth to hunt down the last of Satan's
spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6300. Re: BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 17:48:46 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BC9CFFC.44FF187A@att.net>
Source record: 49347

On the big rig, I suspect that y ou have 5 separate driver/final amplifiers there which were probably driven by the HT-18. A single 807 is more than enough to drive a single 813, and since in the old days there were only 5 bands (80, 40, 20, 15 and 10) or even older (160, 80, 40 20 ane 10) that would account for the five output stages.

You do indeed have a treasure trove of high-power r-f components, power supplies, etc. although I suspect that a single power supply and modulator operated all five output stages.

CF wrote:
>
> I have acquired a hallicrafter HT-18 along with other peices from my
> uncles estate,All kinds of H/V tranformers and parts galore.
> the unit has all org knobs and does light up faceplate in ex cond. it is
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> just really dirty
> from being in his shack.no scratches. Also aquired a really nice multi
> band AM /CW
> transmitter 5 807's driving 5 813's big 6' tall monster. BOY IS IT
> HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
> trying to load this in my van.:) It works also just really dirty.
> any help would be appreciated.
> thanks chris NI4L
>
> --
> "We'll go to the utmost ends of the Earth to hunt down the last of
> Satan's spawn. . ." William Pierce 1978
>
> "Chance favors the prepared mind." Louis Pasteur

--
72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

6301. Re: BEST WAY TO RESTORE..HELP NEEDED...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 17:49:55 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BC9D042.870B8E9A@att.net>
Source record: 49348

On the big rig, I suspect that you have 5 separate driver/final amplifiers there which were probably driven by the HT-18. A single 807 is more than enough to drive a single 813, and since in the old days there were only 5 bands (80, 40, 20, 15 and 10) or even older (160, 80, 40 20 and 10) that would account for the five output stages.

You do indeed have a treasure trove of high-power r-f components, power supplies, etc. although I suspect that a single power supply and modulator operated all five output stages.

For restoration, I recommend looking at the boatanchors newsgroup.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

CF wrote:
>
> I have acquired a hallicrafter HT-18 along with other peices from my
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> the unit has all org knobs and does light up faceplate in ex cond. it is
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> just really dirty
> from being in his shack.no scratches. Also aquired a really nice multi
> band AM /CW
> transmitter 5 807's driving 5 813's big 6' tall monster. BOY IS IT
> HEAVY ABOUT 3 OR 400 POUNDS. You should have seen me and a friend
> trying to load this in my van.:) It works also just really dirty.
> any help would be appreciated.
> thanks chris NI4L

6302. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 18:34:09 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <epdjstk91e7b7q5qpv7me8ncs8h8ehogqn@4ax.com>
Source record: 49349

On Sun, 14 Oct 2001 14:56:40 GMT, "xpyttl"
<xpyttl_nospam@earthling.net> wrote:

>Hardly. I take a little broader view of an OS, however. IMO, an operating
>system abstracts the underlying hardware and manages those hardware
>resources to provide services to application programs.

By that definition even the BIOS would be an OS, since it abstracts
the underlying hardware. Thus, MS-DOS using BIOS services would
definitively be an OS by that definition.

However, hardly any application programs access e.g. the serial ports
through BIOS routines.

>In NT (and 2000 and XP) MS has pretty
>much shut off that access and made driver writing a little more complicated.

While this is the general principle to write a specific device driver,
but I have used industrial controller cards due to performance reasons
(several megabytes/second) in which all things that the device driver
supplied by the card vendor does, is simply to map the dual port RAM
on the card into the user mode address space and it can be accessed as
any array or structure in user mode.

A similar system for mapping individual I/O addresses directly to user
mode can be found from www.sysinternals.com site.

I haven't done this on VMS, but I guess that by installing a suitable
common area with suitable privileges, it should be possible to access
the I/O-page directly from user mode programs. In RSX-11 this was
definitively possible to map the 8 Kbyte I/O page to a user mode
program by specifying the required linker command line switch :-). Of
course privileges were required to run or install such programs.

Of course accessing hardware directly is something that you try to
avoid as long as possible in more complex operating systems. However,
using hardware dedicated to a single process in poll mode can
sometimes be handled by mapping the hardware into user mode address
space, but using interrupts or sharing the same hardware between
multiple concurrent processes will require a proper kernel mode device
driver.

Thus, in both MS-DOS and WinNT (RSX-11 etc.) hardware can be directly
accessed or it can be abstracted using OS services, so I do not see a
principal difference between these systems. Some have multitasking and
memory protection and some don't. Some have virtual memory, others
don't.

Paul OH3LWR

6303. FS: New power transformers for sale or trade

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 19:08:03 UTC
From: Terry Perdue <k8tp@home.com>
Message-ID: <noly7.8161$Zb.3512402@news1.sttln1.wa.home.com>
Source record: 49350

I have three new power transformers that would be ideal for a solid state kilowatt RF amp, high power audio amp or monster bench supply. These are real beauties, but very heavy - so you wouldn't want to pay for shipping. Pick-up only in Seattle area. Specs are as follows:

(Primaries are the same on all three - dual 100/115V (200/230V), 50/60Hz.)

Xfmr #1:

One 55V secondary, tapped at 4V, 40V, 45V and 50V. Rated at 250A peak (6% duty cycle), using a bridge and 150,000 uF cap.

Xfmr #2:

Secondary #1: 50V, tapped at 30V, 40V and 45V. Current rating not known, but substantial.
Secondary #2: 28V center-tapped at 8A continuous, 50A peak (20% duty cycle), using a bridge and 50,000 uF cap.

Xfmr #3:

One 55V secondary, tapped at 4V, 36V, 40V, 45V and 50V. Rated at 100A peak (20% duty cycle) using bridge and 50,000 uF cap.

If interested in any of these, and able to pick up, contact me, and we'll work an easy deal.

Terry Perdue
425-485-3188

6304. Re: hypothetical homebrew wireless channal 3 broadcast scenario

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 19:08:23 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BC9E2A7.414213D6@clifto.com>
Source record: 49351

Roger wrote:
> Receiver
> equipment being a standard ntsc television with standard oem rod
> antenna.

The only help I can give you is to say that the average TV should give a very good picture with 1000 uV input to the antenna terminals if there are no imperfections in the signal path. Rule of thumb in installing TV antennas is to get no less than 3000 uV, enough that the primary signal is much stronger than most multipath signals.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6305. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 19:35:51 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BC9E917.774B93E9@clifto.com>
Source record: 49352

Paul Keinanen wrote:
> <xpyttl_nospam@earthling.net> wrote:
> >Hardly. I take a little broader view of an OS, however. IMO, an operating
> >system abstracts the underlying hardware and manages those hardware
> >resources to provide services to application programs.
>
> By that definition even the BIOS would be an OS, since it abstracts
> the underlying hardware. Thus, MS-DOS using BIOS services would
> definitively be an OS by that definition.

The BIOS isn't an O/S because it can't load and manage programs. Its only
"program loading" facility is to read and execute the first sector on a
disk drive.

MS-DOS using BIOS services might be an O/S *if* it abstracted ALL the
hardware.

> However, hardly any application programs access e.g. the serial ports
> through BIOS routines.

That's because the BIOS serial-port routines are so minimal. But the fact
that applications can access the serial ports directly means that MS-DOS
isn't abstracting the serial ports.

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6306. keypad problems with IC-W21AT handhelp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 20:20:28 UTC
From: "Jurg L. Jaggi" <jaggi@home.com>
Message-ID: <20011014.161931.2112255763.11809@pavilion.highland.org>
Source record: 49353

Initially it was just one button which worked intermittendly, but now
most of the buttons on my HT (IC-W21AT) don't work anymore.
Even when I exercise them a lot, they don't come back to life. Finally
I had it and opened up the HT. The question now is how do you clean
the keypad. I wiped the board and the keys. Is this enough or do I need
to replace the rubber key pad. The board looks OK and the gold plated
contacts are shiny. Any advice is appreciated.
73, Jurg KG2LD

6307. Where to get Icom Replacement parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 20:47:44 UTC
From: Itsallgood <itsallgood1@home.comspam>
Message-ID: <QRmy7.129630$5A3.40743400@news1.rdc2.pa.home.com>
Source record: 49354

Hello looking for whoever supplies Replacement parts for Icom Amatuer gear.

6308. Re: Q: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 22:09:50 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110141409.732182b@posting.google.com>
Source record: 49356

"xpyttl" <xpyttl_nospam@earthling.net> wrote in message
news:<yL2y7.169542$K6.80967877@news2>...

> On the other hand, it's tricky but not impossible under Linux or VMS, not
> very hard under OS/2, and pretty straightforward under DOS.

Huh?

The Linux interface doesn't get much simpler.

Last time I did it, the way to obtain samples was to
open() /dev/dsp, use ioctl() to configure sample rate
and such, then use read() and write() to read or write
samples. Or save the hassle and pipe samples with brec
and friends. Other free OSs (e.g. Free BSD) use a similar
setup.

This is tricky?

Laura Halliday VE7LDH ï¿½ ï¿½ "Que les nuages soient notre
Grid: CN89lg ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½ ï¿½pied a terre..."
ICBM: 49 16.57 N 123 0.24 W ï¿½ ï¿½ ï¿½ ï¿½- Hospital/Shafte

6309. Re: Where to get Icom Replacement parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 22:15:22 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BCA0E7A.56F4FD0F@amsat.org>
Source record: 49357

Well I know this is obvious but in case you haven't contacted them see Service
Support at URL:
http://www.icomamerica.com/
And you did say "whoever"
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com

Itsallgood wrote:

> Hello looking for whoever supplies Replacement parts for Icom Amatuer gear.

6310. WTT AM/CW MULTIBAND TRANSMITTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 22:56:23 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCA1817.46205CA3@charter.net>
Source record: 49358

Have a nice complete 80-10 meter am/cw transmitter,all kinds of
spare tubes and parts. a whole pick-up truck load. this baby is heavy. a

pair of 810's plate modulating a pair of 813's final amp in push=pull.
have pics. pick up only in north carolina
want to trade it all for hf rig with auto tuner.
thanks
chris NI4L

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6311. FS:HA-14 HF amp, Heath tubechecker, tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-14 23:28:06 UTC
From: Brian Radabaugh <brianrada@worldnet.att.net>
Message-ID: <3BCA1FEC.51BF815B@worldnet.att.net>
Source record: 49359
Cross-posted to:
rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

I have the following for sale:

Heath HA 14 HF amp 10-80 mtrs. Includes HP-24 ac power supply.
Output is 500 watts 10-80 mtrs. Amp is 12"W x 11"D x 4.5"H.
$250 obo plus shipping

Heath TC-2 vacuum tube checker, works great $30 obo plus shipping

Misc recieving and transmitting tubes (preferably sold as a lot)
Tube type number available
5894A w/socket 1
829B(new) 1
6JB6 3
6146W 1
6146A 1
12BA6 3
12BY7 4
12AT7 1
12AX7 1
12AV6 1
6AL5 1
6EA8 3
6U8 4
6AU6 3
6BZ6 2
6BN8 2
6CB6 2
13DE7 1

Make an offer I can't refuse!!

Contact Brian, KG7PD

6312. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 00:08:21 UTC
From: cooperjim@aol.com
Message-ID: <20011014200821.18932.00000417@mb-cn.aol.com>
Source record: 49360

Hi All

Where can one find information on sound cards and using them for DSP?

Is there a web site, tutorial, or book available?

73
Jim Cooper NE6O

6313. TL071 and TL081 difference?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 00:30:32 UTC
From: xrenfredm@xtra.co.nz
Message-ID: <3bca2d99.240260@news.xtra.co.nz>
Source record: 49362

Hi there, I have downloaded some characteristics of both these JFET IC's and can't see much significant differece or am I missing something? I am finding it harder to get hold of TL081's and I have a bunch of 071's on hand. Any reason not to use them that you know of?
Thanks, Renfred ZL1BDL
Remove (X) from xrenfred for correct email address...thanks.

6314. WTT FOR HF RIG WITH A/T

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 00:47:26 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCA321E.85704819@charter.net>
Source record: 49361

http://www.dealamerica.com/deal/cgi-bin/ads/bcads.cgi?search_and_display_db_button=on&db_id=2718&exact_match=on&photo_size=full&query=retrieval

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6315. Want Alpha 91B or 99 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 01:00:34 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tsk2a23o867ebe@corp.supernews.com>
Source record: 49355
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I am in the planning stages of a pair if 4CX800 amp and
would like to see what I could be doing to make it
better. Copying and postage paid of course....

Doug N4IJ

85 Wildcat Run
Maggie Valley, NC 28751

6316. variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 03:27:59 UTC
From: Marvin Kroll <merkinp@worldnet.att.net>
Message-ID: <3Jsy7.65978$WW.3160120@bgtnsc05-news.ops.worldnet.att.net>
Source record: 49363

Can anyone recommend a source for 10-360 pF
variable capacitors for receivers?

6317. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 03:56:35 UTC
From: n5kzw@arrl.net
Message-ID: <3bca4b6d.225953330@news.ev1.net>
Source record: 49364

On 27 Sep 2001 09:55:06 GMT, kg4fet@aol.combadspam (KG4FET) wrote:

>Radio Shack has a desoldering iron that has a vacum bulb on it to remove solder
>as you heat it. There are several kits available that have tools by which you
>can remove the whole chip at once by heating all of the pins and pulling it
>out. Chek the Rat Shack catalog for those as well. The torch idea is a good
>one too but as Roy says it should be done outside AND you do need to practice
>on a junk board a couple of times.
>73 and all the best
>DE KG4FET Sandor Proud owner of Yaesu's FT 100

Far and away, the best option is an industrial unit hooked to shop
vacuum source. That, like a solder sucker, will give you a vacuum
pulse that is strong enough to whisk the molten solder away without
cooling it in the joint.

After you have used a solder sucker and some solder wick, the next
step (for DIP/PTH (pin through hole) parts) is to first grab each leg
of the IC on the back side of the board with needle nose pliers and
wiggle it vigorously back and forth. Then go to the top side of the
board with a small screwdriver or awl and press each leg in toward the
body of the part right where it enters the PWB. You should feel a
small "snap" as the solder loint between the side of the legs and the
plated through hole breaks loose. Gently wiggle the part to identify
any legs that need more attention.

Ed - N5KZW

6318. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 04:20:10 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BCA63FA.BDAD3309@coqui.net>
Source record: 49365

Marvin Kroll wrote:
>
> Can anyone recommend a source for 10-360 pF
> variable capacitors for receivers?

AES
http://www.tubesandmore.com
They ain't cheap anymore.

-WX4A

6319. moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 08:28:58 UTC
From: EPS <eliteprotectionservices@home.com>
Message-ID: <e7xy7.12156$YL3.2990648@news3.rdc1.on.home.com>
Source record: 49366
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

Anyone have RSS for Spectra/MTX?

6320. Ready made VCO ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 09:07:12 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <tyoDcBAAdqy7EwDV@invest.fsbusiness.co.uk>
Source record: 49367

Can anyone recommend a manufacturer of ready-made 'HF' VCO's?

I haven't checked, but have been informed that Mini-Circuits only offer models from 15MHz and up.

Any help appreciated.

Phil G4ZOW

6321. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 10:56:39 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <Hhzy7.19001$s9.2403955@news1.rdc1.nj.home.com>
Source record: 49368

Buy an old tube broadcast receiver on EBay and remove the cap.

"Marvin Kroll" <merkinp@worldnet.att.net> wrote in message
news:3Jsy7.65978$WW.3160120@bgtnsc05-news.ops.worldnet.att.net...
> Can anyone recommend a source for 10-360 pF
> variable capacitors for receivers?
>
>

6322. Re: How would I build a basic AM Radio Receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 10:58:57 UTC
From: Alan <SolitaryMan@SoftHome.net>
Message-ID: <3BCAC171.2261@SoftHome.net>
Source record: 49369

Hi Stephen,

Are you being forced to do it with sand-state ?
If not, I would suggest using tubes! <jaws dropping open>
If you pick up an older issue (50's or 60's) of the ARRL
handbook and look therein for a project for a 160 meter
receiver, which tunes 1.800 to 2.000 Mc and shouldn't
be too hard to move the design down to the AM broadcast
band once you understand the design.

I would think you should be able to build the rcvr using
no more than about 2 or 3 tubes (plus a power supply).
And if you use the old vintage tubes, you can make it
look REALLY cool :)

Keep 'em Glowing...

Stephen Henry wrote:
>
> Hello!
>
> I'm trying to find instructions or schematics for building a basic AM Radio
> receiver. I've tried looking on the net but I haven't found anything. If
> anyone could point me to a site, or has instructions on how to build one
> that would be great. I'm trying to put together one that could tune into
> multiple stations, and is connected to some sort of power source, either by
> a direct current or a battery, so not a crystal radio.
>
> Thanks in advance.
>
> Stephen Henry

6323. Re: Project Suggestions?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 11:06:40 UTC
From: Alan <SolitaryMan@SoftHome.net>
Message-ID: <3BCAC340.62A5@SoftHome.net>
Source record: 49370

You want solid-state, or tubes ?

If tubes... Pick up an older ARRL Handbook and flip
through it.. I'm sure you'll find something there.
As for 6m... There are quite a few in the ARRL VHF
Operators Manuals.

If Solid-State... I don't have any suggestions.. :-/

73 4 now,
Alan / kb6lwn

Steve Robeson K4YZ wrote:
>
> I am looking to "scratch" build a 20-75w CW/SSB transmitter and receiver
> (seperates) for HF (including 160M). Also looking for a decent 6M project,
> ssb/cw, but single package. Can anyone suggest projects? I am not interested
> in the 1 watt on a chip projects.
>
> Thanks in advance...Please RSVP direct to my e mail address...
>
> 73
>
> Steve, K4YZ

6324. LF: FT-243 xtals - 8.4 and 8.4167 Mc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 11:20:49 UTC
From: Alan <SolitaryMan@SoftHome.net>
Message-ID: <3BCAC691.7FEF@SoftHome.net>
Source record: 49371

I'm looking for a couple xtals to use in my EFJohnson 6n2
for ops on 50.400 and 50.500 Mc. Anyone have the 8.400
or 8.4167 rocks in FT-243 (or compatable) holders ?

73 4 now,
Alan

pls cc reply to email addr

6325. TS50 TX modification...How could I return to default frequencies?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 11:26:44 UTC
From: hackertito <hackertito@yahoo.com>
Message-ID: <3BCAC7F4.91A70C3@yahoo.com>
Source record: 49372
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello all. I have a TS50(not TS50S) of second hand. It has full TX from 0-30 MHz, and I would like to become TX to their original values. I have surfed over the net and found some modifications, but they are all for open to full TX...How could I close the full TX and restrict it only to permitted frequencies?.
I have found on the PC board of my TS50 diodes D1,D2,D3,D4,D5. Diodes d1,d3,d4,d5 are cut on 1 of the 2 extreme(but the diode is there), but on d2 there are nothing.
What should I do? Should I solder diodes d1,d3,d4,d5 again? (and leave diodes D2 empty (as now)...I think yes but...
And also I think I should reset the CPU...

Any idea....

Best regards from Tito

6326. Re: TL071 and TL081 difference?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 11:36:14 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcae63a$0$2303$44c9b20d@news3.asahi-net.or.jp>
Source record: 49375

Hi Renfred

I can't see a reason not to use them. Jung's "IC Op-Amp Cookbook" p107,
states:
"The specifications of [the TL071 series] are similar to the TL081 series,
but feature lower noise and distortion for ac uses." ;-)

Sounds like a "go" to me!

I'll leave it up to you to ensure that the pinouts are identical...Have fun!

Best wishes
Adam

"Renfred" <xrenfredm@xtra.co.nz> wrote in message
news:3bca2d99.240260@news.xtra.co.nz...
> Hi there, I have downloaded some characteristics of both these JFET
> IC's and can't see much significant differece or am I missing
> something? I am finding it harder to get hold of TL081's and I have a
> bunch of 071's on hand. Any reason not to use them that you know of?
> Thanks, Renfred ZL1BDL
> Remove (X) from xrenfred for correct email address...thanks.

6327. "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 12:30:44 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcae63b$0$2303$44c9b20d@news3.asahi-net.or.jp>
Source record: 49376

Hi all

"Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene, according to the MSDS. (Sounds like a very old-fashioned plastics glue to me.) It's sold in many places in the USA, but I can't find anyone who will ship it overseas, even in 60ml/2oz bottles. [$^%%$%$## postal regulations!]

There's a locally-made product which is supposed to be a 'coil varnish' for only ¥150, but I don't think I'll live long enough to ever see the stuff completely dry! It smells just like hot bakelite as it's "curing"... (a nice, nostalgic smell, to be sure!) but I think I've waited up to 9 days now, and the stuff is still tacky and looks like being a great dust collector. [I bought 2 bottles, with slightly different labels, indicating an age difference...both give the same results...]

Does anyone know a substitute for "Q-Dope"? Can I get by with plastic model cement? I've found one that contains polystyrene resin, but has a whole lot of other gunk in it as well, including acetone. Anyone tried nail polish? I've also come across an American product here called "Crystal Cote" that is supposed to be some form of hobby varnish (tole painting, perhaps?) The label doesn't state the contents, but there is a warning to the effect that it is a resin in solvents, including toluene.

I've got a friendly local pharmacist looking for the makings, but I'm a tad doubtful about getting the toluene. Does anyone know if Xylene will do the trick?

I'm happy to do a few small experiments, but don't want to kill myself. I don't know enough organic chemistry to understand all the reactions of plastics. Is it worth trying to dissolve polystyrene foam (or even polystyrene capacitors?) in organic solvents? Do I NEED to use Q-Dope? [OK, maybe I'm a bit 'anal' that way--but I like to "follow the directions" implicitly...]

Sorry for all the questions, but I've GOTTA get some of these toroidal transformers made soon!

Cheers
Adam

6328. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 12:35:22 UTC
From: "Edward A. Feustel" <efeustel@ists.dartmouth.edu>
Message-ID: <3BCAD80A.D6EABB98@ists.dartmouth.edu>
Source record: 49373

e-bay

Just search for capacitor and capacitors under Ham-Radio.

Ed, N5EI

Marvin Kroll wrote:
>
> Can anyone recommend a source for 10-360 pF
> variable capacitors for receivers?

--

6329. Re: Ready made VCO ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 13:14:20 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3BCAE0AB.15A8F6EA@netscape.net>
Source record: 49381

Philip de Cadanet wrote:
>
> Can anyone recommend a manufacturer of ready-made 'HF' VCO's?
>
> I haven't checked, but have been informed that Mini-Circuits only offer
> models from 15MHz and up.
>
> Any help appreciated.
>
> Phil G4ZOW
>

Use the Minicircuits VCO, a crystal Osc and a mixer. Then you can use
it where yo want it. Add more crystals, get more bands.

6330. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 13:30:18 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tslp7ei3djr6ef@corp.supernews.com>
Source record: 49374

http://www.tubesandmore.com/

6331. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 13:47:10 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BCAE8DE.C17139FE@coqui.net>
Source record: 49377

Don't hold me to this, but I think Q-dope can be simulated by dissolving
styrofoam in lacquer/lacquer thinner.
-Bill

Adam Weber wrote:
>
> Hi all
>
> "Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene,
> according to the MSDS. (Sounds like a very old-fashioned plastics glue to
> me.) It's sold in many places in the USA, but I can't find anyone who will
> ship it overseas, even in 60ml/2oz bottles. [$^%%$%$## postal regulations!]
>
> There's a locally-made product which is supposed to be a 'coil varnish' for
> only ï¿½150, but I don't think I'll live long enough to ever see the stuff
> completely dry! It smells just like hot bakelite as it's "curing"... (a
> nice, nostalgic smell, to be sure!) but I think I've waited up to 9 days
> now, and the stuff is still tacky and looks like being a great dust
> collector. [I bought 2 bottles, with slightly different labels, indicating
> an age difference...both give the same results...]
>
> Does anyone know a substitute for "Q-Dope"? Can I get by with plastic model
> cement? I've found one that contains polystyrene resin, but has a whole lot
> of other gunk in it as well, including acetone. Anyone tried nail polish?
> I've also come across an American product here called "Crystal Cote" that is
> supposed to be some form of hobby varnish (tole painting, perhaps?) The
> label doesn't state the contents, but there is a warning to the effect that
> it is a resin in solvents, including toluene.
>
> I've got a friendly local pharmacist looking for the makings, but I'm a tad
> doubtful about getting the toluene. Does anyone know if Xylene will do the
> trick?
>
> I'm happy to do a few small experiments, but don't want to kill myself. I
> don't know enough organic chemistry to understand all the reactions of
> plastics. Is it worth trying to dissolve polystyrene foam (or even
> polystyrene capacitors?) in organic solvents? Do I NEED to use Q-Dope? [OK,
> maybe I'm a bit 'anal' that way--but I like to "follow the directions"
> implicitly...]
>
> Sorry for all the questions, but I've GOTTA get some of these toroidal
> transformers made soon!
>
> Cheers

> Adam

6332. Re: How would I build a basic AM Radio Receiver?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 13:53:20 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BCAEA4F.CE9807C7@coqui.net>
Source record: 49378

Alan wrote:
>
> Hi Stephen,
>
> Are you being forced to do it with sand-state ?
> If not, I would suggest using tubes! <jaws dropping open>
> If you pick up an older issue (50's or 60's) of the ARRL
> handbook and look therein for a project for a 160 meter
> receiver, which tunes 1.800 to 2.000 Mc and shouldn't
> be too hard to move the design down to the AM broadcast
> band once you understand the design.
>
> I would think you should be able to build the rcvr using
> no more than about 2 or 3 tubes (plus a power supply).
> And if you use the old vintage tubes, you can make it
> look REALLY cool :)
>
> Keep 'em Glowing...
>
> Stephen Henry wrote:
> >
> > Hello!
> >
> > I'm trying to find instructions or schematics for building a basic AM Radio
> > receiver. I've tried looking on the net but I haven't found anything. If
> > anyone could point me to a site, or has instructions on how to build one
> > that would be great. I'm trying to put together one that could tune into
> > multiple stations, and is connected to some sort of power source, either by
> > a direct current or a battery, so not a crystal radio.
> >
> > Thanks in advance.
> >
> > Stephen Henry

If the original poster is interested in going the correct way (with
tubes ;-], Bob Casey WA2ISE has some interesting configurations on his
website of AA5s modified to work off of compactrons and things like
that. Go here and see some clever ideas.
http://home.netcom.com/~wa2ise/radios/compaa3.html

-WX4A

6333. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 15:21:15 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qeu9v$8at$1@news.mbn.or.jp>
Source record: 49379

William E. Sabin wrote in message <3BBC4FDF.B17AB5A0@mwci.net>...
>
>Tom W8JI wrote:
>> A carrier generates sidebands only when changing amplitude or
>> frequency.
>

>For CW transmission, a string of short, fast dots with a certain percentage
rise/fall time has a wider bandwidth than a string of long, slow
>dots with the same percentage rise/fall time.
>

I personally feel this explanation to be misleading. Everything revolves around the sneaky use of the word 'percentage'.... which indirectly suggests that people are probably adjusting the rise/fall times so that they are a constant percentage of the mark period when they change keying speeds. I sure don't do this and I still haven't found any control on my transmitter for routinely making such adjustments.

I bet if you get 100 entry-level hams to read this sentence and then explain what they just read - then you would find that the meaning of 'percentage' did not sink in for many readers and they were left with the impression you were trying to say that the effective spectrum range is determined by the keying speed itself (not the rise/fall times).

73, ram

6334. Circuit Diagram for a Daiwa PS-313 II

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 15:23:07 UTC
From: Mike Newport <newportm@hotmail.com>
Message-ID: <tslvqujbdq6o8d@corp.supernews.com>
Source record: 49380

Does anyone have a circuit diagram for the Daiwa PS-313 II
30 amp PSU.
The control board has "blown up" and can't find any dealer who can help.

73's

Mike

G8VCN

6335. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 17:08:29 UTC
From: msix@plato.nmia.com
Message-ID: <hKEy7.101066$Rb.3770469@sjcpnn01.usenetserver.com>
Source record: 49382

Your friend Bill wrote:
>Don't hold me to this, but I think Q-dope can be simulated by dissolving
>styrofoam in lacquer/lacquer thinner.
>-Bill
Hmm...I thot it was acetone??? Or maybe either???
John

6336. FOR TRADE AM/CW TRANSMITTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 17:48:14 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCB215E.87807464@charter.net>
Source record: 49383

Hi
Take a look at pics of AM/CW TRANSMITTER FOR TRADE
alt.binaries.pictures.radio
header AM/CW TRANSMITTER

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6337. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:00:44 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3BCADDF1.D6ACE2BD@cfl.rr.com>
Source record: 49384

Try clear fingernail polish.

michael N6CHV

Adam Weber wrote:
>
> Hi all
>
> "Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene,
> according to the MSDS. (Sounds like a very old-fashioned plastics glue to
> me.) It's sold in many places in the USA, but I can't find anyone who will
> ship it overseas, even in 60ml/2oz bottles. [$^%%$%$## postal regulations!]

6338. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:01:15 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BCB246B.6F87EC0@amsat.org>
Source record: 49385

From the ARRL License Manual 1976:
CW Bandwidth = wpm X 4 (e.g., 40 WPM = 160 Hz)
"With proper shaping, the necessary keying bandwidth is equal to 4
times the speed in words per minute for International Morse Code;
e.g. at 25 words per minute, the bandwidth is approximately 100 cycles."

--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========

ram wrote:

> William E. Sabin wrote in message <3BBC4FDF.B17AB5A0@mwci.net>...
> >
> >Tom W8JI wrote:
> >> A carrier generates sidebands only when changing amplitude or
> >> frequency.
> >>
> >
> >For CW transmission, a string of short, fast dots with a certain percentage
> rise/fall time has a wider bandwidth than a string of long, slow
> >dots with the same percentage rise/fall time.
> >
>
> I personally feel this explanation to be misleading. Everything revolves
> around the sneaky use of the word 'percentage'.... which indirectly suggests
> that people are probably adjusting the rise/fall times so that they are a
> constant percentage of the mark period when they change keying speeds. I
> sure don't do this and I still haven't found any control on my transmitter
> for routinely making such adjustments.
>
> I bet if you get 100 entry-level hams to read this sentence and then explain
> what they just read - then you would find that the meaning of 'percentage'
> did not sink in for many readers and they were left with the impression you
> were trying to say that the effective spectrum range is determined by the
> keying speed itself (not the rise/fall times).
>
> 73, ram

6339. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:08:51 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcb2d5e$0$252$44c9b20d@news3.asahi-net.or.jp>
Source record: 49386

Hi folks

I've begun the obvious experiment. The Xylene "works" to some degree. The polystyrene packing beads dissolved very nicely. The resulting gunk also 'skins over' pretty fast and resembles white woodworking glue (PVA) as it dries. I guess that whatever is left over after the Xylene evaporates is polystyrene...unless there is also a chemical reaction that I don't know anything about. I managed to dissolve quite a boxful [maybe 40g or thereabouts(?)] of foam in about 80ml of Xylene.

I think acetone and lacquer thinner would work just as well. Mineral spirits can certainly dissolve polystyrene, as well...DAMHIKT!

I found a reference to an article in "QRP Quarterly" suggesting that "Shoe Goo" can be used on toroids. It was only an index entry, tho, and I couldn't find the article anywhere. It would have made an interesting read...

Thanks for the input

Adam

<msix@plato.nmia.com> wrote in message
news:hKEy7.101066$Rb.3770469@sjcpnn01.usenetserver.com...
> Your friend Bill wrote:
> >Don't hold me to this, but I think Q-dope can be simulated by dissolving
> >styrofoam in lacquer/lacquer thinner.
> >-Bill
> Hmm...I thot it was acetone??? Or maybe either???
> John
>
>

6340. Re: Vinyl Video

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:40:00 UTC
From: squilsh <squilsh@ntlworld.com>
Message-ID: <mnGy7.3258$ks.885432@news2-win.server.ntlworld.com>
Source record: 49389
Cross-posted to: uk.radio.amateur,uk.media.tv.misc,sci.electronics.misc,uk.rec.sheds,uk.tech.broadcast,alt.music.kraftwerk,rec.radio.amateur.homebrew

Paul Sherwin <psherwin@strayduck.com> wrote in message
news:3bca25e4.3043409@news.onetel.net.uk...
> On Sat, 13 Oct 2001 22:47:44 +0200, "Peter" <proskam@xs4all.nl> wrote:
>
> >Thought i was the only one getting irritated by this useless discussion
> >about Vinyl Videos.
>
> You obviously haven't noticed that this thread is crossposted to
> uk.tech.broadcast. Maybe the original post was a troll?
>
> Best regards, Paul
>

No, it's not a troll, have a look at the website:

www.vinylvideo.com

I put it in the Kraftwerk NG because I thought some of the sounds that the
discs make (from the picture signal) sounded like them!

Also check out:

www.nbtv.wyenet.co.uk

They are the Narrow Band TV Association, which I'm a member of, I read about
Vinyl Video in their newsletter.

6341. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:51:53 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3BCB2F6A.6CA493C8@olywa.net>
Source record: 49387

The Crystal Radio Society. Try midnightscience.com or something like
that.

Marvin Kroll wrote:
>
> Can anyone recommend a source for 10-360 pF
> variable capacitors for receivers?

6342. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 18:54:23 UTC
From: me <me@nowwhere.com>
Message-ID: <3BCB30DF.D26AF16E@nowwhere.com>
Source record: 49388

Dave &Sandy wrote:

> The Crystal Radio Society. Try midnightscience.com or something like
> that.
>
> Marvin Kroll wrote:
> >
> > Can anyone recommend a source for 10-360 pF
> > variable capacitors for receivers?

try:

http://www.midnightscience.com/catalog5.html

bud

6343. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 19:22:06 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <3bcb36f5.6877969@13.0.32.55>
Source record: 49394

There's a sealer made for concrete walls and floors that
is 15% polystyrene dissolved in a solvent. It's a UGL product
but don't remember the name. I've used it to soak the
ends of wood antenna booms.

73,
Jim

On Mon, 15 Oct 2001 21:30:44 +0900, "Adam Weber"
<adam@home.email.ne.jp> wrote:

>Hi all
>
>"Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene,
>according to the MSDS. (Sounds like a very old-fashioned plastics glue to
>me.) It's sold in many places in the USA, but I can't find anyone who will
>ship it overseas, even in 60ml/2oz bottles. [$^%%$%$## postal regulations!]
>
>There's a locally-made product which is supposed to be a 'coil varnish' for
>only ?150, but I don't think I'll live long enough to ever see the stuff
>completely dry! It smells just like hot bakelite as it's "curing"... (a
>nice, nostalgic smell, to be sure!) but I think I've waited up to 9 days
>now, and the stuff is still tacky and looks like being a great dust
>collector. [I bought 2 bottles, with slightly different labels, indicating
>an age difference...both give the same results...]
>
>Does anyone know a substitute for "Q-Dope"? Can I get by with plastic model
>cement? I've found one that contains polystyrene resin, but has a whole lot
>of other gunk in it as well, including acetone. Anyone tried nail polish?
>I've also come across an American product here called "Crystal Cote" that is
>supposed to be some form of hobby varnish (tole painting, perhaps?) The
>label doesn't state the contents, but there is a warning to the effect that
>it is a resin in solvents, including toluene.
>
>I've got a friendly local pharmacist looking for the makings, but I'm a tad
>doubtful about getting the toluene. Does anyone know if Xylene will do the
>trick?
>
>I'm happy to do a few small experiments, but don't want to kill myself. I
>don't know enough organic chemistry to understand all the reactions of
>plastics. Is it worth trying to dissolve polystyrene foam (or even
>polystyrene capacitors?) in organic solvents? Do I NEED to use Q-Dope? [OK,
>maybe I'm a bit 'anal' that way--but I like to "follow the directions"
>implicitly...]

>
>Sorry for all the questions, but I've GOTTA get some of these toroidal
>transformers made soon!
>
>Cheers
>Adam
>
>
>
>
>

6344. Re: keypad problems with IC-W21AT handhelp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 19:28:19 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BCB38D3.26C6089D@clifto.com>
Source record: 49390

Jurg L. Jaggi wrote:
> Initially it was just one button which worked intermittendly, but now
> most of the buttons on my HT (IC-W21AT) don't work anymore.
> Even when I exercise them a lot, they don't come back to life. Finally
> I had it and opened up the HT. The question now is how do you clean
> the keypad. I wiped the board and the keys. Is this enough or do I need
> to replace the rubber key pad. The board looks OK and the gold plated
> contacts are shiny. Any advice is appreciated.

http://www.sandman.com/button.html
http://an.hitchcock.org/repairfaq/REPAIR/F_irrfaq.html#IRRFAQ_005

--
"I would have been happy to explain further, except you had by that
point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

6345. Re: Ready made VCO ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 21:18:55 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <2dX1nyA$K1y7EwTy@invest.fsbusiness.co.uk>
Source record: 49391

>> Can anyone recommend a manufacturer of ready-made 'HF' VCO's?
>>
>> I haven't checked, but have been informed that Mini-Circuits only offer
>> models from 15MHz and up.
>>
>> Any help appreciated.
>>
>> Phil G4ZOW
>>
>
>Use the Minicircuits VCO, a crystal Osc and a mixer. Then you can use
>it where yo want it. Add more crystals, get more bands.
Thanks Michael.

(((73)))

Phil G4ZOW

6346. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 23:07:41 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BCB6C4E.D8BC5036@earthlink.net>
Source record: 49392

Adam---

> I've begun the obvious experiment. The Xylene "works" to some degree.
> The polystyrene packing beads dissolved very nicely. [...] I guess
> that whatever is left over after the Xylene evaporates is
> polystyrene...unless there is also a chemical reaction that I don't
> know anything about.

Xylene is actually a relatively inert solvent. It is related to toluene in that it is an aromatic compound, toluene being methylbenzene, and xylene being dimethylbenzene. There are actually three flavors of xylene: 1,2-dimethylbenzene (o-xylene), 1,3-dimethylbenzene (m-xylene), and 1,4-dimethylbenzene (p-xylene). The distinction is the relative positions of the methyl (CH_3) groups on the benzene (C_6H_6) ring structure.

Toluene and xylene are often used in college organic labs as simple solvents. The reason is that it is very difficult to break apart the aromatic structure of a benzene ring, and it is also rather difficult to remove or alter the methyl group(s). As such, I believe that what you have remaining, after the xylene evaporates, is polystyrene.

NOTE TO CHEMISTS LISTENING: I have not had any organic chemistry in quite some time. If I have made any errors (such as the ortho-, meta-, and para- positions, or reactivity issues), feel free to and PLEASE correct me. I do not want disinformation spread as gospel.

Thank you,

Henry C. Gernhardt, III
KE4PIB

6347. FS: Parts for your Junkbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-15 23:59:58 UTC
From: Scrounger <bmurrey@amexol.net>
Message-ID: <vlKy7.724$H15.273772@news1.iquest.net>
Source record: 49393
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Parts for Sale as of 10/15/2001
==========
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice long leads.
These are not NPO and are made by S&M Components

50 for $3.00 100 for $5.00

22uF 35v electrolytics - $1.00 and 2 stamps for 100 These caps are on paper
tape, NOS (New, but old stock) made by Richey. I have thousands. Oh boy.

I have NEW BNC chassis connectors for (includes nut and lock washer)
==========
25 for $12.40
50 for $21.00
100 for $36.00

Voltage Regulators
==========
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

Get 5 of each for $15.50

Transistors
==========
2N2222's in METAL TO18 case - 25 for $7.50 NEW PARTS
2N2222's plastic TO92 case - 50 for $4.00 NEW PARTS
2N3906's plastic TO92 case - 50 for $3.50 NEW PARTS

Crystals
==========
8.192 Mhz crystals HC49 25 cents each, and a 1st class stamp. (I have 100)
Use them for filters? These are NEW.

3.579545 Mhz Crystals for 80m - These are pulls, $2.00 each

POTS
==========
10K 1 Turn Panel mount pots. These are pulls. No knobs, just shafts. Most
are Allen Bradley. Pot is about as big as a quarter. With nut. 5 for $4.00

Diodes
==========
1N4148 - You always need these. 75 for $2.00 These are NEW.

Speakers
========
Little 3 inch PC speakers, 8 Ohm. $1.50 includes shipping in a padded envelope.
10 for $8.00 - They work great for little external speakers on QRP rigs. Just add a audio amp you make from 2N3906's and you can run your neighbors out of their house.

Inductors
=========
Any order over $10 gets 10 genuine 100 uH, made in Russia, shipped from Lithuania, inductors. I do not guarantee these to work, I have nothing to test/check them with. Put them in your junk box.

Let me know if you're interested. All prices are post paid to the USA, unless otherwise noted. I will ship to non USA addresses but we need to discuss the shipping charges first.

Thanks - My address on QRZ is good.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

6348. FS: Fill your junkbox for winter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 01:31:40 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <t2My7.728$H15.275066@news1.iquest.net>
Source record: 49395
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.swap

Sorry...had bad return email in last message. Please excuse my clumsiness.

Parts for Sale as of 10/15/2001
==========
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice long leads.
These are not NPO and are made by S&M Components

50 for $3.00
100 for $5.00

22uF 35v electrolytics - $1.00 and 2 stamps for 100 These caps are on paper
tape, NOS (New, but old stock) made by Richey. I have thousands. Oh boy.

I have NEW BNC chassis connectors for (includes nut and lock washer)
==========
25 for $12.40
50 for $21.00
100 for $36.00

Voltage Regulators
==========
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

Get 5 of each for $15.50

Transistors
==========
2N2222's in METAL TO18 case - 25 for $7.50 NEW PARTS
2N2222's plastic TO92 case - 50 for $4.00 NEW PARTS
2N3906's plastic TO92 case - 50 for $3.50 NEW PARTS

Crystals
==========
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POTS
==========
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are Allen Bradley. Pot is about as big as a quarter. With nut. 5 for $4.00

Diodes
======
1N4148 - You always need these. 75 for $2.00 These are NEW.

Speakers
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envelope.
10 for $8.00 - They work great for little external speakers on QRP rigs.
Just add a audio amp you make from 2N3906's and you can run your neighbors
out of their house.

Inductors
=========
Any order over $10 gets 10 genuine 100 uH, made in Russia, shipped from
Lithuania, inductors. I do not guarantee these to work, I have nothing to
test/check them with. Put them in your junk box.

Let me know if you're interested. All prices are post paid to the USA,
unless otherwise noted. I will ship to non USA addresses but we need to
discuss the shipping charges first.

Thanks - My address on QRZ is good.

--
==
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==

6349. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 02:58:08 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcba0a0$0$245$44c9b20d@news3.asahi-net.or.jp>
Source record: 49396

Hi Henry

Thanks for the very clear and succinct technical rap--it sounds like what I read in textbooks a l-o-o-o-ng time ago.
I recall that Xylene, especially, is used a lot in microscopy for the reasons you stated.
I'm guessing, now, but I expect that Toluene has a lower 'flash-point' and might vaporize more quickly...one thick test sample in Xylene hasn't hardened yet--it's been sitting over-night, too. "Q-Dope", I understand, is very quick-drying.

I still hope my pharmacist can track down the "correct" stuff.

Cheers
Adam

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message news:3BCB6C4E.D8BC5036@earthlink.net...
> Adam---
>
> > I've begun the obvious experiment. The Xylene "works" to some degree.
> > The polystyrene packing beads dissolved very nicely. [...] I guess
> > that whatever is left over after the Xylene evaporates is
> > polystyrene...unless there is also a chemical reaction that I don't
> > know anything about.
>
> Xylene is actually a relatively inert solvent. It is related to toluene
> in that it is an aromatic compound, toluene being methylbenzene, and
> xylene being dimethylbenzene. There are actually three flavors of
> xylene: 1,2-dimethylbenzene (o-xylene), 1,3-dimethylbenzene (m-xylene),
> and 1,4-dimethylbenzene (p-xylene). The distinction is the relative
> positions of the methyl (CH_3) groups on the benzene (C_6H_6) ring
> structure.
>
> Toluene and xylene are often used in college organic labs as simple
> solvents. The reason is that it is very difficult to break apart the
> aromatic structure of a benzene ring, and it is also rather difficult to
> remove or alter the methyl group(s). As such, I believe that what you
> have remaining, after the xylene evaporates, is polystyrene.
>
> NOTE TO CHEMISTS LISTENING: I have not had any organic chemistry in
> quite some time. If I have made any errors (such as the ortho-, meta-,
> and para- positions, or reactivity issues), feel free to and PLEASE
> correct me. I do not want disinformation spread as gospel.
>

> Thank you,
>
> Henry C. Gernhardt, III
> KE4PIB

6350. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 02:59:31 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3BCBA293.F566C6C9@powerup.com.au>
Source record: 49300

Also try PVC glue - the stuff that plumbers use to join up
down pipes and the like.

Murray vk4aok

Adam Weber wrote:
>
> Hi all
>
> "Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene,
> according to the MSDS. (Sounds like a very old-fashioned plastics glue to
> me.) It's sold in many places in the USA, but I can't find anyone who will
> ship it overseas, even in 60ml/2oz bottles. [$^%%$%$## postal regulations!]
>
> There's a locally-made product which is supposed to be a 'coil varnish' for
--
****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

6351. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 03:18:36 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcba60e$0$245$44c9b20d@news3.asahi-net.or.jp>
Source record: 49398

Hi all

Acetone and Xylene seem to be the most "popular" recommendations for the solvent, with lacquer thinner another possibility.

Concrete sealant, plastics glue, nail polish, possibly "Shoe Goo" all sound like near-enough substitutes.

For some reason, I recalled a product that almost no American home was without in the 50's--wasn't there a product called "Stanley Glue"? The color, the packaging, even the brush fitted into the top resembles Q-Dope. I wonder...Seems it was used for just about everything, the way CA superglue is used today.

Thanks for any and all input

Cheers
Adam

<ZZZjim_cronin@juno.comZZZ> wrote in message
news:3bcb36f5.6877969@13.0.32.55...
> There's a sealer made for concrete walls and floors that
> is 15% polystyrene dissolved in a solvent. It's a UGL product
> but don't remember the name. I've used it to soak the
> ends of wood antenna booms.
>
> 73,
> Jim
>
> On Mon, 15 Oct 2001 21:30:44 +0900, "Adam Weber"
> <adam@home.email.ne.jp> wrote:
>
> >Hi all
> >
> >"Q-Dope"--awfully simple stuff--20% polystyrene resin, 80% Toluene,
> >according to the MSDS. (Sounds like a very old-fashioned plastics glue to
> >me.)
> >Does anyone know a substitute for "Q-Dope"? Can I get by with plastic
model
> >cement? I've found one that contains polystyrene resin, but has a whole
lot
> >of other gunk in it as well, including acetone. Anyone tried nail polish?
> >I've also come across an American product here called "Crystal Cote" that
is
> >supposed to be some form of hobby varnish (tole painting, perhaps?) The
> >label doesn't state the contents, but there is a warning to the effect

that
> >it is a resin in solvents, including toluene.
> >Does anyone know if Xylene will do the
> >trick?

6352. soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 03:30:57 UTC
From: Rob Crandall <crandall@ee.net>
Message-ID: <RRNy7.593$P1.2904@news>
Source record: 49397

I want to build a radio for UHF/VHF use. Is there a site for some help as I have no clue as to what I'm doing but I'd like to learn while I build.
TIA
Rob

--
Sure I'll get a life,
Just as soon as I download one!

6353. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 03:45:26 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BCBAD56.26D5704A@coqui.net>
Source record: 49399

Adam Weber wrote:
>
> Hi all
>
> Acetone and Xylene seem to be the most "popular" recommendations for the
> solvent, with lacquer thinner another possibility.
>
> Concrete sealant, plastics glue, nail polish, possibly "Shoe Goo" all sound
> like near-enough substitutes.
>
> For some reason, I recalled a product that almost no American home was
> without in the 50's--wasn't there a product called "Stanley Glue"? The
> color, the packaging, even the brush fitted into the top resembles Q-Dope. I
> wonder...Seems it was used for just about everything, the way CA superglue
> is used today.
>
> Thanks for any and all input
>
> Cheers
> Adam
>
How closely related is model car cement to Q-dope? Thats what I used to
use many years ago but they might have changed the formula to make it
less "sniffable". The last I bought was in a dropper-type bottle and
very thin. BTW it now says Xylene, not toluene on the label and doesn't
work as well for models.
Another possibility is the UHU in a tube. At least it resembles
Q-dope. I have no idea of its properties.
-WX4A

6354. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 04:32:45 UTC
From: w4pqwhs@aol.com
Message-ID: <20011016003245.01700.00000178@mb-fn.aol.com>
Source record: 49400

Rob, I suggest that you find a factory built VHF/UHF transceiver ,open it up and take a "looksee". building anything useful is out of the question..However, you can build some of the accessories that go with ham radio and have fun there.. good luck Harold W4PQW

6355. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 05:15:58 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcbc3d4$0$2300$44c9b20d@news3.asahi-net.or.jp>
Source record: 49401

Hi Bill

"Tamiya" brand, available here, contains 11% polystyrene and the major solvent is acetone, with some cyclo[?]-Hexane and an as-yet-unidentified 'butyl-' compound. I agree that it's thinner than in 'the old days'...should work, though, as long as it can hold the windings and coat the transformer with a skin of polystyrene.

Funny how life works...The pharmacist just called and said he can get the Toluene--very cheap, too--but no luck on the resin! That shouldn't present too many problems, though. I think I know a craft shop that might stock it...fingers crossed!

Cheers
Adam

"Your friend Bill" <"See the reply to address and take out NO"@coqui.net> wrote in message news:3BCBAD56.26D5704A@coqui.net...
> Adam Weber wrote:
> >
> > Hi all
> >
> > Acetone and Xylene seem to be the most "popular" recommendations for the
> > solvent, with lacquer thinner another possibility.
> >
> > Concrete sealant, plastics glue, nail polish, possibly "Shoe Goo" all
sound
> > like near-enough substitutes.
> >
> > For some reason, I recalled a product that almost no American home was
> > without in the 50's--wasn't there a product called "Stanley Glue"? The
> > color, the packaging, even the brush fitted into the top resembles
Q-Dope. I
> > wonder...Seems it was used for just about everything, the way CA
superglue
> > is used today.
> >
> > Thanks for any and all input
> >
> > Cheers
> > Adam
> >
> How closely related is model car cement to Q-dope? Thats what I used to
> use many years ago but they might have changed the formula to make it
> less "sniffable". The last I bought was in a dropper-type bottle and

> very thin. BTW it now says Xylene, not toluene on the label and doesn't
> work as well for models.
> Another possibility is the UHU in a tube. At least it resembles
> Q-dope. I have no idea of its properties.
> -WX4A
>

6356. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 08:57:00 UTC
From: Graeme Zimmer <gzimmer@optushome.com.au>
Message-ID: <wDSy7.5773$bE1.26135@news1.rdc1.nsw.optushome.com.au>
Source record: 49402

Facinating stuff.... . Here are the facts as I see them....

(1) If a CW TX had no Keying Filter, the key-click sidebands would extend to infinity.

(2) With no filtering, varying the keying speed would not affect the ultimate BW, but would dramatically affect the distribution of the energy peaks (and nulls) in the sidebands.

(3) In a real world CW TX, the ultimate BW is primarily decided by the keying filter.

(4) Within the BW allowed by the keying filter, the keying speed will dramatically alter the sideband shape, but it will not affect the ultimate bandwidth.

(5) For minimum bandwidth keying, the envelope shape should be optimised for each different keying speed.

(6) For minimum bandwidth, a Raised Cosine (or similar) shape is required. This shape can really only be achieved with a DSP filter (e.g. FIR).

(7) The usual Keying filter is a simple fixed RC network. Such a network cannot give the ideal keying shape.

What is my bottom line?

The ultimate CW bandwidth is not decided by the keying speed, but by the time constants in the keying filter.

The common statement that "Keying speed decides the BW" is simply wrong, as it assumes that the key filter time-constants are changed for each keying speed.

regards ..... Zim VK3GJZ
http://members.optushome.com.au/gzimmer/default.html

6357. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 10:27:59 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9qh2gf$46j$2@neptunium.btinternet.com>
Source record: 49403

"CooperJim" <cooperjim@aol.com> wrote in message
news:20011014200821.18932.00000417@mb-cn.aol.com...
> Hi All
>
> Where can one find information on sound cards and using them for DSP?
>
> Is there a web site, tutorial, or book available?

If you want to do this in real-time under Windows, it's tricky. For learning purposes you could capture some audio input in a WAV file, and then write DSP code in C to manipulate the file, then play it back through the sound card. The SOX (Sound Exchange) code would be worth looking at. You should be able to find it with a web search.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6358. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 11:50:36 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1103_1003233036@msauve>
Source record: 49404

On Tue, 16 Oct 2001 08:57:00 GMT, "Graeme Zimmer" <gzimmer@optushome.com.au> wrote:
> (1) If a CW TX had no Keying Filter, the key-click sidebands would extend to
> infinity.

True.

> (2) With no filtering, varying the keying speed would not affect the
> ultimate BW, but would dramatically affect the distribution of the energy
> peaks (and nulls) in the sidebands.

True, if by "ultimate bandwidth" you mean the range of frequencies which contain any power from the signal. With or without
filtering, keyclicks extend to infinity. They are simply at a lower level with a filter.

> (3) In a real world CW TX, the ultimate BW is primarily decided by the
> keying filter.

False. You're mixing terms here. "Ultimate BW" is by nature theoretical, and cannot be applied to a real world example. If you
mean bandwidth in the common sense, i.e. the frequency range which contains x% of the signal's power (choose any x), then
bandwidth is primarily decided by the keying speed.

> (4) Within the BW allowed by the keying filter, the keying speed will
> dramatically alter the sideband shape, but it will not affect the ultimate
> bandwidth.

True, only because the "BW allowed by the keying filter" and "ultimate bandwidth" are both infinite, and therefore equal. If you
mean bandwidth in the common sense, i.e. the frequency range which contains x% of the signal's power (choose any x), then
bandwidth is primarily decided by the keying speed.

> (5) For minimum bandwidth keying, the envelope shape should be optimised for
> each different keying speed.

True, although producing minimum bandwidth keying is undesirable, as such keying would also make for very difficult copy.
That's why "harder" keying is needed for worse conditions.

> (6) For minimum bandwidth, a Raised Cosine (or similar) shape is required.
> This shape can really only be achieved with a DSP filter (e.g. FIR).

Unproven.

> (7) The usual Keying filter is a simple fixed RC network. Such a network
> cannot give the ideal keying shape.

True.

> The ultimate CW bandwidth is not decided by the keying speed, but by the
> time constants in the keying filter.

True, again, only because "ultimate bandwidth" is infinite. If you mean bandwidth in the common sense, i.e. the frequency range
which contains x% of the signal's power (choose any x), then bandwidth is primarily decided by the keying speed.

> The common statement that "Keying speed decides the BW" is simply wrong, as
> it assumes that the key filter time-constants are changed for each keying
> speed.

False. For any given keying shape, a string of dits will consume greater bandwidth than a string of dahs. Likewise, higher speed
Morse code consumes greater bandwidth. Keying shape has very little effect on the bandwidth (common definition, not the
meaningless "ultimate bandwidth" one.)

6359. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 12:24:53 UTC
From: AB2HR <ab2hr@arrl.net>
Message-ID: <sp9ostsh2kpv8455ksrt1t0jvt8ifu9ori@4ax.com>
Source record: 49405

On 16 Oct 2001 04:32:45 GMT, w4pqwhs@aol.com (W4pqw HS) wrote:

>Rob, I suggest that you find a factory built VHF/UHF transceiver ,open it up
>and take a "looksee". building anything useful is out of the question..However,
>you can build some of the accessories that go with ham radio and have fun
>there.. good luck Harold W4PQW

... actually, not long ago, QST had a series of articles about
building a QRP all mode VHF transceiver. While it was pretty much a
kit project, there was quite a bit of hands-on involved... Might be
worth a look...

Raymond Sirois AB2HR
SysOp: The Lost Chord BBS
607-733-5745
telnet:\\thelostchord.dns2go.com:6000

6360. Are you ready for DSP?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 12:27:03 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <rIVy7.28287$s9.3124135@news1.rdc1.nj.home.com>
Source record: 49406

I wasn't, but here's an interesting tutorial from Analog Devices:
http://www.analog.com/industry/dsp/dsp_book/index.html

Jack

6361. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 14:44:10 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <rFXy7.735$H15.282760@news1.iquest.net>
Source record: 49407

If you're an ARRL member, go to the website and search for Homebrew. I think you have to be a member to use the search features of TIS...but I could be wrong. The ARRL is giving away an awful lot these days.

www.arrl.org

The Technical Article Section has several VHF and UHF rigs you can build.

73

"Rob Crandall" <crandall@ee.net> wrote in message
news:RRNy7.593$P1.2904@news...
> I want to build a radio for UHF/VHF use. Is there a site for some help as
I
> have no clue as to what I'm doing but I'd like to learn while I build.
> TIA
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!
>
>

6362. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 14:56:00 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <r7iostc4s4lulrcub05kpchf5nq0bbf9qu@4ax.com>
Source record: 49408

On Tue, 16 Oct 2001 12:18:36 +0900, "Adam Weber"
<adam@home.email.ne.jp> wrote:

>Hi all
>
>Acetone and Xylene seem to be the most "popular" recommendations for the
>solvent, with lacquer thinner another possibility.
>
In the US, looking at the lable on my can of lacquer thinner in the
garage it seems that the biggest ingredient is toluol which I assume
is touluene. So check the labels of the stuff in your local
paint/hardware stores. I suspect you don't need help from the
chemist (other than real chemists for detailed questions). Melting
the styrofoam pellets in lacquer thinner or some finer solvent
should work, I think.

-Rex, KK6MK

6363. Re: LF: FT-243 xtals - 8.4 and 8.4167 Mc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 15:05:22 UTC
From: SideValve <sabbatai_zvi@NOSPAMhotmail.com>
Message-ID: <bviostonha2ga3pqjd2mf2v0mnveh0kh3h@4ax.com>
Source record: 49409

On Mon, 15 Oct 2001 04:20:49 -0700, Alan <SolitaryMan@SoftHome.net>
inscribed this:

>[I'm looking for a couple xtals to use in my EFJohnson 6n2
>[for ops on 50.400 and 50.500 Mc. Anyone have the 8.400
>[or 8.4167 rocks in FT-243 (or compatable) holders ?

Alan try posting an ad on the CRYSTAL SWAPPING BULLETIN BOARD.

That's your best bet:

http://www.senac.com/boards/880/

You will find many many people selling and buying
radio crystals on there!

I hope that helps.

SV

6364. Re: FS: Parts for your Junkbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 15:06:00 UTC
From: SideValve <sabbatai_zvi@NOSPAMhotmail.com>
Message-ID: <l2jostg710q270hdthhqb4i4nfk9aosmee@4ax.com>
Source record: 49410

Hmmm - are FOR SALE ads allowed in this group now?

On Mon, 15 Oct 2001 18:59:58 -0500, "Scrounger" <bmurrey@amexol.net>
inscribed this:

>[Parts for Sale as of 10/15/2001
>[==============================
>[NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice
long leads.
>[These are not NPO and are made by S&M Components
>[
>[50 for $3.00 100 for $5.00
>[
>[22uF 35v electrolytics - $1.00 and 2 stamps for 100 These caps are
on paper
>[tape, NOS (New, but old stock) made by Richey. I have thousands. Oh
boy.
>[
>[I have NEW BNC chassis connectors for (includes nut and lock washer)
>[===
>[25 for $12.40
>[50 for $21.00
>[100 for $36.00
>[
>[Voltage Regulators
>[==================
>[LM7805C voltage regulators. TO220 case. 5 for $4.00
>[L7806CV voltage regulators. TO220 case. 5 for $4.00
>[LM7808CT voltage regulators. TO220 case. 5 for $4.00
>[LM7812T voltage regulators. TO220 case. 5 for $4.00
>[
>[Get 5 of each for $15.50
>[
>[Transistors
>[===========
>[2N2222's in METAL TO18 case - 25 for $7.50 NEW PARTS
>[2N2222's plastic TO92 case - 50 for $4.00 NEW PARTS
>[2N3906's plastic TO92 case - 50 for $3.50 NEW PARTS
>[
>[Crystals
>[========
>[8.192 Mhz crystals HC49 25 cents each, and a 1st class stamp. (I
have 100)
>[Use them for filters? These are NEW.
>[

>[3.579545 Mhz Crystals for 80m - These are pulls, $2.00 each
>[
>[POTS
>[====
>[10K 1 Turn Panel mount pots. These are pulls. No knobs, just shafts.
Most
>[are Allen Bradley. Pot is about as big as a quarter. With nut. 5
for $4.00
>[
>[Diodes
>[======
>[1N4148 - You always need these. 75 for $2.00 These are NEW.
>[
>[Speakers
>[========
>[Little 3 inch PC speakers, 8 Ohm. $1.50 includes shipping in a
padded
>[envelope.
>[10 for $8.00 - They work great for little external speakers on QRP
rigs.
>[Just add a audio amp you make from 2N3906's and you can run your
neighbors
>[out of their house.
>[
>[Inductors
>[=========
>[Any order over $10 gets 10 genuine 100 uH, made in Russia, shipped
from
>[Lithuania, inductors. I do not guarantee these to work, I have
nothing to
>[test/check them with. Put them in your junk box.
>[
>[
>[Let me know if you're interested. All prices are post paid to the
USA,
>[unless otherwise noted. I will ship to non USA addresses but we need
to
>[discuss the shipping charges first.
>[
>[Thanks - My address on QRZ is good.

6365. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 15:37:14 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110160737.76253bc1@posting.google.com>
Source record: 49411

cooperjim@aol.com (CooperJim) wrote in message
news:<20011014200821.18932.00000417@mb-cn.aol.com>...

> Where can one find information on sound cards and using them for DSP?

>

> Is there a web site, tutorial, or book available?

Read your OS documentation. Read source code.

Accessing the samples is trivial. What you actually
do with them tends not to be.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

6366. FS: LCD 16 x 4 displays, $6 each. NEW! MUST SELL!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 16:28:24 UTC
From: ovrreactor@aol.com-nospam
Message-ID: <20011016122824.01611.00000164@mb-mo.aol.com>
Source record: 49412

I am selling BRAND NEW LCD display modules, made by Data Vision, model number DV-16400. I have over $25 invested in EACH ONE of these.

Asking $6 each (minimum 5, please)

I bought over 1,000 of these for a project that I have decided to abandon (no more time), and I want to sell them ALL immediately. Offers considered for large quantities, OR the entire lot.

Picture, detailed PDF documentation, and manufacturer website link is available at;
http://members.aol.com/ecc81/yardsale

Please respond BY EMAIL to < OvrReactor@aol.com > if interested.

Thanks,
Tom Mitchell

6367. FS- NEW, BUILT Circuit Boards, BFO, QRPp, Audio Amp, etc, Cheep!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 17:20:03 UTC
From: rlucch2098@aol.com
Message-ID: <20011016132003.01727.00000168@mb-cn.aol.com>
Source record: 49413

Hi All;
I have a bunch of Circuit Board kits which have already been assembled by someone.
They are really nicely made on Copper boards with nice bright soldering.
They are mostly for 12vdc operation and all come with a hand drawn schematic.
All are very similiar to the pictures, some may vary as far as component colors, board sizes & component placing.
All components appear NEW!
I am not a designer or a technician so please check the pictures before E-mailing me or asking questions because I may not be able to answer them completely and I do not know the Power output of any of these devices or even thier uses. The Prices are with US Priority Mail included.
These items are mostly for Experimenters & hobbiests.
If you need more then one(1) item, please e-mail for Better Total cost!
Please repond by using the Item number that is written on each circuit, this will make it easier for all as they are many which look alike & are confusing ;-)

1)- 80 meter QRPp transmitter, xtal controlled, 3 transitors, 4-3/8" x 3-3/8", $13.00ppd.(1 Avail)
http://www.baltimorepress.com/~wa2rqy/kit1.jpg
2)- 80 meter QRPp as above except, 4 transistors, more complex, 4" x 6", $15.00ppd.(3 avail.)
http://www.baltimorepress.com/~wa2rqy/kit2-3-4.jpg
3)- 40 meter QRPp Transmitter, xtal contolled, 3 xsistors, 3-3/8" x 5", (2-Avail., 1 is 4" x 6")$13.00ppd
http://www.baltimorepress.com/~wa2rqy/kit5-6.jpg
4)- 20 Meter QRPp Transmitter, Xtal Controlled, 3 xsistors, 4" x 5", (3 avail.)$13.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit7-8-9.jpg
5)- 40 meter VFO(vfo & vfo amp), 2 xsistors, 3-1/2" & 3-3/4" sq. $20ppd(1 avail.)
http://www.baltimorepress.com/~wa2rqy/kit10.jpg
6)- I.F. Amplifier(455khz) 2 xsistors, 3-1/4" x 5", (1 avail.)$10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit11.jpg
7)- Product Detector, 2 xsistors, 3" x 3-1/2", $14.00ppd.(1 avail.)
http://www.baltimorepress.com/~wa2rqy/kit12.jpg
8)- RF Oscillator/Colpitts Test, 1 xsistor, 4"x 6" $ 10.00ppd, (1 Avail.)
http://www.baltimorepress.com/~wa2rqy/kit13.jpg
9)- AF Filter, 1 xsistor, 6" x 4", 3-1/2" x 5"(2 avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit14-15.jpg
10)- BFO(bfo & bfo amp), 1 xsistor ea., 3-1/4"(1 set available)$15.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit16.jpg
11)- 40 meter RF AMP MIXER, 3 xsistors, 3-1/2" x 6", (1 avail.) $14.00ppd.

http://www.baltimorepress.com/~wa2rqy/kit17.jpg
12)- AF AMP, (1)LMO-380 chip, 8 ohms, 6" x 4", (1 Avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit18.jpg
13)- AUDIO AMPLIFIER, 3 xsistors, (2) NEC C-1096 or similiar, 8" x 3-3/8" is largest size, (5 avail.)$20.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit19to24.jpg
14)- RF OSCILLATOR, 2 xsistors, 4" x 6" with alum. standoffs & Air Variable(2 avail.), $20.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit25-26.jpg
15)- Audio Amp., 3 xsistors, 6" x 3-1/2", $16.00ppd.(2 avail.)
http://www.baltimorepress.com/~wa2rqy/kit25-26.jpg
16)- RF Oscillator, 2 xsistors, 6" x 4", (1 avail.)$10.00ppd
http://www.baltimorepress.com/~wa2rqy/kit28.jpg
17)- AF Oscillator, 1 xsistor, req. 1 NPN xsistor, (1 Avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit29.jpg

Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

6368. FS- 65 NOS SINGLE DIGIT RED LEDS, $20.00ppd

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 17:23:44 UTC
From: rlucch2098@aol.com
Message-ID: <20011016132344.01727.00000169@mb-cn.aol.com>
Source record: 49414

Hi All
These LED's are all NOS, never used. They are 10 pin and sizes are shown in the pictures.
http://www.baltimorepress.com/~wa2rqy/65leds1.jpg
http://www.baltimorepress.com/~wa2rqy/65leds2.jpg
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6369. ** FLEA at MIT ** Sunday October 21st Cambridge MA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 18:15:52 UTC
From: w1gsl@mit.edu
Message-ID: <3bcc7958$0$1915$b45e6eb0@senator-bedfellow.mit.edu>
Source record: 49415
Cross-posted to: rec.radio.swap,rec.radio.amateur.misc,rec.radio.info,sci.electronics.misc,ne.forsale,ne.general,rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

This coming Sunday.... The seasons last....

*** !!!! In our Traditional GARAGE and lot !!!! ****
so come rain or shine or super heat the Flea is on !!!

********* $1 buyers discount with hardcopy of this notice ********

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS - HAM RADIO

FLEA all SUMMER at MIT
Sunday October 21st 2001
9AM-2PM

Come to the city for a great flea - plenty of free parking.

MIT's electronics and ham radio flea will take
place on the third Sunday of each month this summer,
April thru October.

There is tailgate space for over 600 sellers and
free, off-street parking for >2000 cars!

Buyers admission is $5 (you get $1 off if
you're lucky enough to have a copy of our ad)
and sellers spaces are $20 for the first and
$15 for each additional at the gate.

The flea will be held at the corner of Albany and
Main streets in Cambridge; right in the Kendall
Square area from 9AM to 2PM, with sellers set-up
time starting at 7AM.

SEASON PASS + Advance Discounts

A sellers discount season pass is available which
offers a 33% discount. See the advanced registration
form below for full seller info.

*** Attention Sellers ***
Prepaid vendors.. Season Pass or monthly,
will be admitted FIRST.
Separate lines will form prior to gate opening
for prepaid and nonprepaid vendors

!! RAIN or SHINE !! Have no fear of rain, a covered
well illuminated tailgate area is available for all

sellers (6'8" clearance).

Talk-in: 145.23- (PL 88.5) W1BOS/R and
W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

********** $1 buyers discount with hard copy of this notice ************

<<<<<<<<<<<<<<<<<<<<<< cut here >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>

Mail the coupon below by the 5th of the month to be a Prepaid Vendor.

FLEA at MIT 2001 Rates

SELLERS

This year each vendor must have a Cambridge Vendor License.
We will do all the paperwork to get the one day Cambridge licenses.
To keep the spaces affordable we are discounting your first space.
To use your spaces the named vendor MUST be present.
Rates include one admission per space.

Advance $17 First space - includes $10 Cambridge Vendor License
$12 Additional Spaces
Must be received by the 5th of the month.

Gate Admission $20 First Space - includes $10 Cambridge Vendor License
$15 Additional Spaces
Admission is after the prepaid vendors

Early Bird Buyer -Admission after the prepaid vendor line is admitted. ~ 7:15AM
** You may not sell. **
$15 per person at the gate.

****************************** cut here ******************************

FLEA at MIT 2001 Advance Space Application

____April ____May ____June ____ July ____Aug ___Sept ____Oct
@ $17 for the first each month + $12 each additional

Name _____ Call _____ $ Included_____

Address _____ Phone _____ Make Check to
The MIT Radio Society
City _____ State _____ Zip _____ PO Box 397082
Cambridge MA 02139
E-mail _____

****
Steve Finberg W1GSL w1gsl@mit.edu
PO Box 82 MIT Br Cambridge MA 02139-7082 617 258 3754
****

6370. QSK/Full break in

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 18:30:05 UTC
From: Per Enocson <08.7676765@telia.com>
Message-ID: <N0%y7.639$Z_1.186504@newsc.telia.net>
Source record: 49417

Hi homebrewers,

I want to arrange qsk/full break- in with a 100 W push pull solid state PA driven by a qrp xcvr.

Currently, the PA has a relay (slow) circuit, which I wish to replace with a solid state, fast cirucit.

The qrp xcvr can provide a voltage shift from +8 to 0 V a few milliseconds ahead of any RF power from it.

Anyone out there who could help me?

Thanks, 73's de Per / SM0WRA

6371. QSK/Full break in

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 18:30:06 UTC
From: Per Enocson <08.7676765@telia.com>
Message-ID: <O0%y7.640$Z_1.186450@newsc.telia.net>
Source record: 49416

Hi homebrewers,

I want to arrange qsk/full break- in with a 100 W push pull solid state PA driven by a qrp xcvr.

Currently, the PA has a relay (slow) circuit, which I wish to replace with a solid state, fast cirucit.

The qrp xcvr can provide a voltage shift from +8 to 0 V a few milliseconds ahead of any RF power from it.

Anyone out there who could help me?

Thanks, 73's de Per / SM0WRA

6372. Re: FS: Parts for your Junkbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 18:57:13 UTC
From: Alan <SolitaryMan@SoftHome.net>
Message-ID: <3BCC8309.2324@SoftHome.net>
Source record: 49418

Hmmm... And if the ARE, does that necessitate quoting
the entire post just to ask ??? ;) 73 - Alan

SideValve wrote:
>
> Hmmm - are FOR SALE ads allowed in this group now?
>
> On Mon, 15 Oct 2001 18:59:58 -0500, "Scrounger" <bmurrey@amexol.net>
> inscribed this:
>
> >[Parts for Sale as of 10/15/2001
> >[==============================

6373. HF Mobile Discussion Board

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 19:35:04 UTC
From: K2BJ <webmaster@k2bj.com>
Message-ID: <IZ%y7.20603$1%.4843552@typhoon.nyroc.rr.com>
Source record: 49419

http://www.k2bj.com/cgi-bin/ubbcgi/Ultimate.cgi?action=intro

6374. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 19:37:34 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9qi29u$r0t$0@208.207.71.130>
Source record: 49420

Rex Allers wrote:
>
> On Tue, 16 Oct 2001 12:18:36 +0900, "Adam Weber"
> <adam@home.email.ne.jp> wrote:
>
> >Hi all
> >
> >Acetone and Xylene seem to be the most "popular" recommendations for the
> >solvent, with lacquer thinner another possibility.
> >
> In the US, looking at the lable on my can of lacquer thinner in the
> garage it seems that the biggest ingredient is toluol which I assume
> is touluene. So check the labels of the stuff in your local
> paint/hardware stores. I suspect you don't need help from the
> chemist (other than real chemists for detailed questions). Melting
> the styrofoam pellets in lacquer thinner or some finer solvent
> should work, I think.
>

I made some coil dope by disolving styrofoam pellets and small chunks
into a couple ounces of acetone. I haven't had occasion to use it yet
except for testing to see how it appears to adhere but I believe it will
work OK.
I sealed it by using aluminum foil under the lid of the small glass jar
(as done on the acetone container) otherwise it will evaporate and dry
out.

Dick W0EX

6375. Re: FS: Parts for your Junkbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 19:38:17 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BCC8CA9.8060706@buttery.org>
Source record: 49421

SideValve wrote:

> Hmmm - are FOR SALE ads allowed in this group now?
>
>
>>[Parts for Sale as of 10/15/2001

(list deleted)

My take would be that for sale ads are fine, IF the items being sold are of specific interest to homebrewers. The parts that were offered in this post were indeed targeted at ham builders, including popular items such as bypass capacitors and BNC connectors; therefore, the post was appropriate.

Ads for complete radios (except possibly for one-of-a-kind homebuilt rigs) and other things that are already well-served by the other amateur radio newsgroups don't belong here, in my opinion.

6376. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 20:00:45 UTC
From: Alan <SolitaryMan@SoftHome.net>
Message-ID: <3BCC91ED.FF8@SoftHome.net>
Source record: 49422

Frankly Rob... I disagree with those telling you that homebrewing anything useful is out of the question. I suggest (as I have to others that wanted to learn) that you obtain an issue of the ARRL Radio Amateurs Handbook. For transistorized stuff you'd ptobably want to find something newer than a 1960's or 70's edition, unless you want to work with tubes (my personal preference).

There are several projects JUST in the ARRL HB that are for Sand-State receivers/transmitters (and tranceivers) that put out a few watts (mw to 5w), up to high pwr transmitters/amps for 144/220/432 etc that have outputs in the 100-500 watt or better range (tubes).

I have the 3rd edition of "The Radio Amateur's V.H.F. Manual" by ARRL that has projects for low power (1-5 watts) VHF and UHF transceivers, transmitting converters (Transverters) up to 1296 MHz, 100-1000 watt amps, plus all yoiu need to know to build an effective antenna array.

While it's true, this is all ANALOG tuned gear, if one get's into the later years of the handbooks (80's, 90's, and 2K) I'm sure you'll find some PLL synthesized and microprocessor digital display projects.

I seem to recall seeing almost a complete chapter in my 1991 ARRL HB for building a computer controlled Shortwave Receiver, and who knows, perhaps in the newer issues there would be the same type project for building a VHF/UHF computer controlled 'exciter', that would let you use not only voice (phone) - but also the digital modes directly with no need for any external units (save maybe an RF amp ;).

Just some thoughts... I'm sold on the ARRL handbooks.
When I was a youngster in Jr.High and HS that was my favorite read in the library...

I still don't have a life <grin>.

73 4 now - Alan

Rob Crandall wrote:
>
> I want to build a radio for UHF/VHF use. Is there a site for some help as I
> have no clue as to what I'm doing but I'd like to learn while I build.
> TIA
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!

6377. info.. Millen 90881 500W Amp RF deck

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 20:19:42 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCC965E.E469F739@charter.net>
Source record: 49423

Millen 90881 500W Amp RF deck
anybody have any pics or info on this amp?
thanks

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6378. Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 21:10:03 UTC
From: Kc7eip <kc7eip@home.com>
Message-ID: <Lm1z7.1488$Gh2.533733@news2.rdc1.bc.home.com>
Source record: 49424

Well now i have finaly built an oscilator to use with my worldband radio... Works great to recieve ssb and cw but only have about 2k of bw due to crystal and not ceramic resonator.. My next project while i am waiting on mouser to mail it to a friend in the states is to start some pic work.... My first question is can someone direct me to plans for a programer for pic nothing specific yet. I don't know too much about them.. I am however fairly fluent at c and have had experience with asembly code...(Old C64 Programer...)

6379. DX Contestvention East Nov. 9 - 11

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 21:18:01 UTC
From: k3bu@aol.com
Message-ID: <20011016171801.01755.00000467@mb-fc.aol.com>
Source record: 49425

****
Tesla Radioclub invites you to DX-Contestvention East

You asked for it! Dayton too much? Visalia too far?

Here it is, chance to rub elbows with fellow hams and tell the lies long into the night, on Nov. 9 - 11, gathering of DXers and Contesters (big guns and little pistols) on the East Coast, conveniently located near NY/NJ/PA tri-state area at 140 acre Verkhovyna Mountainview Resort in Glen Spey, NY (near Port Jervis, NY and Matamoras, PA). See www.Verkhovyna.com for directions and maps.

Friday, Nov. 9, 2001

Pizza - Beer party, funny videos and slide shows, giant hospitality suite, bar open,
demo of new gadgets

Saturday, Nov. 10

Breakfast,
Morning forums - Antennas, propagation
Lunch break, demos, flea market
Afternoon forums - operating aids and techniques, computer assist, equipment mods
Awards dinner
Giant hospitality suite, videos, slide shows, bar open

Sunday, Nov. 11

Breakfast
DXpeditions, VHF forum, digital modes, emergency communications

Call for papers on above or other subjects, please send proposals to K3BU@aol.com before Oct 31.

Hotel/motel accommodations are available. Clubs can reserve rooms for about 10-20 people, Boy Scout style. Camping and RV parking is available.
Clubs are encouraged to reserve rooms early.

Mark your calendar and watch for announcements on www.verkhovyna.com and click on Events.

Great chance for big guns and little pistols to get together in the magnificent mountain setting, learn, have fun and meet all those people behind their callsigns.

For more info and arrangements please contact
Yuri, K3BU@aol.com

tel (973) 808-1970

6380. Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 21:45:08 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BCCAA64.F80B0563@midwestmicro-tek.com>
Source record: 49426

I stopped at the Goodwill this morning to drop off a bunch of old shoes and such. The drop box is around the back of the store and while I I was dropping off my old stuff I noticed that the dumpster a few yards away from the drop box had 4 old plastic AM BCB radios sitting on top of it. A Goodwill worker happed to be hauling out another box of junk at that time so I ask her if I could just have the radios. She said that they had test bad so I could have them. Total score of any worth

2) 50C5s
2) 12BE6 mixers
2)12BA6 pentodes
2) 12AV6 ?
4) 365 pF variable caps, one with built in vernier control
4) 455KHz IF transformers
5) speakers
4) audio transformers
2) good loopsticks
4) audio pots with built in on/off switches
2) power NPN transistors with heat sinks both can be used for RF PA finals
misc. odds and ends

I'm building a crystal radio with one of the loop sticks and one of the variable caps tonight with my nephew. And this weekend I'm going to build a regenerative radio using one of the pentodes and one of the 50C5's for an amp, I think. (see my next post on this).

Rick KC0GIX

6381. 50C5 filiment question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 21:49:13 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BCCAB59.5E3DF9EC@midwestmicro-tek.com>
Source record: 49428

I got a couple of 50C5 tubes the other day and I was wondering about using them with a standard 12 volt or 6 volt supply. Oviously I will not get the same amount of power but just what can I expect? Or will they even work at all?

I also picked up a couple of 12AV6s. What are these? They seem to be two diodes and a triode all in one envelope.

Rick KC0GIX

6382. Re: FS: Parts for your Junkbox

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 22:08:42 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bccaf8e.12880447@news.freeserve.net>
Source record: 49427

On Tue, 16 Oct 2001 15:38:17 -0400, Mark Dulcey <mark@buttery.org>
wrote:

>SideValve wrote:
>
>> Hmmm - are FOR SALE ads allowed in this group now?
>>
>>
>>>[Parts for Sale as of 10/15/2001
>
>(list deleted)
>
>My take would be that for sale ads are fine, IF the items being sold are
>of specific interest to homebrewers. The parts that were offered in this
>post were indeed targeted at ham builders, including popular items such
>as bypass capacitors and BNC connectors; therefore, the post was
>appropriate.
>
>Ads for complete radios (except possibly for one-of-a-kind homebuilt
>rigs) and other things that are already well-served by the other amateur
>radio newsgroups don't belong here, in my opinion.
>
Sounds about right.
I wish the bits were in UK ;-)
Mike W, G8NXD

6383. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 22:23:21 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <tr2z7.32530$s9.3341522@news1.rdc1.nj.home.com>
Source record: 49429

I have a relative who gets their luggage at Goodwill or SA.

... now if you find some 6DQ6B's ...

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message
news:3BCCAA64.F80B0563@midwestmicro-tek.com...
> I stopped at the Goodwill this morning to drop off a bunch of old shoes
> and such. The drop box is around the back of the store and while I I was
> dropping off my old stuff I noticed that the dumpster a few yards away
> from the drop box had 4 old plastic AM BCB radios sitting on top of it.
> A Goodwill worker happed to be hauling out another box of junk at that
> time so I ask her if I could just have the radios. She said that they
> had test bad so I could have them. Total score of any worth
>
> 2) 50C5s
> 2) 12BE6 mixers
> 2)12BA6 pentodes
> 2) 12AV6 ?
> 4) 365 pF variable caps, one with built in vernier control
> 4) 455KHz IF transformers
> 5) speakers
> 4) audio transformers
> 2) good loopsticks
> 4) audio pots with built in on/off switches
> 2) power NPN transistors with heat sinks both can be used for RF PA
> finals
> misc. odds and ends
>
> I'm building a crystal radio with one of the loop sticks and one of the
> variable caps tonight with my nephew. And this weekend I'm going to
> build a regenerative radio using one of the pentodes and one of the
> 50C5's for an amp, I think. (see my next post on this).
>
> Rick KC0GIX
>
>

6384. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 22:27:33 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bccb3c2.13956517@news.freeserve.net>
Source record: 49430

On Tue, 16 Oct 2001 16:45:08 -0500, Rick Haub
<rhaub@midwestmicro-tek.com> wrote:

>I stopped at the Goodwill this morning to drop off a bunch of old shoes
>and such. The drop box is around the back of the store and while I I was
>dropping off my old stuff I noticed that the dumpster a few yards away
>from the drop box had 4 old plastic AM BCB radios sitting on top of it.
>A Goodwill worker happed to be hauling out another box of junk at that
>time so I ask her if I could just have the radios. She said that they
>had test bad so I could have them. Total score of any worth
>
>2) 50C5s
>2) 12BE6 mixers
>2)12BA6 pentodes
>2) 12AV6 ?
>4) 365 pF variable caps, one with built in vernier control
>4) 455KHz IF transformers
>5) speakers
>4) audio transformers
>2) good loopsticks
>4) audio pots with built in on/off switches
>2) power NPN transistors with heat sinks both can be used for RF PA
>finals
>misc. odds and ends
>
>I'm building a crystal radio with one of the loop sticks and one of the
>variable caps tonight with my nephew. And this weekend I'm going to
>build a regenerative radio using one of the pentodes and one of the
>50C5's for an amp, I think. (see my next post on this).
>
Rick..... you lucky bugger ;-)
I see an HF QRP rig in there too. and don't forget the RF Chokes
lurking in the chassis, Gold dust in disguise.
atb Mike W, G8NXD

6385. Re: 50C5 filiment question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 22:43:54 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <YI2z7.32046$ng6.1369101@brie.direct.ca>
Source record: 49431

The 50C5s won't work at all on 12v; the 12AV6 is a diode detector/avc detector and 1st audio, usually resistance/capacitor coupled to the 50C5 or similar. VE7AFN/M.
Rick Haub <rhaub@midwestmicro-tek.com> wrote in message news:3BCCAB59.5E3DF9EC@midwestmicro-tek.com...
> I got a couple of 50C5 tubes the other day and I was wondering about
> using them with a standard 12 volt or 6 volt supply. Oviously I will not
> get the same amount of power but just what can I expect? Or will they
> even work at all?
>
> I also picked up a couple of 12AV6s. What are these? They seem to be two
> diodes and a triode all in one envelope.
>
> Rick KC0GIX
>

6386. 914.5MHz PCB loop antenna?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 23:21:53 UTC
From: weingart@cs.ualberta.ca
Message-ID: <slrn9spg8h.34l.weingart@irricana.cs.ualberta.ca>
Source record: 49435

Hello all,

I'm curious, does anybody know of a good site online (or book wise), with software/design specs for a "simple" 914.5MHz PCB loop antenna? If so, I'd appreciate a quick pointer...

Thanks,

--Toby.

6387. AR313... Any stories?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 23:29:51 UTC
From: ?? <123@nowhere.onearth>
Message-ID: <9qifqsbdn1@usenet.otenet.gr>
Source record: 49432

Hi,
I'm about to make an DF power amp based on AR313 design.
I want it to work 24 hours a day... :-)

Anyone who made it? Things i have to take care of?
TIA
Andreas

6388. Re: AR313... Any stories?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-16 23:32:23 UTC
From: ?? <123@nowhere.onearth>
Message-ID: <9qifvl$bf1$1@usenet.otenet.gr>
Source record: 49433

```
..... I mean RF.....
```

"??" <123@nowhere.onearth> wrote in message
news:9qifqsbdn1@usenet.otenet.gr...
> Hi,
> I'm about to make an DF power amp based on AR313 design.
> I want it to work 24 hours a day... :-)
>
> Anyone who made it? Things i have to take care of?
> TIA
> Andreas
>
>

6389. Re: info.. Millen 90881 500W Amp RF deck

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 00:30:50 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BCCD137.129FC3EE@att.net>
Source record: 49436

Can't help you out, but I built a direct copy of that amp in 1947! Used it
to work CR9AN on 20 CW when he was the only ham in that country.

Check old QST Millen ads in the mid-40's for pictures, etc.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

CF wrote:
>
> Millen 90881 500W Amp RF deck
> anybody have any pics or info on this amp?
> thanks

6390. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 00:45:21 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <2genst83cl2084gkpte4jqjutor07tpkg5@4ax.com>
Source record: 49434

"Adam Weber" <adam@home.email.ne.jp> wrote:

>There's a locally-made product which is supposed to be a 'coil varnish' for
>only ï¿½150, but I don't think I'll live long enough to ever see the stuff
>completely dry! It smells just like hot bakelite as it's "curing"... (a
>nice, nostalgic smell, to be sure!) but I think I've waited up to 9 days
>now, and the stuff is still tacky and looks like being a great dust
>collector.

Consider making a simple drying oven from a cardboard box, some alum
foil, and a small light bulb. Just be careful to keep the temp down to
something that won't bother any of your other components.

A day at 80C should do wonders and still not hurt anything.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

6391. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 02:32:59 UTC
From: cooperjim@aol.com
Message-ID: <20011016223259.01585.00000281@mb-ml.aol.com>
Source record: 49438

Try RF PARTS in San Marcos, CA

www.rfparts.com

I bought a couple of dual 365 pf caps with a 6:1 reduction built in for about US$12 each.

73
Jim NE6O

6392. Re: info.. Millen 90881 500W Amp RF deck

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 02:33:18 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCCEDED.9997BA8@charter.net>
Source record: 49437

Hi george,
do you by chance remember what tubes it used and output?
thanks chris NI4L

"George, W5YR" wrote:

> Can't help you out, but I built a direct copy of that amp in 1947! Used it
> to work CR9AN on 20 CW when he was the only ham in that country.
>
> Check old QST Millen ads in the mid-40's for pictures, etc.
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
> CF wrote:
> >
> > Millen 90881 500W Amp RF deck
> > anybody have any pics or info on this amp?
> > thanks

--
"We'll go to the utmost ends of the Earth to hunt down the last of Satan's
spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6393. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 02:41:23 UTC
From: cooperjim@aol.com
Message-ID: <20011016224123.01585.00000284@mb-ml.aol.com>
Source record: 49439

Hi Laura
Thats what I was afraid of.
I was hoping someone had already done the hard work. ha.
I will start plowing ahead.

73
Jim NE6O

6394. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 02:56:37 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10110162248200.23084-100000@gloria.cam.org>
Source record: 49446

On Tue, 16 Oct 2001, Rick Haub wrote:

> I stopped at the Goodwill this morning to drop off a bunch of old shoes
> and such. The drop box is around the back of the store and while I I was
> dropping off my old stuff I noticed that the dumpster a few yards away
> from the drop box had 4 old plastic AM BCB radios sitting on top of it.
> A Goodwill worker happed to be hauling out another box of junk at that
> time so I ask her if I could just have the radios. She said that they
> had test bad so I could have them. Total score of any worth
>
> 2) 50C5s
> 2) 12BE6 mixers
> 2)12BA6 pentodes
> 2) 12AV6 ?
> 4) 365 pF variable caps, one with built in vernier control
> 4) 455KHz IF transformers
> 5) speakers
> 4) audio transformers
> 2) good loopsticks
> 4) audio pots with built in on/off switches
> 2) power NPN transistors with heat sinks both can be used for RF PA
> finals
> misc. odds and ends
>
> I'm building a crystal radio with one of the loop sticks and one of the
> variable caps tonight with my nephew. And this weekend I'm going to
> build a regenerative radio using one of the pentodes and one of the
> 50C5's for an amp, I think. (see my next post on this).
>
> Rick KC0GIX
>

I never go anywhere without some small tools, in case I see some
piece of electronic equipment in the garbage. Sometimes it's worth
bringing the whole thing home, but other times I can't be bothered,
and it's nice to be able to extract the key parts.

When people ask where they can get "365 pf variable capacitors",
I tell them to look in the garbage, and at the very most, buy
an old radio at the Salvation Army or garage sale for the capacitor.
Such junk radios can be had for less than ordering away for a "new"
capacitor.

I haven't seen tube stuff in years. I do see a lot of solid state
"stereos", and along with the tuner section (those ceramic filters
may be useful for something, though a bit wider than would be

nice), I make a point of extracting the power transformer.

Along with the traditional radios, I now see a fair number of microwave ovens (I've yet to bother with those), and of course computer equipment. Dot matrix printers seem to be quite common at this point, and they usually have lots of plastic encased power transistors.

I've even seen a couple of big oscilliscopes in the garbage in the past few years, but since I already have a working one (and it's even heavier than those I saw), I didn't bother dragging them home.

Michael VE2BVW

6395. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:13:00 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BCCF73B.BBA62930@home.com>
Source record: 49440

Go to the Microchip website (www.microchip.com) and download the manual
for the mid range CPUs.

PICs are a bit primitive and quirky, at least compared to the 6800,
6809, and 68000 CPUs I was used to. Code space and data space are
completely separate, so I had to rethink how I did simple operations
like table lookup. Also, the stack is only eight levels deep, so if you
use interrupts, you have to watch out how deep you get in subroutine
calls. The code needs to be pretty flat.

The instruction set is very simple (primitive). However, if you require
something complex like a multiply or divide, their website has a large
library of math subroutines available free for the downloading.

Not all PICs are a like. The really simple ones like the 0.5K, 8 pin
12C508a does interrupts differently than the mid range CPUs, and only
has two levels of stack.

That all said, they are cheap, very available to hobbyists, and
tremendously useful, which cannot be said for other more normal single
chip processor lines.

If you have written in assembly before, you will do fine.

- Dan, N7VE

Kc7eip wrote:
>
> Well now i have finaly built an oscilator to use with my worldband radio...
> Works great to recieve ssb and cw but only have about 2k of bw due to
> crystal and not ceramic resonator.. My next project while i am waiting on
> mouser to mail it to a friend in the states is to start some pic work.... My
> first question is can someone direct me to plans for a programer for pic
> nothing specific yet. I don't know too much about them.. I am however
> fairly fluent at c and have had experience with asembly code...(Old C64
> Programer...)

6396. fs: Many types of QRPp related, assembled circuit boards, CHEEP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:19:28 UTC
From: rlucch2098@aol.com
Message-ID: <20011016231928.01557.00000330@mb-mp.aol.com>
Source record: 49441

Hi All;
I have a bunch of Circuit Board kits which have already been assembled by someone.
They are really nicely made on Copper boards with nice bright soldering.
They are mostly for 12vdc operation and all come with a hand drawn schematic.
All are very similiar to the pictures, some may vary as far as component colors, board sizes & component placing.
All components appear NEW!
I am not a designer or a technician so please check the pictures before E-mailing me or asking questions because I may not be able to answer them completely and I do not know the Power output of any of these devices or even thier uses. The Prices are with US Priority Mail included.
These items are mostly for Experimenters & hobbiests.
If you need more then one(1) item, please e-mail for Better Total cost!
Please repond by using the Item number that is written on each circuit, this will make it easier for all as they are many which look alike & are confusing ;-)

1)- 80 meter QRPp transmitter, xtal controlled, 3 transitors, 4-3/8" x 3-3/8", $13.00ppd.(1 Avail)
http://www.baltimorepress.com/~wa2rqy/kit1.jpg
2)- 80 meter QRPp as above except, 4 transistors, more complex, 4" x 6", $15.00ppd.(3 avail.)
http://www.baltimorepress.com/~wa2rqy/kit2-3-4.jpg
3)- 40 meter QRPp Transmitter, xtal contolled, 3 xsistors, 3-3/8" x 5", (2-Avail., 1 is 4" x 6")$13.00ppd
http://www.baltimorepress.com/~wa2rqy/kit5-6.jpg
4)- 20 Meter QRPp Transmitter, Xtal Controlled, 3 xsistors, 4" x 5", (3 avail.)$13.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit7-8-9.jpg
5)- 40 meter VFO(vfo & vfo amp), 2 xsistors, 3-1/2" & 3-3/4" sq. $20ppd(1 avail.)
http://www.baltimorepress.com/~wa2rqy/kit10.jpg
6)- I.F. Amplifier(455khz) 2 xsistors, 3-1/4" x 5", (1 avail.)$10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit11.jpg
7)- Product Detector, 2 xsistors, 3" x 3-1/2", $14.00ppd.(1 avail.)
http://www.baltimorepress.com/~wa2rqy/kit12.jpg
8)- RF Oscillator/Colpitts Test, 1 xsistor, 4"x 6" $ 10.00ppd, (1 Avail.)
http://www.baltimorepress.com/~wa2rqy/kit13.jpg
9)- AF Filter, 1 xsistor, 6" x 4", 3-1/2" x 5"(2 avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit14-15.jpg
10)- BFO(bfo & bfo amp), 1 xsistor ea., 3-1/4"(1 set available)$15.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit16.jpg
11)- 40 meter RF AMP MIXER, 3 xsistors, 3-1/2" x 6", (1 avail.) $14.00ppd.

http://www.baltimorepress.com/~wa2rqy/kit17.jpg
12)- AF AMP, (1)LMO-380 chip, 8 ohms, 6" x 4", (1 Avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit18.jpg
13)- AUDIO AMPLIFIER, 3 xsistors, (2) NEC C-1096 or similiar, 8" x 3-3/8" is largest size, (5 avail.)$20.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit19to24.jpg
14)- RF OSCILLATOR, 2 xsistors, 4" x 6" with alum. standoffs & Air Variable(2 avail.), $20.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit25-26.jpg
15)- Audio Amp., 3 xsistors, 6" x 3-1/2", $16.00ppd.(2 avail.)
http://www.baltimorepress.com/~wa2rqy/kit25-26.jpg
16)- RF Oscillator, 2 xsistors, 6" x 4", (1 avail.)$10.00ppd
http://www.baltimorepress.com/~wa2rqy/kit28.jpg
17)- AF Oscillator, 1 xsistor, req. 1 NPN xsistor, (1 Avail.) $10.00ppd.
http://www.baltimorepress.com/~wa2rqy/kit29.jpg

Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

6397. FS: Really excellent GONSET GSB-100 Tranmitter, Pick-up on LI, NY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:29:27 UTC
From: rlucch2098@aol.com
Message-ID: <20011016232927.01557.00000333@mb-mp.aol.com>
Source record: 49442

Hi Guys;
For sale Gonset GSB-100 tramitter, Will clean up(dusty) to be excellent, all complete.
Untested $250, pick up only on LI, NY.
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6398. FS: Hallicrafters SX-28 Receiver, Pick up only, LI, NY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:31:36 UTC
From: rlucch2098@aol.com
Message-ID: <20011016233136.01557.00000336@mb-mp.aol.com>
Source record: 49443

```
For sale:
Hallicrafters SX-28 receiver, plays, better then Very Good condition.
Price is $400, pick up only, on LI, NY!
Thanks es 73...........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html
```

6399. fa: Knight kit VTVM, early model, only at $16, 1 day left!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:36:07 UTC
From: rlucch2098@aol.com
Message-ID: <20011016233607.01557.00000341@mb-mp.aol.com>
Source record: 49444

http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1648882104

6400. FS: 100's of NOS TUBES @ $.50 each

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 03:37:37 UTC
From: Murray Pasternack <m.pasternack@prodigy.net>
Message-ID: <527z7.26892$jM7.961170629@newssvr15.news.prodigy.com>
Source record: 49445
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Please email w6krc@arrl.net for a detailed list of tubes.

6401. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 05:14:42 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <83495D4DFB079CC8.B5B74B81B6637A64.9BEE3E2337C42A52@lp.airnews.net>
Source record: 49298

On Tue, 16 Oct 2001 12:24:53 GMT, AB2HR <ab2hr@arrl.net> wrote:

>... actually, not long ago, QST had a series of articles about
>building a QRP all mode VHF transceiver. While it was pretty much a
>kit project, there was quite a bit of hands-on involved... Might be
>worth a look...

Happen to know the year/month for those?

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6402. Q: Eimac tube 290A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 05:14:55 UTC
From: SM0NCL <c.jogenborn@telia.com>
Message-ID: <jt8z7.617$R43.148686@newsb.telia.net>
Source record: 49297

Looking for Eimac 290A detailed tube data

The tube is marked '290A' and sits on a SK-291A socket.
It's probably a 5kW HF and up ceramic tube.
I would guess it may compare to nCX5000 equivalent or (?).

/Chris
SM0NCL

6403. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 05:21:46 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <1EB5BC3BF7167372.52DA74EC9F6EC4E3.1CD3B21CC62FF7F3@lp.airnews.net>
Source record: 49299

On Tue, 16 Oct 2001 22:56:37 -0400, Michael Black
<blackm00@gloria.cam.org> wrote:

>Along with the traditional radios, I now see a fair number of
>microwave ovens (I've yet to bother with those),

Just jam the door open and put a key on the power line. ;)

>and of course computer
>equipment.

Amazing how much of it still works, too.

>Dot matrix printers seem to be quite common at this point,

Silly thing to throw out. My Citizen GSX-230 Color still works fine,
and is the backup for our inkjet.

>I've even seen a couple of big oscilliscopes in the garbage in the past
>few years, but since I already have a working one (and it's even heavier
>than those I saw), I didn't bother dragging them home.

I picked up five old scopes a few years back for $5 each. Four of
them were up and running after replacing the power supply fuses.
Unfortunately, I gave away three good ones and the bad one, then the
one I kept started flaking out.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6404. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 09:21:00 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3BCD4D0F.A6D9FF6D@cmcorp.com>
Source record: 49301

You guys would drool over what is in our company dumpster...

I hate to, but I've had to throw out brand new electronics.

And I still have a FULL garage, attic, basement...
The war department (Wife) has approved my renting a storage unit,
so I can restore some sense of order in my home...

"Joe Bramblett, KD5NRH" wrote:

> >I've even seen a couple of big oscilliscopes in the garbage in the past
> >few years, but since I already have a working one (and it's even heavier
> >than those I saw), I didn't bother dragging them home.
>
> I picked up five old scopes a few years back for $5 each. Four of
> them were up and running after replacing the power supply fuses.
> Unfortunately, I gave away three good ones and the bad one, then the
> one I kept started flaking out.
>
> Joe Bramblett, KD5NRH
> kd5nrh@kd5nrh.net

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

6405. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 10:30:07 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BCD5DBC.B5530A2C@earthlink.net>
Source record: 49302

Rex---

> In the US, looking at the lable on my can of lacquer thinner in the
> garage it seems that the biggest ingredient is toluol which I assume
> is touluene.

Not quite. It is toluene alcohol. I'm not sure what the chemical composition of toluol is, however it is either some flavor of methylbenzanol, or hydroxymethylbenzene (only one flavor).

> So check the labels of the stuff in your local paint/hardware stores.

Always a good idea even if you aren't looking for a specific solvent. Many of these things have a maximum permissible exposure limit. One should _ALWAYS_ obtain, retain, and study the MSDS for any organic solvent or chemical, and preferably for any household chemical (yes, that includes standard household bleach, which is either 5% or 6% NaCLO by volume---Clorox also had (has?) a product which is 5% NaOH!). AT THE BARE MINIMUM you need to be familiar with toxicity, corrosiveness, environmental hazard, and flamability levels of chemicals used.

6406. 290A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 10:44:13 UTC
From: "Harold E. Johnson" <W4ZCB@Home.com>
Message-ID: <1idz7.78373$Pr1.22063382@news1.rdc1.tn.home.com>
Source record: 49303

Whatever it is, it's antique. My 1954 catalog lists it as "currently in production for renewal use and not suggested for new equipment design."

W4ZCB

6407. TRADE AM/CW TRANSMITTER AND PARTS...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 10:57:04 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCD6400.E26EC6FC@charter.net>
Source record: 49304

Hi everyone,
I have a nice 10-80 meter am/cw transmitter to trade.all kinds of
spare tubes and parts. a whole pick-up truck load. this baby is heavy.
a pair of 810's plate modulating a pair of 813's final
amp in push=pull.4-866A rectifier tubes 2-6b4 and other small tubes in
mod circuit.
Also have a Hallicrafters HT-18 VFO.
pickup in taylorsville,north carolina only.
Trade for any hf gear, amplifiers,tuners etc. vhf/uhf stuff. What do you

have stashed away??
thanks for taking time to look.
chris fox NI4L

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6408. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 11:38:57 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9qkeln$cg5$3@plutonium.btinternet.com>
Source record: 49307

"Kc7eip" <kc7eip@home.com> wrote in message
news:Lm1z7.1488$Gh2.533733@news2.rdc1.bc.home.com...
> Well now i have finaly built an oscilator to use with my worldband
radio...
> Works great to recieve ssb and cw but only have about 2k of bw due to
> crystal and not ceramic resonator.. My next project while i am waiting on
> mouser to mail it to a friend in the states is to start some pic work....
My
> first question is can someone direct me to plans for a programer for pic
> nothing specific yet. I don't know too much about them.. I am however
> fairly fluent at c and have had experience with asembly code...(Old C64
> Programer...)

You'll find lots of PIC programmers, and plenty of other info, here:

http://www.thepicarchive.cwc.net/dtpa/links.html

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6409. My web site is up again

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 11:52:20 UTC
From: arnoldg@c2i.net
Message-ID: <3bcd709c.19746919@news1.c2i.net>
Source record: 49305

Hello,

Maybe some of you have tried to reach my web site the last week. I
regret very much that it has been down. Now everything is working
well again and you can search for and order valves, sockets,
components, books etc.

Regards,

Arnold Goks&#65533;yr
DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

6410. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 14:31:52 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bcd94bf$0$245$44c9b20d@news3.asahi-net.or.jp>
Source record: 49306

"Jim Adney" <jadney@vwtype3.org> wrote in message
news:2genst83cl2084gkpte4jqjutor07tpkg5@4ax.com...
> "Adam Weber" <adam@home.email.ne.jp> wrote:
>
> >There's a locally-made product which is supposed to be a 'coil varnish'
for
> >only ?150, but I don't think I'll live long enough to ever see the stuff
> >completely dry! It smells just like hot bakelite as it's "curing"... (a
> >nice, nostalgic smell, to be sure!) but I think I've waited up to 9 days
> >now, and the stuff is still tacky and looks like being a great dust
> >collector.
>
> Consider making a simple drying oven from a cardboard box, some alum
> foil, and a small light bulb. Just be careful to keep the temp down to
> something that won't bother any of your other components.
>
> A day at 80C should do wonders and still not hurt anything.
>
> -
> ---
> Jim Adney jadney@vwtype3.org
> Madison,Wisconsin USA
> ---

Never thought of that, Jim--and the parts are right there, staring me in the face! I bought them to make an 'oven' for microscope-slides.

Thanks for the tip--I'll try it!

Best wishes
Adam

6411. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 17:43:38 UTC
From: AB2HR <ab2hr@arrl.net>
Message-ID: <9tgrstoda4pdkptfusvv5c3ft53gr9qsjo@4ax.com>
Source record: 49308

On Tue, 16 Oct 2001 12:24:53 GMT, AB2HR <ab2hr@arrl.net> wrote:

>On 16 Oct 2001 04:32:45 GMT, w4pqwhs@aol.com (W4pqw HS) wrote:
>
>>Rob, I suggest that you find a factory built VHF/UHF transceiver ,open it up
>>and take a "looksee". building anything useful is out of the question..However,
>>you can build some of the accessories that go with ham radio and have fun
>>there.. good luck Harold W4PQW
>
>... actually, not long ago, QST had a series of articles about
>building a QRP all mode VHF transceiver. While it was pretty much a
>kit project, there was quite a bit of hands-on involved... Might be
>worth a look...

Yeah, it was a 3-part series, Sept 1999 through Nov 1999. The radio
was called the DSP-10. There was a follow up in a later issue (not
sure what issue) that mentioned that the radio was either available or
soon to be made available in kit form...

Raymond Sirois AB2HR
SysOp: The Lost Chord BBS
607-733-5745
telnet:\\thelostchord.dns2go.com:6000

6412. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 17:54:39 UTC
From: la8ak@online.no
Message-ID: <3bccbed2.9474644@news.online.no>
Source record: 49309

On Tue, 16 Oct 2001 22:23:21 GMT, "schatzie" <jdwalton@home.com>
wrote:

>I have a relative who gets their luggage at Goodwill or SA.
>
>... now if you find some 6DQ6B's ...
>
I have one, what is the pep input power?

6413. Tarde: Pro Audio Gear for SW Radio

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 19:13:45 UTC
From: raciere exe <aeolian@sfd.com>
Message-ID: <SLkz7.593$w04.117369@news.uswest.net>
Source record: 49310
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

looking for the grundig satellit 800, or a comparable quality world-band radio. would also consider the Drake R8B, SW8, or theAOR7030... live in the northwest and looking for a more sensitive radio than my current grundig yb400... primary desire is to dx weak stations.

willing to trade with pro audio gear... lexicon mpx-1 ($700 value) or a raw telefunken compressor (unracked... a $900 value).

email direct. sky@damah.com

- sky

6414. TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 19:27:22 UTC
From: Jungwoo Lee x5362 <jungwoo@lucent.com>
Message-ID: <3BCDDB99.F220A763@lucent.com>
Source record: 49311
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I recently purchased a used TS-820S. The Rx part is working OK. But when I tried to transmit (in SSB, CW, and tune), the ALC meter always hits the maximum (it actually bangs to the restraint bar). I could still make a QSO in CW and SSB so there is a reasonable Rf output even though the ALC meter bangs. I am concerned about whether I am overmodulationg my signal.

Could it be that the driver tube (12BY7) needs to be replaced or is there something wrong in the ALC circuitry? Does anyone have any thoughts on how to fix this problem. I am fairly well versed in electronic circuitry.

-Jungwoo Lee / AB2ND

6415. PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 20:11:08 UTC
From: Mike Williams <mikerw@btinternet.com>
Message-ID: <B7F3A46C.5C0E%mikerw@btinternet.com>
Source record: 49312

Hi

Does naybody know of a piece of (downloadable) software to translate circuit diagrams to a PCB layout.

I need only to do the occasional schematic from RadCom etc to make some projects so don't need a complicated professional package like EWB.

Has anyone some suggestions.

Many thanks

Mike

6416. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 21:07:34 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <57CBA5F736649E0F.FF19D731C4B82E1A.2498FBDDF51E3AB8@lp.airnews.net>
Source record: 49313

On Wed, 17 Oct 2001 00:21:46 -0500, "Joe Bramblett, KD5NRH"
<kd5nrh@kd5nrh.net> wrote:

Dammit! I was all set for a trip to the Goodwill store after you guys
reminded me of this stuff. My car fried the alternator primary wire
again, (different spot from the last one I fixed - time to replace the
whole thing now) and the battery's dead.

Guess what two things I don't have around. That's right; another car
battery and a 12V power supply.

Oh well. The YL gets off work in a little over an hour. I'll just
have to borrow her car again.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6417. Re: 50C5 filiment question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 22:23:48 UTC
From: Harry Hurst <wa3ptg@home.com>
Message-ID: <Uxnz7.138765$5A3.44787924@news1.rdc2.pa.home.com>
Source record: 49314

The 50C5 has a 50 volt filament. They were used in line operated radios years ago. I believe they will work with 50 volts on the filaments and 70 or so volts on the plate.
The 12AV6 was used as the detector, avc and voltage amp in radios. I believe there is a version (with a different number) that will work with 12 volts on the plate. It might be fun to see how well the 12AV6 does with 12 volt B+.

"Rick Haub" <rhaub@midwestmicro-tek.com> wrote in message news:3BCCAB59.5E3DF9EC@midwestmicro-tek.com...
> I got a couple of 50C5 tubes the other day and I was wondering about
> using them with a standard 12 volt or 6 volt supply. Oviously I will not
> get the same amount of power but just what can I expect? Or will they
> even work at all?
>
> I also picked up a couple of 12AV6s. What are these? They seem to be two
> diodes and a triode all in one envelope.
>
> Rick KC0GIX
>

6418. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-17 22:53:01 UTC
From: Skipp <skipp@piloNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9ql24d$k1v$1@woodrow.ucdavis.edu>
Source record: 49315

Eaglesoft has a great program for what your doing. Have a look at their
web site.

cheers
skipp

: Mike Williams <mikerw@btinternet.com> wrote:
: Hi

: Does naybody know of a piece of (downloadable) software to translate circuit
: diagrams to a PCB layout.

: I need only to do the occasional schematic from RadCom etc to make some
: projects so don't need a complicated professional package like EWB.

: Has anyone some suggestions.

: Many thanks

: Mike

6419. How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 05:48:47 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.16380d1f3f4564f39896a8@shore.drizzle.com>
Source record: 49316

Fellow homebrewers,

I can deal with schematics. I can prototype PC boards if I send out the Gerber files and such to a local shop. But the one thing that still baffles me is...

How the FRELL do I create either refurbished or new front-panel lettering and designations that look halfway professional? I don't have the equipment or the skill to do silkscreen or Alodine processes.

Is there specialized software available to help?

Can the layouts be, perhaps, printed on laser printer transparency film, and then attached to the panel in question?

Any suggestions appreciated. Thanks much.

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to what I have now..." (Taki Kogoma)

6420. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 08:42:19 UTC
From: adriano <tncdrn@tin.it>
Message-ID: <LBwz7.8030$V75.186774@news1.tin.it>
Source record: 49318

Eagle, by Cadsoft is the correct name
here is the site
http://www.cadsoft.de/

cheers
A.

"Skipp" <skipp@piloNOSPAMPLEASE.ucdavis.edu> ha scritto nel messaggio
news:9ql24d$k1v$1@woodrow.ucdavis.edu...
> Eaglesoft has a great program for what your doing. Have a look at their
> web site.
>
> cheers
> skipp
>
> : Mike Williams <mikerw@btinternet.com> wrote:
> : Hi
>
> : Does naybody know of a piece of (downloadable) software to translate
circuit
> : diagrams to a PCB layout.
>
> : I need only to do the occasional schematic from RadCom etc to make some
> : projects so don't need a complicated professional package like EWB.
>
> : Has anyone some suggestions.
>
> : Many thanks
>
> : Mike
>

6421. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 09:31:26 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0110180131.45354a49@posting.google.com>
Source record: 49319
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Jungwoo Lee x5362 <jungwoo@lucent.com> wrote in message
news:<3BCDDB99.F220A763@lucent.com>...
> I recently purchased a used TS-820S. The Rx part is working OK. But when I tried
> to transmit (in SSB, CW, and tune), the ALC meter always hits the maximum (it
> actually bangs to the restraint bar). I could still make a QSO in CW and SSB so
> there is a reasonable Rf output even though the ALC meter bangs. I am concerned
> about whether I am overmodulationg my signal.
>
> Could it be that the driver tube (12BY7) needs to be replaced or is there
> something wrong in the ALC circuitry? Does anyone have any thoughts on how to
> fix this problem. I am fairly well versed in electronic circuitry.
>
>
> -Jungwoo Lee / AB2ND

Dunno. How are the readings in the other meter modes? IP,HV , etc? Do
they seem normal? Should see about 60 mils idle, and load up to about
200-220 mils or so full tune. It's hard to say really. Does the ALC
bang the peg no matter what drive level, or does it only bang with
full or max drive? Bangs the peg with normal voice? It shouldn't do
that...I was thinking processor, but that shouldn't effect CW. Dunno,
it's hard to say. But doesn't sound right if it does that all the
time, no matter the drive level. Not sure about the tubes.. I would
think it's probably an ALC circuit problem, but I wouldn't rule out
the tubes. I've seen stranger things happen. Maybe you can find some
6146's and a 12by7 to try as a test. Many people still have old tubes
laying around. But you may have a circuit problem somewhere.You may
need a service manual to get some voltage check points to try. MK

6422. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 10:22:03 UTC
From: n2cqr@clix.pt
Message-ID: <3bceac5a.2540061@news.clix.pt>
Source record: 49317

On Mon, 15 Oct 2001 03:27:59 GMT, "Marvin Kroll"
<merkinp@worldnet.att.net> wrote:

>Can anyone recommend a source for 10-360 pF
>variable capacitors for receivers?

It won't go up to 360 pf, but I recently used one of those chealp
little poly-varicon variable caps that you can find in small radios.
the one I tested went up to about 180 pf and I'm using it to tune a
Variable crystal oscillator in a homebrew DSB transceiver. Cheap,
readily available and small. Glued it right to the PC board.

73 Bill CU2JL N2CQR
http;//planeta.clix.pt/n2cqr

6423. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 10:42:05 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BCEB206.D7E6BD7D@earthlink.net>
Source record: 49320

Bruce---

> How the FRELL do I create either refurbished or new
>front-panel lettering and designations that look halfway professional?

Dry-transfer lettering will work well---That's what I used when I was
doing my science fair project back in 6th grade.

Other than that, you can also use laser-toner transfer paper/film, and
follow the mfr's directions. This will also allow you to make
full-color panels if you print using a color laser printer/copier.

In either case, using a thin coat of shellaq or other clear sealant will
make the panel permanent.

Good luck

Henry C. Gernhardt, III
KE4PIB

6424. NEED 2 KNOBS FOR KENWOOD TS-511

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 11:35:16 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BCEBE74.F4D43283@charter.net>
Source record: 49321

hi
need one for drive and on one for rf gain. the little chrome centers
are gone on the ones i have. k/w ts511.
thanks
chris ni4l

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6425. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 11:42:53 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <1fzz7.38993$s9.4378131@news1.rdc1.nj.home.com>
Source record: 49322

If you have about $20 you can purchase a flat-bed plotter like the HP7475 on EBay. You can program the plotter movements in basic -- you create a text file with the "Pen Up" "Pen Down" "Arc Absolute" etc instructions and feed it to the plotter via serial. (ooops, you will need an old computer to do that). If the laminate you are using is smooth enough it will fit right on the bed of the plotter. I don't know if the little motors have enough torque to move a 19" rack panel, however.

I've made PCB's this way with Ultiboard (although some of the instructions have to be modified in a text editor).

"Bruce Lane" <spammers@buzz.off> wrote in message
news:MPG.16380d1f3f4564f39896a8@shore.drizzle.com...
> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
> --
> Bruce Lane, Owner and Head Hardware Heavy,
> Blue Feather Technologies -- http://www.bluefeathertech.com
> Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
> kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
> "I'll get a life when someone demonstrates to me it would be superior to
> what I have now..." (Taki Kogoma)

6426. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 11:45:37 UTC
From: Graeme Zimmer <gzimmer@optushome.com.au>
Message-ID: <3bcec0b0$0$23066$afc38c87@news.optusnet.com.au>
Source record: 49323

I got curious about this CW Bandwidth stuff and decided to simulate some
morse signals at various speeds and look at the resulting spectrum.

details are at http://members.optushome.com.au/gzimmer/BW/BW.HTML

Comments are welcome!

..... Zim VK3GJZ

6427. FS: 12 SPRAGUE FILTER CAPACITOR BANK (NEW)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 12:07:31 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <7Czz7.1463$Ua.129510@typhoon.austin.rr.com>
Source record: 49327

Large bank of 12 Sprague Powerlitic Electolytic Filter Capacitors, already built into a bank, mounted on Plexiglas and wired with 27 equalizing resistors. 1000 - 400VDC. These are NEW never used Caps which will make a great start on your AMP or Power Supply Project. See attached photo or email for more! $110 plus ship.
Paypal OK! AC5YV@hot.rr.com

6428. FS: 8 MEPCO BANK FILTER CAPACITORS NEW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 12:09:02 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <yDzz7.1465$Ua.129612@typhoon.austin.rr.com>
Source record: 49324

Large bank of 8 Mepco/Elecra Electolytic Filter Capacitors, already built into a bank, mounted on Board and wired with 8 25Kohm ohmite equalizing resistors. 3200VDC PEAK. These are NEW never used Caps which will make a great start on your AMP or Power Supply Project. See attached photo or email for more! $75 plus ship.
Paypal OK! AC5YV@hot.rr.com

6429. FS: 15KV BANDSWITCH/10-80M COIL/TUNED INPUT COMPLETE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 12:11:26 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <OFzz7.1467$Ua.129783@typhoon.austin.rr.com>
Source record: 49326

Large 15KV Bandswitch with 10-80 meter coil, and Input Tuning all built and ready to install into your amp project. This is based on a B&W coil and Bandswitch with a covered Tuned input already added. $175 plus ship takes all. Please see photo, more photos and details available by email. AC5YV@hot.rr.com

6430. FS: 8877 HOMEBREW AMP PROJECT (WORKING)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 12:14:31 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <HIzz7.1470$Ua.129995@typhoon.austin.rr.com>
Source record: 49325

HOMEBREW! Monster 8877 amp project 10-80meter, full legal limit, currently operational but not finished! Everything is in place except fabricating a top cover. Large Jennings Vacuum Variables, Huge roller inductor with turns counter. Loads all bands. 8877 is an old tube but has full + output, onboard filament transformer. Gorgeous Simpson matching meters. This is a pickup only in Central Texas. Again, this is a fully functional but not quite finished bone crusher, I have loaded it up during testing on 40m to 1500+ into a dummy load. Power supply is available separately, it is a 5000 volt variable built from QST plans, all the finest parts and looks great. Make offer and come and pick it up. Plenty of PICS available via email, AC5YV@hot.rr.com Will also consider trades for a mobile (high End) amp.

6431. Re: Good day at the Goodwill

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 12:49:08 UTC
From: mcalhoun@ksu.edu
Message-ID: <9qmj44$m2b@unix2.cc.ksu.edu>
Source record: 49328

Michael Black <blackm00@gloria.cam.org> writes:
>On Tue, 16 Oct 2001, Rick Haub wrote:
>> I stopped at the Goodwill this morning to drop off a bunch of old shoes
>....[snip]....
>Along with the traditional radios, I now see a fair number of
>microwave ovens (I've yet to bother with those), and of course computer
>....[snip]....

GRAB THEM! Take the tube apart and scrounge the two VERY strong
cylindrical magnets. Make yourself a "stand" with a dowel that goes
through the inner circles loosely, and put the magnets on the stand,
one above the other, reversing their N-S poles so they repel:

After four ovens, everyone who comes to my house plays with my toy
ESPECIALLY adults!-) but kids love it, too

(I'm only showing 4 magnets below):

```
|
| ETC.
|
|
O <-- next magnet "floating" even higher
| than the one below it
|
|
O <-- next magnet "floating" even higher
| than the one below it
|
O <-- next magnet "floating" in the air
|
O <-- bottom magnet resting on base
+--|--+
| | | <-- wooden base with dowel stuck
| | in tight-fitting hole
+-----+
```

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

6432. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 13:56:47 UTC
From: OldBiker <vito@crosslink.net>
Message-ID: <3BCEDF9F.1CB45D9E@crosslink.net>
Source record: 49329
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Jungwoo Lee x5362 wrote:
>
> I recently purchased a used TS-820S. The Rx part is working OK. But when I tried
> to transmit (in SSB, CW, and tune), the ALC meter always hits the maximum (it
> actually bangs to the restraint bar).....

High SWR makes my TS120 do the same. I adjust my tuner for max power out
with minimum on the ALC meter.

6433. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 14:48:05 UTC
From: jflanders2@home.com
Message-ID: <3bceeb6d.63932626@NEWS>
Source record: 49330

Compose front panel layout on computer with your own customized Logo.

Print it on any color paper or card stock you like. Cut holes where necessary.

Place it on radio's predrilled front panel and cover it with a predrilled 1/16" thin sheet of Lexan or clear plastic. Hold in place with knob nuts, etc.

Cover top and sides of project with a "Hooded" cover (extends out on top and sides a bit to cover the edges).

Beam with pride.

Jerry W4K

On Wed, 17 Oct 2001 22:48:47 -0700, Bruce Lane <spammers@buzz.off> wrote:

>Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
>the Gerber files and such to a local shop. But the one thing that still
>baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
>lettering and designations that look halfway professional? I don't have
>the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
>film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
>--
>Bruce Lane,

6434. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 15:01:47 UTC
From: Jungwoo Lee x5362 <jungwoo@lucent.com>
Message-ID: <3BCEEEDB.B3D89AA5@lucent.com>
Source record: 49332
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

My Ant SWR is about 1.3 so it may not be related to SWR.

-Jungwoo/ AB2ND

6435. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 15:04:39 UTC
From: Jungwoo Lee x5362 <jungwoo@lucent.com>
Message-ID: <3BCEEF87.A2E7AA4D@lucent.com>
Source record: 49331
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Mark,

Thanks.
All the other meter modes (IP, HV, etc) are normal. I get 60 mils for IP, and about 800V for HV. From SWR power meter, I get about 100W RF output (in CW mode), which kind of indicates that the two finals may be OK. The ALC meter bangs the peg no matter what the drive level is (both Tune and full-power CW mode). In SSB, it bangs the peg whenver I start speaking to the mic. The funny thing is I get 59 signal report in my QSO even in this condition. The speech processor is off so it shouldn't be a factor. BTW, my antenna SWR is about 1.3 so it shouldn't be a factor either.

-Jungwoo Lee/AB2ND

--Mark Wrote----------
Dunno. How are the readings in the other meter modes? IP,HV , etc? Do they seem normal? Should see about 60 mils idle, and load up to about 200-220 mils or so full tune. It's hard to say really. Does the ALC bang the peg no matter what drive level, or does it only bang with full or max drive? Bangs the peg with normal voice? It shouldn't do that...I was thinking processor, but that shouldn't effect CW. Dunno, it's hard to say. But doesn't sound right if it does that all the time, no matter the drive level. Not sure about the tubes.. I would think it's probably an ALC circuit problem, but I wouldn't rule out the tubes. I've seen stranger things happen. Maybe you can find some 6146's and a 12by7 to try as a test. Many people still have old tubes laying around. But you may have a circuit problem somewhere.You may need a service manual to get some voltage check points to try. MK

6436. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 15:31:10 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9qmsqm$1kc8$1@madmax.keyway.net>
Source record: 49333
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Probably ALC meter adjustment. Its hard to screw up the
ALC action. As I recall, tune for maximum CW output, then reduce drive for a 10% reduction in output power, then adjust the meter
to read midscale.

6437. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 15:44:56 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9qmt3n$1kld$1@madmax.keyway.net>
Source record: 49334
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

TS120 has a very different ALC circuit.

Sounds like you need to get the manual and start digging, but it sounds like the metering circuit.
"Jungwoo Lee x5362" <jungwoo@lucent.com> wrote in message
news:3BCEEEDB.B3D89AA5@lucent.com...
: My Ant SWR is about 1.3 so it may not be related to SWR.
:
: -Jungwoo/ AB2ND

6438. Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 17:48:04 UTC
From: k5dh@raytheon.com
Message-ID: <oBEz7.4$4g6.74@dfw-service2.ext.raytheon.com>
Source record: 49335
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

dah-di-dah-dit dah-dah-di-dah

I used to love those little Curtis 8044B keyer IC's. You could build a nice simple iambic keyer on a 1" square piece of Vector board. Alas, they've been out of production for many years now, and I wasn't smart enough to stock up on 'em when I had a chance. What are you guys doing for keyer chips these days? I need some kind of keyer IC that I can build into a QRP rig, so it has to be really small. I'm familiar with the LogiKey memory keyer family from Idiom Press (I built their CMOS Super Keyer II back in 1990 and it's still my main station keyer to this day). They're way too big for what I have in mind. I've heard of the TiCK units, but I don't have any details on them. Whatever I end up with must be simple, tiny, battery powered, low power consumption, and easy to use. Ideas, anyone?

It's okay to post your responses to the newsgroup, so that other inquiring minds can share the wealth of information.

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

6439. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 18:24:45 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3BCED806.C9E50A5B@cfl.rr.com>
Source record: 49336
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

There are a few choices like the K series from K1EL;
http://members.aol.com/k1el/index.html
Keyer in an 8 pin dip with callsign programmed in and other
nifty features depending on model.

There are others but this is the one I use now.

michael N6CHV

K5DH wrote:
>
> dah-di-dah-dit dah-dah-di-dah
>
> I used to love those little Curtis 8044B keyer IC's. You could
> build a nice simple iambic keyer on a 1" square piece of Vector
> board. Alas, they've been out of production for many years now,
> and I wasn't smart enough to stock up on 'em when I had a chance.
> What are you guys doing for keyer chips these days? I need some
> kind of keyer IC that I can build into a QRP rig, so it has to be
> really small. I'm familiar with the LogiKey memory keyer family
> from Idiom Press (I built their CMOS Super Keyer II back in 1990
> and it's still my main station keyer to this day). They're way
> too big for what I have in mind. I've heard of the TiCK units,
> but I don't have any details on them. Whatever I end up with
> must be simple, tiny, battery powered, low power consumption,
> and easy to use. Ideas, anyone?
>
> It's okay to post your responses to the newsgroup, so that other
> inquiring minds can share the wealth of information.
>
> 73,
> Dean, K5DH
> Visit my amateur radio web site at http://www.qsl.net/k5dh

6440. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 19:49:05 UTC
From: info@helenav.nl
Message-ID: <Xns913ED78503ABCinfohelenavnl@195.64.48.20>
Source record: 49337

Mike Williams <mikerw@btinternet.com> wrote in
<B7F3A46C.5C0E%mikerw@btinternet.com>:

>Hi
>
>Does naybody know of a piece of (downloadable) software to translate
>circuit diagrams to a PCB layout.
>
>I need only to do the occasional schematic from RadCom etc to make some
>projects so don't need a complicated professional package like EWB.
>
>Has anyone some suggestions.
>
>Many thanks
>
>Mike
>
BPECS at www.bestproto.com

Helen

--
HELENAV, Tri-M's European Distributor
for Mighty Mouse family of active GPS antennas
http://www.helenav.nl

6441. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 20:26:45 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3BCF3B05.CDCACB7@oda.com.au>
Source record: 49338
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

K5DH wrote:
>
> dah-di-dah-dit dah-dah-di-dah
>
> I used to love those little Curtis 8044B keyer IC's. You could
> build a nice simple iambic keyer on a 1" square piece of Vector
> board. Alas, they've been out of production for many years now,
> and I wasn't smart enough to stock up on 'em when I had a chance.
> What are you guys doing for keyer chips these days? I need some
> kind of keyer IC that I can build into a QRP rig, so it has to be
> really small. I'm familiar with the LogiKey memory keyer family
> from Idiom Press (I built their CMOS Super Keyer II back in 1990
> and it's still my main station keyer to this day). They're way
> too big for what I have in mind. I've heard of the TiCK units,
> but I don't have any details on them. Whatever I end up with
> must be simple, tiny, battery powered, low power consumption,
> and easy to use. Ideas, anyone?
>

http://www.owenduffy.com.au/electronics/pik/pik.htm

6442. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 22:02:10 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2hjnq9.0q8.ln@darkstar.localdomain>
Source record: 49339
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

K5DH wrote:

> dah-di-dah-dit dah-dah-di-dah
>
> I used to love those little Curtis 8044B keyer IC's. You could
> build a nice simple iambic keyer on a 1" square piece of Vector
> board. Alas, they've been out of production for many years now,
> and I wasn't smart enough to stock up on 'em when I had a chance.
> What are you guys doing for keyer chips these days? <snip)

The PIC microcontroller is the most popular device for
iambic keyers these days.
See: http://homepage.eircom.net/~ei9gq/iambic.html

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.10

6443. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 22:31:34 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tsum2hbkcd3069@corp.supernews.com>
Source record: 49340

> I got curious about this CW Bandwidth stuff and decided to simulate some
> morse signals at various speeds and look at the resulting spectrum.

I wonder if there is any significant difference between keying a 1Khz tone and keying an RF signal?

It seems to me that probably both sides of this issue are correct, depending on how you want to define bandwidth. If bandwidth includes everything that comes out of the transmitter including key clicks that don't contribute to the information transfer then the waveshape is the determining factor. If you consider the bandwidth to be only that part of the signal needed to transfer the information then the keying speed is the determining factor.

6444. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 22:52:04 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0110181452.8d8bf50@posting.google.com>
Source record: 49341
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Jungwoo Lee x5362 <jungwoo@lucent.com> wrote in message
news:<3BCEEF87.A2E7AA4D@lucent.com>...
> Mark,
>
>
> Thanks.
> All the other meter modes (IP, HV, etc) are normal. I get 60 mils for IP, and
> about 800V for HV. From SWR power meter, I get about 100W RF output (in CW
> mode), which kind of indicates that the two finals may be OK. The ALC meter
> bangs the peg no matter what the drive level is (both Tune and full-power CW
> mode). In SSB, it bangs the peg whenver I start speaking to the mic. The funny
> thing is I get 59 signal report in my QSO even in this condition. The speech
> processor is off so it shouldn't be a factor. BTW, my antenna SWR is about 1.3
> so it shouldn't be a factor either.

It sounds normal except for the ALC action. Something is not right
there, thats for sure. I think it's possible for the reading to be
near full scale," my 830 and other 520's have been near full scale at
full drive", but it should not have any reading with no drive. So you
have a problem for sure. I'd check the power supply voltages just to
make sure it's ok."3.3, 9v" Then I'd start looking through the alc
circuit. I'm curious...Does adjusting the drive change the RF output
level even though the ALC reading stays pegged, or does is the drive
level "pegged" all the time also? IE: in tune, lowering the drive to
zero, should lower the rf output to zero when in tune or cw. This is
one I'll have to think about for a while... MK

6445. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 23:44:48 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <QPJz7.183727$K6.87728625@news2>
Source record: 49342

http://hfradio.org/wb8rcr/downloads/Panel-1.9.W32.zip for Win32 command line, http://hfradio.org/wb8rcr/downloads/Panel-1.9.tar.gz for Linux. A little crude but it works. You will also need GhostScript (most Linux folks already have this) or a PostScript printer. GhostScript is free.

didleydadidah

"Bruce Lane" <spammers@buzz.off> wrote in message news:MPG.16380d1f3f4564f39896a8@shore.drizzle.com...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?

6446. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-18 23:59:00 UTC
From: Olaf <olaf@mail.powermax-lcd.com>
Message-ID: <i0rustgcebph7c1uvbj45gjst5nr172efk@4ax.com>
Source record: 49343

On Thu, 18 Oct 2001 17:48:04 GMT, k5dh@raytheon.com (K5DH) wrote:

>I used to love those little Curtis 8044B keyer IC's. You could
>...
>and easy to use. Ideas, anyone?
>
Don't beat me if I'm wrong, but iirc there was an emulation of the
8044 with an AVR, try www.qsl.net/ba1fb...

73! de Olaf
DL7UND

6447. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 01:04:53 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <qbgsst4dkkcpirpoos9gnnavpe17vounv3@4ax.com>
Source record: 49344

"Adam Weber" <adam@home.email.ne.jp> wrote:

>Never thought of that, Jim--and the parts are right there, staring me in the
>face! I bought them to make an 'oven' for microscope-slides.

Just start out slow. If you try to dry them too quickly you might get
bubbles, but I suspect that's unlikely if they have been drying all
the time we've been discussing this. ;-)

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

6448. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 01:08:15 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qntvh$jm5$1@news.mbn.or.jp>
Source record: 49346

AC6V wrote in message <3BCB246B.6F87EC0@amsat.org>...
>From the ARRL License Manual 1976:
>CW Bandwidth = wpm X 4 (e.g., 40 WPM = 160 Hz)
>"With proper shaping, the necessary keying bandwidth is equal to 4
>times the speed in words per minute for International Morse Code;
>e.g. at 25 words per minute, the bandwidth is approximately 100 cycles."
>

This is likewise unclear and/or misleading in my opinion unless you clarify the context more carefully.

Does 'proper shaping' presuppose that you are always going to adjust the rise/fall times to a fixed percentage of the mark period when you change keying speed? Is the author giving advice in the context of someone homebrewing a transmitter and determining the optimal rise/fall times of the hardware design - or is the statement implying that for an entry-level ham changing speeds on an off-the-shelf transmitter the spectrum range of the transmitted signal will be wider if he/she keys faster (which is what some people have interpreted this to mean)?

Also does 'necessary bandwidth' mean the energy spectrum of the transmitted signal in space or the filtering bandwidth necessary for decoding the signal at the receiver?

I've followed this thread carefully and still feel that what I call 'sidebands' are only created during the rise/fall time amplitude changes.

My mathematics is not strong enough to prove this on paper - but it's intuitively clear to me that if you do 'superimposition' in reverse - then the CW signal can be looked upon as made up of 3 elements, [a] the unmodulated carrier, [b] amplitude changes during the rise/fall times, [c] the absence of any signal.

It's obvious to me that the EMF 'sidebands' in space are only created during [b] and the squarewave 'modulation' representing the pattern of presence/absence of the signal can (and depending upon the job at hand sometimes should) be viewed slightly differently.

I thought this was a good thread because it encouraged me to explore different ways of understanding some important concepts regarding bandwidth.

I was a little suprized that the mathematically-minded seemed to be the least flexible group when it came to looking at the same concept from different angles (in contrast I suspect that mathematical researchers are used to writing something down first and then trying to figure out whether it has any meaning or not).

Also I was surprized that some people were so touchy about anything that might be taken as criticism of the ARRL handbook (I think it's a great resource too.... but that shouldn't stop us from exploring whether we can add to our knowledge of radio in some way by challenging and testing the concepts we use for our understanding).

When they said it was the ham 'bible' I didn't realize you were meant to take that literally and that it would be sacrilegious to challenge it !

Thanks to all contributors.

73, ram

6449. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 01:10:52 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qntvp$jm5$2@news.mbn.or.jp>
Source record: 49345

Mark Allread wrote in message <1103_1003233036@msauve>...
>On Tue, 16 Oct 2001 08:57:00 GMT, "Graeme Zimmer"
<gzimmer@optushome.com.au> wrote:
>> (3) In a real world CW TX, the ultimate BW is primarily decided by the
>> keying filter.
>
>False. You're mixing terms here. "Ultimate BW" is by nature theoretical,
and cannot be applied to a real world example. If you
>mean bandwidth in the common sense, i.e. the frequency range which contains
x% of the signal's power (choose any x), then
>bandwidth is primarily decided by the keying speed.
>

No he's not. I can understand exactly what he meant even though it does not correspond with the "x% of the signal's power" definition.

Why not be more flexible in the way we use terminology. You can see what he means and this is how our understanding of technical concepts evolves and becomes more refined over time. Let's not kill the process by quoting a wooden dictionary definition.

It's a long time ago now but I was actually the person who initiated the thread..... and it's very interesting for me that someone with more technical background knowledge than myself can have posted something like this.

This was exactly my point from the beginning. Harry Helm and some of my ham friends seemed to take the statement ""more information means the signal occupies more bandwidth, so keying faster must mean the signal occupies more bandwidth"" to be gospel without really understanding the underlying concepts or in what sense this statement was or was not true.

What we are doing on this thread is tearing the concept of CW bandwidth apart and stitching it back together again to see if it is still the same shape or whether maybe we should be looking at the concept it in a slightly different way.

73, ram

6450. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 01:32:34 UTC
From: lagagnon@fakesprint.ca
Message-ID: <3bcf8254.5604046@news.sprint.ca>
Source record: 49247
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

As Michael says...definetely the K1EL keyer chip has to be one of the best around. VERY low consumption, lots of features. You actually give commands with morse!

Larry VE6MK

****
to send direct email remove "fake" from address

6451. Re: Direct Conversion Receiver Article On-Line

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 01:42:53 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BCF851C.E52C85B0@ay.com.au>
Source record: 49248
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.homebrew

I just printed the PDF, I'm going to take it to the office today and have a crack at putting it together. Interesting design, the mixer in particular. I've seen the 4066 used before in ELF upconverters, but I didn't know it could be made into such a good mixer dynamic range wise.

BTW: is it just me or do the circuit diagrams not render well? I'll only use xpdf not the official Adobe viewer, maybe it is that. I'll try it on a Win98 box at work.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (7% of Full)

6452. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 02:06:55 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BCF8ABF.6F85F36C@world.std.com>
Source record: 49249

Mike,

Carefully clean the panel with soap and water and dry it. Clean it with alcohol. Rinse it.

Use rub on letters available at some electronics stores, Radio SNack, or even art stores.

Be very careful because the letters will want to climb of the panel and stick to anything especially as you are rubbing on adjacent letters.

When you are all done, two or three coats of Krylon Crystal Clear will protect it.

An alternative is to learn silk-screening. It is not that hard. I have not done this, but I have done silk screening for art. I think Lindsay Publications has a book on this... After silk screening, the Crystal Clear will protect it.

Clyde, KA1CRV.

Mike Williams wrote:

> Hi
>
> Does naybody know of a piece of (downloadable) software to translate circuit
> diagrams to a PCB layout.
>
> I need only to do the occasional schematic from RadCom etc to make some
> projects so don't need a complicated professional package like EWB.
>
> Has anyone some suggestions.
>
> Many thanks
>
> Mike

6453. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 02:08:51 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BCF8B33.58723C31@world.std.com>
Source record: 49250

Mike,

Carefully clean the panel with soap and water and dry it. Clean it with alcohol. Rinse it.

Use rub on letters available at some electronics stores, Radio SNack, or even art stores.

Be very careful because the letters will want to climb of the panel and stick to
anything especially as you are rubbing on adjacent letters.

When you are all done, two or three coats of Krylon Crystal Clear will protect it.

An alternative is to learn silk-screening. It is not that hard. I have not done this, but I have done silk screening for art. I think Lindsay Publications
has a book on this... After silk screening, the Crystal Clear will protect it.

Clyde, KA1CRV.

Bruce Lane wrote:

> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
> --
> Bruce Lane, Owner and Head Hardware Heavy,
> Blue Feather Technologies -- http://www.bluefeathertech.com
> Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
> kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)

> "I'll get a life when someone demonstrates to me it would be superior to
> what I have now..." (Taki Kogoma)

6454. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 02:09:39 UTC
From: "Clyde R. Shappee" <clydes@world.std.com>
Message-ID: <3BCF8B63.9C491FDE@world.std.com>
Source record: 49251

sorry, I miss-posted to this thread.

CRS

Mike Williams wrote:

> Hi
>
> Does naybody know of a piece of (downloadable) software to translate circuit
> diagrams to a PCB layout.
>
> I need only to do the occasional schematic from RadCom etc to make some
> projects so don't need a complicated professional package like EWB.
>
> Has anyone some suggestions.
>
> Many thanks
>
> Mike

6455. INFO NEEDED: SR-2000 PS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 02:14:28 UTC
From: Joe Hargis <joehargis@worldnet.att.net>
Message-ID: <80Mz7.74739$WW.3607372@bgtnsc05-news.ops.worldnet.att.net>
Source record: 49252

Anyone out there in Halli land that can tell me where to get a timer relay for the P-2000 PS? Any help gretly appreciated. Joe

6456. TS-940s owners

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 03:44:12 UTC
From: afunradio@aol.com
Message-ID: <20011018234412.15091.00000138@mb-mc.aol.com>
Source record: 49253

Has anyone tried the inrad 2.8 filters in the kenwood 940?

6457. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 07:37:39 UTC
From: Dieter Mayr <d.mayr@aon.at>
Message-ID: <3bcfd843$0$9460$6e365a64@newsreader02.highway.telekom.at>
Source record: 49254

Hi Bruce

I've used the following method on several frontpanels with success:
Design the layout with the gaphic-programm of your choice.
Print it on good, light-resistant paper (photopaper).
Put it on the front-panel with doublesided adhesive tape.
Cover it with a clear, adhesive foil (I use the one used for book-covering).
Voila, you have a nice, professional looking frontplate.
And if the colors dye out some day because of sunlight or so,
peel the paper off, print a new one and you have a new frontplate.

Hope this helps

Dieter, OE2CDM

"Bruce Lane" <spammers@buzz.off> schrieb im Newsbeitrag
news:MPG.16380d1f3f4564f39896a8@shore.drizzle.com...
> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
> --
> Bruce Lane, Owner and Head Hardware Heavy,
> Blue Feather Technologies -- http://www.bluefeathertech.com
> Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
> kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
> "I'll get a life when someone demonstrates to me it would be superior to
> what I have now..." (Taki Kogoma)

6458. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 08:49:09 UTC
From: Graeme Zimmer <gzimmer@optushome.com.au>
Message-ID: <3bcfec35$0$25301$afc38c87@news.optusnet.com.au>
Source record: 49255

Bob,

> It seems to me that probably both sides of this issue are correct,
> depending on how you want to define bandwidth. If bandwidth includes
> everything that comes out of the transmitter including key clicks that
> don't contribute to the information transfer then the waveshape is the
> determining factor. If you consider the bandwidth to be only that part
> of the signal needed to transfer the information then the keying speed
> is the determining factor.

This is much closer to a workable definition.....

However, we should also consider that practical morse signals have much sharper edges that communication theory would lead us to expect.

If you bandwidth limit morse down to it's theoretically narrowest limit, it then sounds impossibly "soft" and is quite hard to copy.
At this point a Dit has a perfectly rounded top (e.g. has a Raised Cosine shape).
A string of these "minimum bandwidth" Dits has an envelope which is a perfect sine-wave.

In fact we prefer a string of Dits which have a much squarer shape. It as if a certain amount of "click" is necessary to make it copyable.
I figure that in this situation, the theoretical morse sidebands are lost in the other products which derive from the squarer edges.

Or to put it another way.....

The Keying filter is purposefully widening the signal well beyond what the actual morse side-bands require.

When I get time, I'll generate a few examples of different bandwidth morse signals.

..... Zim VK3GJZ

6459. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 09:58:00 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BCFF930.77FC2861@earthlink.net>
Source record: 49256
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Mark---

> in tune, lowering the drive to zero, should lower the rf output to
> zero when in tune or cw.

This is not quite right, at least not on the 830S that I have. On my rig, the drive adjustment simply adjusts the drive tank circuit, matching it to the final input. On ALC in TUNE, DRIVE peaks with relative sharpness, and on RF, peaks broadly. There is slope on either side.

Knob to check: CAR (carrier level). On the 830S I have, it sleeves around the MIC (mic gain) knob. First, turn it fully counterclockwise, then check to see if the same activity occurs. You should get a very small or indiscernible peak on ALC when adjusting DRIVE. If your meter _STILL_ pegs, then its time to look at the circuits involved.

Good luck,

Henry C. Gernhardt, III
KE4PIB

6460. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 10:14:01 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3BCFFCE9.24BC357E@oda.com.au>
Source record: 49257

Bruce Lane wrote:
>
> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>

I have used Dynamark, but I think it has been discontinued in the last
year or so.

An example is at http://www.owenduffy.com.au/electronics/FlashTNC.htm .
The artwork was created using a PC graphics program... almost anything
will do depending on how flash you want to get.

Have a look at http://www.owenduffy.com.au/electronics/FlashTNC.htm ,
there is a link to a possible replacement.

Owen

6461. Keyer IC's... thanks for the tips, guys!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 13:10:00 UTC
From: k5dh@raytheon.com
Message-ID: <ICVz7.3$KP.49@dfw-service2.ext.raytheon.com>
Source record: 49258
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Thanks for the tips and leads! I've just ordered a K10 kit
from Steve, K1EL. It has more features than I was looking
for, but it's small, simple, power-frugal, and inexpensive.
It meets all of my criteria!

73,
Dean W. Hemphill, K5DH -- Senior Technical Support Specialist
Raytheon Electronic Systems
Microwave Module Product Center
Dallas, Texas
Phone: 972.344.2682 Email: k5dh@raytheon.com
Pager: 972.297.1398 FAX: 972.344.5201

6462. FS: HARRIS GATES HFL-1000 AMPLIFIER WITH SPARE TUBES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 13:23:01 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <VOVz7.3006$Ua.317006@typhoon.austin.rr.com>
Source record: 49259

HARRIS GATES HFL-1000 FLOOR CONSOLE AMPLIFIER. Own a piece of history. Rack mounted amp, Rack mounted matching powersupply in a waist high matching cabinet. 4 (FOUR) Roller-inductors, PA-Tune/PA-Load/Input-Tune/Drive-Tune. Low Drive, 50 watts in gives full out! ALL BANDS! 160-10M with perfect input and output matching. Fully monitored, Step-start and a full set of factory safeties. Currently being used daily with a full output Eimac 4CX1500A, will come with a SPARE full output Eimac 4CX1500A along with the original 4CX1000 with full out. This AMP was built to military specs and will last a lifetime, full set of schematics and manuals. Both amp and power supply slide out and rotate down while still connected to cabinet for access or repair, (awesome)! The amp has been upgraded to a current radio solid state keying circuit. Please email with questions or for additional info. This is a Central Texas Pickup only! Entire unit weighs 400 pounds and I will not ship! $1200 takes it all. AC5YV@hot.rr.com

6463. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 13:44:21 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BD02E35.5060407@buttery.org>
Source record: 49260
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

K5DH wrote:

> dah-di-dah-dit dah-dah-di-dah
>
> I used to love those little Curtis 8044B keyer IC's. You could
> build a nice simple iambic keyer on a 1" square piece of Vector
> board. Alas, they've been out of production for many years now,
> and I wasn't smart enough to stock up on 'em when I had a chance.

The Curtis 8044 is out of production, but the 8045ABM (an improved version with selectable A and B modes, code speed meter, and memory) is still available from MFJ (http://www.mfjenterprises.com) for $19.95. If you want to build a traditional keyer with knobs for speed and so forth, you might prefer this to the PIC-based keyer chips that others have mentioned. The PIC keyers all use mode switches and paddle input to control this stuff; great for installing the keyer inside a rig where space is at a premium, but perhaps less convenient than old-fashioned knobs for an at-home keyer.

6464. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 13:52:19 UTC
From: Jungwoo Lee <junglee@alumni.princeton.edu>
Message-ID: <3BD03013.3060200@alumni.princeton.edu>
Source record: 49261
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

When I adjust the drive knob in Tune mode, there is a certain range
where the ALC meter pegs. At other range of the knob, I got 0 ALC meter
reading. This means that it is doing some tuning. Another thing is that
the Carrier knob does not change the RF output in CW mode at all. I
don't know whether it is related to the ALC problem.

-Jungwoo/AB2ND

Mark Keith wrote:

> Jungwoo Lee x5362 <jungwoo@lucent.com> wrote in message
news:<3BCEEF87.A2E7AA4D@lucent.com>...
>
>> Mark,
>>
>>
>> Thanks.
>> All the other meter modes (IP, HV, etc) are normal. I get 60 mils for IP, and
>> about 800V for HV. From SWR power meter, I get about 100W RF output (in CW
>> mode), which kind of indicates that the two finals may be OK. The ALC meter
>> bangs the peg no matter what the drive level is (both Tune and full-power CW
>> mode). In SSB, it bangs the peg whenver I start speaking to the mic. The funny
>> thing is I get 59 signal report in my QSO even in this condition. The speech
>> processor is off so it shouldn't be a factor. BTW, my antenna SWR is about 1.3
>> so it shouldn't be a factor either.
>
>
> It sounds normal except for the ALC action. Something is not right
> there, thats for sure. I think it's possible for the reading to be
> near full scale," my 830 and other 520's have been near full scale at
> full drive", but it should not have any reading with no drive. So you
> have a problem for sure. I'd check the power supply voltages just to
> make sure it's ok."3.3, 9v" Then I'd start looking through the alc
> circuit. I'm curious...Does adjusting the drive change the RF output
> level even though the ALC reading stays pegged, or does is the drive
> level "pegged" all the time also? IE: in tune, lowering the drive to
> zero, should lower the rf output to zero when in tune or cw. This is
> one I'll have to think about for a while... MK

6465. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 15:57:05 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qpj4rkmn1@news.mbn.or.jp>
Source record: 49263

Richard Crowley wrote in message ...
>"Jason" wrote ...
>> remove any of the actuall chips that i want....
>> Funn that i am spending all this time and effort
>> to remove a 3$ Canadian 556 timer... I think it is
>> more the principle then the cost involved... But i
>> will still persist... i can't seem to get all the solder
>> out of the socket holes and everything seems to
>> hold firm...
>
>If you are "salvaging" chips off a surplus board (to be discarded), the old
>favorite is using a propane torch.

I've used this method and found it effective.

The only thing that worries me is the toxicity of the fumes and smoke if the PCB starts to discolor, blacken or flame. When I do this now, I play safe with as many safety precautions as I can think of.... outdoors, good ventilation, paint sprayer's mask, stay at arm's length from PCB, turn head away to take long breath, etc... my understanding is that the fumes from the old PCBs can be highly toxic.

73, ram

6466. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 16:07:57 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BD04FE0.F4B29401@earthlink.net>
Source record: 49262
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Jungwoo---

> When I adjust the drive knob in Tune mode, there is a certain range
> where the ALC meter pegs. At other range of the knob, I got 0 ALC
> meter reading. This means that it is doing some tuning. Another thing
> is that the Carrier knob does not change the RF output in CW mode at
> all. I don't know whether it is related to the ALC problem.

Probably. Check if the drive adjustment gives you a broad peak when the meter is in RF mode. Be this the case, your drive cap is fine. Based on what you are saying, I would suspect either the mechanical linkage to the carrier adjustment pot, or the carrier adjustment pot itself.

Good luck,

Henry C. Gernhardt, III
KE4PIB

6467. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 16:13:11 UTC
From: Steve Robertson <ke4oh@yahoo.com>
Message-ID: <3BD05117.70E7BE4A@yahoo.com>
Source record: 49265

Hi Bruce,

Get some rub-on dial markings from www.tubesandmore.com. They come in white or black. Even a spaz like me can do some really good layouts with them.

73 de Steve, KE4OH

Bruce Lane wrote:

> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
> --
> Bruce Lane, Owner and Head Hardware Heavy,
> Blue Feather Technologies -- http://www.bluefeathertech.com
> Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
> kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
> "I'll get a life when someone demonstrates to me it would be superior to
> what I have now..." (Taki Kogoma)

6468. Re: PCB Layout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 16:14:31 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qpj58kmn2@news.mbn.or.jp>
Source record: 49264

Careful with PCBexpress.... the version I tested allows you to design the PCB on the screen - but when you try to print the image for etching it puts a masking screen over the output to make it unusable. I think they wished to encourage people to design the PCB and then send them the data and pay to have the board manufactured for a fee.

Mike Williams wrote in message ...
>Hi
>
>Does naybody know of a piece of (downloadable) software to translate
circuit
>diagrams to a PCB layout.
>

6469. ICOM IC-DV-21

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 18:50:08 UTC
From: fred-palmer <fred-palmer@email.msn.com>
Message-ID: <ONub$6MWBHA.1644@cpimsnntpa03>
Source record: 49266
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.boatanchors,rec.radio.swap

I know, they are a POS made in the mid 70's for the IC-21A but I would like to find one that can be modded for the lower 2 megs (144 to 146) for a project. Let me know what you have hiding the closets!
Even non working ones which is their usual mode anyhow!! I'm located In Denton Tx just north of Dallas. fred-palmer@msn.com

6470. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 21:04:14 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0110191304.5c091ef0@posting.google.com>
Source record: 49267
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote in message news:<3BCFF930.77FC2861@earthlink.net>...
> Mark---
>
> > in tune, lowering the drive to zero, should lower the rf output to
> > zero when in tune or cw.
>
> This is not quite right, at least not on the 830S that I have. On my
> rig, the drive adjustment simply adjusts the drive tank circuit,
> matching it to the final input. On ALC in TUNE, DRIVE peaks with
> relative sharpness, and on RF, peaks broadly. There is slope on either
> side.
>
> Knob to check: CAR (carrier level). On the 830S I have, it sleeves
> around the MIC (mic gain) knob. First, turn it fully counterclockwise,
> then check to see if the same activity occurs. You should get a very
> small or indiscernible peak on ALC when adjusting DRIVE. If your meter
> _STILL_ pegs, then its time to look at the circuits involved.
>
> Good luck,
>
> Henry C. Gernhardt, III
> KE4PIB

Same thing I meant. What I called drive, I meant as the carrier level. I guess a bad choice of words being as they call the preselector "drive". MK

6471. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 21:19:44 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0110191319.53343cff@posting.google.com>
Source record: 49268
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Jungwoo Lee <junglee@alumni.princeton.edu> wrote in message
news:<3BD03013.3060200@alumni.princeton.edu>...
> When I adjust the drive knob in Tune mode, there is a certain range
> where the ALC meter pegs. At other range of the knob, I got 0 ALC meter
> reading. This means that it is doing some tuning. Another thing is that
> the Carrier knob does not change the RF output in CW mode at all. I
> don't know whether it is related to the ALC problem.
>
> -Jungwoo/AB2ND

Ok, Then you have a problem. The "drive" as they call it is pretty
much a preselector. So in your case that is working properly. It's
your carrier control and related circuit which is not acting right.
That should be controlling the drive level, and should drop the output
to zero when it's all the way to the left. It could be related to the
alc. Probably is being your alc indication is very high. I'd start
looking around that point. Somethings not right, thats for sure. MK

6472. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 21:38:44 UTC
From: w4pqwhs@aol.com
Message-ID: <20011019173844.14507.00000249@mb-ci.aol.com>
Source record: 49269

I have seen a number of ALC problems of this nature on 820 and 520 rigs..You need to get a service manual, go to RF unit and locate Q5 the ALC meter amplifier, it is a 2SC1515 . check all voltages on Q5, you will be able to isolate the problem..If voltages are not near normal I would change Q5..Good luck , by the way it will work great when you get it fixed, hi. Harold W4PQW

6473. Bad guy report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-19 23:31:50 UTC
From: w4pqwhs@aol.com
Message-ID: <20011019193150.14778.00000269@mb-fn.aol.com>
Source record: 49270

Mike Shelton of NC Total Electronics. Six weeks ago I ordered paint from him. I get excuses, but, NO PAINT... Harold W4PQW

6474. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 00:37:55 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110191637.8e68a25@posting.google.com>
Source record: 49271
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Mark Dulcey <mark@buttery.org> wrote in message news:<3BD02E35.5060407@buttery.org>...

> The Curtis 8044 is out of production, but the 8045ABM (an improved

> version with selectable A and B modes, code speed meter, and memory) is

> still available from MFJ (http://www.mfjenterprises.com) for $19.95. If

> you want to build a traditional keyer with knobs for speed and so forth,

> you might prefer this to the PIC-based keyer chips that others have

> mentioned. The PIC keyers all use mode switches and paddle input to

> control this stuff; great for installing the keyer inside a rig where

> space is at a premium, but perhaps less convenient than old-fashioned

> knobs for an at-home keyer.

Making a PIC-based keyer with a knob for setting the
speed is easy: have the knob adjust the processor clock
frequency (say, a pot in an RC oscillator). PICs are
static inside, so you can run the clock as slowly as
you like.

What other knobs would you need?

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

6475. Re: TS-820S ALC problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 01:25:43 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9qqjgc$u1b$1@madmax.keyway.net>
Source record: 49272
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

: > When I adjust the drive knob in Tune mode, there is a certain range
: > where the ALC meter pegs. At other range of the knob, I got 0 ALC meter
: > reading. This means that it is doing some tuning. Another thing is that
: > the Carrier knob does not change the RF output in CW mode at all. I
: > don't know whether it is related to the ALC problem.
: >
: > -Jungwoo/AB2ND
:
: Ok, Then you have a problem. The "drive" as they call it is pretty
: much a preselector. So in your case that is working properly. It's
: your carrier control and related circuit which is not acting right.
: That should be controlling the drive level, and should drop the output
: to zero when it's all the way to the left. It could be related to the
: alc. Probably is being your alc indication is very high. I'd start
: looking around that point. Somethings not right, thats for sure. MK

If you take the Car level full counterclockwise and you have still have
power, you're oscillating. Do a neutralization, then take a hard look
at your PA and Driver/coil pack assy. If you have one try subbing
your 12BY7.

Jim ac6tk

6476. Thank you!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 01:44:25 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.163a76d845a5646a9896b0@shore.drizzle.com>
Source record: 49273

My thanks to all those who contributed ideas for making nice
equipment panel artwork. I've got plenty of good ideas to work from now.

73 de KC7GR.

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

6477. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 02:11:47 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qqmbb$15d$1@news.mbn.or.jp>
Source record: 49274
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

K5DH wrote in message ...
>What are you guys doing for keyer chips these days? I need some
>kind of keyer IC that I can build into a QRP rig, so it has to be
>really small.

I would suggest looking into programming your own with a PiC (one-chip microprocessor). The time and expense required for building a PiC programmer and learning how to write the code is modest. This capability will probably open doors for you on future projects. The PiCs have a short instruction set and are ideally suited for this type of hardware control application.

If you want something very simple then the programming is easy. If you want more sophisticated functionality (e.g., restrospective validation of marginally-too-early fast keystrokes) then you need to spend a little more time on the software. Having said this - the only commercial keyer chip I ever tried (purchased at a hamfest) had poor performance in this respect and there was no way of modifying it - so with a little time and effort I suspect you can 'homebrew' an autokeyer to the same if not higher performance standards.

73, ram

6478. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 02:29:55 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qqtv4$7hr$1@news.mbn.or.jp>
Source record: 49276

Graeme Zimmer wrote in message
<3bcec0b0$0$23066$afc38c87@news.optusnet.com.au>...
>I got curious about this CW Bandwidth stuff and decided to simulate some
>morse signals at various speeds and look at the resulting spectrum.
>
>details are at http://members.optushome.com.au/gzimmer/BW/BW.HTML
>
>Comments are welcome!
>

Thanks for an interesting graphic presentation.

I think the 'wavey' noise in the earlier graphs is perhaps the result of the relatively rough resolution of the data in the wavefile itself. If you do additional experiments then maybe a higher sampling rate might produce smoother graphic results. (Just an idea.)

73, ram

6479. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 02:29:55 UTC
From: ram <rmilne@aa.mbn.or.jp>
Message-ID: <9qr04d$971$1@news.mbn.or.jp>
Source record: 49277

Graeme Zimmer wrote in message
<3bcec0b0$0$23066$afc38c87@news.optusnet.com.au>...
>I got curious about this CW Bandwidth stuff and decided to simulate some
>morse signals at various speeds and look at the resulting spectrum.
>
>details are at http://members.optushome.com.au/gzimmer/BW/BW.HTML
>
>Comments are welcome!
>

Thanks for an interesting graphic presentation.

I think the 'wavey' noise in the earlier graphs is perhaps the result of the relatively rough resolution of the data in the wavefile itself. If you do additional experiments then maybe a higher sampling rate might produce smoother graphic results. (Just an idea.)

73, ram

6480. Re: Swan Siltronix alignment information free

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 03:19:36 UTC
From: Toll Free <tollfree@bigradios.com>
Message-ID: <tt1ra8selfg871@corp.supernews.com>
Source record: 49275
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.cb

"Jay in the Mojave" <jay123a@qnet.com> wrote in message
news:3BB28F79.57387DC4@qnet.com...
> Hello Skipp:
>
> Did the folks at Siltronix have any connection or ties with the guys
> over at General Radiotelephone, on Burbank Blvd, in Burbank. Near
> Burbank and Hollywood Way ?????????

No. They had everything to do with some phases of Palomar and Swan.

Later sold to Cubic Corporation of Military fame.

Toll_Free

>
> I now they where in with Comco, Courier, Messenger, and Bendix! And I
> think they helped or sold parts for the Buddy Base's made in Pasadena.
>
> Jay in the Mojave
>
>
> Skipp wrote:
> >
> > re: Swan Siltronix Tranceiver, Alignment information.
> >
> > Hi there,
> >
> > If you have a Swan or Siltronix 1011 amateur radio... We have great
news
> > for you. Not only will you find a web page for the 1011 tranceivers,
but
> > we have now writen a brief carrier oscillator alignment text which will
> > appear as a down load icon on the Siltronix (Swan) web page. I also
plan
> > to break the page into smaller chapters/sections for an easier down
> > load/web reading.
> >
> > After the classic golden screw driver has hit your carrier oscillator
> > adjustments, Swan and Siltronix radios are pretty much un-usable. You
can
> > now get the radio back into operation by reading the available (free)
> > owners manual and/or suppliment oscillator text writen up. The icon
will
> > appear in a very short time, today with a little luck and free time.

> >
> > Watch for it and feel free to Email questions from the web page if you
> > like.
> >
> > cheers
> > skipp
> >
> > http://sonic.ucdavis.edu/siltronix

6481. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 11:13:49 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <sIdA7.16879$uh1.2469357@news6-win.server.ntlworld.com>
Source record: 49278

"> >If you are "salvaging" chips off a surplus board (to be discarded), the
old
> >favorite is using a propane torch.
>
> I've used this method and found it effective.
>
> The only thing that worries me is the toxicity of the fumes and smoke if
the
> PCB starts to discolor, blacken or flame. When I do this now, I play safe
> with as many safety precautions as I can think of.... outdoors, good
> ventilation, paint sprayer's mask, stay at arm's length from PCB, turn
head
> away to take long breath, etc... my understanding is that the fumes from
the
> old PCBs can be highly toxic.
==========
Indeed ,when using a propane/butane torch , the PCB gets 'attacked' with the
resulting toxic fumes .

When stripping PCBs to salvage components I use a hot air paint stripper
.The one I have is a Black & Decker ,1600 Watts. The paint stripper's nozzle
is kept 4 -6 inches away from the PCB.
If done diligently the PCB is not damaged. However this method might not be
the best when replacing multi-legged components on a board to be reused
(repair job).

Frank gm0csz.kn6wh@ntlworld.com

6482. Re: variable capacitors for receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 13:35:17 UTC
From: wieland@copland.udel.edu
Message-ID: <9qruil$dk0$1@copland.udel.edu>
Source record: 49279

"Marvin Kroll" <merkinp@worldnet.att.net> wrote in message
news:3Jsy7.65978$WW.3160120@bgtnsc05-news.ops.worldnet.att.net...
> Can anyone recommend a source for 10-360 pF variable capacitors for
> receivers?
>

Look for the Crystal Set Scoiety on the 'net. They had a run of 365pF variable caps made a few years ago, and they sell them for something like $13 each. Not dirt cheap, but readily available. I had three (gave one to a guy building a glowbug regen), and my only grumble is that they should have made the shafts longer. Unless you bolt one right to a thin panel & have a knob right on the other side, the shaft isn't long enough! The best thing I've found is to use these with one of those cheap 8:1 reduction dials that have the shaft socket extending out the back, but the layout is still fussy because of that short shaft.

As to other values, Dan's Small Parts (on the 'net) has 50pF & 15pF units for reasonable prices, but these are surplus with uncertain future availability (if you expect to need eventually, buy now). MFJ Enterprises might be worth a contact, they build their whole line of ham-radio antenna tuners out of 208pF 1kV air variables; obviously, they have someody making them by the hundreds, but I don't know if MFJ could be persuaded to sell one seperately.

And, as others have suggested, if you can find "junker" old tabletop AC/DC AM sets, they all used similar tuning caps, with the larger (antenna) section going 365pF, and the smaller (oscillator) section going 135pF. If you parallel both sections, you get 500pF maximum, useful for the "Antenna" cap in the pi-network of transmitters, even up to 200 watts or so.

6483. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 14:09:15 UTC
From: Mark Allread <mallread@flatsurface.com>
Message-ID: <1104_1003586955@msauve>
Source record: 49280

On Fri, 19 Oct 2001 10:10:52 +0900, "ram" <rmilne@aa.mbn.or.jp> wrote:
>
>False. You're mixing terms here. "Ultimate BW" is by nature theoretical,

> No he's not. I can understand exactly what he meant even though it does not
> correspond with the "x% of the signal's power" definition.
>
> Why not be more flexible in the way we use terminology.

Because such imprecision leads to ambiguity and meaninglessness.

>You can see what he
> means and this is how our understanding of technical concepts evolves and
> becomes more refined over time.

Please, then, explain exactly what he means by "ultimate bandwidth," as he did not trouble himself to define the term, and it is not
a
common term of art.

> Let's not kill the process by quoting a
> wooden dictionary definition.

`I don't know what you mean by "glory",' Alice said.
Humpty Dumpty smiled contemptuously. `Of course you don't -- till I tell you. I meant "there's a nice knock-down argument for
you!"'
`But "glory" doesn't mean "a nice knock-down argument",' Alice objected.
`When I use a word,' Humpty Dumpty said, in rather a scornful tone, `it means just what I choose it to mean -- neither more nor
less.'

6484. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 14:41:33 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <w_fA7.11908$e5.136022@newsfeeds.bigpond.com>
Source record: 49281
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Look up k1el, he produces PIC cw keyer kits. You can also buy PIC keyer kits
from Morse Express. Look at www.ac6v.com
under accesories manufacturers. You can also see reviews at www.eham.com

Willy
"ram" <rmilne@aa.mbn.or.jp> wrote in message
news:9qqmbb$15d$1@news.mbn.or.jp...
>
> K5DH wrote in message ...
> >What are you guys doing for keyer chips these days? I need some
> >kind of keyer IC that I can build into a QRP rig, so it has to be
> >really small.
>
> I would suggest looking into programming your own with a PiC (one-chip
> microprocessor). The time and expense required for building a PiC
> programmer and learning how to write the code is modest. This capability
> will probably open doors for you on future projects. The PiCs have a
short
> instruction set and are ideally suited for this type of hardware control
> application.
>
> If you want something very simple then the programming is easy. If you
want
> more sophisticated functionality (e.g., restrospective validation of
> marginally-too-early fast keystrokes) then you need to spend a little more
> time on the software. Having said this - the only commercial keyer chip I
> ever tried (purchased at a hamfest) had poor performance in this respect
and
> there was no way of modifying it - so with a little time and effort I
> suspect you can 'homebrew' an autokeyer to the same if not higher
> performance standards.
>
> 73, ram
>
>

6485. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 16:58:33 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BD1AD39.7070909@buttery.org>
Source record: 49282
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Laura Halliday wrote:

>
> Making a PIC-based keyer with a knob for setting the
> speed is easy: have the knob adjust the processor clock
> frequency (say, a pot in an RC oscillator). PICs are
> static inside, so you can run the clock as slowly as
> you like.
>
> What other knobs would you need?

Yes, that's true, if you're rolling your own. All the commercially available PIC-based keyers I know of, though, use the mode-switch and paddle entry approach. Furthermore, most of them are using the little 8-pin PICs where the oscillator components are built into the chip; you can use external components, but the chip has to be programmed differently to tell it so, and you lose a couple of I/O pins that you can't really spare. So you can't just take a TiCK or a K1EL chip and change the speed that way.

Back in the old days, you would see keyers with knobs for speed, weight, sidetone volume, and sidetone pitch. (I have a homebrew one built back in the early 1980s, using an 8044B chip. It has two knobs on the front - speed and volume - and two more on the back.) You couldn't do all of that with your approach. (In fact, you couldn't do a keyer with sidetone at all, since the sidetone pitch would change along with the keyer speed.) You COULD do it by using a fancier PIC with A/D converters and connecting the pots to the converters, and it might be a fun homebrew project if you're into microcontroller coding, but it's a lot easier to just go out and buy a Curtis chip if you want that sort of keyer.

True, sidetone isn't usually an issue when using a keyer with modern rigs - they all have it built in. I built mine back when I had a Swan 400 transceiver, which didn't have it. Keyer sidetone is also handy for practice sessions and code demonstrations - situations where you want to send code without involving a radio.

6486. 80M SSB radio in Northern Alberta/BC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 18:58:52 UTC
From: b_t_s@hotmail.com
Message-ID: <3bd1c930.106126265@pen6.pen.k12.va.us>
Source record: 49285

I was wondering how useful a portable radio would be in that area (I've heard that in NE Canada a lot of people talk with each other on 80M). Would another band be better such as 160M or 40M, etc? Would it be possible to tie in to satellites in that area?

Brock Schuler

6487. Selecting a Good Homebrew Rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 19:01:06 UTC
From: b_t_s@hotmail.com
Message-ID: <3bd1c97d.106203305@pen6.pen.k12.va.us>
Source record: 49284

I've been looking into building a simple homemade radio (40M or 80M SSB). I've looked at some of the offerings on the internet (Peter Parkers Projects http://www.alphalink.com.au/~parkerp/project.htm, Harry's homebrew projects http://www.geocities.com/SiliconValley/3569/, QRP Homebuilders Homepage http://www.qrp.pops.net/) and the ARRL Handbook (Rick Campbell's R2 and T2, Randy Henderson's Rock-Bending Receiver). Any ideas on a good radio to build would be appreciated.

Brock Schuler

6488. Help -> Info or Schematic for T201 Phase & Load discriminator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 19:06:14 UTC
From: aprewitt@prodigy.net
Message-ID: <9ni3ttgf3te8l9ntth0433jlldfg8crlm8@4ax.com>
Source record: 49283

Need info or schematic of this phase and load discriminator... pix at
http://www.fairradio.com/t201.htm

Bought on at ham fest... No schematic.

Thanks
Art

6489. Re: OT : CW Bandwidth

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 19:20:18 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BD1CE72.DB79A799@eznec.com>
Source record: 49286

Fortunately or unfortunately, I haven't had the time to follow this thread. It's what I call a "high Q" thread, since it keeps ringing for a long time once struck.

There are several ways of looking at bandwidth, time waveform and frequency spectra. But the controversy began, as I recall, when Tom W8JI said that he observed that the spurious signals generated from a CW waveform, when he tuned his receiver off frequency, changed as the risetime changed but not as the keying speed changed. This was followed with wonderfully crafted arguments explaining why this couldn't be, and at one point Tom was even called an idiot or some such.

I've missed a lot, but I'll bet no one has done the same experiment Tom has and gotten different results.

The problem is this: If you listen to a CW signal off frequency as Tom did, the circuits in your receiver will ring when an edge occurs. But the time constants in those circuits is short enough, at least in the case of CW of reasonable speed, so that the effect of the edge is for all practical purposes gone by the time the next edge occurs. No matter what wonderful equations you produce and bandwidths you calculate, the fact is that the receiver doesn't remember how long ago the last edge occurred. So how could it have a different response to an edge depending on the speed? The only way it could is if the effect of the previous edges were still present in the receiver circuits when the next edge occurs. And it isn't.

A spectrum analyzer is a receiver, but a very specialized one. But as I posted long ago on this thread, an amateur receiver isn't a spectrum analyzer. Tom heard what he said he heard, and I believe he's right in asserting that what we really want to do is reduce the garbage other hams hear with their amateur receivers. And slowing down won't do it.

Roy Lewallen, W7EL

Graeme Zimmer wrote:
>
> Bob,
>
> > It seems to me that probably both sides of this issue are correct,
> > depending on how you want to define bandwidth. If bandwidth includes
> > everything that comes out of the transmitter including key clicks that
> > don't contribute to the information transfer then the waveshape is the
> > determining factor. If you consider the bandwidth to be only that part
> > of the signal needed to transfer the information then the keying speed
> > is the determining factor.

> This is much closer to a workable definition........
>
> However, we should also consider that practical morse signals have much
> sharper edges that communication theory would lead us to expect.
>
> If you bandwidth limit morse down to it's theoretically narrowest limit, it
> then sounds impossibly "soft" and is quite hard to copy.
> At this point a Dit has a perfectly rounded top (e.g. has a Raised Cosine
> shape).
> A string of these "minimum bandwidth" Dits has an envelope which is a
> perfect sine-wave.
>
> In fact we prefer a string of Dits which have a much squarer shape. It as if
> a certain amount of "click" is necessary to make it copyable.
> I figure that in this situation, the theoretical morse sidebands are lost in
> the other products which derive from the squarer edges.
>
> Or to put it another way........
>
> The Keying filter is purposefully widening the signal well beyond what the
> actual morse side-bands require.
>
> When I get time, I'll generate a few examples of different bandwidth morse
> signals.
>
> ..... Zim VK3GJZ

6490. Re: soon ham,help build xceiver!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 20:48:13 UTC
From: Glen Overby <overby@rrnet.com.pluto>
Message-ID: <tt3oodld2g7778@corp.supernews.com>
Source record: 49287

AB2HR <ab2hr@arrl.net> wrote:
>Yeah, it was a 3-part series, Sept 1999 through Nov 1999. The radio
>was called the DSP-10. There was a follow up in a later issue (not
>sure what issue) that mentioned that the radio was either available or
>soon to be made available in kit form...

The articles are available on-line from ARRL. The DSP-10 project has a web page with plenty of good pointers at:

http://www.proaxis.com/~boblark/dsp10.htm

He says that TAPR is making kits. This looks like a fun project!

Glen Overby, KC0IYT

6491. Re: 80M SSB radio in Northern Alberta/BC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 20:50:59 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <YqlA7.268$ND1.41338@brie.direct.ca>
Source record: 49288

Highly useful in B.C. VE7AFN/M.

--
CERTIFIED 100 % ANTHRAX FREE
Brock <b_t_s@hotmail.com> wrote in message
news:3bd1c930.106126265@pen6.pen.k12.va.us...
>
> I was wondering how useful a portable radio would be in that area
> (I've heard that in NE Canada a lot of people talk with each other on
> 80M). Would another band be better such as 160M or 40M, etc? Would it
> be possible to tie in to satellites in that area?
>
> Brock Schuler
>

6492. FS: New power transformers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-20 20:53:04 UTC
From: Terry Perdue <k8tp@home.com>
Message-ID: <QuIA7.32012$Zb.15396770@news1.sttln1.wa.home.com>
Source record: 49289

I have three new power transformers that would be ideal for a solid state kilowatt RF amp, high power audio amp or monster bench supply. These are real beauties, but very heavy - so you wouldn't want to pay for shipping. Pick-up only in Seattle area. Specs are as follows:

(Primaries are the same on all three - dual 100/115V (200/230V), 50/60Hz.)

Xfmr #1:

One 55V secondary, tapped at 4V, 40V, 45V and 50V. Rated at 250A peak (6% duty cycle), using a bridge and 150,000 uF cap.

Xfmr #2:

Secondary #1: 50V, tapped at 30V, 40V and 45V. Current rating not known, but substantial.
Secondary #2: 28V center-tapped at 8A continuous, 50A peak (20% duty cycle), using a bridge and 50,000 uF cap.

Xfmr #3:

One 55V secondary, tapped at 4V, 36V, 40V, 45V and 50V. Rated at 100A peak (20% duty cycle) using bridge and 50,000 uF cap.

If interested in any of these, and able to pick up, contact me, and we'll work an easy deal.

Terry Perdue
425-485-3188

6493. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 01:02:30 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <G8pA7.187840$K6.90547103@news2>
Source record: 49290

I have 2 different models, depending on what I'm using for a case.

For an aluminum front panel, I print the panel in reverse on transparency film. When I can find film heavy enough, it's generally sufficient to allow the controls to hold it in place. Usually the panel gets some protection from the sides of the case so this is OK. If not, a little glue or something is in order.

See http://www.qsl.net/wb8rcr/NC20.html for an example of this.

More often than not I use plastic cases from B.G. Micro or Debco. These are different style cases but the share the feature of having a simple, flat piece of plastic for a front panel, usually textured black (which makes it hard to do something with). I replace the panel with a piece of Plexiglas and print the panel on glossy paper (gives more intense colors) and attach it to the back of the panel. Plexiglas is pretty expensive if you buy big pieces but often scraps adequate for several panels are available at the local hardware for a quarter or fifty cents.

See http://www.qsl.net/wb8rcr/2N2-40.htm for an example of this.

I used to use Micrografx Designer but once I wrote the Panel program it became much easier. See http://hfradio.org/wb8rcr and poke on the Panel menu choice.

didleydadidah

6494. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 01:07:38 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <udpA7.187870$K6.90550984@news2>
Source record: 49291
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"Mark Dulcey" <mark@buttery.org> wrote in message
news:3BD1AD39.7070909@buttery.org...

> Back in the old days, you would see keyers with knobs
> for speed, weight, sidetone volume, and sidetone pitch.

After struggling with TiCK and similar keyers I longed for the knobs of my old Heathkit keyer, but then I got a K1. This has up/down buttons for speed, and simple combinations of buttons for loading and sending the memories. The mode and sidetone pitch are set from a menu navigated through the radio's LCD.

After using it for a while I realized I like this approach a LOT. It's easy and quick to change speed with the buttons, and you get feedback through the LCD, so unlike the keyers with knobs, you can easily go back to a previous setting. Things like weight and sidetone are harder, but you don't do that very often so I don't see it as a problem.

I'm building something similar for a homebrew radio using a PIC and as Laura says, it's pretty simple business. I am having a code problem at the moment but I'm sure it's something obvious so sooner or later I'll lick it.

didleydadidah

6495. AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 03:38:27 UTC
From: nope@sor.ry
Message-ID: <tt4gpjp3ueii91@corp.supernews.com>
Source record: 49292

Hi, I'm looking for something to do while being unemployed, and I've decided to build an AM-FM transistor radio-one that DOES NOT use ICs, so that I can tinker with it and not have to worry about blowing an IC. I spent a day at the library, both in books and on the web, and found nothing. So I was wondering if anybody here has a circuit that I can use. I'm sorry that I can't post my email, but if I do I'll be spammed to kingdom come. Post here and I will email you.

6496. Re: How to do front panel layouts...?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 04:50:48 UTC
From: Garrett Waltrip <gwaltrip@home.com>
Message-ID: <lusA7.50307$gT6.24731262@news1.rdc1.sfba.home.com>
Source record: 49293

I have been getting the front panel black hard anodized, Then take it to the
local trophy shop with a TIFF image of the panel and have them laser etch
it.
It's not cheap but it's not to expensive ether.
The anodizing house has a $40 min. so I usually get a few done at the same
time for the same price.
The laser etching runs about $10 depending on complexity.
--
Garrett B. Waltrip
N7QWT DN41ag
NAR L2 78129
gwaltrip@home.com
http://www.members.home.com/gwaltrip/

"Bruce Lane" <spammers@buzz.off> wrote in message
news:MPG.16380d1f3f4564f39896a8@shore.drizzle.com...
> Fellow homebrewers,
>
> I can deal with schematics. I can prototype PC boards if I send out
> the Gerber files and such to a local shop. But the one thing that still
> baffles me is...
>
> How the FRELL do I create either refurbished or new front-panel
> lettering and designations that look halfway professional? I don't have
> the equipment or the skill to do silkscreen or Alodine processes.
>
> Is there specialized software available to help?
>
> Can the layouts be, perhaps, printed on laser printer transparency
> film, and then attached to the panel in question?
>
> Any suggestions appreciated. Thanks much.
>
> --
> Bruce Lane, Owner and Head Hardware Heavy,
> Blue Feather Technologies -- http://www.bluefeathertech.com
> Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
> kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
> "I'll get a life when someone demonstrates to me it would be superior to
> what I have now..." (Taki Kogoma)

6497. Re: Direct Conversion Receiver Article On-Line

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 14:20:20 UTC
From: Larry Braden <lbraden@home.com>
Message-ID: <pan.2001.10.21.10.17.39.812.28345@home.com>
Source record: 49295
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.homebrew

Peter,

This is an excellent article, and the mixer looks very promising to use in future projects. One thing I *really* like about this article, is that you actually explain how you arrived at your choices among some of the alternative possibilities for various stages of the receiver. One of the things I *really* like about the article is that it allows a peek into the way you go about doing receiver design creatively: the art of of radio. Thank you!

73,

Larry Braden
KC5CWG
Catonsville, MD

On Thu, 18 Oct 2001 17:43:13 -0400, Peter Parker wrote:

> Those who don't receive the WIA's Amateur Radio magazine can now read a
> detailed article on a homebrew direct conversion receiver on the WIA's
> website.
>
> The DC 2000 receiver uses no specialised RF ICs. It gives good strong
> signal performance and recovered audio.
>
> It uses a lot of ideas from KK7B & ZS6BZP. Basic outline is as follows:
>
> VFO/VXO: 74HC04
> RF amp: 2N3053
> Mixer: 74HC4066
> AF Preamp: BC549 x 3
> AF Amp: HEF4007
>
> You can read the article via http://www.wia.org.au/ This is a project
> for the amateur who has already built several receivers before - kits
> and circuit boards will not be available.
>
> 73, Peter VK3YE
>
> --
> ---
> Peter Parker
> E-mail: parkerp @ alphalink . com . au
>
> URL: http://www.alphalink.com.au/~parkerp Amateur Radio VK3YE -

> Melbourne Transport - Writing
>
>

6498. Parting out 8877

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 14:35:33 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <V2BA7.325$Zz.119542@typhoon.austin.rr.com>
Source record: 49198

8877 tube, Used and just checked to full output, 1 external pin has been repaired (resoldered) $250 Plus shipping.
Large glass Jennings Vacuum variable with all mounting straps, $125.
Jennings 7-1000pf Vacuum variable Capacitor with all mounting straps $125.
Large 15KV Roller inductor (2 roller contacts) $125. Three Matching (NEW) Simpson Meters including electronic Simpson Bridge, meters in original boxes. $125. Email for more info. See picture of components (via email photos). All items guaranteed! AC5YV@hot.rr.com Will also consider trades!

6499. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 18:05:17 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3BD30E5D.D89FF1BF@enteract.com>
Source record: 49296

Mark Dulcey wrote:

> Laura Halliday wrote:
> > Making a PIC-based keyer with a knob for setting the
> > speed is easy ...

> Yes, that's true, if you're rolling your own. All the commercially
> available PIC-based keyers I know of, though, use the mode-switch and
> paddle entry approach.

Jackson Harbor Press sells iambic keyers made from PICs
that use a rotary pot to control the speed:

http://home.att.net/~jacksonharbor/

--
Mike Hall
http://www.enteract.com/~mghall
AB9CO EN51vt

6500. FS: Several antenna / QRP books

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 18:49:15 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3BD318AB.717789B8@enteract.com>
Source record: 49197

Low Power Scrapbook, RSGB Like NEW! $10
ARRL Antenna Compendium $1
The World Below 500kHz, L.Peter Carron Jr $1
Simple Low Cost Wire Antennas for Radio Amateurs, Wm.Orr $5
Easy Wire Antenna Handbook, Dave Ingramm $5
Easy Up Antennas for Radio Listener and Hams, Edward Noll $5

Also see my web page for other books.
Thanks!

--
Mike Hall
http://www.enteract.com/~mghall

6501. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 19:27:54 UTC
From: k6lcs@clintbradford.com
Message-ID: <fc08b778.0110211127.5c082164@posting.google.com>
Source record: 49199
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

"EPS" <eliteprotectionservices@home.com> wrote in message
news:<e7xy7.12156$YL3.2990648@news3.rdc1.on.home.com>...
> Anyone have RSS for Spectra/MTX?

Sure do. Paid Motorola for it. You can, too! Obtain further
information at...

http://accesssecure.mot.com/Accesspoint/cgi-bin2/SoftCart.exe/Accesspoint/Software/rsmain.htm?L+test+pbcz7345+1003728583

As an alternative, you can probably have your local Motorola delaer
program the unit for you for a reasonable fee.

Clint Bradford, K6LCS

6502. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 20:06:44 UTC
From: "Tim P." <N6DRAnospam@nc.rr.com>
Message-ID: <oVFA7.23530$%B6.8399275@typhoon.southeast.rr.com>
Source record: 49201
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

I would say it will be an "unreasonable fee" judging by the Motorola dealers I have competed with over the years. Typically $75 per radio, even in large numbers. My shop made good money programming Motorola radios because they charged so much.

Tim

"Clint Bradford" <k6lcs@clintbradford.com> wrote in message news:fc08b778.0110211127.5c082164@posting.google.com...
> "EPS" <eliteprotectionservices@home.com> wrote in message news:<e7xy7.12156$YL3.2990648@news3.rdc1.on.home.com>...
> > Anyone have RSS for Spectra/MTX?
>
> Sure do. Paid Motorola for it. You can, too! Obtain further
> information at...
>
>
http://accesssecure.mot.com/Accesspoint/cgi-bin2/SoftCart.exe/Accesspoint/Software/rsmain.htm?L+test+pbcz7345+1003728583
>
> As an alternative, you can probably have your local Motorola delaer
> program the unit for you for a reasonable fee.
>
> Clint Bradford, K6LCS

6503. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 20:32:27 UTC
From: J Yazel <jyazel@nls.net>
Message-ID: <i3c6tt0dejut3g0m3vo1k29d9qqgj2eq8c@4ax.com>
Source record: 49200

On Sun, 21 Oct 2001 03:38:27 -0000, nope@sor.ry (Bryan Cowan) wrote:

>Hi, I'm looking for something to do while being unemployed, and I've
>decided to build an AM-FM transistor radio-one that DOES NOT use ICs, so
>that I can tinker with it and not have to worry about blowing an IC. I
>spent a day at the library, both in books and on the web, and found
>nothing. So I was wondering if anybody here has a circuit that I can
>use. I'm sorry that I can't post my email, but if I do I'll be spammed
>to kingdom come. Post here and I will email you.

According to your logic, if I give you my e-mail address, then I will
also be "spammed to kingdom come".

Is that what you call a stand-off?

Jack

6504. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 20:43:52 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9qvc65pai1@plutonium.btinternet.com>
Source record: 49202

Try this fellow's sit he is called Home brew Harry
good stuff just what your looking for, good links too!

http://hem.passagen.se/sm0vpo/

6505. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-21 22:56:15 UTC
From: nada@na.da
Message-ID: <tt6kkfdoead8a7@corp.supernews.com>
Source record: 49203

In article <3bd2a68e@news.alphalink.com.au>, parkerp@alphalink.com.au says...
>
>Much easier to build two separate radios, or two front-ends feeding a common
>audio
>amp.
>
>Your exclusion of ICs eliminates the simplest options - MK484 for AM &
>TDA7000 for FM.
>
>So look for regen circuits for AM and superregen for FM. I've found the
>latter bad-tempered
>though, but they do work.

I noticed that an FM circuit is a lot of work. My experience is in amateur stuff-I never noticed that a regular AM/FM radio is a single IC chip that does all the dirty work plus a bunch of resistors and capacitors. But last night I took apart my cheap little bicycle radio to see why it didn't sound right and I noticed the big chip in the middle and the rest of it just electrolytic caps and resistors. (The answer: the tiny little speaker inside the case is overdriven. I'll have to get an actual size 8 ohm speaker for it, instead of one that's for a buzzer.)

>
>Peter
>
>
>
>"Bryan Cowan" <nope@sor.ry> wrote in message
>news:tt4gpjp3ueii91@corp.supernews.com...
>> Hi, I'm looking for something to do while being unemployed, and I've
>> decided to build an AM-FM transistor radio-one that DOES NOT use ICs, so
>> that I can tinker with it and not have to worry about blowing an IC. I
>> spent a day at the library, both in books and on the web, and found
>> nothing. So I was wondering if anybody here has a circuit that I can
>> use. I'm sorry that I can't post my email, but if I do I'll be spammed
>> to kingdom come. Post here and I will email you.
>>
>

>

6506. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 00:15:44 UTC
From: Dave &Sandy <nemo@olywa.net>
Message-ID: <3BD36446.E57F38EB@olywa.net>
Source record: 49204

Love this guy's site. He's called Home-brew Harry for reasons other than
radio.

KD7KQD

grumpy@lpws.zzzn.com wrote:
>
> Try this fellow's sit he is called Home brew Harry
> good stuff just what your looking for, good links too!
>
> http://hem.passagen.se/sm0vpo/

6507. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 00:27:30 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BD367F2.85A169A9@coqui.net>
Source record: 49205

redrum wrote:
>
> In article <3bd2a68e@news.alphalink.com.au>, parkerp@alphalink.com.au
> says...
> >
> >Much easier to build two separate radios, or two front-ends feeding a
> common
> >audio
> >amp.
> >
> >Your exclusion of ICs eliminates the simplest options - MK484 for AM &
> >TDA7000 for FM.
> >
> >So look for regen circuits for AM and superregen for FM. I've found
> the
> >latter bad-tempered
> >though, but they do work.
>
> I noticed that an FM circuit is a lot of work. My experience is in
> amateur stuff-I never noticed that a regular AM/FM radio is a single IC
> chip that does all the dirty work plus a bunch of resistors and
> capacitors. But last night I took apart my cheap little bicycle radio to
> see why it didn't sound right and I noticed the big chip in the middle
> and the rest of it just electrolytic caps and resistors. (The answer:
> the tiny little speaker inside the case is overdriven. I'll have to get
> an actual size 8 ohm speaker for it, instead of one that's for a
> buzzer.)
>
> >
> >Peter

If one wants to play with one of these 'one chip wonders', I've got one
of those 13-band Chinese radios that took a dump when presented with a
wrong polarity adaptor. I'll trade even for a can of fresh
egg-noodles...and probably come out the better.
Seriously, I've got one thrown in the closet thats free for the picking
of parts or whatever. No guarantees, of course. Contact me off-list.
exray@coqui.net
Bill, WX4A

6508. Re: AM-FM transistor radio circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 00:33:37 UTC
From: nada@na.da
Message-ID: <tt6qb1jhfbj331@corp.supernews.com>
Source record: 49206

```
In article <3BD367F2.85A169A9@coqui.net>,
"SeethereplytoaddressandtakeoutNO"@coqui.net says...
>
>redrum wrote:
>>
>> In article <3bd2a68e@news.alphalink.com.au>, parkerp@alphalink.com.au
>> says...
>> >
>> >Much easier to build two separate radios, or two front-ends feeding
a
>> common
>> >audio
>> >amp.
>> >
>> >Your exclusion of ICs eliminates the simplest options - MK484 for AM
&
>> >TDA7000 for FM.
>> >
>> >So look for regen circuits for AM and superregen for FM. I've found
>> the
>> >latter bad-tempered
>> >though, but they do work.
>>
>> I noticed that an FM circuit is a lot of work. My experience is in
>> amateur stuff-I never noticed that a regular AM/FM radio is a single
IC
>> chip that does all the dirty work plus a bunch of resistors and
>> capacitors. But last night I took apart my cheap little bicycle radio
to
>> see why it didn't sound right and I noticed the big chip in the
middle
>> and the rest of it just electrolytic caps and resistors. (The answer:
>> the tiny little speaker inside the case is overdriven. I'll have to
get
>> an actual size 8 ohm speaker for it, instead of one that's for a
>> buzzer.)
>>
>> >
>> >Peter
>
>If one wants to play with one of these 'one chip wonders', I've got one
>of those 13-band Chinese radios that took a dump when presented with a
>wrong polarity adaptor. I'll trade even for a can of fresh
>egg-noodles...and probably come out the better.
```

>Seriously, I've got one thrown in the closet thats free for the picking
>of parts or whatever. No guarantees, of course. Contact me off-list.
>exray@coqui.net
>Bill, WX4A
>

Actually, the whole thing was for naught-I was digging through the piles looking for a long shaft screwdriver when I found an old Zenith Royal 45 that's AM-FM and uses no chips, just 9 transistors. My point was to find a radio that could be used for disaster listening and that could take a little roughness. By the way, can anybody tell me how old this thing is? It still had a garage sale sticker on it saying "$2.00 RADIO".

6509. B&K 1601 Power Supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 00:36:04 UTC
From: Norm Melick <henmel@worldnet.att.net>
Message-ID: <3BD369FC.23B9DDBB@worldnet.att.net>
Source record: 49207

I have a B&K 1601 power supply with a 14 pin IC marked:

```
_______________
| |
| 307 009 |
| RCA 914 |
|_____________|
```

I can't find any reference of this device.

Anybody know of a replacement for this IC?

Thanks,

Norm/KQ6SD

6510. Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 02:49:24 UTC
From: joeryahoocom@yahoo.com
Message-ID: <e08922c6.0110211849.23d921fc@posting.google.com>
Source record: 49208
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I'm having a pretty nasty problem here with interference from computers and want to get some ideas on how to deal with it.

We have three computers in the house, all three were built by me and are mostly identical - one server and two workstations. One workstation is in my room, one in my roommate's room upstairs, and the server is in the front room, about twenty feet away from my room.

The workstations are bad enough, but when the server is on, you can't receive anything on the AM broadcast band at all. The entire band is covered in interference, and not even our strong local (WJBC, that can usually get through *anything*) can be heard. The interference is pretty much a problem up through 8 or 9 MHz, and some howls from the computers can even be heard on the FM broadcast band.

I've tried moving the server farther away, no change in the interference.

How can I determine if the interference is coming through the AC line, radiated, or both -- and what's a good way to get rid of it or lessen it? Build non-switching power supplies?

Getting rid of the computers isn't an option, darn it . . <g>

thanks,

Joe W9TXU
joeryahoocomFOUND@yahoo.DOTcom (remove caps to send mail)

6511. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 03:47:34 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9r05cdlhd1@slb4.atl.mindspring.net>
Source record: 49209
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Computer interference.... Nasty stuff to get rid of. A lot of the
cover joints are not RF shielding by any means.

==========

As an interesting side note, I was trying to run an FCC type acceptance
test in a spread spectrum radio that connected to a computer via RS232. I
set up a test bench, antenna was 3 meters frum the unit under test and so
on. Turned out, NONE of the computers at my workplace were quiet enough to
pass the FCC test !!!

The radio was OK, but the computers generated so much RF that any attempt
to test the spread spectrum radio would fail. I finally had to use a
plotter that had an RS232 input port. This satisfied the FCC requirement
for a 'typical load device'....

==========

From your description, it seems likely that some connection to the
computers is acting as an antenna.

OK, so the first thing is to disconnect the network cables. that's an
obvious and LONG antenna lead.

Make sure to shut the other computers off first, so you are chasing only
ONE problem at a time. Let's debug the server first.

Assuming that doesn't solve it, then get a good AC line filter. The
usual surge supressor in the AC strips is not good as an RF filter, so make
sure it is marked as an RF filter for the AC power.

Try that on the server.

Oh yeah, disconnect the speaker wires too.

It is likely that one of these will reduce the RF noise to an acceptable
level. If not, then it is possible it is coming straight off the main
motherboard. In that case, it might take a lot of copper tape to seal up
the joints. Alhough I'd check out the covers and the front of the
computer first to make sure they are metal and not molded plastic.

Jim

6512. DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 04:06:31 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3BD39B47.2AB12E65@nettally.com>
Source record: 49211
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

Has anyone seen any sort of DOS program that will provide a pulse
generator function via the parallel port?

I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
port in succession. I want to be able to delay each of the pulses (1
event per pin) to follow a trigger (keyboard is OK) and each other. Both
the delay and pulse width need to be variable from about 10 milliseconds
to 1 second in 10 millisecond steps.

The example below is for 3 output pins, more would be nice but not
essential.:

Trigger
wait 250 milliseconds
pin 1 output high for 80 milliseconds then stop
wait 100 milliseconds
pin 2 output high for 70 milliseconds then stop
wait 90 milliseconds
pin 3 output high for 60 milliseconds then stop
Stop

Thanks

Joe Leikhim K4SAT
Jleikhim@nettally.com

Sky King, Sky King, do not answer.

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

6513. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 04:36:52 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3BD3A264.E60A6303@ix.netcom.com>
Source record: 49210
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Try using an RFI sniffer, see
http://www.geocities.com/wa2ise/radios/ham.htm
for details. It's a ferrite toroid with a gap, the gap
is the sensitive part. Tune a receiver to an offending
frequency and probe around with teh sniffer to find
where the RFI is comming from.

6514. Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 04:41:50 UTC
From: ai928@FreeNet.Carleton.CA
Message-ID: <9r082e$29p$1@freenet9.carleton.ca>
Source record: 49212
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

Hello, all.

I have a power transformer (secondary 12.6V, 3A - no center tap) that I purchased from Radio Shack several years ago but have never used (RS catalogue number 273-1385). This is a PCB mount transformer with four solder tabs on the bottom (two on one side of the core frame and two on the other). This appears to be a discontinued item as this part number is not in the newewst Radio Shack catalogue.

It is not clear to me which solder tabs are for the 120V primary and which are for the 12.6V secondary.

On top of the core frame is written the following three lines:

PRI - 120V - 60Hz - CPT - 231
273-1385 LR38809 [CSA
SEC - 12.6V - 3A LOGO]

(Note: The "CSA LOGO" is the Canadian Standards Association logo; kind of like the Canadian equivalent to the U.S. Underwriter's Laboratory logo.)

If I hold the transformer so that I look down on it with the writing on top of the core frame "readable" (i.e. "right-side-up") then the left solder tab on the side of the transformer toward me, is marked with a red dot.

How do I determine which solder tabs are for the primary and which are for the secondary? What does the red dot mean? Is there a simple way to determine the primary and secondary by measuring the resistance of the windings?

Please follow up to these newsgroups, and also please CC a copy to my E-mail address.

With thanks and regards,
--
Ed Pugh | "A common mistake that people make when trying
Ottawa (Richmond) | to design something completely foolproof, is to
Ontario, Canada | underestimate the ingenuity of complete fools."
| - Douglas Noel Adams, 1952 - 2001 :-(

6515. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 05:14:40 UTC
From: "Alan 'A.J.' Franzman" <a.j.franzman@null.com.invalid>
Message-ID: <4XNA7.238$ao.25801@paloalto-snr1.gtei.net>
Source record: 49213
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

"Ed Pugh" <ai928@FreeNet.Carleton.CA> wrote in message
news:9r082e$29p$1@freenet9.carleton.ca...
> Hello, all.
>
> I have a power transformer (secondary 12.6V, 3A - no center tap)
that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer
with
> four solder tabs on the bottom (two on one side of the core frame
and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.
>
> On top of the core frame is written the following three lines:
>
> PRI - 120V - 60Hz - CPT - 231
> 273-1385 LR38809 [CSA
> SEC - 12.6V - 3A LOGO]
>
> (Note: The "CSA LOGO" is the Canadian Standards Association logo;
> kind of like the Canadian equivalent to the U.S. Underwriter's
> Laboratory logo.)
>
> If I hold the transformer so that I look down on it with the
> writing on top of the core frame "readable" (i.e. "right-side-up")
> then the left solder tab on the side of the transformer toward me,
> is marked with a red dot.
>
> How do I determine which solder tabs are for the primary and which
> are for the secondary? What does the red dot mean? Is there a
simple
> way to determine the primary and secondary by measuring the
resistance
> of the windings?
>
> Please follow up to these newsgroups, and also please CC a copy to
my
> E-mail address.
>

> With thanks and regards,
> --
> Ed Pugh | "A common mistake that people make when trying
> Ottawa (Richmond) | to design something completely foolproof, is to
> Ontario, Canada | underestimate the ingenuity of complete fools."
> | - Douglas Noel Adams, 1952 - 2001 :-(

Measure the DC resistance of the windings with an ohmmeter (it may
take a second or so for the reading to settle, due to inductance.)
The higher resistance will be the primary for this transformer.

--

Alan "A.J." Franzman

Email: a.j.franzman at verizon dot net

6516. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 05:15:11 UTC
From: "Alan 'A.J.' Franzman" <a.j.franzman@null.com.invalid>
Message-ID: <zXNA7.241$ao.25926@paloalto-snr1.gtei.net>
Source record: 49214
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

"Ed Pugh" <ai928@FreeNet.Carleton.CA> wrote in message
news:9r082e$29p$1@freenet9.carleton.ca...
> Hello, all.
>
> I have a power transformer (secondary 12.6V, 3A - no center tap)
that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer
with
> four solder tabs on the bottom (two on one side of the core frame
and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.
>
> On top of the core frame is written the following three lines:
>
> PRI - 120V - 60Hz - CPT - 231
> 273-1385 LR38809 [CSA
> SEC - 12.6V - 3A LOGO]
>
> (Note: The "CSA LOGO" is the Canadian Standards Association logo;
> kind of like the Canadian equivalent to the U.S. Underwriter's
> Laboratory logo.)
>
> If I hold the transformer so that I look down on it with the
> writing on top of the core frame "readable" (i.e. "right-side-up")
> then the left solder tab on the side of the transformer toward me,
> is marked with a red dot.
>
> How do I determine which solder tabs are for the primary and which
> are for the secondary? What does the red dot mean? Is there a
simple
> way to determine the primary and secondary by measuring the
resistance
> of the windings?
>
> Please follow up to these newsgroups, and also please CC a copy to
my
> E-mail address.
>

> With thanks and regards,
> --
> Ed Pugh | "A common mistake that people make when trying
> Ottawa (Richmond) | to design something completely foolproof, is to
> Ontario, Canada | underestimate the ingenuity of complete fools."
> | - Douglas Noel Adams, 1952 - 2001 :-(

Measure the DC resistance of the windings with an ohmmeter (it may
take a second or so for the reading to settle, due to inductance.)
The higher resistance will be the primary for this transformer.

--

Alan "A.J." Franzman

Email: a.j.franzman at verizon dot net

6517. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 05:43:07 UTC
From: Jeffrey D Angus <jangus@socal.rr.com>
Message-ID: <3BD3964E.5BE31BDE@socal.rr.com>
Source record: 49215
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

One of the worst sources of RFI from a computer I've had to deal with turned out to be the video cable. Unshielded. I couldn't believe it. But the others are
right on how to track down some of it. Unplug cables from the box and see which one(s) is(are) the antennas. The RF sniffer project listed in another reply is a good project. I've built one for myself and it works as advertised.

The method to keep the noise inside the box usuualy means a trip to radio shack for a few of those split rectangular ferrite clamp filters ($15/two) well worth it.

Worst case involves spraying the insides of the boxes with conductive paint
(sold as EMI shielding in a can) and making phospher bronze leaf springs to make contact with the paint when assembled. And yes, sadly, that includes the monitor, keyboards and mouse.

Funny, the worst ones were the old AT computers,. since they ran between 5-10 MHz clock rates. the newer ones are so fast, they only affect the cosmic radiation. (And a heavy Marie Callendar pie tin for a hat cures that.)

jeff

Side note: I remember when Southern California Edison used to send out an employee with a Collins KWM-2 in the service vehical and they'd hunt down the source of line noise for ou if you bitched loudly enough long enough.

Joer wrote:

> I'm having a pretty nasty problem here with interference from
> computers and want to get some ideas on how to deal with it.

6518. OT: Rocket Science? [Troll]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 06:07:04 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bd2d4e9$0$2303$44c9b20d@news3.asahi-net.or.jp>
Source record: 49294

Human artefacts, launched from the USA, can leave the furthest extent of the "planetary" part of our solar system and enter the Oort Cloud, eventually destined to enter interstellar and intergalactic space. When I was young, people were routinely sent to, and returned from, voyages to the moon.

I still can't get airmail delivery of a plastic bag of 'Tinnit' powder in Japan in the 21st century.

Does anyone know why not? If so, please explain...please!?

troll: (Scand) a fabulous being; dwarf or giant
troll: sing out in carefree manner
troll: to fish by drawing bait out in the water
troll: <from Old Fr> a quest

PS: I've checked the US DOT pages, the USPS pages and all the independent 'Hazmat' pages I could find on 'Copernic'...

6519. FT757 GX II interface protocol

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 07:12:14 UTC
From: Burkhard Roland <Roland.Burkhard@ascom.ch>
Message-ID: <3BD3C6CE.89A6D427@ascom.ch>
Source record: 49216
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc

Hi all
I would like to adapt my home made receiver control programme to a
friends FT757 GX II.
Could anybody do me a favour?
I send a SASE and contribute to the copy expenses.
Would you make and send photocopies of just the manual pages which
describe the control protocol.
(Commands, handshake and connector).

It would be very nice to help me in this matter.
If yes, send me your snail mail address via net mail.

Thank you in advance

Roland Burkhard
HB9BQR
Solothurn, Switzerland

6520. Re: FT757 GX II interface protocol

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 11:16:44 UTC
From: sburgoyne@faux9bit.qc.ca
Message-ID: <3bd3fd09.3784665@news.9bit.qc.ca>
Source record: 49217
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.digital.misc

I can scan the pages and send them to you by email
(5 pages, 500k per page in .jpg format)

What do you think?

I'm sure your friend knows that he needs an interface between rs232
and the radio?

I have the FIF-232 interface by Yeasu
I use only 3 pins on the connector in the back of the radio:
pin 1- Gnd, pin 2 - S.out, pin 3 - S.in
be sure to shield your cable.

Stephan VE2OWL

>
>Roland Burkhard
>HB9BQR
>Solothurn, Switzerland
>

---
to reply direct, remove "faux" from e-mail address

6521. FS: HEATHKIT SB-220 BANDSWITCH ASSEMBLY (COMPLETE)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 12:09:57 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <p0UA7.2580$Zz.316597@typhoon.austin.rr.com>
Source record: 49218

Complete bandswitch assembly for a Heathkit SB-220 Amplifier. RARE, these are near impossible to get in good shape. This is the entire assembly Bandswitch/Coil/Taps/Input tuning coils and inner switch including the aluminum case. It is a drop in solution for your tired old 220. Best Offer, Paypal OK.
Ask for an email picture of this rare item. AC5YV@hot.rr.com

6522. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 13:05:25 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0110220505.335360f0@posting.google.com>
Source record: 49219
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

ai928@FreeNet.Carleton.CA (Ed Pugh) wrote in message
news:<9r082e$29p$1@freenet9.carleton.ca>...
> Hello, all.
>
> I have a power transformer (secondary 12.6V, 3A - no center tap) that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer with
> four solder tabs on the bottom (two on one side of the core frame and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.
>
> On top of the core frame is written the following three lines:
>
> PRI - 120V - 60Hz - CPT - 231
> 273-1385 LR38809 [CSA
> SEC - 12.6V - 3A LOGO]
>
> (Note: The "CSA LOGO" is the Canadian Standards Association logo;
> kind of like the Canadian equivalent to the U.S. Underwriter's
> Laboratory logo.)
>
> If I hold the transformer so that I look down on it with the
> writing on top of the core frame "readable" (i.e. "right-side-up")
> then the left solder tab on the side of the transformer toward me,
> is marked with a red dot.
>
> How do I determine which solder tabs are for the primary and which
> are for the secondary? What does the red dot mean? Is there a simple
> way to determine the primary and secondary by measuring the resistance
> of the windings?
>
> Please follow up to these newsgroups, and also please CC a copy to my
> E-mail address.
>
> With thanks and regards,

In my experience Radio Shack transformers should be derated 50%. That
is, if yours is rated 3A don't try getting more than 1.5 amps out of
it. I have had some literaly fry. Yes, it actually turned crispy
black!

I rememember a guy in high school that could identify any transformer. His technique is well worth passing on. 1) Identify the windings on your unknown transformer with an ohm meter, and draw a diagram of it. 2)Get another transformer that puts out 6.3 VAC. 3)Pick two connections on your unknown that are on the same winding and hook them to the 6.3 VAC (If the thing catches fire with only 6.3 v, you probably don't want to use it anyway) 4) Measure the voltage on the other windings and keep track of them on a diagram. *****DANGER---There may be high voltages present. Use extreme caution when doing this. I have learned the hard way---HV does not feel too good!!***** 5) Calculate the voltage ratios on all the windings. With a little mathematical gymnastics it is then possible to identify whats what.

Unless the transformer is a real oddball it should fit a common pattern. Look in transformer catalogs, old Radio Handbooks, etc, for circuits that use similar transformers. Old ARRL Handbooks also have the color codes for transformers with wire leads.

73, Jim
N8EE

6523. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 13:32:35 UTC
From: MikeS <wybnormal@packetattack.no.spam.com>
Message-ID: <3bd41fa1_1@goliath.newsgroups.com>
Source record: 49220
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I've done this a few times...

A few things to look at and try..

replace the glass monitor with a LCD flatscreen.. you might laught at first but the big o'l monitor puts out a termendous amount of RF. I have 7 radios arranged on shelves right over my monitor. Before I replaced mine, I could not use any of the AM rigs. Even the FM would get some fuzzyness based on where the power cord was laying at the time.

Get a real CERTIFIED pc case for the server.. the clone cabinets are garbage for RF shielding.

Tape ALL joints on the PCs with EMI tape.. (copper tape) anyone who works in RF knows what this stuff is. Very handy.

Voodoo beads on the keyboard, mouse, montior leads.

Add RFI filter to the powersupply(lot of work but doable)

Again, you might laugh but a piece of tinfoil under a radio might help.. I *fixed* a guys garage door opener by placing his clone PC on a 2x2 piece of foil. It was sitting in the 2nd storey floor right over the opener's controller. With the PC.. the controller refused to work. With the foil in place, works great and last a long time :)

The biggest issue is the cases and glass monitor... we use to wrap copper tape around the perimeter of the monitor and then attach it to a ground drain to try to reduce in the radar vans. Not pretty but it worked to a degree.

MikeS
"Joer" <joeryahoocom@yahoo.com> wrote in message
news:e08922c6.0110211849.23d921fc@posting.google.com...
> I'm having a pretty nasty problem here with interference from
> computers and want to get some ideas on how to deal with it.
>
> We have three computers in the house, all three were built by me and
> are mostly identical - one server and two workstations. One
> workstation is in my room, one in my roommate's room upstairs, and the
> server is in the front room, about twenty feet away from my room.
>
> The workstations are bad enough, but when the server is on, you can't
> receive anything on the AM broadcast band at all. The entire band is
> covered in interference, and not even our strong local (WJBC, that can
> usually get through *anything*) can be heard. The interference is

> pretty much a problem up through 8 or 9 MHz, and some howls from the
> computers can even be heard on the FM broadcast band.
>
> I've tried moving the server farther away, no change in the
> interference.
>
> How can I determine if the interference is coming through the AC line,
> radiated, or both -- and what's a good way to get rid of it or lessen
> it? Build non-switching power supplies?
>
> Getting rid of the computers isn't an option, darn it . . <g>
>
> thanks,
>
> Joe W9TXU
> joeryahoocomFOUND@yahoo.DOTcom (remove caps to send mail)

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
Check out our new Unlimited Server. No Download or Time Limits!
------== Over 80,000 Newsgroups - 19 Different Servers! ==-----

6524. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 14:54:45 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10110221036590.16047-100000@gloria.cam.org>
Source record: 49223
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

On 22 Oct 2001, Ed Pugh wrote:

> Hello, all.
>
> I have a power transformer (secondary 12.6V, 3A - no center tap) that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer with
> four solder tabs on the bottom (two on one side of the core frame and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.
>
> On top of the core frame is written the following three lines:
>
> PRI - 120V - 60Hz - CPT - 231
> 273-1385 LR38809 [CSA
> SEC - 12.6V - 3A LOGO]
>
> (Note: The "CSA LOGO" is the Canadian Standards Association logo;
> kind of like the Canadian equivalent to the U.S. Underwriter's
> Laboratory logo.)
>
Since the windings come out to the terminals,
one can actually see the wire that is used for the windings.
The secondary should have thicker wire than the primary.

I have a Radio Shack transformer in front of me, which has all
the terminals on one side (I couldn't find one like yours, which
also had the labelling on top). The primary is the top set of
terminals (verified by the thinner wire for the winding, and
the center tap on the secondary). The label on the top of
the transformer has the primary voltage listed first, making
me wonder if on your transformer the primary terminals would
be ones with the primary labelling closest to them. I wouldn't
count on this, but it is secondary imnformation.

Michael VE2BVW

6525. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 15:01:25 UTC
From: k6lcs@clintbradford.com
Message-ID: <fc08b778.0110220701.742a4f5b@posting.google.com>
Source record: 49221
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

"Tim P." <N6DRAnospam@nc.rr.com> wrote in message
news:<oVFA7.23530$%B6.8399275@typhoon.southeast.rr.com>...
> I would say it will be an "unreasonable fee" judging by the Motorola dealers
> I have competed with over the years. Typically $75 per radio, even in large
> numbers. My shop made good money programming Motorola radios because they
> charged so much.

Sorry you have had that experience ... I would never charge a fellow
amateur radio operator that much to program an HT.

Clint Bradford, K6LCS

6526. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 15:30:44 UTC
From: John O'Flaherty <oflahert@toast.net>
Message-ID: <3BD43BF7.254ACA76@toast.net>
Source record: 49222
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Joer wrote:

> I'm having a pretty nasty problem here with interference from
> computers and want to get some ideas on how to deal with it.
>
> We have three computers in the house, all three were built by me and
> are mostly identical - one server and two workstations. One
> workstation is in my room, one in my roommate's room upstairs, and the
> server is in the front room, about twenty feet away from my room.
>
> The workstations are bad enough, but when the server is on, you can't
> receive anything on the AM broadcast band at all. The entire band is
> covered in interference, and not even our strong local (WJBC, that can
> usually get through *anything*) can be heard. The interference is
> pretty much a problem up through 8 or 9 MHz, and some howls from the
> computers can even be heard on the FM broadcast band.
>
> I've tried moving the server farther away, no change in the
> interference.
>
> How can I determine if the interference is coming through the AC line,
> radiated, or both -- and what's a good way to get rid of it or lessen
> it? Build non-switching power supplies?
>
> Getting rid of the computers isn't an option, darn it . . <g>

I have 3 networked computers, and I had a really severe interference problem that would disappear if I networked only two computers with a crossover cable. I traced it to the switching power supply for the network hub- it was a little transformer-looking thing (a wall wart) that plugged into the wall, which actually turned out to contain not a transformer, but a little switching power supply. I replaced it with a 5v. supply made out of an old filament transformer, and the noise just disappeared like magic.

It's a Linksys hub.

--
john

6527. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 18:44:37 UTC
From: "Tim P." <N6DRAnospam@nc.rr.com>
Message-ID: <pOZA7.24317$Hw3.6140876@typhoon.southeast.rr.com>
Source record: 49225
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

In the undisclosed town where I ran a Kenwood dealership, the local MSS was it's own worst enemy. Their attitude was better than a large advertising budget on our part. Even new Moto radios bought from them had a $75 programming fee tagged on for EVERY one. They didn't even like to talk to hams about radios, unless you knew the owner who was a ham and were in his "clique".

We programmed all our radio sales for free, and made reasonable changes for free during the life of the radio. For a competitor's sold radios we would charge a few bucks at most, and for a large quantity we did it for the current bench rate. For Ham's that were not pests it was usually free, provided we had time. They might have to wait because customers took priority. However, there were a few hams that wanted reprogramming every couple of days, and didn't care if you were busy- they paid the same rates as the customers. They really should have bought ham radios that were self programmable...

"Clint Bradford" <k6lcs@clintbradford.com> wrote in message news:fc08b778.0110220701.742a4f5b@posting.google.com...
> "Tim P." <N6DRAnospam@nc.rr.com> wrote in message news:<oVFA7.23530$%B6.8399275@typhoon.southeast.rr.com>...
> > I would say it will be an "unreasonable fee" judging by the Motorola dealers
> > I have competed with over the years. Typically $75 per radio, even in large
> > numbers. My shop made good money programming Motorola radios because they
> > charged so much.
>
> Sorry you have had that experience ... I would never charge a fellow
> amateur radio operator that much to program an HT.
>
> Clint Bradford, K6LCS

6528. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 19:01:27 UTC
From: Werner <werner@joystick.ca>
Message-ID: <AkXA7.1770$ND1.115622@brie.direct.ca>
Source record: 49224
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I agree with everyone else, those switchers cause a lot of noise. But on the bright side a quality name brand computer (no clones) is usually quiet enough not to cause problems. Both the monitors and network seem to be pretty quiet.

I did get rid of my problems rfi problems by using a shielded antenna - rg59 from the radio to the 20' wire on the roof and tuning the antenna with a low Q 1000uh choke. This worked well - for the better quality radios that were properly shielded and didn't use an internal antenna.

Good luck
Werner

John O'Flaherty <oflahert@toast.net> wrote in message news:3BD43BF7.254ACA76@toast.net...
> Joer wrote:
>
> > I'm having a pretty nasty problem here with interference from
> > computers and want to get some ideas on how to deal with it.
> >
> > We have three computers in the house, all three were built by me and
> > are mostly identical - one server and two workstations. One
> > workstation is in my room, one in my roommate's room upstairs, and the
> > server is in the front room, about twenty feet away from my room.
> >
> > The workstations are bad enough, but when the server is on, you can't
> > receive anything on the AM broadcast band at all. The entire band is
> > covered in interference, and not even our strong local (WJBC, that can
> > usually get through *anything*) can be heard. The interference is
> > pretty much a problem up through 8 or 9 MHz, and some howls from the
> > computers can even be heard on the FM broadcast band.
> >
> > I've tried moving the server farther away, no change in the
> > interference.
> >
> > How can I determine if the interference is coming through the AC line,
> > radiated, or both -- and what's a good way to get rid of it or lessen
> > it? Build non-switching power supplies?
> >
> > Getting rid of the computers isn't an option, darn it . . <g>
>
> I have 3 networked computers, and I had a really severe interference
> problem that would disappear if I networked only two computers with a
> crossover cable. I traced it to the switching power supply for the network

> hub- it was a little transformer-looking thing (a wall wart) that plugged
> into the wall, which actually turned out to contain not a transformer, but
> a little switching power supply. I replaced it with a 5v. supply made out
> of an old filament transformer, and the noise just disappeared like magic.
>
> It's a Linksys hub.
>
> --
> john
>
>

6529. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 19:18:52 UTC
From: bg <bmge@xmission.com>
Message-ID: <9r1r45$ch6$1@news.xmission.com>
Source record: 49226
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

I tried searching on Google , but got tired of looking after a few hundred
pages. If you can get an old PC or XT , I could set you up with something in
gwbasic that I used for triggering cameras.
bg
Joe Leikhim wrote in message <3BD39B47.2AB12E65@nettally.com>...
>Has anyone seen any sort of DOS program that will provide a pulse
>generator function via the parallel port?
>

6530. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 19:32:07 UTC
From: Sylvan Butler <Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrn9t8pe3.n4e.Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 49227
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

On Mon, 22 Oct 2001 00:06:31 -0400, Joe Leikhim <jleikhim@nettally.com> wrote:
> Has anyone seen any sort of DOS program that will provide a pulse
> generator function via the parallel port?

No...

> I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
> port in succession. I want to be able to delay each of the pulses (1
> event per pin) to follow a trigger (keyboard is OK) and each other. Both

Bit tricky.

> the delay and pulse width need to be variable from about 10 milliseconds
> to 1 second in 10 millisecond steps.

Rather tricky. You see, a natural DOS machine really doesn't like
timing any tighter than about 55ms. But it can be done. If you
don't need any simultaneous processing (your example below doesn't)
then you can use a self-calibrated "busy loop" to just wait.
Otherwise you probably need to reprogram the interrupt timer and
then you bollux any compatibility with most other software (e.g.
networking) that you might have running.

Are you a programmer? If so, you could probably roll your own
custom programs fairly easily (except for the tight timing, but once
you got that the rest is not too bad).

> Trigger
> wait 250 milliseconds
> pin 1 output high for 80 milliseconds then stop
> wait 100 milliseconds
> pin 2 output high for 70 milliseconds then stop
> wait 90 milliseconds
> pin 3 output high for 60 milliseconds then stop
> Stop

It would be nice to have a program that would parse and execute
scripts something like that. (BTW, when you say "stop" you probably
mean "output low", right?)

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759

Fight terrorism, arm the population!

6531. WTB: 9001.250khz Crystal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 20:52:43 UTC
From: rs2bk@aol.com
Message-ID: <20011022165243.13167.00000720@mb-fx.aol.com>
Source record: 49228

This crystal has wire in leads. But others would
do fine.

Jim Roseman w9ud
Moline, IL

6532. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 21:01:25 UTC
From: Lou deGonzague <zenith@nycap.rr.com>
Message-ID: <FO%A7.715740$T97.100110227@typhoon.nyroc.rr.com>
Source record: 49229
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I had the same problem with the wall wart for the hub. We returned it for another of the same model but this one came with a transformer type and the noise was gone. I also had a computer with a very noisy power supply so I bought another brand and noise was gone.
"John O'Flaherty" <oflahert@toast.net> wrote in message news:3BD43BF7.254ACA76@toast.net...
> Joer wrote:
>
> > I'm having a pretty nasty problem here with interference from
> > computers and want to get some ideas on how to deal with it.
> >
> > We have three computers in the house, all three were built by me and
> > are mostly identical - one server and two workstations. One
> > workstation is in my room, one in my roommate's room upstairs, and the
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> > usually get through *anything*) can be heard. The interference is
> > pretty much a problem up through 8 or 9 MHz, and some howls from the
> > computers can even be heard on the FM broadcast band.
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> > I've tried moving the server farther away, no change in the
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> > radiated, or both -- and what's a good way to get rid of it or lessen
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> crossover cable. I traced it to the switching power supply for the network
> hub- it was a little transformer-looking thing (a wall wart) that plugged
> into the wall, which actually turned out to contain not a transformer, but
> a little switching power supply. I replaced it with a 5v. supply made out
> of an old filament transformer, and the noise just disappeared like magic.
>
> It's a Linksys hub.
>
> --

> john
>
>

6533. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 21:03:40 UTC
From: M T <me@you.com>
Message-ID: <MQ%A7.563764$Lw3.34913800@news2.aus1.giganews.com>
Source record: 49230
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

Some of the GE/Ericson/COMMNET software can cost $500.00 and up.
"Clint Bradford" <k6lcs@clintbradford.com> wrote in message
news:fc08b778.0110220701.742a4f5b@posting.google.com...
> "Tim P." <N6DRAnospam@nc.rr.com> wrote in message
news:<oVFA7.23530$%B6.8399275@typhoon.southeast.rr.com>...
> > I would say it will be an "unreasonable fee" judging by the Motorola
dealers
> > I have competed with over the years. Typically $75 per radio, even in
large
> > numbers. My shop made good money programming Motorola radios because
they
> > charged so much.
>
> Sorry you have had that experience ... I would never charge a fellow
> amateur radio operator that much to program an HT.
>
> Clint Bradford, K6LCS
>

6534. Re: OT: Rocket Science? [Troll]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 21:41:06 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BD494E2.533@pop.removethistomailme.net>
Source record: 49231

Adam Weber wrote:
>
> Human artefacts, launched from the USA, can leave the furthest extent of the
> "planetary" part of our solar system and enter the Oort Cloud, eventually
> destined to enter interstellar and intergalactic space. When I was young,
> people were routinely sent to, and returned from, voyages to the moon.
>
> I still can't get airmail delivery of a plastic bag of 'Tinnit' powder in
> Japan in the 21st century.
>
> Does anyone know why not? If so, please explain...please!?

It's not a good time to be mailing powdery substances just now.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

6535. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 22:31:12 UTC
From: James <jamesf@xxxnec.com.au>
Message-ID: <1003790897.841976@busy.neca.nec.com.au>
Source record: 49232
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

Hi,

one thing that may help is an external 1kHz oscillator. You can use this to trigger a tight loop of code to do something. You will need a fast PC to keep up (at least a 386 40MHz, not an XT or AT). This will mean you don't need to alter timer settings etc. I presume you will have an external circuit to use your outputs anyway, maybe a 555 of other oscillator will be do-able. If you're carefull you can power it from unused outputs.

James.

"Sylvan Butler" <Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid> wrote in message
news:slrn9t8pe3.n4e.Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid...
> On Mon, 22 Oct 2001 00:06:31 -0400, Joe Leikhim <jleikhim@nettally.com> wrote:
> > Has anyone seen any sort of DOS program that will provide a pulse
> > generator function via the parallel port?
>
> No...
>
> > I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
> > port in succession. I want to be able to delay each of the pulses (1
> > event per pin) to follow a trigger (keyboard is OK) and each other. Both
>
> Bit tricky.
>
> > the delay and pulse width need to be variable from about 10 milliseconds
> > to 1 second in 10 millisecond steps.
>
> Rather tricky. You see, a natural DOS machine really doesn't like
> timing any tighter than about 55ms. But it can be done. If you
> don't need any simultaneous processing (your example below doesn't)
> then you can use a self-calibrated "busy loop" to just wait.
> Otherwise you probably need to reprogram the interrupt timer and
> then you bollux any compatibility with most other software (e.g.
> networking) that you might have running.
>
> Are you a programmer? If so, you could probably roll your own
> custom programs fairly easily (except for the tight timing, but once
> you got that the rest is not too bad).
>
> > Trigger
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> > pin 1 output high for 80 milliseconds then stop
> > wait 100 milliseconds
> > pin 2 output high for 70 milliseconds then stop
> > wait 90 milliseconds
> > pin 3 output high for 60 milliseconds then stop
> > Stop
>
> It would be nice to have a program that would parse and execute
> scripts something like that. (BTW, when you say "stop" you probably
> mean "output low", right?)
>
> sdb
> --
> | Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
> | Watch out for my e-mail address. Thank UCE. #### change ^ to @ #### |
> They that can give up essential liberty to obtain a little temporary
> safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
> Fight terrorism, arm the population!

6536. Help with data for fujitsu PLL chip MB87080A, made in 1994 please

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-22 23:58:44 UTC
From: vk6tt@optusnet.com.au
Message-ID: <3bd5b297.370791@news.optusnet.com.au>
Source record: 49233
Cross-posted to: rec.radio.amateur.homebrew,aus.electronics

HI all,

I have a quantity of Fujitsu PLL chips made in 1994, the MB87080A.
Unfortunately the Fujitsu site doesn't have data for chips back then.
Does anybody have an old printed data book or other source of data
with the information please?

Thanks in advance
Richard

6537. Re: Sources for CW keyer chips?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 00:24:48 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0110221624.3f3177d7@posting.google.com>
Source record: 49234
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

"ram" <rmilne@aa.mbn.or.jp> wrote in message news:<9qqmbb$15d$1@news.mbn.or.jp>...

> I would suggest looking into programming your own with a PiC (one-chip

> microprocessor). The time and expense required for building a PiC

> programmer and learning how to write the code is modest. This capability

> will probably open doors for you on future projects. The PiCs have a short

> instruction set and are ideally suited for this type of hardware control

> application.
..

Hear! Hear!

In addition to being enormous fun to play with, this is one
way to make absolutely sure you get the keyer you want. You
might even come up with something genuinely new and interest-
ing in the process.

If nothing else you would be creating something yourself,
rather than just buying an appliance off the shelf. This
doesn't happen enough nowadays, and is to be encouraged.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

6538. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 00:37:46 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3BD4BBDA.C4D0B2DE@nettally.com>
Source record: 49236
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

I intend to use an IBM PC with DOS 5.X . I would like to try your program,
thanks

bg wrote:

> I tried searching on Google , but got tired of looking after a few hundred
> pages. If you can get an old PC or XT , I could set you up with something in
> gwbasic that I used for triggering cameras.
> bg
> Joe Leikhim wrote in message <3BD39B47.2AB12E65@nettally.com>...
> >Has anyone seen any sort of DOS program that will provide a pulse
> >generator function via the parallel port?
> >

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

Sky King, Sky King, do not answer.

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

6539. Maxtrac 900 MHz amateur filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 00:42:37 UTC
From: hrbcrb@aol.com.goaway
Message-ID: <20011022204237.25163.00000690@mb-mu.aol.com>
Source record: 49235

I found some Murata DFC3R915P025BTD drop-in replacement filters for the 900 MHz amateur band Maxtrac modification. I was tired of adapting the TOKO 4DFB-915E-10 surface mount type. Although the TOKO do a fine job, the full size Murata have about a dB less insertion loss and should improve sensitivity.

These are NIB, exact form-fit and function of the two filters we remove from the rf board, except they are the proper frequency bandpass for the amateur band (same part number listed on the Batlabs site). Willing to share excess.

Have a Jpeg if anyone is interested.

Regards, Hugh Bosma KF6HHS
Retired, now life moves at my pace.
please note spam filter

6540. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 01:35:52 UTC
From: Al Mal <alex.im@nospam.usa.net>
Message-ID: <nK3B7.10343$ET.1192518@news20.bellglobal.com>
Source record: 49238
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

Ed,

If you have access to the winding and can see the wires coming to the solder taps, you can easily identify the primary w/o any instruments. The wire of the primary winding will be thinner then the secondary.

Alex

"Ed Pugh" <ai928@FreeNet.Carleton.CA> wrote in message news:9r082e$29p$1@freenet9.carleton.ca...
> Hello, all.
> I have a power transformer (secondary 12.6V, 3A - no center tap) that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer with
> four solder tabs on the bottom (two on one side of the core frame and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.

6541. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 03:37:45 UTC
From: Phil Bolyn <pcb99@NOSPAMworldnet.att.net>
Message-ID: <dC5B7.150316$W8.4035710@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49239
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

As a calibration point, it IS possible to have a quiet PC. I have a
semi-name brand inexpensive e-machines 400MHz computer on my bench. My
radios play interference free down to about 2 feet away. I don't have any
auxiliary filtering do-dads attached. This is a basic PC with monitor and
modem, no network attachments. I get some static from the shop-light
flourescents overhead but it isn't bothersome.

Phil

"Werner" <werner@joystick.ca> wrote in message
news:AkXA7.1770$ND1.115622@brie.direct.ca...
> I agree with everyone else, those switchers cause a lot of noise. But on
> the bright side a quality name brand computer (no clones) is usually quiet
> enough not to cause problems. Both the monitors and network seem to be
> pretty quiet.
>
> I did get rid of my problems rfi problems by using a shielded antenna -
rg59
> from the radio to the 20' wire on the roof and tuning the antenna with a
low
> Q 1000uh choke. This worked well - for the better quality radios that
were
> properly shielded and didn't use an internal antenna.
>
> Good luck
> Werner
>
>
> John O'Flaherty <oflahert@toast.net> wrote in message
> news:3BD43BF7.254ACA76@toast.net...
> > Joer wrote:
> >
> > > I'm having a pretty nasty problem here with interference from
> > > computers and want to get some ideas on how to deal with it.
> > >
> > > We have three computers in the house, all three were built by me and
> > > are mostly identical - one server and two workstations. One
> > > workstation is in my room, one in my roommate's room upstairs, and the
> > > server is in the front room, about twenty feet away from my room.
> > >
> > > The workstations are bad enough, but when the server is on, you can't
> > > receive anything on the AM broadcast band at all. The entire band is
> > > covered in interference, and not even our strong local (WJBC, that can
> > > usually get through *anything*) can be heard. The interference is

> > > pretty much a problem up through 8 or 9 MHz, and some howls from the
> > > computers can even be heard on the FM broadcast band.
> > >
> > > I've tried moving the server farther away, no change in the
> > > interference.
> > >
> > > How can I determine if the interference is coming through the AC line,
> > > radiated, or both -- and what's a good way to get rid of it or lessen
> > > it? Build non-switching power supplies?
> > >
> > > Getting rid of the computers isn't an option, darn it . . <g>
> >
> > I have 3 networked computers, and I had a really severe interference
> > problem that would disappear if I networked only two computers with a
> > crossover cable. I traced it to the switching power supply for the
network
> > hub- it was a little transformer-looking thing (a wall wart) that
plugged
> > into the wall, which actually turned out to contain not a transformer,
but
> > a little switching power supply. I replaced it with a 5v. supply made
out
> > of an old filament transformer, and the noise just disappeared like
magic.
> >
> > It's a Linksys hub.
> >
> > --
> > john
> >
> >
>
>

6542. RF and HV components and much more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 04:27:52 UTC
From: Bob Levitt <parts@3web.net>
Message-ID: <3bd4c832@news.cybersurf.net>
Source record: 49237
Cross-posted to:
rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur.homebrew,alt.electronics,uk.radio.amateur,rec.radio.amateur.misc

http://www.geocities.com/myjunkboxes is my 30 year accumulation of
electronic components for sale

Coaxial Power switch,
RF power and other transistors, RF I.C.'s, non-inductive power resistors,
Minicircuits power combiners/splitters, ceramic 455kHz and 460kHz filters,

variable capacitors, both panel mount shaft type and trimmer
variable inductors and coil forms, RF feedthrough and standoff capacitors,

High voltage: VACUUM RELAYS, RECTIFIERS, resistors and capacitors,

Other capacitors including, Photoflash, polypropylenes, tantulums,

Switches, such as foot switches and industrial limit (micro) switches,

Ferrites cores, Transformers and inductors,

Transistors for power audio amplifiers and television deflection,
Super fast (35ns) 1 and 3 amp rectifiers, and lots, lots more.

Bob Levitt

6543. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 04:46:43 UTC
From: scott@scottharvey.com
Message-ID: <3bd4eee7.56524693@129.197.3.187>
Source record: 49240
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

It's most likely coming from the power supply. I have a homebrew 800 mHz Pentium III computer that has a "smart" power supply, which means that even when the system is turned off, a portion of the power supply is still energized.

The RFI generated by this thing is just outrageous. The AM band and most of the most popular SW bands are completely useless when the computer is connected to the AC line, even when it is switched off. The only way to get around it for me was to hook the computer to a seperate power strip and switch it off there.

At some point the FCC is going to have to get some backbone and start cracking down on this sort of thing. I like computers; they are wonderful things, but the RF noise pollution they generate is just brutal, and other electronic toys aren't much better. I can't believe that these things can't be designed to behave better with radio equipment.

20 years ago, the biggest problem with interference came from microwave ovens, car ignitions, electric motors, and flourescent lights. These things were annoying, but you could still copy a signal through the interference. Nowadays, If you live in an environment with a lot of computers around, you might as well throw the AM radio out the window. Something needs to be done on a broader scale.

-Scott

On 21 Oct 2001 19:49:24 -0700, joeryahoocom@yahoo.com (Joer) wrote:

>I'm having a pretty nasty problem here with interference from
>computers and want to get some ideas on how to deal with it.
>
>We have three computers in the house, all three were built by me and
>are mostly identical - one server and two workstations. One
>workstation is in my room, one in my roommate's room upstairs, and the
>server is in the front room, about twenty feet away from my room.
>
>The workstations are bad enough, but when the server is on, you can't
>receive anything on the AM broadcast band at all. The entire band is
>covered in interference, and not even our strong local (WJBC, that can
>usually get through *anything*) can be heard. The interference is
>pretty much a problem up through 8 or 9 MHz, and some howls from the
>computers can even be heard on the FM broadcast band.
>
>I've tried moving the server farther away, no change in the

>interference.
>
>How can I determine if the interference is coming through the AC line,
>radiated, or both -- and what's a good way to get rid of it or lessen
>it? Build non-switching power supplies?
>
>Getting rid of the computers isn't an option, darn it . . <g>
>
>thanks,
>
>Joe W9TXU
>joeryahoocomFOUND@yahoo.DOTcom (remove caps to send mail)

6544. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 10:58:35 UTC
From: jwodell@provide.net
Message-ID: <3bd54cf9.1181021@news.provide.net>
Source record: 49241

On Tue, 23 Oct 2001 02:47:53 GMT, Jim Higgins
<SeeSig4RealAddress@pandora.orbl.org> wrote:

>On 21 Oct 2001 19:49:24 -0700, in
><e08922c6.0110211849.23d921fc@posting.google.com>,
>joeryahoocom@yahoo.com (Joer) wrote:
>
>>I'm having a pretty nasty problem here with interference from
>>computers and want to get some ideas on how to deal with it.
>>
I've had this problem several times, and it's always been the power
supply. Some of them just don't have a line filter. Often there's a
place for it, jumped over. I have 6 dead power supplies!

So I goes me down to the computer store and get one that has an
EMI filter, guaranteed.

The racket a switcher can generate is awesome!

73 jerry w8gnd

6545. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 12:19:57 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <NfdB7.201$ez.111603@news1.rdc1.nj.home.com>
Source record: 49242

Mike Predyko's updated PIC book contains a PCB for a programmer, and a
CD-ROM. Just add parts and a connector and you're good to go.

"Jim Higgins" <SeeSig4RealAddress@pandora.orbl.org> wrote in message
news:7kj9ttsp181r3gmm6q3egvqqfu81bmmvqt@4ax.com...
> On Wed, 17 Oct 2001 03:13:00 GMT, in
> <3BCCF73B.BBA62930@home.com>, Dan Tayloe <dtayloe@home.com>
> wrote:
>
> >Go to the Microchip website (www.microchip.com) and download the manual
> >for the mid range CPUs.
> >
> >PICs are a bit primitive and quirky, at least compared to the 6800,
> >6809, and 68000 CPUs I was used to. Code space and data space are
> >completely separate, so I had to rethink how I did simple operations
> >like table lookup. Also, the stack is only eight levels deep, so if you
> >use interrupts, you have to watch out how deep you get in subroutine
> >calls. The code needs to be pretty flat.
> >
> >The instruction set is very simple (primitive). However, if you require
> >something complex like a multiply or divide, their website has a large
> >library of math subroutines available free for the downloading.
> >
> >Not all PICs are a like. The really simple ones like the 0.5K, 8 pin
> >12C508a does interrupts differently than the mid range CPUs, and only
> >has two levels of stack.
> >
> >That all said, they are cheap, very available to hobbyists, and
> >tremendously useful, which cannot be said for other more normal single
> >chip processor lines.
> >
> >If you have written in assembly before, you will do fine.
> >
> >- Dan, N7VE
>
> The PIC chips are "primitive" as regards their instruction sets
> because they are "RISK" processors. The separation of code space
> from data space (Harvard Archetecture, vs the von Neumann
> Architecture of chips such as the 6800, 6809, 68000 and the
> ubiquitous Intel 80x86 and Pentium chips) is a positive feature
> because it allows fetches of code and data to be made over
> separate busses, which enhances speed.
>
> The 12C508A does not support interrupts. The 2-level stack on

> this processor is a call/return, push/pop stack only. I don't
> think any of the 12C50X family supports interrupts. You need to
> go to the 12C6XX family for that.
>
> For a beginner (or a pro even), I highly recommend buying a
> version of the chip you're interested in as a UV erasable or
> EEPROM-able part. That way you can reuse the same chip during
> program development, then burn a much cheaper OTP (one-time
> programmable) part for the final version. The reprogrammable
> part is then available for development of the next project.
>
> Do look around quite a bit when it comes to buying/building a
> programmer for these parts. You can find programmers you can
> build for under $30, some of which will program a wide variety of
> parts, and some of which require a special software loader to
> load the resulting code to the part. The later isn't really a
> problem because these are free for the downloading, but it is
> best to get the hardware/software ducks all in a row before
> starting down a chosen path.
>
> Best of luck.
>
> --
> Jim Higgins, benxi AT bigfoot DOT com
> icbm: 33.55.34N, 80.24.21W
> http://home.sc.rr.com/cosmogony/index.html

6546. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 16:22:11 UTC
From: cjX@hth.com
Message-ID: <3bd47188.25682928@news.sverige.net>
Source record: 49243
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=========================================================================
- L.O.S.A Contribution Form -
=========================================================================
New Contribution [ ] Update [ ]
-------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=========================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
USB interfacing without need for asprins! For information about the
new USB EasyTap(tm) go to following URL http://www.hth.com/easytap/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

6547. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 16:48:25 UTC
From: k6lcs@clintbradford.com
Message-ID: <fc08b778.0110230848.31b7a86e@posting.google.com>
Source record: 49244
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

"Tim P." <N6DRAnospam@nc.rr.com> wrote in message
news:<pOZA7.24317$Hw3.6140876@typhoon.southeast.rr.com>...

> We programmed all our radio sales for free, and made reasonable changes for
> free during the life of the radio. For a competitor's sold radios we would
> charge a few bucks at most, and for a large quantity we did it for the
> current bench rate. For Ham's that were not pests it was usually free,
> provided we had time. They might have to wait because customers took
> priority. However, there were a few hams that wanted reprogramming every
> couple of days, and didn't care if you were busy- they paid the same rates
> as the customers. They really should have bought ham radios that were self
> programmable...

It is good to know that there are other Motorola shops out there who
care for the amateur radio community!

Clint Bradford, K6LCS
Metro Mobile Communications
Walnut, CA
1-800-638-7645 x121

6548. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 17:28:47 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9r49gi$212l$1@madmax.keyway.net>
Source record: 49245
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

...My shop made good money programming Motorola radios because
: they
: > > charged so much.
: >
: > Sorry you have had that experience ... I would never charge a fellow
: > amateur radio operator that much to program an HT.
: >
: > Clint Bradford, K6LCS

Ok Clint; you don't have to charge anyone for any professional service like boat/RV repair, Waiter, Electrical, Plumbing or even to build them a house in the country if you are
either independantly wealthy, have a filthy rich parent or are heavily subsidised party elite or movie star (or perhaps your time is over-valued?).

As a Brother Ham, I was wondering if you had a spare mansion in Beverly Hills and a pension for me to retire to? (I noticed Bill C. went to New York instead)

Pardon the belch;

<soapbox>

All that seems to be changing for economic and security reasons, etc. Now they just get rid of the technicians and substitute installers, and ship the radios away to a depot where they perform a wholesale flat-rate repair. This way, security is maintained while employing wetback, kid, prisoner or volunteer for manual or less skilled technical operations like mobile installations and "picking frequencies", or even a god person such as a federal agent or police officer who may have any of the above executed for touching one of "his" radios.

One side-effect of this, is that when a sophisticated system goes down, the search is on for a competent repairman, as many have disappeared since the system was first put on line. Someone may in fact have to be flown out while the clock is ticking. Of course the ultimate answer to all this would be a complete phase-out of privately owned systems completely, and complete takeover by carrier owned systems with leased portable units such as Nextel or a few of the cellular carriers.

This almost does away with the slave labor, because the portable unit doesn't require installation, and can be easily shipped to depot level for programming and repairs.

All this cuts the overhead and "problem" of having to hire someone just to program radios, change fuses and replace antennas (and occasionally to fix a repeater, dispatch console or link) who may need to be shot in the head as a security "concern" by virtue of excessive experience.

</soapbox>

Jim, ac6tk
Ex 20 year Mot man - Spiked!

6549. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 18:17:19 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BD5B42F.2040006@buttery.org>
Source record: 49246

Jim Higgins wrote:

> On Tue, 23 Oct 2001 12:19:57 GMT, in
> <NfdB7.201$ez.111603@news1.rdc1.nj.home.com>, "schatzie"
> <jdwalton@home.com> wrote:
>
>
>>Mike Predyko's updated PIC book contains a PCB for a programmer, and a
>>CD-ROM. Just add parts and a connector and you're good to go.
>>
>
> Which PIC book is that? And do you mean an actual PCB, or just a
> tracing from which to make one?

The book he's talking about is "Programming and Customizing PICmicro Microcontrollers", second edition; Myke Predko; McGraw Hill, 2001; ISBN 0-07-136172-3, US$49.95.

It contains an actual PCB for the "El Cheapo" programmer, though not the parts to populate it, and the schematic for the programmer. The parts you'll need include resistors and capacitors (all common values), 2N7000 and 2N3906 transistors, two 1N914 diodes, a 78L12 regulator, a 5.1v Zener, IC sockets, and a DB25 connector for the parallel port connection. You'll also need a 15 volt supply of some sort; a "wall wart" will do. A well-stocked homebrewer will have most or all of the parts on hand already.

The programmer works with all the PICs that use the ICSP two-wire programming method, which includes all of the currently popular parts. It handles 8, 14, 18, 28, and 40 pin DIPs. (Sorry, it doesn't handle surface-mount chips; nobody makes sockets for them. But if you could figure out how to connect them, I'm sure the circuit would program them.)

6550. Re: Ideas - computer interference problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 18:26:31 UTC
From: Lew <lewis-jean@mediaone.net>
Message-ID: <rDiB7.2717$3l1.2343787@typhoon.jacksonville.mediaone.net>
Source record: 49097
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Place a EMI Filter on the Keyboard cable at the Keyboard and where it plugs
into the computer
Also place one on the cables going to the sound card

Lew
"Joer" <joeryahoocom@yahoo.com> wrote in message
news:e08922c6.0110211849.23d921fc@posting.google.com...
> I'm having a pretty nasty problem here with interference from
> computers and want to get some ideas on how to deal with it.
>
> We have three computers in the house, all three were built by me and
> are mostly identical - one server and two workstations. One
> workstation is in my room, one in my roommate's room upstairs, and the
> server is in the front room, about twenty feet away from my room.
>
> The workstations are bad enough, but when the server is on, you can't
> receive anything on the AM broadcast band at all. The entire band is
> covered in interference, and not even our strong local (WJBC, that can
> usually get through *anything*) can be heard. The interference is
> pretty much a problem up through 8 or 9 MHz, and some howls from the
> computers can even be heard on the FM broadcast band.
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> I've tried moving the server farther away, no change in the
> interference.
>
> How can I determine if the interference is coming through the AC line,
> radiated, or both -- and what's a good way to get rid of it or lessen
> it? Build non-switching power supplies?
>
> Getting rid of the computers isn't an option, darn it . . <g>
>
> thanks,
>
> Joe W9TXU
> joeryahoocomFOUND@yahoo.DOTcom (remove caps to send mail)

6551. 365pfd variable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 19:41:52 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <ttbi0c48s5iqc9@corp.supernews.com>
Source record: 49098

http://www.midnightscience.com/ has both single gang and dual gang
365 pfd open plate type variable capacitors available.

6552. Re: 365pfd variable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 20:15:13 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3BD5CFD1.87EA9A81@iquest.net>
Source record: 49099

Another source for these is: www.websitea.com/mai
You'll save a buck or two as well.

"Bob Lewis (AA4PB)" wrote:
>
> http://www.midnightscience.com/ has both single gang and dual gang
> 365 pfd open plate type variable capacitors available.

6553. Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 21:37:30 UTC
From: anarchyx@escape.com
Message-ID: <3bd5e1c6.172249351@news.mindspring.com>
Source record: 49100

I'm somewhat of an amateur at all of this, so bear with me please.

Anyway, I'm addicted to streaming radio stations and I want a way to be able to listen to them all over the house and not just near my computer. So I figured an FM transmitter would be perfect. It seems that they're harder to come by than I thought. I came across this: http://www.ccrane.com/fm_transmitter.asp. Seems like it would serve my purposes nicely. There are 2 problems with it though. One is that it would only transmit about 20ft and requires some modifications to reach the whole house. Modifications dont scare me, so that's not really too much of an issue. The other problems is that it's not available until January. I was hoping to get something sooner.

So does anyone know of any other solutions I can try? My requirements are this:
-Must be able to broadcast about 100ft.
-Must be in stereo and sound just like a real radio station would, if not better.
-does not require an electronics engineering degree to assemble/install. I'd really like a plug and play solution.
-Cheap would be nice too :)

Any help is greatly appreciated. Thanks.

6554. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 23:18:37 UTC
From: Kc7eip <kc7eip@home.com>
Message-ID: <hVmB7.22880$Gh2.7298931@news2.rdc1.bc.home.com>
Source record: 49101

Thank you verry much for all your help... I think i am going to go for the noppp programer... seems to be a good compromise ...Cheap to make programs a midrange family chip and i suppose with a little bit of work i could get it to program others as well...as for the idea of using a uv erasable or eeprom i had not thought about that... Of coarse there are no local suppliers of the chips the one place i went to said they could order them in for me but do not carry them onhand...so what price range would be fare for the 16F84, 16C84, and 16F83 microcontrollers Thks again... kc7eip

6555. WTT: Nye Viking SKM-1 keyer manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 23:19:21 UTC
From: "aa8wl@home.com" <aa8wl@home.com>
Message-ID: <3BD625DF.FF3975B0@home.com>
Source record: 49102
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Looking for a manual for the Nye Viking SKM-1. Thanks in advance.
aa8wl@home.com

6556. advice on final amp choice

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-23 23:59:51 UTC
From: dthomas@rt66.com
Message-ID: <uvgh5ykjs.fsf@rt66.com>
Source record: 49153

A friend and I are starting to design a 40m (single band) transceiver. We'd like it to be able to put out somewhere near 100 watts. I've used the MRF454 transistor before and it seems just about perfect for the job (5W in, 80W out, 30 MHz), but it looks like Motorola doesn't make them anymore.

Can anyone recommend a good choice for a device to use as the final in a 100W 40m transceiver? I'm open to suggestions but what I have in mind is a single bipolar transistor biased class AB with a tuned output circuit, followed by a filter.

Thanks...
David

6557. Re: Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 02:27:18 UTC
From: Scott Vanzandt <vzandt@midsouth.rr.com>
Message-ID: <b79ctto3i7s27foc5psd2gbd5ejvpp8a29@4ax.com>
Source record: 49154

Try RAMSEY radio. I think it is http://www.ramseyelectronics.com/

They have a number of transmitters available.

On Tue, 23 Oct 2001 21:37:30 GMT, anarchyx@escape.com (Joe Toronto)
wrote:

>I'm somewhat of an amateur at all of this, so bear with me please.
>
>Anyway, I'm addicted to streaming radio stations and I want a way to be able to
>listen to them all over the house and not just near my computer. So I figured an
>FM transmitter would be perfect. It seems that they're harder to come by than I
>thought. I came across this: http://www.ccrane.com/fm_transmitter.asp. Seems
>like it would serve my purposes nicely. There are 2 problems with it though. One
>is that it would only transmit about 20ft and requires some modifications to
>reach the whole house. Modifications dont scare me, so that's not really too
>much of an issue. The other problems is that it's not available until January. I
>was hoping to get something sooner.
>
>So does anyone know of any other solutions I can try? My requirements are this:
>-Must be able to broadcast about 100ft.
>-Must be in stereo and sound just like a real radio station would, if not
>better.
>-does not require an electronics engineering degree to assemble/install. I'd
>really like a plug and play solution.
>-Cheap would be nice too :)
>
>Any help is greatly appreciated. Thanks.

>and for the spam bots:
>president@whitehouse.gov
>vicepresident@whitehouse.gov
>vento@mail.house.gov
>gephardt@mail.house.gov
>senator@feinstein.senate.gov
>senator_mccain@mccain.senate.gov
>senator@wellstone.senate.gov
>senator_byrd@byrd.senate.gov
>classonde@psbgm.qc.ca
>root@localhost
>admin@localhost
>root@mailloop.com
>Chairman Reed Hundt: rhundt@fcc.gov
>Commissioner James Quello: jquello@fcc.gov
>Commissioner Susan Ness: sness@fcc.gov

>Commissioner Rachelle Chong: rchong@fcc.gov
>postmaster@localhost
>admin@localhost
>
>Eat that, spam! PLEASE copy this and paste it to your sig card.

6558. Re: Selecting a Good Homebrew Rig

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 04:37:00 UTC
From: TC Dufresne <tdufresne@neb.rr.com>
Message-ID: <MzrB7.234766$ME2.31705230@typhoon.kc.rr.com>
Source record: 49156

Brock:
Jim Kortge (sp?) has designed a great llittle rig for 40 meters that has
been lots of fun for me so far. I'm on stage 4;it has 8 stages all together.
See the rig at http://www.qsl.net/k8iqy/
There is also a support group for the rig at Yahoogroups.com Look under the
2n2-40 radio user group. Very cool bunch of folks.
Tom

"Brock" <b_t_s@hotmail.com> wrote in message
news:3bd1c97d.106203305@pen6.pen.k12.va.us...
> I've been looking into building a simple homemade radio (40M or 80M
> SSB). I've looked at some of the offerings on the internet (Peter
> Parkers Projects http://www.alphalink.com.au/~parkerp/project.htm,
> Harry's homebrew projects
> http://www.geocities.com/SiliconValley/3569/, QRP Homebuilders
> Homepage http://www.qrp.pops.net/) and the ARRL Handbook (Rick
> Campbell's R2 and T2, Randy Henderson's Rock-Bending Receiver). Any
> ideas on a good radio to build would be appreciated.
>
> Brock Schuler

6559. Re: Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 06:22:51 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <8C49CEF4C253CDE3.1C7D9090F1B8B28A.55F7EB83B87E65C7@lp.airnews.net>
Source record: 49157

On Tue, 23 Oct 2001 21:37:30 GMT, anarchyx@escape.com (Joe Toronto)
wrote:

>I'm somewhat of an amateur at all of this, so bear with me please.
>
>Anyway, I'm addicted to streaming radio stations and I want a way to be able to
>listen to them all over the house and not just near my computer.

Check Radio Shack. They carry speaker wire in nice long spools.

Any low power transmitter is just asking for hassles with noise,
positioning, etc.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6560. Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 10:04:09 UTC
From: Will Godfrey <will@omicron-technologies.co.uk>
Message-ID: <3BD69219.6040907@omicron-technologies.co.uk>
Source record: 49158

Hi,

I apologise if this is the wrong group for this type of thing but it seems to be the best fit.

About 15 years ago I played around with what I was told then was called "Ground Effect". Basically you placed two metal plates in the ground seperated by about 5 metres. You then wired your audio amp outputs to these plates and played 20w of music into them. The resulting audio could be picked up using another two metal plates and an amp, allegedly as far as a mile in damp weather. I only ever managed about 100m on a wet day.

Does anyone know of anywhere I can find more info on this and is "ground effect" the right name for the technique? Secondly is it legal in the UK and would it interfere with, say, amateur radio enthusiasts using a grounding plate?

I was thinking about maybe setting up a simple link between 2 computers by writing some software for the sound card to be used as a crude modem.

Thanks,

Will

6561. Re: "Q-Dope" rant and info request

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 10:26:17 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BD69744.58E669EC@earthlink.net>
Source record: 49159

Jim---

> >Not quite. It is toluene alcohol.

> Toluene, toluol, methylbenzene, phenylmethane, are all the same
> thing. Benzanol, which I've never heard of, but won't deny
> exists under that name, is not the same as toluol. Toluol is a
> commercial term for the chemical toluene. It breaks the general
> rule calling for names of alcohols to end in "ol."

Odd. Must be an industry thing. I was assuming it was an IUPAC name or abbreviation thereof, in which case methylbenzanol or hydroxymethylbenzene would be correct. Benzanol, by the way, is simply benzene alcohol (IUPAC convention).

> >Clorox also had (has?) a product which is 5% NaOH!.

> Note that you still need to know a bit of chemistry to understand
> what you really have based on consumer labels. Your description
> of Clorox is a perfect example.

Thanks for the refresher! I had forgotten about weak base/acid equilibria. Tells you how long it's been since I've actually had to _calculate_ anything chemical. :) In any case, the product to which I was referring actually did have added NaOH---It stated so in its label contents. I got the percentage by calling Clorox's product information line.

Again, thanks for the corrections/refreshers. My chemistry is quite stale, and I don't wish to spread misinformation.

Henry C. Gernhardt, III
KE4PIB

Any (every) aqueous solution of
> NaOCl will contain NaOH (even if it wasn't added separately)
> because the NaOCl will tend to dissociate into Na+, OH- (from
> the water) and Cl2 (read that 2 as a subscript), which is
> dissolved chlorine gas. If you then add some acid to neutralize
> the NaOH, more NaOCl will dissociate to create more NaOH to
> maintain an equilibrium between NaOCl and NaOH and the dissolved
> Cl2 concentration will rise as a result. Keep this up and right
> soon the water can't hold all the Cl2 that is created and off it
> comes as nasty yellowish-green chlorine gas. All Clorox based on
> NaOCl contains NaOH, hence the warning that it is caustic.
>
> --

> Jim Higgins, benxi AT bigfoot DOT com
> icbm: 33.55.34N, 80.24.21W
> http://home.sc.rr.com/cosmogony/index.html

6562. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 11:15:33 UTC
From: Don Vosper <don@vosperd.freeserve.co.uk>
Message-ID: <9r67qc$ho6$1@newsg1.svr.pol.co.uk>
Source record: 49160

Will
Try
http://www.bcra.org.uk/sig/creg.html
might be interesting.
Don
M5AKY

6563. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 11:48:46 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <yUxB7.6866$ez.843180@news1.rdc1.nj.home.com>
Source record: 49161

We transmit to our submarines through the ground.

"Will Godfrey" <will@omicron-technologies.co.uk> wrote in message
news:3BD69219.6040907@omicron-technologies.co.uk...
> Hi,
>
> I apologise if this is the wrong group for this type of thing but it
> seems to be the best fit.
>
> About 15 years ago I played around with what I was told then was called
> "Ground Effect". Basically you placed two metal plates in the ground
> seperated by about 5 metres. You then wired your audio amp outputs to
> these plates and played 20w of music into them. The resulting audio
> could be picked up using another two metal plates and an amp, allegedly
> as far as a mile in damp weather. I only ever managed about 100m on a
> wet day.
>
> Does anyone know of anywhere I can find more info on this and is "ground
> effect" the right name for the technique? Secondly is it legal in the UK
> and would it interfere with, say, amateur radio enthusiasts using a
> grounding plate?
>
> I was thinking about maybe setting up a simple link between 2 computers
> by writing some software for the sound card to be used as a crude modem.
>
> Thanks,
>
> Will
>

6564. Re: Bad guy report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 11:59:37 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9r6aj1$4ql$1@uranium.btinternet.com>
Source record: 49162

Your paint was shipped
but has been lost by the US Post Office,
I have asked for a trace but have found nothing out.
You will get a new shipment.
Apologies Mike

6565. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 12:36:14 UTC
From: k6lcs@clintbradford.com
Message-ID: <fc08b778.0110240436.5f3b420a@posting.google.com>
Source record: 49163
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

"JB" <ac6tk@nospamcybertime.net> wrote in message
news:<9r49gi$212l$1@madmax.keyway.net>...

CB>> I would never charge a fellow amateur radio operator that much to
program an HT...

JIM>> Ok Clint; you don't have to charge anyone for any professional
service like boat/RV repair, Waiter, Electrical, Plumbing or even to
build them a house in the country if you are either independantly
wealthy, have a filthy rich parent or are heavily subsidised party
elite or movie star (or perhaps your time is over-valued?)

Feel better, Jim? Nowhere did I state I was giving anything away.
Sorry you didn't read what I wrote...your rant looks quite silly.

Clint Bradford
http://www.clintbradford.com

6566. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:09:46 UTC
From: berdpee@ami.com.au
Message-ID: <3bd6ca94.2249373@news.ami.com.au>
Source record: 49164
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

The closest I have is a chaser for a set of 16 LEDs which updates at 1 second intervals. It is written in assembly and runs happily on an old XT computer under DOS. I have also modified it to run a stepper motor, but as yet this has not been tested because I have to build the power drivers which provide the interface between the printer port interface to the LEDs and the stepper motors.

On Mon, 22 Oct 2001 00:06:31 -0400, Joe Leikhim <jleikhim@nettally.com> wrote:

>Has anyone seen any sort of DOS program that will provide a pulse
>generator function via the parallel port?
>
>I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
>port in succession. I want to be able to delay each of the pulses (1
>event per pin) to follow a trigger (keyboard is OK) and each other. Both
>the delay and pulse width need to be variable from about 10 milliseconds
>to 1 second in 10 millisecond steps.
>
>The example below is for 3 output pins, more would be nice but not
>essential.:
>
>Trigger
>wait 250 milliseconds
>pin 1 output high for 80 milliseconds then stop
>wait 100 milliseconds
>pin 2 output high for 70 milliseconds then stop
>wait 90 milliseconds
>pin 3 output high for 60 milliseconds then stop
>Stop
>
>Thanks
>---
>Joe Leikhim K4SAT
>Jleikhim@nettally.com
>
>Sky King, Sky King, do not answer.
>
>"The Revolution will NOT be televised" -Gil Scott Heron
>
>"Whats he building in there?"- Tom Waits
>
>

aeolus

6567. Eimac 4CX-1500B in unopened box FA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:20:43 UTC
From: gspubl@tca.net
Message-ID: <3bd6ce08.2244746344@news.tamu.edu>
Source record: 49166

New in unopened box, Eimac 4CX-1500B tube for auction at:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?MfcISAPICommand=ViewItem&item=1289004893

6568. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:30:01 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3bd6d049.12218694@news.cantech.net.au>
Source record: 49165

On Wed, 24 Oct 2001 11:48:46 GMT, "schatzie" <jdwalton@home.com>
wrote:

>We transmit to our submarines through the ground.

You have underground submarines? What next?

6569. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:36:29 UTC
From: Will Godfrey <will@omicron-technologies.co.uk>
Message-ID: <3BD6D1ED.4020309@omicron-technologies.co.uk>
Source record: 49167

Don,

Once I found out the method was called 'earth current loop' from the web site you posted I found quite a bit of information through out the net. Thanks.

Probably old news to people on this group (so don't all moan :-)) but this site looked kinda of interesting with regard to VLF.

http://www.stormwise.com/transmitter.htm

I'd still like to hear peoples experiences with earth current and VLF transmissions.

Cheers,

Will

Don Vosper wrote:

> Will
> Try
> http://www.bcra.org.uk/sig/creg.html
> might be interesting.
> Don
> M5AKY
>
>
>

6570. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:45:31 UTC
From: JB <ac6tk@nospamcybertime.net>
Message-ID: <9r6jr0$12u0$1@madmax.keyway.net>
Source record: 49168
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

: Feel better, Jim? Nowhere did I state I was giving anything away.
: Sorry you didn't read what I wrote...your rant looks quite silly.
:
: Clint Bradford
: http://www.clintbradford.com

I feel silly for playing with radios instead of going to medical school. People seem to need livers a lot more than they need
radios.

PS when I heard about JFK, I was fiddling around with
a transistor radio.

6571. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 14:49:26 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9r6khk$o20$1@neptunium.btinternet.com>
Source record: 49169

http://www.qsl.net/zl1bpu/ some software

http://www.sat.dundee.ac.uk/~arb/creg/link-gen.html

http://www.wireless.org.uk/136gm.htm

http://www.rac.ca/longwave.htm

and a transverter http://www.btinternet.com/~dsergeant/rx.htm

6572. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 15:00:11 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3bd6d719.13963005@news.cantech.net.au>
Source record: 49170

On Wed, 24 Oct 2001 15:36:29 +0100, Will Godfrey
<will@omicron-technologies.co.uk> wrote:

>Don,
>
>Once I found out the method was called 'earth current loop' from the web
>site you posted I found quite a bit of information through out the net.
>Thanks.
>
>Probably old news to people on this group (so don't all moan :-)) but
>this site looked kinda of interesting with regard to VLF.
>
>http://www.stormwise.com/transmitter.htm
>
>I'd still like to hear peoples experiences with earth current and VLF
>transmissions.

You might also find some stuff on real HF (as in skywave) with buried
antennae. Was classified twenty years back, but could be out of the
cage by now as sats have taken pride of place in the classifiers'
minds ....

6573. Re: 365pfd variable

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 15:10:04 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BD6D9CC.2ACA7DC8@ccp.com>
Source record: 49171

"Bob Lewis (AA4PB)" wrote:
>
> http://www.midnightscience.com/ has both single gang and dual gang
> 365 pfd open plate type variable capacitors available.

I saw some for sale in the RF Parts Catalog. www.rfparts.com. Page 50
if yuo have the paper catalog. this is worth getting for reference.

Gary Hildebrand WA7KKP

6574. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 15:49:15 UTC
From: ae517@FreeNet.Carleton.CA
Message-ID: <9r6ntr$o88$1@freenet9.carleton.ca>
Source record: 49172

Jim Higgins (SeeSig4RealAddress@pandora.orbl.org) writes:

> reprogrammable. Some prices below for DIP parts.
>
> FLASH OTP SPEED
> 16F84 $7 N/A 4 - 20 MHz

I was shopping at the local Active Electronics store for some
PICs (I'm building a Blick prop clock), and they had both 4 and
20 MHz 16F84 chips available. Someone had marked (OTP) on the
4 MHz chip, but I didn't think 16F84 was available as OTP.

The clerk didn't know for certain, so I bought the 20 MHz unit,
just in case...

--
73 de va3rr/aa8lu
http://www.qsl.net/va3rr
Check out the new Ship Station Regs at:
http://www.tc.gc.ca/Actsregs/csa-lmmc/csa63.html

6575. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 15:53:28 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BD6E3F8.7D1F35EB@coqui.net>
Source record: 49173

Will Godfrey wrote:

>
> I'd still like to hear peoples experiences with earth current and VLF
> transmissions.
>
> Cheers,
>
> Will

One fellow I know of uses VLF receiving to 'hear' insects, worms, etc
under the ground! Seriously.
-Bill

6576. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 16:25:04 UTC
From: Radio Ham <no.spam@no.spam>
Message-ID: <3bd6ec22$1_1@mk-nntp-1.news.uk.worldonline.com>
Source record: 49174
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

This is a doddle with V3 of Borland C.
I did this a couple of years ago to
program up the synthesizer and
micro-stepper in a GSM phone
prototype.

Assuming that you have a modern PC,
one in which the dynamic RAM refresh
is done by a memory controller, then
disabling the interrupts is a good idea,
otherwise your timings go to pot.

Even with interrupts disabled, there is
still a jitter of a few microseconds on
the timing, which I put down to cache
fillings up.

<
> On Mon, 22 Oct 2001 00:06:31 -0400, Joe Leikhim
> <jleikhim@nettally.com> wrote:
>
> >Has anyone seen any sort of DOS program that will provide a pulse
> >generator function via the parallel port?
> >
> >I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
> >port in succession. I want to be able to delay each of the pulses (1
> >event per pin) to follow a trigger (keyboard is OK) and each other. Both
> >the delay and pulse width need to be variable from about 10 milliseconds
> >to 1 second in 10 millisecond steps.
> >
> >The example below is for 3 output pins, more would be nice but not
> >essential.:
> >
> >Trigger
> >wait 250 milliseconds
> >pin 1 output high for 80 milliseconds then stop
> >wait 100 milliseconds
> >pin 2 output high for 70 milliseconds then stop
> >wait 90 milliseconds
> >pin 3 output high for 60 milliseconds then stop
> >Stop
> >
> >Thanks
> >---

> >Joe Leikhim K4SAT
> >Jleikhim@nettally.com
> >
> >Sky King, Sky King, do not answer.
> >
> >"The Revolution will NOT be televised" -Gil Scott Heron
> >
> >"Whats he building in there?"- Tom Waits
> >
> >
>
> aeolus

6577. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 16:32:54 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BD6ED36.3050700@buttery.org>
Source record: 49175

Russ Renaud wrote:

> I was shopping at the local Active Electronics store for some
> PICs (I'm building a Blick prop clock), and they had both 4 and
> 20 MHz 16F84 chips available. Someone had marked (OTP) on the
> 4 MHz chip, but I didn't think 16F84 was available as OTP.
>
> The clerk didn't know for certain, so I bought the 20 MHz unit,
> just in case...

The "OTP" marking on the 4 MHz 16F84 chips is an error. There is no such thing as a one-time-programmable 16F84, since they use flash memory. I bought a couple of those chips from Active, and they erase and reprogram just fine.

On the other hand, they seem to charge the same price for the 4 MHz and 20 MHz chips, so there isn't much reason to buy the slower ones. I bought the 4 MHz parts that I have before they started selling the 20 MHz chips.

So far, Active only offers two flash PICs: the 16F84 (4 and 20 MHz) and the 16F877 (4 MHz only). They do have quite a few varieties of windowed EPROM and OTP PICs. Signs in the store claim that new varieties are coming soon, but they have claimed that for months.

6578. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 16:42:19 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3bd6eebd_1@newsa.ev1.net>
Source record: 49176

The same principal as VLF communication used by the US Navy to contact subs
at sea.
They use 75khz at about 1-2Mega-watts. From large antennas very close to the
ground, not nessarily near the ocean.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Will Godfrey" <will@omicron-technologies.co.uk> wrote in message
news:3BD69219.6040907@omicron-technologies.co.uk...
> Hi,
>
> I apologise if this is the wrong group for this type of thing but it
> seems to be the best fit.
>
> About 15 years ago I played around with what I was told then was called
> "Ground Effect". Basically you placed two metal plates in the ground
> seperated by about 5 metres. You then wired your audio amp outputs to
> these plates and played 20w of music into them. The resulting audio
> could be picked up using another two metal plates and an amp, allegedly
> as far as a mile in damp weather. I only ever managed about 100m on a
> wet day.
>
> Does anyone know of anywhere I can find more info on this and is "ground
> effect" the right name for the technique? Secondly is it legal in the UK
> and would it interfere with, say, amateur radio enthusiasts using a
> grounding plate?
>
> I was thinking about maybe setting up a simple link between 2 computers
> by writing some software for the sound card to be used as a crude modem.
>
> Thanks,
>
> Will
>

6579. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 17:05:01 UTC
From: Matti Niemela <mattis.niemela@kolumbus.fi>
Message-ID: <9r6s86$6ug$1@news.kolumbus.fi>
Source record: 49177

Hi,

This kind of ground transmissions were in use in WW I. Separation of feedpoints was much more (100 - 200 m). With a 100 W audio power you could communicate perhaps up to 10 miles in rural areas where power line interferences are minimal. The same method were used also for listening to enemy's landline telephone communication especily if ground was used as "second wire". Gound currents are interesting in many ways.

73 Matti/OH2ZT
"Will Godfrey" <will@omicron-technologies.co.uk> wrote in message news:3BD69219.6040907@omicron-technologies.co.uk...
> Hi,
>
> I apologise if this is the wrong group for this type of thing but it
> seems to be the best fit.
>
> About 15 years ago I played around with what I was told then was called
> "Ground Effect". Basically you placed two metal plates in the ground
> seperated by about 5 metres. You then wired your audio amp outputs to
> these plates and played 20w of music into them. The resulting audio
> could be picked up using another two metal plates and an amp, allegedly
> as far as a mile in damp weather. I only ever managed about 100m on a
> wet day.
>
> Does anyone know of anywhere I can find more info on this and is "ground
> effect" the right name for the technique? Secondly is it legal in the UK
> and would it interfere with, say, amateur radio enthusiasts using a
> grounding plate?
>
> I was thinking about maybe setting up a simple link between 2 computers
> by writing some software for the sound card to be used as a crude modem.
>
> Thanks,
>
> Will
>

6580. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 17:49:28 UTC
From: anon <drake3d@yahoo.com>
Message-ID: <3bd6fb95$1_5@corp-goliath.newsgroups.com>
Source record: 49178

Yep the NAVY uses elf/vlf/etc there transmitters/antennas are located in Wisconson and Michigan here is some info http://www.fas.org/man/dod-101/navy/docs/scmp/part07.htm on the hows and whys

Dave

"M.E." <bogus@nospam.com> wrote in message news:3bd6eebd_1@newsa.ev1.net...
> The same principal as VLF communication used by the US Navy to contact subs
> at sea.
> They use 75khz at about 1-2Mega-watts. From large antennas very close to the
> ground, not nessarily near the ocean.
>
> --
> Respond to my "real" e-mail;
> kk5dr@ev1.net
> "Will Godfrey" <will@omicron-technologies.co.uk> wrote in message
> news:3BD69219.6040907@omicron-technologies.co.uk...
> > Hi,
> >
> > I apologise if this is the wrong group for this type of thing but it
> > seems to be the best fit.
> >
> > About 15 years ago I played around with what I was told then was called
> > "Ground Effect". Basically you placed two metal plates in the ground
> > seperated by about 5 metres. You then wired your audio amp outputs to
> > these plates and played 20w of music into them. The resulting audio
> > could be picked up using another two metal plates and an amp, allegedly
> > as far as a mile in damp weather. I only ever managed about 100m on a
> > wet day.
> >
> > Does anyone know of anywhere I can find more info on this and is "ground
> > effect" the right name for the technique? Secondly is it legal in the UK
> > and would it interfere with, say, amateur radio enthusiasts using a
> > grounding plate?
> >
> > I was thinking about maybe setting up a simple link between 2 computers
> > by writing some software for the sound card to be used as a crude modem.
> >
> > Thanks,
> >
> > Will
> >

>
>

Posted Via Binaries.net = SPEED+RETENTION+COMPLETION = http://www.binaries.net

6581. HF Skin Effect

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 18:20:50 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9r71mqbug7@neptunium.btinternet.com>
Source record: 49181

NOW AVAILABLE ** Small program "WIRESKIN.exe"

This simple program demonstrates the effects of the increasing resistance of copper conductors as frequency varies from DC up to 1GHz or more. As examples it computes performance of a straight round wire, an open-wire transmission line, of any sizes and dimensions, and a half-wave dipole. The effects of performance versus temperature are included.

See how fast the HF loss of balanced-pair lines increases as the wires get closer together and Zo decreases. Loss can be greater than coax.

Use the program to calculate the loss at speech frequencies of a 400-mile overhead phone line, London to Edinburgh.

Or of a twin 1" diameter, spaced 10 feet, 100 mile power transmission line at 60Hz. Did you know skin effect begins at power frequencies? Or compute loss of 100 feet of 75-ohm line at 21 MHz. Or calculate Q and bandwidth of a 1/2-wave dipole at 144 MHz. End-effect included.

As a sideline, convert kilometres to miles, mm to inches, or degrees Celsius to Fahrenheit. Or mm to AWG.

Only one file. 40 kilobytes. Not zipped up. Run immediately. Download WIRESKIN in a few seconds from site below.

Regards, Reg, G4FGQ
Get Free Software Here
http://www.g4fgq.com

6582. Transistor equivalence?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 18:38:36 UTC
From: Jerry Frana <franaj@mail.coiinc.com>
Message-ID: <Pine.LNX.4.33.0110241328420.22318-100000@mail.coiinc.com>
Source record: 49180

Hi,
I am working on a project,
and it requires either a 2n1086 (or) 2n168a npn transistor...
are there any modern transistors that are equivalent to these?

Thanks
David F.

6583. Rec a small 70cm ATV Tx, or TX kit...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 19:16:31 UTC
From: Paul Breed <Paul@Rasdoc.com>
Message-ID: <vn4ettomo8eqlm4bnof2ui2ermuiglbeg7@4ax.com>
Source record: 49179

Can someone reccomend a 70cm ATV TX,TX kit or TX plans.....

Requirements:
As small as possible.
As light as possible.
Able to accept Audio input.
At least 1W output.

Paul (Kl7JG)

6584. Re: Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 19:30:28 UTC
From: Sylvan Butler <Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrn9te233.s5v.Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 49183

On Wed, 24 Oct 2001 17:07:12 GMT, Jim Higgins <SeeSig4RealAddress@pandora.orbl.org> wrote:
> On Wed, 24 Oct 2001 02:27:18 GMT, in
><b79ctto3i7s27foc5psd2gbd5ejvpp8a29@4ax.com>, Scott Vanzandt
><vzandt@midsouth.rr.com> wrote:
>
>>Try RAMSEY radio. I think it is http://www.ramseyelectronics.com/
>>
>>They have a number of transmitters available.
>
> I have one. Very limited range. Power is about 8 milliwatts.

I prefer the North Country Radio kit. The mpx96 is all I've seen.
They have new mpx2000 that sounds pretty nice, but the extra stuff
doesn't seem worth the price to me.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Fight terrorism, arm the population!

6585. Re: Transistor equivalence?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 19:50:37 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <hYEB7.1099283$ai2.84112332@bin2.nnrp.aus1.giganews.com>
Source record: 49182

That would be the NTE101. Available from Allied Electronics or other NTE distributors.

Scott M

"Jerry Frana" <franaj@mail.coiinc.com> wrote in message news:Pine.LNX.4.33.0110241328420.22318-100000@mail.coiinc.com...
> Hi,
> I am working on a project,
> and it requires either a 2n1086 (or) 2n168a npn transistor...
> are there any modern transistors that are equivalent to these?
>
> Thanks
> David F.
>
>
>

6586. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 20:19:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9r7846$4tf$2@uranium.btinternet.com>
Source record: 49185
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

I can't remember what I was doing when I heard about JFK. It's
such a long time back.

Reg

6587. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 20:25:16 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BD723AB.E29F56C7@att.net>
Source record: 49184

One of the more famous such stations operates (or did) on 14 KHz with
multi-megawatts. The antenna was constructed of many thousands of feet of
wire running in a valley in the mountains somewhere in the Northwest.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

"M.E." wrote:
>
> The same principal as VLF communication used by the US Navy to contact subs
> at sea.
> They use 75khz at about 1-2Mega-watts. From large antennas very close to the
> ground, not nessarily near the ocean.

6588. Thanks a lot!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 20:38:51 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bd6441c$0$2299$44c9b20d@news3.asahi-net.or.jp>
Source record: 49155

Just wanted to say a big "thankyou" to all who had input into the Q-Dope matter. Everyones's contribution helped a great deal and I now have a virtually infinite supply and a whole bunch of new knowledge.

I'm even more pleased since I noticed the price of Q-Dope seems to have jumped a lot between recent paper catalogs and the same suppliers' online stores.

Cheers
Adam

6589. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 21:30:07 UTC
From: rcnixon@mindspring.com
Message-ID: <3bd73294.1991243@news.mindspring.com>
Source record: 49186
Cross-posted to: alt.radio.amateur,rec.radio,rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.misc

I was in my eighth grade class and we had (gasp) televisions in the classrooms. This in a catholic, parochial school. We watched most of the rest of the day.

Russ

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote:

>I can't remember what I was doing when I heard about JFK. It's
>such a long time back.
>---
>Reg
>
>
>

6590. New site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 22:03:22 UTC
From: Mary <allstar@libero.it>
Message-ID: <9r7e06cnh1@nreadb.inwind.it>
Source record: 49187
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

www.JforJ.com sms, wallpapers, sex.......

6591. Re: Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 22:20:04 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BD73E94.625B2943@coqui.net>
Source record: 49188

Jim Higgins wrote:

> It's PLL synthesized in 100 KHz steps, but most digital receivers
> tune in 200 KHz steps. Go figure.
> --
> Jim Higgins, benxi AT bigfoot DOT com
> icbm: 33.55.34N, 80.24.21W
> http://home.sc.rr.com/cosmogony/index.html

Only in the US. FM stations operate at 100kc steps, sometimes even 50
in EU.
-Bill

6592. Re: New site

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 22:34:01 UTC
From: Stagger Lee <SLee@houston-hunks.com>
Message-ID: <3BD741D9.D8A787E3@houston-hunks.com>
Source record: 49189
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space

Mary wrote:
>
> www.JforJ.com sms, wallpapers, sex.......

Boy, are you in the wrong groups. Radio amateurs are all born again
virgins; they don't even think about "sex......"

6593. Signets 82s129 equivalent

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 22:34:44 UTC
From: Colin <gp_300@hotmail.com>
Message-ID: <9r7fcj$1lf$1@news.wanadoo.es>
Source record: 49190
Cross-posted to: alt.electronics,alt.radio.amateur,rec.radio.amateur.homebrew

I have a Pye PFX that I would like to get going on 70cms but it's hard to get hold of the Signets 82s129 Bipolar Proms, Also I would have to build a programmer for the Bipolar prom. I now that I will find it hard to fit a larger device in the PFX case but in true amateur spirit I thought of lashing up a EPROM that is installed into a socket on the front of the PFX case.

I have the pinouts of the 82s129 Prom and would like to know what EPROM (if any) I could use instead. I have programming equipment for 27c16,32,64,128,256 &512 also for the 24c16,32,128 etc..... Would this be as simple as just making an adapter from the 82s129 to a 24c16 for example.

Any help appreciated.

73 de Colin.

6594. Re: Amateur needs simple FM transmitter...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-24 23:08:09 UTC
From: Sylvan Butler <Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrn9teer8.s5v.Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 49192

On Wed, 24 Oct 2001 21:11:40 GMT, Jim Higgins <SeeSig4RealAddress@pandora.orbl.org> wrote:
><slrn9te233.s5v.Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>,
> Sylvan Butler <Znospam+noZs_0110@hpb13799Z.Zboi.hpZ.com.invalid>
> wrote:
>>>>Try RAMSEY radio. I think it is http://www.ramseyelectronics.com/
>>> I have one. Very limited range. Power is about 8 milliwatts.
>>
>>I prefer the North Country Radio kit. The mpx96 is all I've seen.
>
> 10 milliwatts, but PLL synthesized. Twice the price of the
> Ramsey FM10A which is slug tuned. The added 2 mW isn't going to
> be noticed.

Who cares about the power (not even the law cares about power to the
antenna, they just care about field strength).

PLL synthesized is worth every penny for the stability alone.

>>They have new mpx2000 that sounds pretty nice, but the extra stuff
>>doesn't seem worth the price to me.
>
> It's PLL synthesized in 100 KHz steps, but most digital receivers
> tune in 200 KHz steps. Go figure.

And your slug tuning tunes infinite. Who cares. 100KHz steps are
probably easier than switching .0/.2/.4/.6/.8 vs .1/.3/.5/.7/.9 .

And most people, myself included, think the mpx96 sounds better than
the ramsey FM10A.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Fight terrorism, arm the population!

6595. Re: Signets 82s129 equivalent

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 00:22:44 UTC
From: Andy Brinkley <andy@brinkleyelectronics.com>
Message-ID: <3BD75AB9.BB164B81@brinkleyelectronics.com>
Source record: 49191
Cross-posted to: alt.electronics,alt.radio.amateur,rec.radio.amateur.homebrew

Colin wrote:

> I have a Pye PFX that I would like to get going on 70cms but it's hard to
> get hold of the Signets 82s129 Bipolar Proms, Also I would have to build a
> programmer for the Bipolar prom. I now that I will find it hard to fit a
> larger device in the PFX case but in true amateur spirit I thought of
> lashing up a EPROM that is installed into a socket on the front of the PFX
> case.
>
> I have the pinouts of the 82s129 Prom and would like to know what EPROM (if
> any) I could use instead. I have programming equipment for
> 27c16,32,64,128,256 &512 also for the 24c16,32,128 etc..... Would this be
> as simple as just making an adapter from the 82s129 to a 24c16 for example.
>
> Any help appreciated.
>
> 73 de Colin.

Colin -

You can swap a 2716 or 2732 for the 82s129.

See Mike Blenderman's page for the how to as described in eeprom conversion.

http://www.open.org/~blenderm/syntorx/legacy.html

Or you can see what I have come up with for the Motorola Syntor

http://www.brinkleyelectronics.com/prog/mot/adapter.htm

Andy

NC Certified Firefighter III / Instructor II / EMT-A
FCC Licensed Technician / Amateur Call NC4AB
http://www.brinkleyelectronics.com

6596. Re: DOS program needed Pulse Generator Parallel port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 02:38:17 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9r7u0o$ib8$1@nntp9.atl.mindspring.net>
Source record: 49193
Cross-posted to: alt.engineering.electrical,rec.radio.amateur.homebrew

On Mon, 22 Oct 2001 00:06:31 -0400, Joe Leikhim
<jleikhim@nettally.com> wrote:

>Has anyone seen any sort of DOS program that will provide a pulse
>generator function via the parallel port?
>
>I need to output a vartiable pulse on each of 3 to 4 pins of a parallel
>port in succession. I want to be able to delay each of the pulses (1
>event per pin) to follow a trigger (keyboard is OK) and each other. Both
>the delay and pulse width need to be variable from about 10 milliseconds
>to 1 second in 10 millisecond steps.
>
>The example below is for 3 output pins, more would be nice but not
>essential.:
>
>Trigger
>wait 250 milliseconds
>pin 1 output high for 80 milliseconds then stop
>wait 100 milliseconds
>pin 2 output high for 70 milliseconds then stop
>wait 90 milliseconds
>pin 3 output high for 60 milliseconds then stop
>Stop
>
>Thanks
>---
>Joe Leikhim K4SAT
>Jleikhim@nettally.com

There's a nice book called "Real-World Interfacing With Your PC" that
discusses programming the parallel port.

Author: James "J.J." Barbarello
Prompt Publications
ISBN 0-7906-1078-7

It shows how to use basic, particularly Quick Basic, to control pins on
the paralle port. It ought to be able to do what you want, although I am
not certain how precisely you could set the width of the pulses.

There are DLL files on the internet that can give the same ability to
Visual Basic programs to access the pins for those who want to work in VB.

==========

NOTE:

These programs that directly access the parallel port pins will work in DOS, WIN95 and WIN98.

BUT... Win ME, NT, 2000, and XP all add a layer of code between the user and the parallel port that usually cause any program that tries to use the port for anything except printing to have real problems....

Jim Pennell
N6BIU

6597. Re: Signets 82s129 equivalent

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 08:08:21 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9r8jeh$a54$1@plutonium.btinternet.com>
Source record: 49194
Cross-posted to: alt.electronics,alt.radio.amateur,rec.radio.amateur.homebrew

An EPROM should work as a replacement.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6598. >>>>SLUGS FOR BIIRD METERS + NEW METERS<<<

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 16:15:08 UTC
From: rh3333@aol.com
Message-ID: <20011025121508.20830.00000404@mb-fi.aol.com>
Source record: 49195

I have NEW slugs that will work in either the BIRD or COAXIAL DYNAMICS watt meters-following are for 2-30 MHz (contact me for other wattages and frequency ranges)

5KW-$150
10KW-$160
25KW-$170

Also have NEW meters made by Coaxial Dynamics which will read both PEP and "Bird Watt" - at the flick of a switch....These meters have a larger size meter than the Bird models-Made in USA -2 year warranty

These are EXCELLENT meters - $390

Please Email all serious inquiries

Thank You

6599. Heathkit HM-9 Wattmeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 16:22:11 UTC
From: bennett@keylime.cise.ufl.edu
Message-ID: <9r9e7j$2j4d$1@oak.cise.ufl.edu>
Source record: 49105

Does anyone know the field strength of the meter movement used in the Heathkit
HM-9 wattmeter?
Paul Bennett
N4EGO

6600. Re: Transistor equivalence?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 16:28:52 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0110250828.29ac7c99@posting.google.com>
Source record: 49196

Looks like you could get a 2N1086 from www.acksupply.com, or the NTE replacement someone else mentioned. But if it were something I was doing, I'd convert over to a silicon transistor. I'd have to look at the circuit to be able to tell whether any additional changes were in order. Typically the key things that would be hard to replicate with a silicon transistor would be the B-E forward bias voltage and the B-E reverse breakdown voltage. There are a few other things that might cause trouble. But if the circuit doesn't stress the reverse voltage of the B-E junction and uses a good biasing scheme to make it insensitive to that transistor characteristic, it may be possible to simply put in a 2N2222 or 2N3904 or the like, with no additional changes. (I'm remembering the '168 as a small signal transistor, not a power transistor...please forgive me if I'm off-base on that.)

Cheers,
Tom

Jerry Frana <franaj@mail.coiinc.com> wrote in message news:<Pine.LNX.4.33.0110241328420.22318-100000@mail.coiinc.com>...
> Hi,
> I am working on a project,
> and it requires either a 2n1086 (or) 2n168a npn transistor...
> are there any modern transistors that are equivalent to these?
>
> Thanks
> David F.

6601. Mic Wiring Question..?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 17:06:31 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <rEXB7.36956$%B6.13672534@typhoon.southeast.rr.com>
Source record: 49103

I am using a Yaesu FT-290r rig with it's supplied YM-47 microphone. However, today the element in the mic appears to have died. I didn't have any other elements lying around that I could take out of other mics so I decided to use a small electret element that I bought a while ago. Included in the packaging were hookup instructions for this element, a 10k resistor, and a 3.3uF electrolytic capacitor. I followed the instructions connecting the 10k resistor and the capacitor(+ end) to the output of the element and then a ground connection for the grounded side of the mic as well as an the "hot" connection for the element. But when I hooked the mic back up it started changing frequencies without me pushing the buttons on the top. I disabled one of the buttons and turned the lock on for this feature but that didn't help. Does anyone know if I did this correctly? Is there another way to do this that I missed? Any help is appreciated as I am without a radio right now. Thanks!!!!

6602. Re: Power transform markings ???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-25 18:10:30 UTC
From: Alastair <JukeboxWizard@yahoo.com>
Message-ID: <PBYB7.74816$uh1.8195574@news6-win.server.ntlworld.com>
Source record: 49104
Cross-posted to: sci.electronics.basics,sci.electronics.misc,rec.radio.amateur.homebrew

Ed Pugh <ai928@FreeNet.Carleton.CA> wrote in message
news:9r082e$29p$1@freenet9.carleton.ca...
> Hello, all.
>
> I have a power transformer (secondary 12.6V, 3A - no center tap) that
> I purchased from Radio Shack several years ago but have never used
> (RS catalogue number 273-1385). This is a PCB mount transformer with
> four solder tabs on the bottom (two on one side of the core frame and
> two on the other). This appears to be a discontinued item as this
> part number is not in the newewst Radio Shack catalogue.
>
> It is not clear to me which solder tabs are for the 120V primary and
> which are for the 12.6V secondary.
>
> On top of the core frame is written the following three lines:
>
> PRI - 120V - 60Hz - CPT - 231
> 273-1385 LR38809 [CSA
> SEC - 12.6V - 3A LOGO]
>
> (Note: The "CSA LOGO" is the Canadian Standards Association logo;
> kind of like the Canadian equivalent to the U.S. Underwriter's
> Laboratory logo.)
>
> If I hold the transformer so that I look down on it with the
> writing on top of the core frame "readable" (i.e. "right-side-up")
> then the left solder tab on the side of the transformer toward me,
> is marked with a red dot.
>
> How do I determine which solder tabs are for the primary and which
> are for the secondary? What does the red dot mean? Is there a simple
> way to determine the primary and secondary by measuring the resistance
> of the windings?
>
> Please follow up to these newsgroups, and also please CC a copy to my
> E-mail address.
>
> With thanks and regards,
> --
> Ed Pugh | "A common mistake that people make when trying
> Ottawa (Richmond) | to design something completely foolproof, is to
> Ontario, Canada | underestimate the ingenuity of complete fools."
> | - Douglas Noel Adams, 1952 - 2001 :-(

The primary winding will have a higher dc resistance than the secondary winding...so a quick check with a meter will tell you which is which. The red dot is sometimes used to mark the start of the winding.

regards
Alastair

6603. Where can I find low W 70cm SWR meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 01:16:40 UTC
From: Paul Breed <Paul@Rasdoc.com>
Message-ID: <naehtt8vet3us4umrk0b07h16c8tb9u3mj@4ax.com>
Source record: 49106

Where can I find a low wattage <2W 70cm SWR meter?

Paul

6604. Re: Rec a small 70cm ATV Tx, or TX kit...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 01:24:00 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <hjehtto9osa17ine3nj951fentogq2o70e@4ax.com>
Source record: 49107

PC Electronics makes an ATV transmitter board that does 1 watt.
Rugged, too. It survived a RC plane crash. It runs off of 12 volts.
I use an Embedded Research EPS-1 step-up switching supply to
run it off of batteries.

Don't remember the model number, check their web site.

73,
Jim
N2VNO

On Wed, 24 Oct 2001 12:16:31 -0700, Paul Breed <Paul@Rasdoc.com>
wrote:

>
>Can someone reccomend a 70cm ATV TX,TX kit or TX plans.....
>
>Requirements:
> As small as possible.
> As light as possible.
> Able to accept Audio input.
> At least 1W output.
>
>
>Paul (Kl7JG)
>
>

6605. Yagi Tee match

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 02:55:28 UTC
From: Britt Hougen <beartusk@mcn.net>
Message-ID: <Qc4C7.363$ye3.76061@nntp2.onemain.com>
Source record: 49108

I have made a set of 10 element yagi antennas for a senior design project. I am modulating a sub audible tone on a 916 Mhz signal. My problem is I can't seem to find out how to design the tee match for my antennas can anyone give me some help in the way of equations or shareware to solve the problem. Thanks Beartusk KD7DYZ

6606. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 03:38:20 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9ralv3$2mk$2@neptunium.btinternet.com>
Source record: 49109

I was busy being a child!

6607. Re: moto software

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 03:43:46 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9ram97mem1@uranium.btinternet.com>
Source record: 49110

You were probably thinking about the
brilliant software you would write as an adult!
What do you use as a log Reg?
Are you a pen and paper man,
or can you recommend a PC log?

6608. Re: Signets 82s129 equivalent

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 05:30:39 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.164294ddfedbbd7c9896c8@localhost>
Source record: 49111
Cross-posted to: alt.electronics,alt.radio.amateur,rec.radio.amateur.homebrew

In article <9r7fcj$1lf$1@news.wanadoo.es>, gp_300@hotmail.com says...

> I have a Pye PFX that I would like to get going on 70cms but it's hard to
> get hold of the Signets 82s129 Bipolar Proms, Also I would have to build a
> programmer for the Bipolar prom. I now that I will find it hard to fit a

<snip>

Worst case: If you decide not to convert to an EPROM, I believe I
still have a tube-full of new 82S129's, and I've also got a programmer
that can manage them. I would just need the binary file to program in.

This is something I do as part of my side business. If you decide
you want me to program something for you, just let me know and I'll do a
special quote (since it's for hamateur purposes).

73 de KC7GR.

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

6609. Re: Transmitting through the ground (Audio!)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 12:16:39 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BD95427.60E49A79@nf.sympatico.ca>
Source record: 49112

I recall, I think it was a UK radio amateur website, that described sending audio through the ground. In other words the output of an amplifier at several watts (maybe 30 to 50?) was introduced into the ground and experiments were made to see how far the audio would be detectable. Can't remember details. but do seem to remember that in one instance a 'sea ground/earth' was used as one electrode?
Thought I had noted the site within the last 18 months, but since then computer crashed and has also been replaced and I couldn't find bookmark! Terry.

6610. Re: Yagi Tee match

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 12:27:27 UTC
From: poissondanlo@aol.com
Message-ID: <20011026082727.27728.00000007@mb-bg.aol.com>
Source record: 49113

Hello
a 10 elements are about 15/20 ohm
put a folded dipole for you frequency
all is here :
http://www.ifwtech.com/g3sek/diy-yagi/

73's
Serge /F5JTM
excuse for approximative english langage

6611. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 13:12:31 UTC
From: Jake Brodsky <frussle@erols.com>
Message-ID: <ctnittk2fmt6499jmd4d0n5lgiv7hu4r0g@4ax.com>
Source record: 49114

On Wed, 24 Oct 2001 11:04:09 +0100, Will Godfrey
<will@omicron-technologies.co.uk> wrote:

>I was thinking about maybe setting up a simple link between 2 computers
>by writing some software for the sound card to be used as a crude modem.

Will, IIRC, "Whistlers" were discovered this way. During WW I, it was common for battlefield commanders to communicate with each other by telephone and telegraph. Because of the cost of stringing copper wire, these signals were often sent over one wire and the other side grounded.

So someone figured that if they could spread two grounds far enough apart and feed them to this revolutionary thing called an audio amplifier, they ought to be able to intercept the landline communications.

It worked, but they also heard something else: Whistlers. They had discovered what some today call "natural radio". This is basically the earth's magnetosphere, ringing back and forth from solar wind, thunderstorms, meteors and other such phenomena.

So, the answer to your question is yes, you can set up electromagnetic waves at audio frequencies, but be aware that you won't have the only signal on the air...

Jake Brodsky, AB3A mailto:frussle@erols.com
"Beware of the massive impossible!"

6612. Re: Transmitting through the ground

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 17:20:16 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrn9tj6qh.okr.QSB@animas.frontier.net>
Source record: 49116

On Fri, 26 Oct 2001 09:12:31 -0400, Jake Brodsky scribbled:
>
> So, the answer to your question is yes, you can set up electromagnetic
> waves at audio frequencies, but be aware that you won't have the only
> signal on the air...

Well, then, let's form a committee and establish a Band Plan!!! <g>

73
Jonesy W3DHJ
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

6613. Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 21:08:21 UTC
From: Kc7eip <kc7eip@home.com>
Message-ID: <9hkC7.30947$Gh2.10062465@news2.rdc1.bc.home.com>
Source record: 49117

Well now that i have built an osilator that i can use with my world radio to rx cw and ssb i need to build a squelch of some type into the radio.... even building some form of squelch that hooks to the earphone jack based on the audio level would be good anyone have any suggestions?? I ws thinking something that either would trigger off the rf signal strength or audio level... I just don't care for the static all the time..

6614. Re: Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 22:10:43 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BD9DF54.9C0F6962@earthlink.net>
Source record: 49118

Jason---

> Well now that i have built an osilator that i can use with my world
> radio to rx cw and ssb i need to build a squelch of some type [...]
> I just don't care for the static all the time..

Sorry to tell you this, but squelch isn't going to help much.

The weak signal modes don't rx like FM. In FM, once you have the modulated carrier, you can detect the audio with minimal distortion and static, as the nature of static and the nature of FM are quite different. CW and SSB, however, are quite prone to static. On my Kenwood TS-830S, static doesn't blank out until the rx signal is at least 3 S-units (possibly even 5) over and above the band noise.

The best way to get rid of the static is to turn your RF gain down until the static is inaudible, then turn your AF gain up until you can comfortably hear the incoming signal. Be careful, though, if you are listening to an S3 signal with S2 band noise---if someone drops in at S9, your eardrums probably won't survive the blast.

Good luck,

Henry C. Gernhardt, III
KE4PIB

6615. FS: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-26 23:24:11 UTC
From: arnoldg@c2i.net
Message-ID: <3bd9f0b2.407664@news1.c2i.net>
Source record: 49120
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes,rec.audio.marketplace,rec.radio.amateur.boatanchors

Hello,

PC 900 is a B7G base triode with a heater of 3.9V 0.3A, Va is 135V
Vg -1V Ia=11mA Wa 2.2W Ik=20mA max, u=76 and the gm is 14.5mA/V
A very promising valve to experiment with in low-level stages, both
audio and HF/VHF amplification. It was developed for use in VHF and
UHF television tuners.
I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
each if you buy 100 pcs or more. The valves are NOS, in mint
condition, original boxes and the label is Haltron, but they are
rebranded, and I think the are originally made by Philips or Siemens.
E-mail me if interested.

Best regards,

Arnold Goks yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

6616. Re: Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 02:41:00 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <09pC7.19849$ez.2809190@news1.rdc1.nj.home.com>
Source record: 49121

So you need a comparator with a little bit of hysterisis (i.e. an integrator). You set a level above which the comparator goes "on" and switches a transistor which feeds you phones.

"Kc7eip" <kc7eip@home.com> wrote in message news:9hkC7.30947$Gh2.10062465@news2.rdc1.bc.home.com...
> Well now that i have built an osilator that i can use with my world radio to
> rx cw and ssb i need to build a squelch of some type into the radio.... even
> building some form of squelch that hooks to the earphone jack based on the
> audio level would be good anyone have any suggestions?? I ws thinking
> something that either would trigger off the rf signal strength or audio
> level... I just don't care for the static all the time..
>
>

6617. Re: Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 03:03:20 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <WppC7.4898$c5.53820@newsfeeds.bigpond.com>
Source record: 49122

Squelches as others have pointed out are just comparator circuits, using op amps with hysteris. Most rely on detecting a voltage which works nicely for constant carrier modes. When it comes to voice and music its a different ball game all together. Most of the commercial high grade receivers use what they call a "sylabic squelch" which can reliably detect voice and music and open the squelch. There has been some practical circuits published by Ulrich Rohde in QST using analogue techniques. Most sylabic squelches are now being implamented using DSP techniques.The European receiver manufacturers are the leaders in this area. One you have tried a Rohde receiver you will be a convert.

Dont expect much from the Japanes ham manufatcurers, they really in the stone age when it comes to state of the art communications techniques. An example of this is their inability to deliver high performance receiver numbers with hight intercept points. Other simpleton things like a calibrated S meter even seems to delude them, and this is on DSP radios. So if you want to seek out the state of the art, look at Rodhe, Racal and Kneisner Doring for state of the sylabic squelches. At the current rat of progress from the japs, expect a sylabic squelch in 20 years times.

Willy

"Kc7eipT" <kc7eip@home.com> wrote in message
news:9hkC7.30947$Gh2.10062465@news2.rdc1.bc.home.com...
> Well now that i have built an osilator that i can use with my world radio
to
> rx cw and ssb i need to build a squelch of some type into the radio....
even
> building some form of squelch that hooks to the earphone jack based on
the
> audio level would be good anyone have any suggestions?? I ws thinking
> something that either would trigger off the rf signal strength or audio
> level... I just don't care for the static all the time..
>
>

6618. WTD Yaesu FT 101ZD Parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 04:14:32 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <IwqC7.26357$ya.5244192@news1.busy1.on.home.com>
Source record: 49123
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

loking for Parts for Yaesu FT-101ZD let me know what you have

6619. FET data?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 07:43:56 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bd982da$0$251$44c9b20d@news3.asahi-net.or.jp>
Source record: 49115

Would some kind soul point me to data-sheets for 3SK48 and 3SK51? [TO-18 cases] I've been searching for ages. They sound like "old" numbers in the Japanese system, but they're not listed in my data-books or the 'usual' sources...[NTE, etc]

I'd appreciate any tips

Cheers
Adam

6620. If you have the schematic for Admiralty Murphy B40C.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 09:25:54 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <21vC7.2091$GA.191204@news2-win.server.ntlworld.com>
Source record: 49124

AF & Power Unit. Is C305 power supply smoothing capacitor or AF decoupling or both? I'm going to seperate AF from PU, should I place C305 in PS chassis and place another 4uF capacitor in AF chassis to decouple AF voltage amplifier? C305 is one of those rectangular, metal-enclosed, bulky paper capacitors.

Thanks

6621. If you have the schematic for Admiralty Murphy B40C.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 09:25:54 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <61vC7.2092$GA.191383@news2-win.server.ntlworld.com>
Source record: 49125

AF & Power Unit. Is C305 power supply smoothing capacitor or AF decoupling or both? I'm going to seperate AF from PU, should I place C305 in PS chassis and place another 4uF capacitor in AF chassis to decouple AF voltage amplifier? C305 is one of those rectangular, metal-enclosed, bulky paper capacitors.

Thanks

6622. Re: Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 10:30:26 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <84wC7.2535$GA.258936@news2-win.server.ntlworld.com>
Source record: 49126

> Ten-Tec has a very versatile "integrating squelch" circuit that you might
> like to check out. You can find it here:
> http://www.tentec.com/rcvrkit.htm

===

Yes indeed ,my good old late 80s Ten Tec ,Paragon has an excellent squelch
also working well on SSB.

Frank gm0csz.kn6wh@ntlworld.com

6623. Re: FS: PC 900 high gm triode

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 13:47:08 UTC
From: la8ak@online.no
Message-ID: <3bdabac6.56534020@news.online.no>
Source record: 49127
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes,rec.audio.marketplace,rec.radio.amateur.boatanchors

Hvordan er tilgjengeligheten for RE074 ?

jm
On Fri, 26 Oct 2001 23:24:11 GMT, arnoldg@c2i.net (DEMOSTENES A.
Goks&#65533;yr) wrote:

>
>Hello,
>
>PC 900 is a B7G base triode with a heater of 3.9V 0.3A, Va is 135V
>Vg -1V Ia=11mA Wa 2.2W Ik=20mA max, u=76 and the gm is 14.5mA/V
>A very promising valve to experiment with in low-level stages, both
>audio and HF/VHF amplification. It was developed for use in VHF and
>UHF television tuners.
>I have 400 pcs in stock and the price is only $ 3.00 each or $ 1.50
>each if you buy 100 pcs or more. The valves are NOS, in mint
>condition, original boxes and the label is Haltron, but they are
>rebranded, and I think the are originally made by Philips or Siemens.
>E-mail me if interested.
>
>Best regards,
>
>Arnold Goks&#65533;yr
>
>DEMOSTENES - N6899 Balestrand, Norway
>Tlf. +47 5769 1340 Fax +47 5769 1267
>http://www.demostenes.no
>
>Thousands of different valves in stock as well as
>sockets,transformers,books,caps,resistors and
>other components. Web site is updated every week.
>You can order on-line.
>

6624. WTB HP 8620 Dial Scales

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 14:15:05 UTC
From: n6ax@arrl.net
Message-ID: <cd5f86bb.0110270615.67b6522d@posting.google.com>
Source record: 49128

I am in need of dial scales for 8620 sweep generator...specifically I need ones to go with the 86240A, 2.0-8.4 GHz (scales would be full-band 2.0-8.4, 1.8-4.2, 4-6 and 6-8.4 GHz).

If you have spare scales for almost any band I could use them in a pinch and make overlays.

Thanks in advance.

John, N6AX

6625. return/chassis connection question

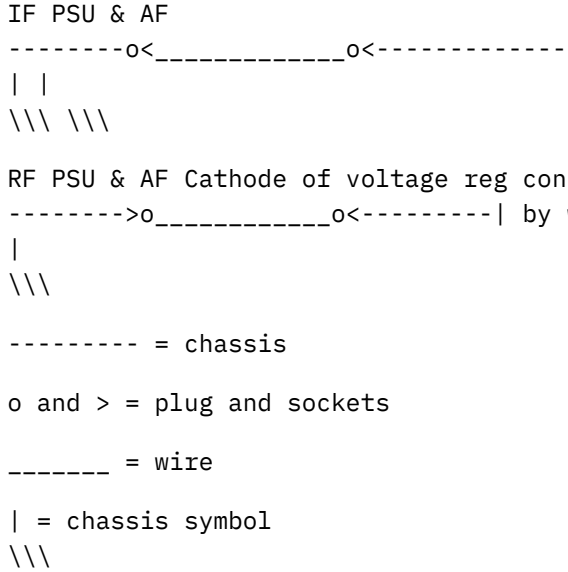
Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 14:17:12 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <bizC7.3948$GA.441186@news2-win.server.ntlworld.com>
Source record: 49129

Admiralty Murphy B40 RX. Three seperable units RF, IF, AF & PSU. RF chassis is pretty much permanently bolted down. IF and AF & PSU can be removed. Normally, all units electrically connected by their mechanical fitting together. Okay, AF & PSU and IF chassis are connected (via plug and socket) by a wire. Current returns for circuits in these chassis must go through mechanical connection of chassis as well as the wire connecting both the chassis. Center-tap of power tfmr secondary connected to AF & PSU chassis.

RF chassis as I say bolted down. No wire connection between RF chassis and AF & PSU chassis. Now, it must be that returns from RF circuits soley go trough mechanical connections to the AF & PSU.

Okay here's the funny (to me) bit. In AF & PSU chassis, HT smoothing choke feeds a (gas type) regulator, but the cathode does not go to chassis. It connects, via a wire (via plug and socket), to the RF chassis. Regulator feeds to Local Osc. Can anybody tell me why the stabilizer cathode does not go the AF & PSU chassis, and why it would be connected the the RF chassis? Thanks.

Diagram.



--------- = chassis

o and > = plug and sockets

_______ = wire

| = chassis symbol
\\\

6626. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 14:26:30 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <RqzC7.4010$GA.448599@news2-win.server.ntlworld.com>
Source record: 49130

```
> Diagram.
>
> RF PSU & AF Cathode of voltage reg connected
> -------->o___________o<---------| by wire to PSU & AF chassis
> |
> \\\
```

Should be:

```
RF PSU & AF Wire to Cathode of voltage reg
-------->o___________o< _______
|
\\\
```

Clarification: RF chassis connects by wire to stabilizer cathode only.
Cathode does not get wired to PSU & AF chassis.

6627. Re: Building a squelch???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 14:48:08 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bd9e641$0$252$44c9b20d@news3.asahi-net.or.jp>
Source record: 49119

"Kc7eip" <kc7eip@home.com> wrote in message
news:9hkC7.30947$Gh2.10062465@news2.rdc1.bc.home.com...
> Well now that i have built an osilator that i can use with my world radio
to
> rx cw and ssb i need to build a squelch of some type into the radio....
even
> building some form of squelch that hooks to the earphone jack based on
the
> audio level would be good anyone have any suggestions?? I ws thinking
> something that either would trigger off the rf signal strength or audio
> level... I just don't care for the static all the time..
>

Ten-Tec has a very versatile "integrating squelch" circuit that you might
like to check out. You can find it here:
http://www.tentec.com/rcvrkit.htm

Cheers
Adam

6628. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 15:28:42 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BDAD2AA.B9B25BEA@att.net>
Source record: 49131

Sounds like a "blue wire" production fix for some problem related to
grounding within the system.

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Richard Daventry wrote:
>
> > Diagram.
> >
> > RF PSU & AF Cathode of voltage reg connected
> > -------->o___________o<---------| by wire to PSU & AF chassis
> > |
> > \\\
>
> Should be:
>
> RF PSU & AF Wire to Cathode of voltage reg
> -------->o___________o< _______
> |
> \\\
>
> Clarification: RF chassis connects by wire to stabilizer cathode only.
> Cathode does not get wired to PSU & AF chassis.

6629. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 16:03:51 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <HVAC7.274$OB7.24532101@news2.randori.com>
Source record: 49132

or there was a problem with a ground loop causing undesireable
results.............

"George, W5YR" <w5yr@att.net> wrote in message
news:3BDAD2AA.B9B25BEA@att.net...
> Sounds like a "blue wire" production fix for some problem related to
> grounding within the system.
>
> 72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
> Amateur Radio W5YR, in the 56th year and it just keeps getting better!
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
>
> Richard Daventry wrote:
> >
> > > Diagram.
> > >
> > > RF PSU & AF Cathode of voltage reg
connected
> > > -------->o___________o<---------| by wire to PSU & AF chassis
> > > |
> > > \\\
> >
> > Should be:
> >
> > RF PSU & AF Wire to Cathode of voltage reg
> > -------->o___________o< _______
> > |
> > \\\
> >
> > Clarification: RF chassis connects by wire to stabilizer cathode only.
> > Cathode does not get wired to PSU & AF chassis.
>

6630. looking to buy used

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 17:31:12 UTC
From: super3531@adelphia.net
Message-ID: <rprlttcm130hf6dvb96447plovde6lha5o@4ax.com>
Source record: 49133

```
im looking to buy used
tapr dgps ref station board
motorola oncore vb board
```

6631. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 19:06:10 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <TxDC7.14974$a14.669328@news6-win.server.ntlworld.com>
Source record: 49134

Okay, I got directed to a schematic on a web page.

Please go to:

http://website.lineone.net/~adrian.j.reynolds/schem3.jpg

See V304, stabilizer. Cathode goes to what looks like chassis, that solid line is not the AF & PSU chassis. In fact, cathode connects to RF chassis via wire. So cathode is "earthed" in the RF chassis.

I'm puzzled.

6632. Re: If you have the schematic for Admiralty Murphy B40C.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 21:19:48 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <SuFC7.15824$a14.773829@news6-win.server.ntlworld.com>
Source record: 49135

A poster (In another NG) has responded telling me it is the output filter in a capacitor-input power supply. Apparantly, I do not need to place another 4uF cap to decouple AF amp, if I build the AF amp on a seperate AF chassis. C305 therefore goes with PU.

Ref:

http://website.lineone.net/~adrian.j.reynolds/schem3.jpg

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message news:61vC7.2092$GA.191383@news2-win.server.ntlworld.com...
> AF & Power Unit. Is C305 power supply smoothing capacitor or AF decoupling
> or both? I'm going to seperate AF from PU, should I place C305 in PS
> chassis and place another 4uF capacitor in AF chassis to decouple AF voltage
> amplifier? C305 is one of those rectangular, metal-enclosed, bulky paper
> capacitors.
>
> Thanks

6633. Telefunken E381S or E381H

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-27 23:15:35 UTC
From: la8ak@online.no
Message-ID: <3bdb3f88.90524418@news.online.no>
Source record: 49136

Bought Telefunken E381S receiver last week-end, it is a marine receiver dated 1932. Only simplified circuit diagram is available, but it doesn't show several components, and information about where tubes are placed is also missed

Does somebody have any information for this 70 year old receiver? It uses 4V direct heated tubes, RES094 RF tetrode, and 3x RE074 triodes. RES094 is similar to 36 but anode is connected to top-hat

73
Jan-Martin
LA8AK

6634. FA - Lot of 4 RCA 810 Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 07:45:51 UTC
From: "K.J. Hunter" <kj558@yahoo.com>
Message-ID: <DEOC7.98$At3.27655@nntp1.onemain.com>
Source record: 49137
Cross-posted to:
alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1655763781

Auction ends 11-03-01 1245 pst

6635. FA - Lot of 2 RCA 7094 Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 07:47:40 UTC
From: "K.J. Hunter" <kj558@yahoo.com>
Message-ID: <EFOC7.579$ye3.188244@nntp2.onemain.com>
Source record: 49138
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1655770878

Auction ends 11-03-01 1303 PST

6636. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 12:14:16 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <SBSC7.11659$GA.1453162@news2-win.server.ntlworld.com>
Source record: 49139

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:TxDC7.14974$a14.669328@news6-win.server.ntlworld.com...
> Okay, I got directed to a schematic on a web page.
>
>
> Please go to:
>
>
> http://website.lineone.net/~adrian.j.reynolds/schem3.jpg
>
>
> See V304, stabilizer. Cathode goes to what looks like chassis, that solid
> line is not the AF & PSU chassis. In fact, cathode connects to RF chassis
> via wire. So cathode is "earthed" in the RF chassis.
>
> I'm puzzled.

All I can say is this:

Return currents from cathodes of tubes in RF chassis return to PSU secondary center-tap by way mechanical bonding between RF and AF & PSU chassis. There is no return wire for these currents. Local Osc anode voltage is taken from stabilizer, but return current for L.O. returns in the same way as all the other tube cathode currents in RF chassis. The wire connecting the stabilizer cathode to RF chassis only takes current passing through the stabilzer, it does not pass any returning current from any of the tubes in the RF chassis.

Which still leaves me puzzled as to why the stabilzer is not grounded on the AF & PSU chassis. Like some have said, possible grounding current problems made designer ground the stabilizer cathode as he did. It's just that I cannot see the current problem.

6637. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 13:24:13 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BDC06FB.4D0F9A09@att.net>
Source record: 49140

Two things:

It might help to not regard the chassis or chasses of the system as "ground." That connotes a monolithic entity that is all powerful in sinking all unwanted currents and signals. What most actual physical systems consist of, especially when physically built on different chasses, etc., is a group of circuits interacting with one another and exchanging current by a variety of paths. The issue is greatly confused by thinking that "ground" on one chassis is "ground" on another, even if the two appear to be connected. The properties of such connections vary widely with several factors, not the least of which is frequency. Size plays a big role as well.

The second point is that return currents among circuits commonly take paths that may not be represented on a circuit diagram. Because of that, it is many times difficult to look at a circuit and understand a "ground loop" problem, because the circuit and its properties may not be very obvious from the diagram.

In the end, some engineer finally "got the thing to work fairly reliably" with the "ground/return" configuration that you described. It probably makes no sense in terms of the circuit diagram. And with all respect, I doubt that the engineer really understood it either.

Such is life in the trenches of engineering . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Richard Daventry wrote:
>
> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:TxDC7.14974$a14.669328@news6-win.server.ntlworld.com...
> > Okay, I got directed to a schematic on a web page.
> >
> >
> > Please go to:
> >
> >
> > http://website.lineone.net/~adrian.j.reynolds/schem3.jpg
> >
> >
> > See V304, stabilizer. Cathode goes to what looks like chassis, that solid
> > line is not the AF & PSU chassis. In fact, cathode connects to RF chassis

> > via wire. So cathode is "earthed" in the RF chassis.
> >
> > I'm puzzled.
>
> All I can say is this:
>
> Return currents from cathodes of tubes in RF chassis return to PSU secondary
> center-tap by way mechanical bonding between RF and AF & PSU chassis. There
> is no return wire for these currents. Local Osc anode voltage is taken from
> stabilizer, but return current for L.O. returns in the same way as all the
> other tube cathode currents in RF chassis. The wire connecting the
> stabilizer cathode to RF chassis only takes current passing through the
> stabilzer, it does not pass any returning current from any of the tubes in
> the RF chassis.
>
> Which still leaves me puzzled as to why the stabilzer is not grounded on the
> AF & PSU chassis. Like some have said, possible grounding current problems
> made designer ground the stabilizer cathode as he did. It's just that I
> cannot see the current problem.

6638. link to old tube manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 16:04:16 UTC
From: corny <nospam@newsranger.com>
Message-ID: <40WC7.3634$xS6.3356@www.newsranger.com>
Source record: 49141

I found an old RCA tube manual on the net and will post the link below.

RCA Radiotron Manual R-10, you can view the pages on the net or download it in zip or tar form, it is also there on adobe acrobat.

Here is the link http://www.nmr.mgh.harvard.edu/~reese/RC10/

6639. FS: ALPHA WIRE 1-1/2" Wide Tinned Braid Ground Straping, NEW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 16:48:50 UTC
From: rlucch2098@aol.com
Message-ID: <20011028114850.16120.00000416@mb-dd.aol.com>
Source record: 49143

Hi Guys;
I have still, 60' of Brand NEW alpha wire & Cable, 1-1/2" tinned Copper Braid
for sale at $2.00 per foot, shipping is $3.95 per 10' foot roll.
Will sell in 10 foot legths only up to 60 foot!
Shipping will vary on lengths over 10'.
This is Commercial Quality stuff here, USa Made!
Here is a picture>>
http://www.baltimorepress.com/~wa2rqy/widebraid.jpg
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6640. FA: Superior Electric "POWERSTAT" 0-230vac @ 9amps, Excellent!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 16:55:14 UTC
From: rlucch2098@aol.com
Message-ID: <20011028115514.16120.00000419@mb-dd.aol.com>
Source record: 49144

Only at $10 or so with 4 nice pictures>>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289792343
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6641. Re: link to old tube manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 17:33:38 UTC
From: la8ak@online.no
Message-ID: <3bdc415d.1884746@news.online.no>
Source record: 49142

On Sun, 28 Oct 2001 16:04:16 GMT, corny <nospam@newsranger.com> wrote:

>I found an old RCA tube manual on the net and will post the link below.
>
>RCA Radiotron Manual R-10, you can view the pages on the net or download it in
>zip or tar form, it is also there on adobe acrobat.
>
>Here is the link http://www.nmr.mgh.harvard.edu/~reese/RC10/
>
>
>
ufb, but have I seen it before?

-JM

6642. Nice weekend project in QEX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 17:51:17 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <pAXC7.31312$ez.4289934@news1.rdc1.nj.home.com>
Source record: 49145

In your spare moments, you can put together the transceiver just as described.

6643. Need Heathkit manual.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 18:58:54 UTC
From: ve1arn@qsl.net
Message-ID: <OzYC7.47$Tu4.31843@sapphire.mtt.net>
Source record: 49146

Greetings,

Picked up a Heath Model IP-17 High Voltage Regulated Power Supply at a ham flea market last week.

Anyone out there have a manual or copy that could be parted with?

Thanks,

Bob, VE1ARN

6644. need manual for dx60a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 20:12:41 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3bdc66b8$0$35613$2c3e98f8@news.voyager.net>
Source record: 49147

anyone out there refresh my memory of the site that has online manuals?
thanks ken w8ob

6645. Re: need manual for dx60a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 20:48:56 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BDC6F38.DBA90CB2@coqui.net>
Source record: 49148

kenneth m cubilo wrote:
>
> anyone out there refresh my memory of the site that has online manuals?
> thanks ken w8ob

This is one for Heath gear..
http://www.circuitarchive.co.uk/heath.htm

http://bama.sbc.edu is another

-Bill WX4A

6646. Re: Signets 82s129 equivalent

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 21:19:01 UTC
From: Colin <gp_300@hotmail.com>
Message-ID: <9rhsdl$j4t$1@news.wanadoo.es>
Source record: 49149
Cross-posted to: alt.electronics,alt.radio.amateur,rec.radio.amateur.homebrew

That's great, just the info I was looking for......I have decided to make a adaptor for the PFX. The ones in the links are similar to what I'm going to build. The only problem being that inside the PFX there is little room, but I'm sure I can squeeze one in somewhere.

Thanks also to Bruce for the offer of programming a 82s129 PROM. However I fancy making an adaptor similar to those on the links that Andy and Lion sent.

Thanks again all.

Regards Colin.

"Andy Brinkley" <andy@brinkleyelectronics.com> wrote in message news:3BD75AB9.BB164B81@brinkleyelectronics.com...
> Colin wrote:
>
> > I have a Pye PFX that I would like to get going on 70cms but it's hard to
> > get hold of the Signets 82s129 Bipolar Proms, Also I would have to build a
> > programmer for the Bipolar prom. I now that I will find it hard to fit a
> > larger device in the PFX case but in true amateur spirit I thought of
> > lashing up a EPROM that is installed into a socket on the front of the PFX
> > case.
> >
> > I have the pinouts of the 82s129 Prom and would like to know what EPROM (if
> > any) I could use instead. I have programming equipment for
> > 27c16,32,64,128,256 &512 also for the 24c16,32,128 etc...... Would this be
> > as simple as just making an adapter from the 82s129 to a 24c16 for example.
> >
> > Any help appreciated.
> >
> > 73 de Colin.
>
> Colin -
>
> You can swap a 2716 or 2732 for the 82s129.
>
> See Mike Blenderman's page for the how to as described in eeprom

conversion.
>
> http://www.open.org/~blenderm/syntorx/legacy.html
>
> Or you can see what I have come up with for the Motorola Syntor
>
> http://www.brinkleyelectronics.com/prog/mot/adapter.htm
>
>
> Andy
>
> ---
> NC Certified Firefighter III / Instructor II / EMT-A
> FCC Licensed Technician / Amateur Call NC4AB
> http://www.brinkleyelectronics.com
>
>

6647. FS: 100's of NOS TUBE @ $.50 each

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 21:27:21 UTC
From: Murray Pasternack <m.pasternack@prodigy.net>
Message-ID: <ZK_C7.9098$EA2.1593615518@newssvr15.news.prodigy.com>
Source record: 49150
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Please email w6krc@arrl.net for list.

6648. Re: Superior Electric "POWERSTAT" 0-230vac @ 9amps, Excellent!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 23:36:34 UTC
From: Gary Johnson <wy0v@cableone.net>
Message-ID: <ttp5h8qkn444d@corp.supernews.com>
Source record: 49151

Yes, it does look nice. . . and $10.00 is a good price. But, it doesn't mean too much until the reserve price is met. BTW, just so we know where we stand, what is the reserve price (approximate is close enough)?

Gary

RLucch2098 <rlucch2098@aol.com> wrote in message news:20011028115514.16120.00000419@mb-dd.aol.com...
> Only at $10 or so with 4 nice pictures>>
> http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289792343
> Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
> Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html
>
>

6649. Need Kenwood Battery Case for TH 215A/TH315A

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-28 23:47:34 UTC
From: kaibigan55@hotmail.com
Message-ID: <8cb84c31.0110281547.1f4ba077@posting.google.com>
Source record: 49152

Looking for a rebuildable Kenwood HT Battery pack such as the PB-1 or
PB-2 Tnx Larry

6650. WTB:TBS-50c/Power Supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 01:21:20 UTC
From: N6TT@hotmail.com
Message-ID: <91fc59ff.0110281721.32dc488e@posting.google.com>
Source record: 48997

I'm looking for a power supply for my Harvey-Wells TBS-50C Bandmaster
Senior transmitter.... Thanks,

Steve
N6TT@hotmail.com

6651. FA - 22 Silver Plated Copper Straps RF

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 03:12:46 UTC
From: "K.J. Hunter" <kj558@yahoo.com>
Message-ID: <oJ3D7.2674$655.175083@nntp3.onemain.com>
Source record: 48999
Cross-posted to: alt.ham-radio.marketplace,rec.ham-radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,rec.radio.amateur.swap,rec.radio.swap

Silver plated copper straps. Lot of 22, 2" to 14". Great for building antenna tuners or amplifiers.

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1290824603

Ends Nov-04-01 17:08:22 PST

6652. Re: 914.5MHz PCB loop antenna?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 09:36:03 UTC
From: Olivier Desjeux <olivier.desjeux@net2000.ch>
Message-ID: <3BDD2303.A5E4B076@net2000.ch>
Source record: 49000

check on http://www.ingecom.ch the app note on antennas

Cheers
Oli

Tobias Weingartner a ï¿½crit :

> Hello all,
>
> I'm curious, does anybody know of a good site online (or book
> wise), with software/design specs for a "simple" 914.5MHz PCB
> loop antenna? If so, I'd appreciate a quick pointer...
>
> Thanks,
>
> --Toby.

6653. Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 10:39:44 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bdd3147.1186638@news.freeserve.net>
Source record: 49001

Where oh where can I get small (about 1" by 1.5" by 0.5"high)
tinplate boxes in the UK ?, these are the sort of boxes used for
computer UHF modulators. All I can find on the net is Tinplate Toys.
TIA Mike W, G8NXD qthr

6654. FREE GALAXY DX 99V

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 13:44:53 UTC
From: KB Consulting <kbconsulting@fireserve.net>
Message-ID: <newscache$5c2ylg$u8j$1@phaze.fireserve.net>
Source record: 48998

CLICK HERE ========> WWW.WE-RAFFLE.COM

6655. New 4CX-1500B, 1+days left FA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 13:48:55 UTC
From: gspubl@tca.net
Message-ID: <3bdd5e11.1206224@news.tamu.edu>
Source record: 49002

New in unopened box Eimac 4CX-1500B tube has 1+ days left on auction.
Check it out at:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289004893

6656. Re: return/chassis connection question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 15:47:32 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <0PeD7.30974$a14.2741442@news6-win.server.ntlworld.com>
Source record: 49003

"George, W5YR" <w5yr@att.net> wrote in message
news:3BDC06FB.4D0F9A09@att.net...
> Two things:
[...]

Exactly.

I've taken the RX to bits and noted the actual wiring. When I rebuild in an entirely new cabinet and chassis sections, perhaps it will make sense to keep to the way the original designer arranged cathode returns, then again maybe that is unecessary, I don't know. I find that cathodes for V301 (1st AF amp) and V304 (stabilizer) do not connect to the chassis they are situate. Stabilizer bonds to the RF chassis by a longish wire and 1st AF amp gets bonded to IF chassis again, by a longish via a wire, though I see multiple chassis connections associated with 1st AF amp cathode as it's part of LT heater line (bonds adjacent to tubes as usual). 1st AF amp does not, in any case, bond in AF & PSU chassis though where it is situate. I also see that IF tube cathodes connect to 1st AF amp cathode return circuit rather than getting bonded directly to IF chassis, though bonding eventaually occurs on the IF chassis. There must be reasons for these arrangements as has been mentioned. As you say, it could be difficult to figure out exactly how these arrangements were arrived at. Maybe they come in if chassis sections removed from main cabinet when servicing. Designer probably long dead by now as it's a 50's set. Royal Navy peice of gear. Built like a battleship. :c)

Anyhow, thanks for your comments.

Rich.

6657. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 15:54:33 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9rju79$6ng$1@plutonium.btinternet.com>
Source record: 49004

Have you looked at Maplin?
They have some quite small aluminium boxes,
just a bit bigger than a matchbox

6658. Re: 914.5MHz PCB loop antenna?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 16:01:49 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9rjvu4$b4n$1@plutonium.btinternet.com>
Source record: 49005

> I'm curious, does anybody know of a good site online (or book
> wise), with software/design specs for a "simple" 914.5MHz PCB
> loop antenna?
==========
You may find it faster to experiment and design your own circuit
rather than trying to fathom out what some published academic,
poorly presented, unreliable formulae are all about..

Dimensions depends much on very local component environment.
Use UHF low-loss material for PCB.
ESSENTIAL - NO groundplane on other side of PCB.
Isolate the loop in space as far as possible.
Use a circular, hexagonal or square track for the loop.
Area enclosed by loop is what matters most.
Prefer a circular for greateat efficiency. But it's not critical.
Use ONLY ONE TURN in the loop. More is disastrous.
Use a broad track for low track loss. Say 1/8th loop diameter.
A broad track width makes for greater bandwidth.
The LARGER the enclosed loop area the greater the efficiency.
Keep away from other metallic components and lossy materials.

Basic design is a tuned loop with a smaller coupling loop to the
transceiver inside it. Isolate the main loop with its preset
tuning capacitor from any other parts of the circuit. Locate the
coupling loop nearer to the side of the main loop opposite the
tuning capacitor but it's not critical.

Download in a few seconds program MAGLOOP4 from website below.
This program is primarily intended for HF applications. To
translate to UHF, design an antenna for 9.145 MHz and divide all
linear dimensions by 100. Divide the computed value of tuning
capacitor by 100.

Assume the equivalent diameter of a circular loop conductor (as
required by the program) is exactly half the width of a thin, flat
PCB track. The diameter of the coupling loop depends on the load
to be presented to a transmitter or to the input resistance of a
receiver. Coupling loop diameter (a transformer winding) is
proportional as usual to squareroot of load resistance.

An unknown factor is the permittivity of the PCB material. This
will have the effect of considerably reducing the value of the PCB
tuning capacitor. But as this component is to be preset anyway this
should not be a problem. If the equipment is eventually to be
produced in quatity then a built-in fixed PCB capacitor should be
considered. The dimensions of such a PCB capacitance can be

determined ONLY by experiment and measurements of the loop's resonant frequency.

Experiment :- Produce a loop on a PCB + some form of tuning capacitor. Measure its resonant frequency. To bring exactly to tune on 914.5 MHz remember frequency is inversely proportional to ALL linear dimensions, including dimensions of the capacitor, simultaneously.

Download MAGLOOP4 from URL below. RJELOOP3, an earlier program for non-extreme rectangular loops, may be of interest.

Free radio engineering software, come and get it, from -
http://www.g4fgq.com

6659. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 17:30:06 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bdd9151.591485@news.freeserve.net>
Source record: 49006

On Mon, 29 Oct 2001 15:54:33 -0000, <grumpy@lpws.zzzn.com> wrote:

>Have you looked at Maplin?
>They have some quite small aluminium boxes,
>just a bit bigger than a matchbox
>
>
Thanks Grumpy. I believe I specified TINPLATE not ALUMINIUM,
(screening properties are somewhat different).
However I will look and see if they have improved their stock,
miracles do, occasionally, happen ;-)

6660. Zero crossing detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 18:30:55 UTC
From: petersaj@notes.udayton.edu
Message-ID: <5c67f617.0110291030.2e69e8d3@posting.google.com>
Source record: 49007

I am trying to design a zero-crossing detector as an FM demodulator.
I'm having trouble finding information on the subject. Anyone have
any suggestions??

6661. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 23:24:15 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9rkomilrn1@uranium.btinternet.com>
Source record: 49012

Well mate if you cant be bothered
washing, cutting up, bending to shape and soldering up the edges
of a piece of baked bean can.
You don't deserve to own a little tin box!

(Or being kind now) A good sorce for free tin plate is
the large oil cans the kebab / curry shop use,

Give me the measurements and
I will knock you one up in 10 minutes
and send it to you in at no cost,
because I am such a nice chap.
Confirm the address by email, with the measurements;-}

6662. Icom IC-251A & 451 Slaving

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 23:26:04 UTC
From: BooBoo Kitty <meow@kittylitter.com>
Message-ID: <2910200011726285086%meow@kittylitter.com>
Source record: 49010

Hello All.

I have a Icon IC-251A (144 Allmode)
and a Icom IC-451A (430 Allmode)

I'm not sure if it can be done but on the back of the radios
there is a 24 pin molex female connector (.032 Pins ?)
that have some of the data/controll/audio Sigs present)

Is there a design for a interface that i can build
that will allow me to slave the two radios togather for Sat
Operation ?... I've searched the net with no luck so far

Thanks for the help in advance

73

Michael - N0JVT EM17

6663. Re: Bad guy report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-29 23:27:31 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9rkooi$50d$1@plutonium.btinternet.com>
Source record: 49011

by the way only 2 Z's in

ZZ.com

6664. Re: Zero crossing detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 00:00:12 UTC
From: la8ak@online.no
Message-ID: <3bddd1c9.12559250@news.online.no>
Source record: 49009

On 29 Oct 2001 10:30:55 -0800, petersaj@notes.udayton.edu (petersaj)
wrote:

>I am trying to design a zero-crossing detector as an FM demodulator.
>I'm having trouble finding information on the subject. Anyone have
>any suggestions??

suppose you mean a counter-detector using schmidt trigger or
derivation - was used up to 1MHz IF

6665. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 00:04:16 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9rkqtf$cl1$1@plutonium.btinternet.com>
Source record: 49013

by the way only 2 Z's in

grumpy@lpws.zzn.com

6666. Micorwave PCB design software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 00:41:39 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <7DmD7.7324$c5.86389@newsfeeds.bigpond.com>
Source record: 49014

I am looking for a software package that help me design , microwave PCB antennas and PCB bandpass filters. Any suggestions?

Willy

6667. Re: Zero crossing detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 00:47:02 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0110291647.6d651421@posting.google.com>
Source record: 49015

Perhaps if you look into comparators?? If one input of a comparator
is grounded and the other is the signal input, the output changes
state at the zero crossings (plus a propagation delay). How were you
then going to demodulate the FM? If you do it at a low enough
frequency, you can simply feed the digital wave to a one-shot and
average the output, though that probably isn't the best of FM
detectors. Better s/n ratio
if the percentage deviation is high (that is, if the IF freq
is low). Theoretically perfectly linear, though difficult
to make the oneshot period totally independent of frequency.

Cheers,
Tom

petersaj@notes.udayton.edu (petersaj) wrote in message
news:<5c67f617.0110291030.2e69e8d3@posting.google.com>...
> I am trying to design a zero-crossing detector as an FM demodulator.
> I'm having trouble finding information on the subject. Anyone have
> any suggestions??

6668. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 06:30:00 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9rk76p$43j$1@plutonium.btinternet.com>
Source record: 49008

"Mike W" <mike@corn2.freeserve.co.uk> wrote in message
news:3bdd3147.1186638@news.freeserve.net...
> Where oh where can I get small (about 1" by 1.5" by 0.5"high)
> tinplate boxes in the UK ?, these are the sort of boxes used for
> computer UHF modulators. All I can find on the net is Tinplate Toys.
> TIA Mike W, G8NXD qthr

I've seen them in either the RS or the Farnell catalogue. I forget which,
but it shouldn't take long to find them via the web sites.

73, Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

6669. Re: Micorwave PCB design software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 07:07:46 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0110292307.4b7843e1@posting.google.com>
Source record: 49016

"willy" <willyacht@yahoo.com> wrote in message
news:<7DmD7.7324$c5.86389@newsfeeds.bigpond.com>...
> I am looking for a software package that help me design , microwave PCB
> antennas and PCB bandpass filters. Any suggestions?
>
Hi Willy,
a free software for designing PCB bandpass filters can be found on my
page http://mujweb.cz/www/ok1sip/english/grebeh.htm . Sorry, I am not
the author nor I have made and tested a filter; I simply like it.

BR from Ivan

6670. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 08:35:47 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3bde64f7.404561@news.freeserve.net>
Source record: 49017

Thankyou for the offer Grumpy. Its really appreciated, however, as I
will probably need at least 50 of the things it would probably be
kinder to you to buy from a firm that can cope with the demand.
atb Mike W, G8NXD

Oct 2001 23:24:15 -0000, <grumpy@lpws.zzzn.com> wrote:

>Well mate if you cant be bothered
>washing, cutting up, bending to shape and soldering up the edges
>of a piece of baked bean can.
>You don't deserve to own a little tin box!
>
>(Or being kind now) A good sorce for free tin plate is
>the large oil cans the kebab / curry shop use,
>
>Give me the measurements and
>I will knock you one up in 10 minutes
>and send it to you in at no cost,
>because I am such a nice chap.
>Confirm the address by email, with the measurements;-}
>
>

6671. Re: Micorwave PCB design software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 11:21:20 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <R_vD7.443$Mv5.4626@newsfeeds.bigpond.com>
Source record: 49018

Thanks for the info.

Willy
"Ivan" <ok1sip@atlas.cz> wrote in message
news:8f3e93b5.0110292307.4b7843e1@posting.google.com...
> "willy" <willyacht@yahoo.com> wrote in message
news:<7DmD7.7324$c5.86389@newsfeeds.bigpond.com>...
> > I am looking for a software package that help me design , microwave PCB
> > antennas and PCB bandpass filters. Any suggestions?
> >
> Hi Willy,
> a free software for designing PCB bandpass filters can be found on my
> page http://mujweb.cz/www/ok1sip/english/grebeh.htm . Sorry, I am not
> the author nor I have made and tested a filter; I simply like it.
>
> BR from Ivan

6672. Re: Micorwave PCB design software??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 11:21:20 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <%rHD7.814$Mv5.10364@newsfeeds.bigpond.com>
Source record: 49032

Thanks for the info.

Willy
"Ivan" <ok1sip@atlas.cz> wrote in message
news:8f3e93b5.0110292307.4b7843e1@posting.google.com...
> "willy" <willyacht@yahoo.com> wrote in message
news:<7DmD7.7324$c5.86389@newsfeeds.bigpond.com>...
> > I am looking for a software package that help me design , microwave PCB
> > antennas and PCB bandpass filters. Any suggestions?
> >
> Hi Willy,
> a free software for designing PCB bandpass filters can be found on my
> page http://mujweb.cz/www/ok1sip/english/grebeh.htm . Sorry, I am not
> the author nor I have made and tested a filter; I simply like it.
>
> BR from Ivan

6673. FS: Downeast Microwave 2 mtr Transverter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 11:50:24 UTC
From: dgsprague@earthlink.net
Message-ID: <28e82c3b.0110300350.6d855201@posting.google.com>
Source record: 49019

Transverter with 20 watt amplifier. 10 meters in/ 2 meters out. This is a linear device. It will work with most 10 meter IF, and can be used on CW/SSB/FM. Easy hookup. $275. Completely assembled and in one case. Documentation included.

6674. Murphy B40 RXVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 11:58:52 UTC
From: Andre <aswal@optusnet.com.au>
Message-ID: <3bde947c$0$9827$afc38c87@news.optusnet.com.au>
Source record: 49020
Cross-posted to: aus.radio.amateur.misc,aus.radio.cb,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Wanted in Aus...
If anyone has one of these they would like to sell, prefer working in if possiable in Victoria (they weigh 100lb..the postage would kill me!) please email me
Cheers
ANDRE

6675. Re: Need Heathkit manual.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 12:49:55 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <%mxD7.37689$a14.3726242@news6-win.server.ntlworld.com>
Source record: 49021

> >Picked up a Heath Model IP-17 High Voltage Regulated Power Supply at a
ham
> >flea market last week.
> >
> >Anyone out there have a manual or copy that could be parted with?
======
An excellent site for 'Boat Ancre Manuals' including Heathkit :
http://bama-sbc.edu/

GL

Frank gm0csz.kn6wh@ntlworld.com

6676. Schematic Kenwood TS 130s

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 14:04:50 UTC
From: Frans Schwartz <pa5ca@amsat.org>
Message-ID: <6706c7f9d7a411f9a8cae18a21859397.37972@mygate.mailgate.org>
Source record: 49022

Dear all,
I'm intending to restore a kenwood ts130s, it is in a bad shape, some one had the plans to modified for 11 meter.
I got a service manual but is is a copy, the page with the kables and connectors is blurd.

So what I'm looking for is just the page from the service manual with the complete wiring layout, who can help me out.

Thanks in advance,

73 de pa5ca, Frans

--
Posted from 5-227.corp.sonera-xs.nl [195.66.5.227]
via Mailgate.ORG Server - http://www.Mailgate.ORG

6677. Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 14:19:51 UTC
From: k5dh@raytheon.com
Message-ID: <bGyD7.4$284.95@dfw-service2.ext.raytheon.com>
Source record: 49023
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Greetings, tube-gear fans...

I'm looking for a small HV power transformer:

Primary: 110 VAC

Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA
--- OR ---
150 to 180 VAC without C.T. at 50 to 100 mA

Filament: 6.3 VAC at 2 to 3 A
--- OR ---
12.6 VAC center-tapped at 2 to 3 A

Size: No more than 2-1/2" W x 3" D x 3" H

The application is for the power supply in a homebrew 80m
and 40m tube-type VFO. After full-wave rectification and
some stiff filtering, I want to wind up with +200 to +250
VDC for the cathode follower and post-amp plate voltages,
and I'll use a VR tube to regulate the oscillator plate
voltage. I am very constrained on space in the cabinet
(which is why I specified that small of a physical size).
Anyone have something in that range that they can sell me?
Yes, I'm aware that Antique Electronic Supply and other
dealers sell new power transformers, but their cost is
astronomical. I'm trying to do this "on the cheap" with
all junkbox parts.

73,
Dean, K5DH
Visit my amateur radio web site at http://www.qsl.net/k5dh

6678. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 16:17:34 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <yoAD7.1842$tb2.158778@bin2.nnrp.aus1.giganews.com>
Source record: 49024
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Dean,

You should be able to get 300V @ 100mA using a half wave voltage doubler and use a separate filament transformer. I'm not sure if you can fit it in your space, but breaking it up into two devices may help. The cost will probably be less, too. A couple of 150 uF@450V , a couple of diodes, a surge resistor, and a few bleeder resistors should do the trick.

I recently did this for a German tabletop radio I had bought with the transformer missing and it cost less than $15 including a Radio Shack pc board.

Consult most any electronics book or the Radio Amateur Handbook for a schematic, or email me and I'll send one along to you.

Good luck.

Scott M.
"K5DH" <k5dh@raytheon.com> wrote in message
news:bGyD7.4$284.95@dfw-service2.ext.raytheon.com...
> Greetings, tube-gear fans...
>
> I'm looking for a small HV power transformer:
>
> Primary: 110 VAC
>
> Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA
> --- OR ---
> 150 to 180 VAC without C.T. at 50 to 100 mA
>
> Filament: 6.3 VAC at 2 to 3 A
> --- OR ---
> 12.6 VAC center-tapped at 2 to 3 A
>
> Size: No more than 2-1/2" W x 3" D x 3" H
>
> The application is for the power supply in a homebrew 80m
> and 40m tube-type VFO. After full-wave rectification and
> some stiff filtering, I want to wind up with +200 to +250
> VDC for the cathode follower and post-amp plate voltages,
> and I'll use a VR tube to regulate the oscillator plate
> voltage. I am very constrained on space in the cabinet
> (which is why I specified that small of a physical size).
> Anyone have something in that range that they can sell me?
> Yes, I'm aware that Antique Electronic Supply and other

> dealers sell new power transformers, but their cost is
> astronomical. I'm trying to do this "on the cheap" with
> all junkbox parts.
>
> 73,
> Dean, K5DH
> Visit my amateur radio web site at http://www.qsl.net/k5dh
>
>

6679. HV5PUL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 16:37:57 UTC
From: I0GOJ <i0goj@inwind.it>
Message-ID: <9rml18$vq8$7@nreada.inwind.it>
Source record: 49025

November 6th 2001 there will be the activation of HV5PUL radio station from the Papal Lateran University, in The Vatican State.

The activation concerns: HF 18/14/21/28/7 MHz and 144/50 MHz. Transmission modes are CW/SSB.

Four radio stations are going to operate at the same time, two in CW and two in SSB, from 8.00 GMT to 17.30 GMT.

QSL via HV5PUL 00120 Vatican City

IL 6 NOVEMBRE 2001 SARA' ATTIVTA LA STAZIONE HV5PUL DALLA PONTIFICIA UNIVERISTA' LATERANENSE, DALLO STATO DELLA CITTA' DEL VATICANO.

SARANNO ATTIVATE LE GAMME DEI 18/14/21/28/7 MHZ E I 144/50 MHZ . LE TRASMISSIONI AVVERRANNO IN CW E SSB.

SARANNO ATTIVE 4 STAZIONI RADIO , DUE IN CW E DUE IN FONIA , DALLE ORE 0800 GMT ALLE ORE 17,30 GMT.

QSL VIA HV5PUL 00120 CITTA' DEL VATICANO

6680. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 17:04:50 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9rmmn0$4d1$1@uranium.btinternet.com>
Source record: 49026

Okay Mike, I hope you find them,
I haven't a clue where to get 50+
Good to see we can have some
jovial banter with out causing offence;-}
All the best. Grumpy

6681. 18V Battery Charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 21:23:20 UTC
From: Ken Chafin <kchafin1@pacbell.net>
Message-ID: <3BDF1A50.5BEFC2BB@pacbell.net>
Source record: 49027

I need to power my laptop from a gel cell battery. My laptop requires 16V+, so I have made up some 18V gel cell batteries by placing a 6V and 12V gel cell (of similar AH capacity) in series. I need to fabricate a 18V gel cell battery charger. I've found circuit designs for a 12V charger but I don't know how to modify them to obtain 18V. Any ideas?

Thanks,

Ken

6682. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 21:28:19 UTC
From: g3pho@nospam.qsl.net
Message-ID: <3be01358.16291964@news.free-online.net>
Source record: 49028

On Tue, 30 Oct 2001 08:35:47 GMT, mike@corn2.freeserve.co.uk (Mike W) wrote:

>Thankyou for the offer Grumpy. Its really appreciated, however, as I
>will probably need at least 50 of the things it would probably be
>kinder to you to buy from a firm that can cope with the demand.
>atb Mike W, G8NXD

Your best bet is to buy them from Eisch Electronic in Germany. They have a very efficient mail order service, to all parts of the world, which I have used several times.

I deleted your original posting so cant remember what size box you wanted. Their latest catalogue shows a wide range of tinplate boxes in two depth sizes, 30mm and 50mm. The smallest box is 37mm x 37mm by 30mm deep and is priced at 2.90DM (less than a quid, which = 3.1=DM these days). The 50mm deep version is 3.60DM. They give a discount of 5% for orders of ten to 49 and 15% off for orders of 50 to 99, etc etc.

The next box size is 37x 74mm, also in the two depths shown above, There are 14 different sizes, up to 102mm x 162mm x 50mm and that one is 13DM per unit.

The prices include EU VAT but not postage.

If you email them in English with your requirements you should get a speedy reply, also in English! Their catalogue however is in German.

Their email address: mailto:eisch-electronic@t-online.de.
They have a website at: www.eisch-electronic.com

There was a UK source a few years ago but he was SOOOoooo sloooow in delivering them!

For microwave parts, high quality xtals, etc and other stuff you cant beat Eisch for service.

(ps I dont have any financial connection with the firm!)

73

Peter, G3PHO

(remove "nospam" from my email address in the header if replying directly)

6683. Re: DeSoldering-Removing Parts...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 22:08:47 UTC
From: GREY FOX <parrfoo.@sympatico-ca>
Message-ID: <qzFD7.9040$Fy2.1617676@news20.bellglobal.com>
Source record: 49029

In article <sIdA7.16879$uh1.2469357@news6-win.server.ntlworld.com> , "Frank Dinger" <gm0csz.kn6wh@ntlworld.com> wrote:

>
> "> >If you are "salvaging" chips off a surplus board (to be discarded), the
> old
>> >favorite is using a propane torch.
>>
>> I've used this method and found it effective.
>>
>> The only thing that worries me is the toxicity of the fumes and smoke if
> the
>> PCB starts to discolor, blacken or flame. When I do this now, I play safe
>> with as many safety precautions as I can think of.... outdoors, good
>> ventilation, paint sprayer's mask, stay at arm's length from PCB, turn
> head
>> away to take long breath, etc... my understanding is that the fumes from
> the
>> old PCBs can be highly toxic.
> ==========
> Indeed ,when using a propane/butane torch , the PCB gets 'attacked' with the
> resulting toxic fumes .
>
> When stripping PCBs to salvage components I use a hot air paint stripper
> .The one I have is a Black & Decker ,1600 Watts. The paint stripper's nozzle
> is kept 4 -6 inches away from the PCB.
> If done diligently the PCB is not damaged. However this method might not be
> the best when replacing multi-legged components on a board to be reused
> (repair job).
>
> Frank gm0csz.kn6wh@ntlworld.com
>
>
>
>
>
>

-- BEST WAY TO REMOVE IC S FROM A BOARD TO BE REPAIRED IS CLIP THE LEADS
ABOVE THE BOARD. THEN WITH A DESOLDER IRON RAMOVE THE "LEGS FROM THE HOLES.
NOW THE NEW IC CAN BE INSERTED AND SOLDERED.
AS FOR SCRAP BOARDS I HAVE NOT YET USED A HOT AIR GUN. WILL GIVE IT A TRY
IF I WANT TO SAVE BOARD AND COMPONENTS AND THE GOOD OLD PROPANE TORCH FOR
COMPONENTS ONLY WHEN THE BOARD IS SCRAP
DA FOX

6684. Re: 18V Battery Charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 23:22:04 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BDF35FF.AE1DDEAF@earthlink.net>
Source record: 49031

Ken---

> I need to power my laptop from a gel cell battery. My laptop requires
> 16V+, so I have made up some 18V gel cell batteries by placing a 6V
> and 12V gel cell (of similar AH capacity) in series.

I would have banked 9 2.3V gel cels, which I have seen at All
Electronics.

> I need to fabricate a 18V gel cell battery charger.

Check the May 2001 QST. All you'll need to do is modify the voltage
such that the bulk charge can happen. Also make sure to modify the peak
current output to bulk charge rate for your cells (about 20% of the
rated AH capacity). This article is available for download from
arrl.org if you are an ARRL member.

Good luck,

Henry C. Gernhardt, III
KE4PIB

6685. Re: Bad guy report

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-30 23:28:36 UTC
From: la8ak@online.no
Message-ID: <3bdf1407.470480@news.online.no>
Source record: 49030

On Mon, 29 Oct 2001 23:27:31 -0000, <grumpy@lpws.zzzn.com> wrote:

>by the way only 2 Z's in
>
>ZZ.com
>
>
ZZZZZZZZ...(sleeping)

6686. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 01:00:40 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BDF4D38.69EBCAD6@nf.sympatico.ca>
Source record: 49033
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

SAM wrote:
>
> Dean,
>
> You should be able to get 300V @ 100mA using a half wave voltage doubler and
> use a separate filament transformer. I'm not sure if you can fit it in your
> space, but breaking it up into two devices may help. The cost will probably
> be less, too.

The power you want to handle is, approx.
Hi Voltage: 15 to 35 watts.
Filaments: 13 to 25 watts.
Total: 30 to 60 watts. First transformer.
Hi Voltage: 15 to 35 watts. Second transformer.
Was going to suggest two 110 volt filament transformers back to back.
Heaters off the intermediate connection at 6.3 or 12.6. Voltage double
from the output (primary), now the secondary of the second transformer.
115 x 2 = (roughly) 230 volts and filter it. The two separate
transformers might be easier to fit in available space.
Just an idea.

6687. Re: Tinplate box source in UK ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 01:05:04 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BDF4E40.4F04F7C2@nf.sympatico.ca>
Source record: 49034

grumpy@lpws.zzzn.com wrote:
>
> Well mate if you cant be bothered ..... snip ....
>
> Give me the measurements and
> I will knock you one up in 10 minutes
> and send it to you in at no cost,
> because I am such a nice chap.
> Confirm the address by email, with the measurements;-}

Five foot ten, about 14 stone, chest .... (oops. sorry wrong post to
reply to!!!!!! :-)

6688. NERG Web Site will now incur a Cost

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 04:28:08 UTC
From: Jim Baxter <baxter_family@bigpond.com>
Message-ID: <SXLD7.126$lh4.1375@newsfeeds.bigpond.com>
Source record: 49035

Greg,
Mail today says the NERG web site will incur a fee to be billed shortly of <
$50
I will try and get you the letter to you but please ring if you want
details sooner.
73
JIm

6689. A wow boatanchor link -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 12:20:30 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <i0SD7.50319$ez.6455303@news1.rdc1.nj.home.com>
Source record: 49037

now THAT's a boatanchor! it's going for over $12k -- had never seen one of these before
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289947335

6690. Re: Nye Viking SKM-1 keyer manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 17:36:02 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <6EWD7.121411$P8.42201711@news1.elmhst1.il.home.com>
Source record: 49038
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

William Nye Jr. (son) is still running the business in Idaho (Priest River,
I believe)
His phone number (411 directory probably has) I no longer have.

Had great conversation last year about his father's retirement business
and the repair parts I needed for an old SpeedX (I was restoring).
[No web site and no e-mail] Phone, fax and mail

He likely will have the documentation on file.
http://www.mtechnologies.com/nye/index.htm

Send Marshall Emm, N1FN at MorseX an e-mail for contact information
(Marshall may also have a copy)
sales@MorseX.com <sales@MorseX.com>

G. Beat
w9gb

<aa8wl@home.com> wrote in message news:3BD625DF.FF3975B0@home.com...
> Looking for a manual for the Nye Viking SKM-1. Thanks in advance.
> aa8wl@home.com
>

6691. Re: NERG Web Site will now incur a Cost

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 18:42:06 UTC
From: Rheilly Phoull <Rheilly@shredder.net>
Message-ID: <1004526578.663838@angelina.pe>
Source record: 49036

OK mate, whatever you say !!

--
Rheilly Phoull ....
"Jim Baxter" <baxter_family@bigpond.com> wrote in message
news:SXLD7.126$lh4.1375@newsfeeds.bigpond.com...
> Greg,
> Mail today says the NERG web site will incur a fee to be billed shortly of
<
> $50
> I will try and get you the letter to you but please ring if you want
> details sooner.
> 73
> JIm
>
>

6692. Re: Zero crossing detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 23:15:39 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9rq0mq$98d$2@woodrow.ucdavis.edu>
Source record: 49039

It would be much more practical if you gave us a clue as to the
application you want to use it for. Some of us would tell you to just use
a PLL and get on with your life. Check out the NE565 as an FM demodulator
if your looking for something simple.

cheers
skipp
http://sonic.ucdavis.edu

: petersaj <petersaj@notes.udayton.edu> wrote:
: I am trying to design a zero-crossing detector as an FM demodulator.
: I'm having trouble finding information on the subject. Anyone have
: any suggestions??

6693. Re: link to old tube manual

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-10-31 23:17:35 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9rq0qf$98d$3@woodrow.ucdavis.edu>
Source record: 49040

You can find the same manual along with other tube goodies on the
http://sonic.ucdavis.edu amateur radio page. You can add things to the
page by using the contact information there or Emailing me direct.

cheers
skipp
http://sonic.ucdavis.edu

: corny <nospam@newsranger.com> wrote:
: I found an old RCA tube manual on the net and will post the link below.
: RCA Radiotron Manual R-10, you can view the pages on the net or download it in
: zip or tar form, it is also there on adobe acrobat.
: Here is the link http://www.nmr.mgh.harvard.edu/~reese/RC10/

6694. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 01:28:01 UTC
From: Kirby <Kirby.no.spam@kpsnet.nospam.com>
Message-ID: <By1E7.149$zB2.16355@nnrp1.ptd.net>
Source record: 49041

Hmm - This thread has taken on a life of its own!!

Getting back to the REAL question -

www.ti.com has 150 Mhz DSP Evaluation Kits/Boards to play with - $250 or so

www.microchip.com has a new product called dsPIC.

Hope this helps.

<ZZZjim_cronin@juno.comZZZ> wrote in message
news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
> I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> What's out there that's reasonably complete and cheap?
>
> Thanks,
> Jim

6695. FS; TR-4C Tech Special Price REDUX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 04:00:43 UTC
From: rlucch2098@aol.com
Message-ID: <20011031230043.16113.00000958@mb-dd.aol.com>
Source record: 49042

Hi Guys;
I have only had a few queries but no takers so I've decided to make the price more tempting :-)
This rig is very much restorable if not for the parts alone!
Remember the price is PPD!
Tr-4C technicians special or parts.
it is complete except:
1- 1ea tubes are missing, 6AQ5, 6EJ7, 12AX7
2- the Larger of the two relays that are under the chassis is missing!
3- there are 5 xtal sockets right under the meters, only 2 xtals are present, the 35.5 & the 21.5, I think originally there were 4 or 5!
4- Most original cabinet screws are missing but enough to hold it together.
5- The top cover is "crumpled" right at the front, on top. The bottom is fine, all correct plastic feet.
6- Back has Vibro identification, seen in picture.
7- Front Panel is Excellent Plus!
Check the pictures please as I am selling this for Repair or Parts.
Well worth it in parts alone for $115.00 ppd Conus!
http://www.baltimorepress.com/~wa2rqy/tr4c-1.jpg
http://www.baltimorepress.com/~wa2rqy/tr4c-2.jpg

Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

6696. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 04:24:27 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <%74E7.55678$ez.7023274@news1.rdc1.nj.home.com>
Source record: 49043
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I modeled a switching supply which should be easy to build. Take a look at the application notes for the LM3524 pulse width modulator on the Nat Semi webiste (the "step up" configuration). You would 1/2 wave rectify the HV output of the existing transformer, and feed this as the DC input to the choke. A HexFET could be used to pump the inductor. I used a 10kHz frequency and 30% duty cycle and the output was a neat 200VDC. The inductor is 1mH and filter capacitor 200uF. You could fit all the above into about 1/2 the space of a 5U4G. The LM3524 will operate from a single supply which you should be able to pull off pretty easily. The low switching frequency means that you won't generate a lot of QRM.

"SAM" <scottm@netcommander.com> wrote in message
news:yoAD7.1842$tb2.158778@bin2.nnrp.aus1.giganews.com...
> Dean,
>
> You should be able to get 300V @ 100mA using a half wave voltage doubler
and
> use a separate filament transformer. I'm not sure if you can fit it in
your
> space, but breaking it up into two devices may help. The cost will
probably
> be less, too. A couple of 150 uF@450V , a couple of diodes, a surge
> resistor, and a few bleeder resistors should do the trick.
>
> I recently did this for a German tabletop radio I had bought with the
> transformer missing and it cost less than $15 including a Radio Shack pc
> board.
>
> Consult most any electronics book or the Radio Amateur Handbook for a
> schematic, or email me and I'll send one along to you.
>
> Good luck.
>
> Scott M.
> "K5DH" <k5dh@raytheon.com> wrote in message
> news:bGyD7.4$284.95@dfw-service2.ext.raytheon.com...
> > Greetings, tube-gear fans...
> >
> > I'm looking for a small HV power transformer:
> >
> > Primary: 110 VAC
> >
> > Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA

> > --- OR ---
> > 150 to 180 VAC without C.T. at 50 to 100 mA
> >
> > Filament: 6.3 VAC at 2 to 3 A
> > --- OR ---
> > 12.6 VAC center-tapped at 2 to 3 A
> >
> > Size: No more than 2-1/2" W x 3" D x 3" H
> >
> > The application is for the power supply in a homebrew 80m
> > and 40m tube-type VFO. After full-wave rectification and
> > some stiff filtering, I want to wind up with +200 to +250
> > VDC for the cathode follower and post-amp plate voltages,
> > and I'll use a VR tube to regulate the oscillator plate
> > voltage. I am very constrained on space in the cabinet
> > (which is why I specified that small of a physical size).
> > Anyone have something in that range that they can sell me?
> > Yes, I'm aware that Antique Electronic Supply and other
> > dealers sell new power transformers, but their cost is
> > astronomical. I'm trying to do this "on the cheap" with
> > all junkbox parts.
> >
> > 73,
> > Dean, K5DH
> > Visit my amateur radio web site at http://www.qsl.net/k5dh
> >
> >
>
>

6697. FS: RCA 7094 RF OUTPUT TUBE, Very Rare

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 04:30:19 UTC
From: rlucch2098@aol.com
Message-ID: <20011031233019.16113.00000963@mb-dd.aol.com>
Source record: 49044

Hi Guys;
I found one of these at an Estate of a Ham Radio collector.
It is an RCA 7094, used in the Hallicrafters HT-41 RF amplifier.
It may be used in other hear but unknown to me at present.
I have no way to test it but the Filiments show good and there are NO
"THINGIES" floating around in the glass envelope.
Price is $75ppd Conus
Here is a Picture of the Actual Tube>>
http://www.baltimorepress.com/~wa2rqy/rca7094.jpg
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6698. FS: RCA 7094 RF OUTPUT TUBE, Very Rare

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 04:30:24 UTC
From: rlucch2098@aol.com
Message-ID: <20011031233024.16113.00000964@mb-dd.aol.com>
Source record: 49045

Hi Guys;
I found one of these at an Estate of a Ham Radio collector.
It is an RCA 7094, used in the Hallicrafters HT-41 RF amplifier.
It may be used in other hear but unknown to me at present.
I have no way to test it but the Filiments show good and there are NO
"THINGIES" floating around in the glass envelope.
Price is $75ppd Conus
Here is a Picture of the Actual Tube>>
http://www.baltimorepress.com/~wa2rqy/rca7094.jpg
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

6699. Re: A wow boatanchor link -

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 15:59:36 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BE17168.C881A844@charter.net>
Source record: 49046

Yea never seen one like that either in the desk looks as though the desk has a johnson name tag also. sure is PRICEY.....

schatzie wrote:

> now THAT's a boatanchor! it's going for over $12k -- had never seen one of
> these before
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289947335

--
"We'll go to the utmost ends of the Earth to hunt down the last of Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6700. Re: Looking for DSP starter kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 16:10:07 UTC
From: Charles Reichert <kd9jq@mc.net>
Message-ID: <3BE173DF.F15226F6@mc.net>
Source record: 49047

Just took the T.I. C6711 DSP Starter Kit Class Tuesday.
Class costs $349 with the 150Mhz DSP Starter kit. The
kit alone is $299.
See;
http://www.ti.com/sc/docs/training/training.htm

I'm researching direct RF processing up to 30Mhz and higher,
but depends on the A/D I can come up with. Starter kit has
plugin connectors for external A/D. Currently only comes
with an audio Codec chip with 8khz sampling. I saw somewhere
a 24bit 600Mhz A/D with 115db dynamic range but misplaced
the bookmark. Sure hope to find that one again.

Chuck KD9JQ

Kirby wrote:

> Hmm - This thread has taken on a life of its own!!
>
> Getting back to the REAL question -
>
> www.ti.com has 150 Mhz DSP Evaluation Kits/Boards to play with - $250 or so
>
> www.microchip.com has a new product called dsPIC.
>
> Hope this helps.
>
> <ZZZjim_cronin@juno.comZZZ> wrote in message
> news:7arest0aluhs5doa43f2ikvkl2ikmiqria@4ax.com...
> > I'd like to tinker with DSP. Signals will be up to about 100 kHz.
> > What's out there that's reasonably complete and cheap?
> >
> > Thanks,
> > Jim

6701. OT test

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 18:23:27 UTC
From: "..." <someone@microsoft.com>
Message-ID: <3be19781$0$29583@fountain.mindlink.net>
Source record: 49048

TEST

"schatzie" <jdwalton@home.com> wrote in message
news:i0SD7.50319$ez.6455303@news1.rdc1.nj.home.com...
> now THAT's a boatanchor! it's going for over $12k -- had never seen one of
> these before
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289947335
>
>

6702. Re: 18V Battery Charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-01 21:45:51 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <jojE7.57913$ez.7581338@news1.rdc1.nj.home.com>
Source record: 49049

Try Texas Instruments Application Note U-131 on one of the Unitrode chips
the UC3906 http://www-s.ti.com/sc/psheets/slua055/slua055.pdf

"Ken Chafin" <kchafin1@pacbell.net> wrote in message
news:3BDF1A50.5BEFC2BB@pacbell.net...
> I need to power my laptop from a gel cell battery. My laptop requires
> 16V+, so I have made up some 18V gel cell batteries by placing a 6V and
> 12V gel cell (of similar AH capacity) in series. I need to fabricate a
> 18V gel cell battery charger. I've found circuit designs for a 12V
> charger but I don't know how to modify them to obtain 18V. Any ideas?
>
> Thanks,
>
> Ken
>
>

6703. Re: 18V Battery Charger

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 02:39:55 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <tu41s152vmvv66@corp.supernews.com>
Source record: 49050

"schatzie" <jdwalton@home.com> wrote in message
news:jojE7.57913$ez.7581338@news1.rdc1.nj.home.com...
> Try Texas Instruments Application Note U-131 on one of the Unitrode chips
> the UC3906 http://www-s.ti.com/sc/psheets/slua055/slua055.pdf

Also check out the ICs, circuits, and evaluation boards at:
http://dbserv.maxim-ic.com/appnotes10.cfm?filter=category#BATTERY MANAGEMENT

6704. Comments on 20mtr rai-beam

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 05:41:59 UTC
From: hexter@blazenet.net
Message-ID: <tu4ch7o37s2d85@corp.supernews.com>
Source record: 49051

I am wondering how you folks who have tried one feel. I had one contact with a fellow who was using the 20mtr rai-beam, and I was impressed at his signal level compared to others near him that I QSO'd with the same morning. I was all set to purchase a beam of my own, until I saw the price. Over $300 for a single band unit. Yikes. Do you folks feel it has 'bang for the buck' or should I just buy something more conventional, and at about 1/3 the cost?

TNX in advance KD3SH Gummi

6705. Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 08:59:30 UTC
From: cwsouth <cwsouth@telusplanet.net>
Message-ID: <01c162b2$a1c00020$c631b8a1@cwsouth>
Source record: 49052

Hi all;
For purely antiquarian purposes, I am building an older style crystal detector for my set.

Does any one have a picture such a detector or diagram of how to attach an electrode to the PbS (galena) slice?

I was looking to use silver epoxy to attach a wire, then mount the crystal in a brass mount.
I could plate a copper one on. Not sure.

The whisker is made from some stainless steel spring wire hooked to a brass binding post.
(Trying to find some old 78 needles has been a bust.)

thanks in advance. "73"

Clark Southoff
Calgary, Alberta

6706. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 11:06:58 UTC
From: mcalhoun@ksu.edu
Message-ID: <9rtuoi$6jt@unix2.cc.ksu.edu>
Source record: 49053

"cwsouth" <cwsouth@telusplanet.net> writes:
>For purely antiquarian purposes, I am building an older style crystal
>detector for my set.

>Does any one have a picture such a detector or diagram of how to attach an
>electrode to the PbS (galena) slice?

All I've ever owned were "embedded" in a metal which looks/feels/scratches
like lead. Then a spring-clip holds the lead chunk still so the "feeler"
can probe around on the crystal.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

6707. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 12:16:39 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BE28EA7.343A044C@coqui.net>
Source record: 49054

Myron A Calhoun wrote:
>
> "cwsouth" <cwsouth@telusplanet.net> writes:
> >For purely antiquarian purposes, I am building an older style crystal
> >detector for my set.
>
> >Does any one have a picture such a detector or diagram of how to attach an
> >electrode to the PbS (galena) slice?
>
> All I've ever owned were "embedded" in a metal which looks/feels/scratches
> like lead. Then a spring-clip holds the lead chunk still so the "feeler"
> can probe around on the crystal.
>
> --Myron.

Easiest bet is going to be to find an actual rock holder. You can get
them at AES http://www.tubesandmore.com or if you want a real vintage
one try Gary at PTOP http://www.oldradioparts.com ($30 min order!)
-Bill

6708. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 12:36:36 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <orwE7.185$D7.115374@news02.optonline.net>
Source record: 49055

Hi,

If you want to do it yourself here's more or less what you do.

Most home made holders had three or four brass screws coming in from the sides of a brass ring. They would clamp the crystal more or less in the center of the ring. Galena isn't all that tough so getting the right amount of clamp pressure is a matter of trial and error. It's a good idea to have some extra on hand before you start.

The probe whisker needs to be fairly sharp. You also need a reasonable way to adjust pressure. The traditional way was by bending the spring. You don't need a lot of pressure so a massive spring is not required.

What you are trying to do is create a small p-n junction at the point of the whisker. To little pressure and you have no real contact to the region. To much pressure and the crystal fragments rather than goes into p-n mode. A low current / low voltage ohm meter might be a handy tool to have around as you practice getting it right. You want one that puts out something like 200 mv or so and has a 10 Meg ohm scale.

On the clamp side you want to be sure you do not have a semiconductor. Again the ohm meter would be a nice tool to help figure out if you have it right.

Of course there's the time honored method of just fiddling with it until it works or you give up.

Hope that helps

Bob Camp
KB8TQ

"cwsouth" <cwsouth@telusplanet.net> wrote in message
news:01c162b2$a1c00020$c631b8a1@cwsouth...
Hi all;
For purely antiquarian purposes, I am building an older style crystal detector for my set.

Does any one have a picture such a detector or diagram of how to attach an electrode to the PbS (galena) slice?

I was looking to use silver epoxy to attach a wire, then mount the crystal in a brass mount.
I could plate a copper one on. Not sure.

The whisker is made from some stainless steel spring wire hooked to a brass binding post. (Trying to find some old 78 needles has been a bust.)

thanks in advance. "73"

Clark Southoff
Calgary, Alberta

6709. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 18:12:50 UTC
From: Christopher McNabb <cmcnabb@vt.edu>
Message-ID: <9runn3cre1@solaris.cc.vt.edu>
Source record: 49056

I found a place on the net that sells 78 rpm needles (I needed some for my
78 RPM wind-up). Can't remember where it was but search on victrola needls
or record needles or something like that. You'll find it.

cwsouth wrote in message <01c162b2$a1c00020$c631b8a1@cwsouth>...
>Hi all;
>For purely antiquarian purposes, I am building an older style crystal
>detector for my set.
>
>Does any one have a picture such a detector or diagram of how to attach an
>electrode to the PbS (galena) slice?
>
>I was looking to use silver epoxy to attach a wire, then mount the crystal
>in a brass mount.
>I could plate a copper one on. Not sure.
>
>The whisker is made from some stainless steel spring wire hooked to a brass
>binding post.
>(Trying to find some old 78 needles has been a bust.)
>
>thanks in advance. "73"
>
>Clark Southoff
>Calgary, Alberta
>

6710. Crystal set parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 19:50:58 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <eLCE7.9643$ND1.696844@brie.direct.ca>
Source record: 49057

78 needles & crystal parts located. Will contact you again within a few hours. VE7AFN/M.

--
CERTIFIED 100 % ANTHRAX FREE

6711. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 20:11:33 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <xPefwFA13v47EwCF@langwang.demon.co.uk>
Source record: 49069

> Does any one have a picture such a detector or diagram of how to
> attach an electrode to the PbS (galena) slice?
>
> I was looking to use silver epoxy to attach a wire, then mount the crystal
> in a brass mount.
> I could plate a copper one on. Not sure.
>
> The whisker is made from some stainless steel spring wire hooked to a
> brass binding post.
> (Trying to find some old 78 needles has been a bust.)
Hi Clark,
The following books all have info on xtal detector construction:

1. High Power Wireless Equipment - Articles from Practical Electricity
1910-11
2. The Very Best From The Electrical Experimenter 1916-1917

both above reprinted by Lindsay Publications Inc.

3. Early Radio Wave Detectors V J Phillips Publ. Peter Peregrinus Ltd 1980
ISBN: 0 906048 24 9
(and you just wouldn't believe some of the detectors described in here - how
about wires connected to your teeth & detection by taste changes ..... !!!!)

Another of those useless facts that get in the brain & stay there is something
I saw once about how the very fine point on a cat's whisker wire can be
made by using the wire as a terminal in a crude electrolysis cell. Can't
remember any more but someone else might - Scientific American Amateur
Scientist article ????
--
Dick
GM0MNL

6712. Re: Crystal set parts

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-02 23:39:05 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <66GE7.9679$ND1.707668@brie.direct.ca>
Source record: 49058

```
--
CERTIFIED 100 % ANTHRAX FREE
John S. MacKay <k35454@direct.ca> wrote in message
news:eLCE7.9643$ND1.696844@brie.direct.ca...
> 78 needles & crystal parts located. Will contact you again within a few
> hours. VE7AFN/M.
>
> --
> CERTIFIED 100 % ANTHRAX FREE
>
>

OK. I am back. Received your post and wondered if you
needed a half-dozen 78rpm needles (used) no charge. I also have some
packages new, and for the benefit of anyone else reading, 4 detector
assemblies complete with crystals, and 4 factory built coils with sliders.
VE7AFN/M.
```

6713. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 00:16:20 UTC
From: inagaddadavida@webtv.net
Message-ID: <5627-3BE33754-311@storefull-116.iap.bryant.webtv.net>
Source record: 49059

when i was a kid a long LONG time ago, we used a circle cut off of a piece of coper pipe. take 1 inch length of 3/4 pipe and cut several cuts 1/2 inch deep into one end. two mounting lugs were bent out from the cut sections to provide secure mounting. the other sections were bent in to provide a bottom. this leaves you with a 1/2 inch tall copper cup with two lugs bent out at the bottom. grind your galena to fit with space all around and a groove to provide a secure hold. heat everything with a torch and fill with solder to the top, leaving the top of the galena sticking out.
the cats whisker is a diaper pin (remember those?). works great.

6714. Need 250TL specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 02:25:37 UTC
From: Muuga <tidalforce@hotmail.com>
Message-ID: <mzIE7.1603$Go2.92486@e3500-atl2.usenetserver.com>
Source record: 49060

I have a "Lewis and Kaufman" JAN-CBOP-250TL
tube ,
I tried the search engines to see If I could find the specs on this
tube, like heater voltage &amp ,max plate voltage ,plate dissipation
etc.
to no avail ,if you have any old charts that give the specs , I
would appreciate it
if you post it here ,
Its still in this metal cage thingy , the tube is supported by 8 springs , I
guess the box it came in detoriated
Thanks

6715. Re: Comments on 20mtr rai-beam

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 02:34:00 UTC
From: Mark Dulcey <mark@buttery.org>
Message-ID: <3BE35798.3000901@buttery.org>
Source record: 49061

gudmundur wrote:

> I am wondering how you folks who have tried one feel. I had one
> contact with a fellow who was using the 20mtr rai-beam, and I was
> impressed at his signal level compared to others near him that I
> QSO'd with the same morning. I was all set to purchase a beam of my
> own, until I saw the price. Over $300 for a single band unit. Yikes.
> Do you folks feel it has 'bang for the buck' or should I just buy
> something more conventional, and at about 1/3 the cost?

One third the cost? Where??

That would seem to imply that you have a source for monoband beams for $100. I don't know of any, and certainly not for 20 meters. You could probably buy a CB beam for that price and adjust it for 10 or 12 meters, but I don't even know of any beam actually manufactured for 10 meter use that you can buy for $100.

6716. FS: Mobile Tube Amp

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 02:48:27 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <%VIE7.36058$ya.7636246@news1.busy1.on.home.com>
Source record: 49062
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb,rec.radio.swap

this is on cool looking little amp....am tolf it puts out 60-100w but can be increased by changing the tubes

pictures http://members.kingston.net/sgale/mobiletub.jpg

http://members.kingston.net/sgale/mobtubinside.jpg

$75.00 + shipping

6717. Re: Need 250TL specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 03:01:37 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <k6JE7.19$Od5.158872@news2.randori.com>
Source record: 49063

plate dissipation = 250 W
Ep =4 kV
Ip = 350 mA
Ig = 35 mA
Fmax = 40 MHz
amplification factor = 14
Filament 5 V @ 10.5 A
input Cap = 3.7 pf
g-p Cap = 3.0 pf
output Cap = 0.7 pf

Base 2N

hope this helps, source = 1964 Radio Amatuers Handbook, page V29

"Muuga" <tidalforce@hotmail.com> wrote in message
news:mzIE7.1603$Go2.92486@e3500-atl2.usenetserver.com...
> I have a "Lewis and Kaufman" JAN-CBOP-250TL
> tube ,
> I tried the search engines to see If I could find the specs on this
> tube, like heater voltage &amp ,max plate voltage ,plate dissipation
> etc.
> to no avail ,if you have any old charts that give the specs , I
> would appreciate it
> if you post it here ,
> Its still in this metal cage thingy , the tube is supported by 8 springs ,
I
> guess the box it came in detoriated
> Thanks
>
>
>
>

6718. Re: Need 250TL specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 04:06:28 UTC
From: Muuga <tidalforce@hotmail.com>
Message-ID: <W1KE7.2205$Go2.117920@e3500-atl2.usenetserver.com>
Source record: 49064

> hope this helps, source = 1964 Radio Amatuers Handbook, page V29
>
yep, thanks!

6719. REQ: Someone to build QST Circuit for $$$

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 08:03:29 UTC
From: Les Rayburn <les@highnoonfilm.com>
Message-ID: <tu79g7r7nkl533@corp.supernews.com>
Source record: 49065

Looking for a helpful ham willing to help out
the "soldering iron challenged"...I'd like to
experiment with the AMRAD Active Antenna
featured in the September 2001 issue of
QST magazine, (Page 31) but just don't have
the time, skills, or patience to complete the
circuit.

If you'd be willing to construct the circuit, complete
with the interior enclosure, etc...I'd be happy to
pay for parts, labor, and aggravation!

If you're interested in this project, please contact
me via e-mail as I only rarely check this group.
Serious inquiries only please...thanks and
73...

Les Rayburn, N1LF
les@highnoonfilm.com

6720. Re: Murphy B40 RXVR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 10:41:06 UTC
From: Richard Jary <jary@ozemail.com.au>
Message-ID: <3BE3C9C2.30D30A8F@ozemail.com.au>
Source record: 49066
Cross-posted to: aus.radio.amateur.misc,aus.radio.cb,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi Andre

I know someone with heaps here in Sydney, but he may know someone in Melbourne
who has one. I will forward your email on (he won't be back until next week)

Richard

Andre wrote:

> Wanted in Aus...
> If anyone has one of these they would like to sell, prefer working in if
> possiable in Victoria (they weigh 100lb..the postage would kill me!) please
> email me
> Cheers
> ANDRE

6721. Re: Need Heathkit manual.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 12:39:05 UTC
From: DJ6JZ <DJ6JZ@compuserve.de>
Message-ID: <3be3e6b4_1@news.arcor-ip.de>
Source record: 49067

VE7IJQ <lookup@acallsign.com> schrieb in im Newsbeitrag:
frpsttoad70pqcd40ra4et13lp9b48tpdi@4ax.com...
> On Sun, 28 Oct 2001 18:58:54 GMT, ve1arn@qsl.net (Bob, VE1ARN) wrote:
>
snip
> >Anyone out there have a manual or copy that could be parted with?

You could try http://www.radio-portal.org

Click on "Search in broad" and combine the categories
"Manuals and Schematics"
AND
"Vintage and Antique Electronic"

Good luck!
Willi, DJ6JZ

6722. Capital FM - Jingle

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 14:27:40 UTC
From: muenchen23 <muenchen23@talknet.de>
Message-ID: <VhSE7.6214$t04.637331601@news.tli.de>
Source record: 49068
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.amateur

Hi there,

does anyone know where I can download jingles from 95,8 Capital FM's radio station? Would be great if you could quickly let me know at muenchen23@talknet.de

Many thanks !!!

6723. Re: Capital FM - Jingle

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 16:01:14 UTC
From: Simon <mail@simonfoy.com>
Message-ID: <CyUE7.6077$CI3.1498679@news6-win.server.ntlworld.com>
Source record: 49070
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.amateur.space,uk.radio.amateur

"muenchen23" <muenchen23@talknet.de> wrote in message
news:VhSE7.6214$t04.637331601@news.tli.de...
> Hi there,
>
> does anyone know where I can download jingles from 95,8 Capital FM's radio
> station? Would be great if you could quickly let me know at
> muenchen23@talknet.de
>
> Many thanks !!!
Try www.audiogalaxy.com

I have one or two if you want me to send them to you.

Kindest regards

Simon

6724. Re: Need 250TL specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 17:07:17 UTC
From: mjsilva697@earthlink.net
Message-ID: <27085883.0111030907.41b230d9@posting.google.com>
Source record: 49072

Try looking here:

http://www.nj7p.org/cgi-bin/tube

73,
Mike, KK6GM

"Muuga" <tidalforce@hotmail.com> wrote in message
news:<mzIE7.1603$Go2.92486@e3500-atl2.usenetserver.com>...
> I have a "Lewis and Kaufman" JAN-CBOP-250TL
> tube ,
> I tried the search engines to see If I could find the specs on this
> tube, like heater voltage &amp ,max plate voltage ,plate dissipation
> etc.
> to no avail ,if you have any old charts that give the specs , I
> would appreciate it
> if you post it here ,
> Its still in this metal cage thingy , the tube is supported by 8 springs , I
> guess the box it came in detoriated
> Thanks

6725. newbie wants project help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 17:08:12 UTC
From: Rob Crandall <crandall@ee.net>
Message-ID: <0wVE7.158$OM5.1964@news>
Source record: 49071

I am still studying for my ticket and want to build a 6 meter transceiver.Is there any simple stupid plans out there that I could get the items from Radio Shack? I'm fairly handy but don't have any electrical knowledge.Please help all.I'm looking at build up my knowledge in this field as I enjoy building stuff.
Thanks All!
Rob

--
Sure I'll get a life,
Just as soon as I download one!

6726. CQ HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 17:52:00 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <bsa1s9.ksc.ln@darkstar.localdomain>
Source record: 49074

Hello all,

Do any of you homebrewers ever find time to transmit? We have a
very active homebrew net here (Western Europe) on 3.727MHz. It would
be nice to work some homebrewers from other parts of the world.

Propagation has been really good on 10M lately. If anybody would
like to attempt a contact, I will be listening on 28.985MHz for
most of tomorrow afternoon. From about 15:00 UTC/GMT onwards....
Oops! I should mention that tomorrow is Sunday 4th Nov. 2001.

Send an e-mail if you want to make a SKED. Remove the X from
in front of my reply address.

73, Ed. EI9GQ. Cork Ireland. IO51TV.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.13

6727. Re: newbie wants project help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 19:56:18 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3be44b65_2@newsa.ev1.net>
Source record: 49073

Ten-Tec has serveral "kits", that might interest you.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Rob Crandall" <crandall@ee.net> wrote in message
news:0wVE7.158$OM5.1964@news...
> I am still studying for my ticket and want to build a 6 meter
transceiver.Is
> there any simple stupid plans out there that I could get the items from
> Radio Shack? I'm fairly handy but don't have any electrical
knowledge.Please
> help all.I'm looking at build up my knowledge in this field as I enjoy
> building stuff.
> Thanks All!
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!
>
>

6728. mike element

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-03 22:02:51 UTC
From: medlas@ma.ultranet.com
Message-ID: <9s1pi4$dh4$1@bob.news.rcn.net>
Source record: 49075

Hi , Does anyone know where I can buy a mike element for an HTX100 RadShack 10M rig? Suitable substitute?

Many Thanks,

Ray

6729. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 00:24:22 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <WU%E7.3043$Y6.184833@news1.rdc1.ct.home.com>
Source record: 49076

The Galena ore is normally mounted in a slug of Wood's Metal, which has a melting point below that of boiling water. Trick melting spoons were made of the same material and sold by gag shops many years ago. You can buy mounted galena ore from vendors, or you can fashion a simple clamp to hold the ore.

Don't use something sharp and stiff like a phono needle to probe the ore, that is fine for silicon detectors. Galena is soft, and you will quickly ruin the sensitive spots with something that hard. Look for some fine brass wire and make a pig take arrangement for probing the surface. Many hardware stores sell a fine brass wire for hanging pictures that is ideal for the purpose. You may have to clean the galena with some pure alcohol, if the sample is old, to remove oxidation before it will work.

Peter

"cwsouth" <cwsouth@telusplanet.net> wrote in message
news:01c162b2$a1c00020$c631b8a1@cwsouth...
Hi all;
For purely antiquarian purposes, I am building an older style crystal detector for my set.

Does any one have a picture such a detector or diagram of how to attach an electrode to the PbS (galena) slice?

I was looking to use silver epoxy to attach a wire, then mount the crystal in a brass mount.
I could plate a copper one on. Not sure.

The whisker is made from some stainless steel spring wire hooked to a brass binding post. (Trying to find some old 78 needles has been a bust.)

thanks in advance. "73"

Clark Southoff
Calgary, Alberta

6730. IOTA List Updated 04-Nov-2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 00:54:29 UTC
From: Charles Johnston <ctj92@cableone.net>
Message-ID: <3be491c5$1@news.bnb-lp.com>
Source record: 49077

The free downloadable IOTA List has been updated to reflect NA-221
(Veracruz State North Group). It is a 15k zip file and also includes
the Top Ten Most Wanted IOTA's for each group.....

Found on the IOTA List Page of the web site listed below....

--

73 / DX

Charles T Johnston
charles@ab7sl.com

AB7SL - Ham Radio Pages
Official W9INN Antennas Page
www.ab7sl.com

6731. Permakay filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 00:59:16 UTC
From: rabhscb@yahoo.com
Message-ID: <6e492b90.0111031659.6ceb6362@posting.google.com>
Source record: 49078

Does anyone know where I can get information and specs for Motorola
permakay filters?
thanks for your help

6732. Re: Permakay filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 01:27:44 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <jQ0F7.1202$eU1.22263942@news2.randori.com>
Source record: 49079

good question

Motorola would not even provide their shops with any info, it was a
permanently warranted item, if you had a bad one, you sent it in and they
replaced it.

sorry

"bcsmag" <rabhscb@yahoo.com> wrote in message
news:6e492b90.0111031659.6ceb6362@posting.google.com...
> Does anyone know where I can get information and specs for Motorola
> permakay filters?
> thanks for your help
>

6733. HELP DRAKE.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 01:56:30 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BE4A04E.C4C090D8@charter.net>
Source record: 49080

hi
i really need some help...
i don't have all the cables to connect drake t4xb r4a does anyone by

chance have a diagram on how to hook these two together the one on Bama
web site is really unclear can't see pic. will i need to make special
cables? only have one... rca on one end pl259 on other end.
all your help would be greatly appreciated.
thanks chris ni4l

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6734. Re: HELP DRAKE.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 03:29:54 UTC
From: rcnixon@mindspring.com
Message-ID: <3be4b5af.1602084@news.mindspring.com>
Source record: 49081

Go to this board and ask there. There are also downloadable files on
the site that can help. They have been helpful to me.

Russ - Proud owner of a real good TR7

http://www.zerobeat.net/wwwboard/drake/
CF <ni4l@charter.net> wrote:

>hi
>i really need some help...
>i don't have all the cables to connect drake t4xb r4a does anyone by
>
>chance have a diagram on how to hook these two together the one on Bama
>web site is really unclear can't see pic. will i need to make special
>cables? only have one... rca on one end pl259 on other end.
>all your help would be greatly appreciated.
>thanks chris ni4l
>
>--
>"We'll go to the utmost ends of the Earth to hunt down the last of
>Satan's spawn. . ." William Pierce 1978
>
>"Chance favors the prepared mind." Louis Pasteur
>
>

6735. Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 04:25:40 UTC
From: burnt-kat <burnt-katNOT@home.com>
Message-ID: <8r3F7.155151$Pr1.41544744@news1.rdc1.tn.home.com>
Source record: 49082

I want to build a device that will enable me to combine inputs from a 2m and a 70cm antenna into the one BNC connection on my HT. I believe this would be a duplexer?

6736. Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 04:37:01 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <NB3F7.1419$ls3.26414250@news2.randori.com>
Source record: 49083

no, its an antenna coupler

probably consisting of two band-pass filters to a common connector

a 'duplexer' permits simultaneous transmit and receive on one antenna

a 'diplexer' combines two transmitters into a common antenna

whereas you simply want to couple two antennas into one HT, but will be
using only one frequency (or one band, anyway) at a time

"burnt-kat" <burnt-katNOT@home.com> wrote in message
news:8r3F7.155151$Pr1.41544744@news1.rdc1.tn.home.com...
> I want to build a device that will enable me to combine inputs from a 2m
and
> a 70cm antenna into the one BNC connection on my HT. I believe this would
be
> a duplexer?
>
>
>
>

6737. TM 702 HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 07:46:34 UTC
From: sv2bxc <spkintz@the.forthnet.gr>
Message-ID: <1004859941.584795@athnrd02.forthnet.gr>
Source record: 49084

Does anyone know if and how i can do Kenwood' s TM 702 to work as a
crossband repeater (link)?
Thank you indeed and best 73s!

6738. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 10:45:47 UTC
From: cwsouth <cwsouth@telusplanet.net>
Message-ID: <01c1651e$3f451200$fb31b8a1@cwsouth>
Source record: 49086

I'd like to thank you for all the replies.
I have found some information at a museum. I'll have to find the time to go and pick it up.
When I get it finished I'll find a site to post it.

Thanks again
73
Clark Southoff

Peter J. Bertini <commquart@home.com> wrote in article <WU%E7.3043$Y6.184833@news1.rdc1.ct.home.com>...
The Galena ore is normally mounted in a slug of Wood's Metal, which has a melting point below that of boiling water. Trick melting spoons were made of the same material and sold by gag shops many years ago. You can buy mounted galena ore from vendors, or you can fashion a simple clamp to hold the ore. Don't use something sharp and stiff like a phono needle to probe the ore, that is fine for silicon detectors. Galena is soft, and you will quickly ruin the sensitive spots with something that hard. Look for some fine brass wire and make a pig take arrangement for probing the surface. Many hardware stores sell a fine brass wire for hanging pictures that is ideal for the purpose. You may have to clean the galena with some pure alcohol, if the sample is old, to remove oxidation before it will work.
Peter
"cwsouth" <cwsouth@telusplanet.net <mailto:cwsouth@telusplanet.net>> wrote in message news:01c162b2$a1c00020$c631b8a1@cwsouth <news:01c162b2$a1c00020$c631b8a1@cwsouth>...
Hi all;
For purely antiquarian purposes, I am building an older style crystal detector for my set.

Does any one have a picture such a detector or diagram of how to attach an electrode to the PbS (galena) slice?

I was looking to use silver epoxy to attach a wire, then mount the crystal in a brass mount.
I could plate a copper one on. Not sure.

The whisker is made from some stainless steel spring wire hooked to a brass binding post.
(Trying to find some old 78 needles has been a bust.)

thanks in advance. "73"

Clark Southoff
Calgary, Alberta

6739. Re: need manual for dx60a

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 11:15:46 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <3BE52362.F36DB977@ccp.com>
Source record: 49085

kenneth m cubilo wrote:
>
> anyone out there refresh my memory of the site that has online manuals?
> thanks ken w8ob

There are several, W7FG is one. I think HI-Manuals out of council
Bluffs is still around, but he uses snail mail. do a search on Google

If you don't find anything, I have a manual I could copy, but that gets
expensive.

Gary Hildebrand WA7KKP

6740. headphone circut

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 14:04:18 UTC
From: johnn3twn@aol.comnospam
Message-ID: <20011104090418.22899.00001636@mb-fq.aol.com>
Source record: 49087

Greetings all.....I remember seeing a circut having only a handfull of components that was intended to allow one to use "walkman" style headphones on a reciever requiring Hi Z phones (a crystal set, for example).....
Now that I'd like to duplicate that circut, naturally, I can't find it....can any one point me in the right direction...?
Thanks and 73 from Frederick, Maryland....de N3TWN

6741. Re: headphone circut

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 14:44:58 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <KvcF7.172363$W8.5467516@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49088

radio shack may have small xmfrs, 8 ohm-1000 ohm or 8 ohm-2000 ohm that
should possibly do the job...also check out the xtal set society web page as
well as other xtal set radio pages..N3TWN <johnn3twn@aol.comnospam> wrote in
message news:20011104090418.22899.00001636@mb-fq.aol.com...
> Greetings all.....I remember seeing a circut having only a handfull of
> components that was intended to allow one to use "walkman" style
headphones on
> a reciever requiring Hi Z phones (a crystal set, for example).....
> Now that I'd like to duplicate that circut, naturally, I can't find
it....can
> any one point me in the right direction...?
> Thanks and 73 from Frederick, Maryland....de N3TWN

6742. Re: mike element

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 14:47:41 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <hycF7.172372$W8.5467830@bgtnsc04-news.ops.worldnet.att.net>
Source record: 49089

go to a hamfest or flea mkt & pick up a few junk cb mikes--one of the
elements should work
Ray Fennessey <medlas@ma.ultranet.com> wrote in message
news:9s1pi4$dh4$1@bob.news.rcn.net...
> Hi , Does anyone know where I can buy a mike element for an HTX100
RadShack
> 10M rig? Suitable substitute?
>
> Many Thanks,
>
> Ray

6743. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 15:13:28 UTC
From: Marty <nfn04028@naples.net>
Message-ID: <sWcF7.14406$hZ.1389100@newsread2.prod.itd.earthlink.net>
Source record: 49090

Speaking of oxidation: Used to make "crystal" detectors with a rusty thumbtack. Worked amazingly well.
"Peter J. Bertini" <commquart@home.com> wrote in message
news:WU%E7.3043$Y6.184833@news1.rdc1.ct.home.com...
The Galena ore is normally mounted in a slug of Wood's Metal, which has a melting point below that of boiling water. Trick melting spoons were made of the same material and sold by gag shops many years ago. You can buy mounted galena ore from vendors, or you can fashion a simple clamp to hold the ore.

Don't use something sharp and stiff like a phono needle to probe the ore, that is fine for silicon detectors. Galena is soft, and you will quickly ruin the sensitive spots with something that hard. Look for some fine brass wire and make a pig take arrangement for probing the surface. Many hardware stores sell a fine brass wire for hanging pictures that is ideal for the purpose. You may have to clean the galena with some pure alcohol, if the sample is old, to remove oxidation before it will work.

Peter

"cwsouth" <cwsouth@telusplanet.net> wrote in message
news:01c162b2$a1c00020$c631b8a1@cwsouth...
Hi all;
For purely antiquarian purposes, I am building an older style crystal detector for my set.

Does any one have a picture such a detector or diagram of how to attach an electrode to the PbS (galena) slice?

I was looking to use silver epoxy to attach a wire, then mount the crystal in a brass mount.
I could plate a copper one on. Not sure.

The whisker is made from some stainless steel spring wire hooked to a brass binding post. (Trying to find some old 78 needles has been a bust.)

thanks in advance. "73"

Clark Southoff
Calgary, Alberta

6744. HP Wave Analyzer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 15:17:13 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tuamvull504m03@corp.supernews.com>
Source record: 49091

Back in the 1960s HP made 2 wave analyzers. The 302A and the 310A. The
302 covers 20 cps to 50Kc and the 310 covers 1 kc to 1.5 mc. Apart from the
coverage the differnces to me don't appear that great. Can anyone recall
using these things and which is best for which application. I'm wondering
if anyone has used either as a VLF receiver. I know they don't have AVC and
wonder what other mods might make sense.
Tnx
Hank wd5jfr

6745. Re: newbie wants project help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 17:52:57 UTC
From: burnt-kat <burnt-katNOT@home.com>
Message-ID: <ZffF7.156782$Pr1.42007795@news1.rdc1.tn.home.com>
Source record: 49092

If you have no electrical knowledge, I'd strongly advise buying a radio.

"Rob Crandall" <crandall@ee.net> wrote in message
news:0wVE7.158$OM5.1964@news...
> I am still studying for my ticket and want to build a 6 meter
transceiver.Is
> there any simple stupid plans out there that I could get the items from
> Radio Shack? I'm fairly handy but don't have any electrical
knowledge.Please
> help all.I'm looking at build up my knowledge in this field as I enjoy
> building stuff.
> Thanks All!
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!
>
>

6746. Re: newbie wants project help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 18:10:10 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BE58482.E65C6AC6@ay.com.au>
Source record: 49093

burnt-kat wrote:
>
> If you have no electrical knowledge, I'd strongly advise buying a radio.

I agree, taking on a TRX as a first project is likely to end in tears.

Kits are probably best to start with. However, if you are set on 100%
homebrew, how about trying a simple 6m direct conversion RX for
starters. Or maybe something down in low HF (say 80m) where things are
cheaper and less critical?

I think making an RX first is important. Most people consider RXs to
be fundamentally hard, much more so than TX. This isn't really true,
while making an outstanding RX is hard, making one that mearly works
well is quite easy.

Getting a few RXs under your belt helps build up your confidence. RX
are also fairly instant gratification, a TX is useless if you are deaf.
If you build them right you can build a matching TX later using the same
LO.

Just my 2c anyway.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (87% of Full)

6747. FA: Nice big SUPERIOR 230VAC Variac, Last Chance,> tonight

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 19:35:16 UTC
From: rlucch2098@aol.com
Message-ID: <20011104143516.16932.00001286@mb-fd.aol.com>
Source record: 49094

only at $76, many pics>>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289792343

6748. fa> Eico 717 electronic keyer w/tubes. A beauty @$66, works, Tonight!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 19:39:49 UTC
From: rlucch2098@aol.com
Message-ID: <20011104143949.16932.00001293@mb-fd.aol.com>
Source record: 49096

checxk the pics
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1289792338

6749. Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 21:12:14 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <OaiF7.38291$ya.8189841@news1.busy1.on.home.com>
Source record: 48947
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

anyone have any experience with this amp or any models close to it....seems to generate about 100w from a 4w input....uses a EL519 Final tube

http://members.kingston.net/sgale/pics/alank1313hi.jpg

http://members.kingston.net/sgale/pics/alank13134.jpg

6750. Need Isoloop LC-1 schematic diagram

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 21:48:40 UTC
From: Will NR6Z <wonil_lim_1@email.msn.com>
Message-ID: <Oir9CqXZBHA.1344@cpimsnntpa03>
Source record: 48948

Could someone scan a copy of LC-1 controller
schematic diagram and send it to me by email ?
I would appreciate it very much.

Thanks,
Will NR6Z
nr6z@yahoo.com

6751. Re: HP Wave Analyzer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 22:33:56 UTC
From: la8ak@online.no
Message-ID: <3be5923c.349393372@news.online.no>
Source record: 48949

On Sun, 4 Nov 2001 09:17:13 -0600, "Henry Kolesnik"
<wd5jfr@oklahoma.net> wrote:

>Back in the 1960s HP made 2 wave analyzers. The 302A and the 310A. The
>302 covers 20 cps to 50Kc and the 310 covers 1 kc to 1.5 mc. Apart from the
>coverage the differnces to me don't appear that great. Can anyone recall
>using these things and which is best for which application. I'm wondering
>if anyone has used either as a VLF receiver. I know they don't have AVC and
>wonder what other mods might make sense.
>Tnx
>Hank wd5jfr
>
>
The 302 has very low bandwidth, so I suspect you cannot use it for
listening to radio signals, believe we used it for measuring
24/32channel telex and alarm systems on telephone lines where the
shift is only 60Hz and it was important to see the difference between
MARK and SPACE, didin't use it much because we had a Walter&Goltermann
SPM-1 with MARK/SPACE frequencies for the different channels marked on
the scale

73,
Jan-Martin
LA8AK

6752. RF and HV components and much more

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 22:37:01 UTC
From: Bob Levitt <parts@3web.net>
Message-ID: <3be59903@news.cybersurf.net>
Source record: 49095
Cross-posted to:
rec.radio.swap,alt.ham-radio.marketplace,rec.radio.amateur.homebrew,alt.electronics,uk.radio.amateur,rec.radio.amateur.misc

http://www.geocities.com/myjunkboxes is my 30 year accumulation of
electronic components for sale

Coaxial Power switch,
RF power and other transistors, RF I.C.'s, non-inductive power resistors,
Minicircuits power combiners/splitters, ceramic 455kHz and 460kHz filters,

variable capacitors, both panel mount shaft type and trimmer
variable inductors and coil forms, RF feedthrough and standoff capacitors,

High voltage: VACUUM RELAYS, RECTIFIERS, resistors and capacitors,

Other capacitors including, Photoflash, polypropylenes, tantulums,

Switches, such as foot switches and industrial limit (micro) switches,

Ferrites cores, Transformers and inductors,

Transistors for power audio amplifiers and television deflection,
Super fast (35ns) 1 and 3 amp rectifiers, and lots, lots more.

Bob Levitt

6753. Re: headphone circut

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 22:40:59 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <FAjF7.16690$CI3.2872181@news6-win.server.ntlworld.com>
Source record: 48950

"JohnN3TWN" <johnn3twn@aol.comnospam> wrote in message
news:20011104090418.22899.00001636@mb-fq.aol.com...
> Greetings all.....I remember seeing a circut having only a handfull of
> components that was intended to allow one to use "walkman" style
headphones on
> a reciever requiring Hi Z phones (a crystal set, for example).....
> Now that I'd like to duplicate that circut, naturally, I can't find
it....can
> any one point me in the right direction...?
==========
On the assumption that 'walkman' style headphones have an impedence
(usually valid for 1000 Hz) of approx 32 Ohms and a receiver requiring Hi Z
phones prefers to see approx 2000 Ohms ,
,you would need an impedence transformer of 32 to 2000 Ohms or about .
The transformer for this job with windings n1 and n2 would need to have a
winding ratio n1/n2 ,whereby n1/n2 = sqrt 32 / sqr 2000 = 0.126 or
n2/n1=7.9 say 8

It means the high impedence side of the transformer is to have about 8 times
as many windings as the low impedence side.

Since this is not a HI-FI job you can try a small power transformer say 115
/ 15 or any small transformer with a winding ratio of this order of
magnitude ,it's not all that critical .
Perhaps you find some small transformers in an old transistor radio . Or
even a small loudspeaker transformer from an old valve BC radio .
To check the winding ratio of an unknown transformer , put 1 V, 50 or 60Hz
(from another transformer with the primary connected to a Variac if
necessary) and check the output of the other winding ....Use a digital
AC voltmeter.

This is not Hi-Tech stuff ,but the method can give you an acceptable
impedence transformer for a simple non critical application.

Good Luck

Frank gm0csz.kn6wh@ntlworld.com

6754. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-04 23:11:38 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <NXjF7.16823$CI3.2894897@news6-win.server.ntlworld.com>
Source record: 48951

> anyone have any experience with this amp or any models close to
it....seems
> to generate about 100w from a 4w input....uses a EL519 Final tube
==========
The EL519 is a TV sweep tube with 6.3 V filament voltage . Even better known
is the PL519 ,filament current 200 mA (approx 40 V)
It is similar to the 6KD6 valve found in various Yaesu transceivers from the
1960s

Although 100 Watts output for 1 valve is possible (with very good cooling)
,it is better to put 2 in parallel,
operating them with no more than 600 V on the anodes. In this way you get a
good 'Ham life' out of these valves.
Apart from the Yaesu radios ,eg FT-200 /-400/-401 etc. there are a number
of homebrew designs by PA0FRI using these valves , published in Electron
(VERON -Netherlands) and also in Radcom (RSGB- UK)

Frank gm0csz.kn6wh@ntlworld.com

6755. 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 00:39:27 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <3dlF7.97649$WW.5600973@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48952

any sites describing how to make a 9:1 tx balun?

6756. AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 00:55:49 UTC
From: Steve <esteve@hctc.com>
Message-ID: <tubsa1bdb0kt26@corp.supernews.com>
Source record: 48954
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I picked up a box of Ham radio gear at a estate sale (old friend), felt sorry for the widow, you know.

I'm not a Ham but thinking about it some since I was a kid.

Anyway what I got was a AEA CP-1 set up for a Commodore 64 and a Heathkit HD3006 Crossfire Scope.

Now I know technology has advanced and the Commodore has been replaced with PCs..

Do I have anything here worth messing around with if I just want to DX CW and RTTY. I did a Google on the CP-1 and no one has discussed it since 1997. It seems to use it with a PC, I have to do so some wiring tricks with the RS232 cable coming out of the CP-1 and I need some software.

Does anyone have any recommendation on public domain software and the wiring changes for the RS232 cable.

Or should I just salvage the cables and start thinking about Pactor (someday).

Thanks

Steve

6757. Re: HP Wave Analyzer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 01:08:50 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <CEIF7.658583$Lw3.42290736@news2.aus1.giganews.com>
Source record: 48953

I used to own a 302A and used it from time to time. It covered up to 16 kHz I believe (well, 16 kc as they said then). It was large and the setup procedure a bit of a pain but it did the job. Never had a problem with it.

I used it for measuring hum content, amplifier gain (while ignoring distortion) and such. One could make a nice measurement to see how much distortion was even and how much was odd. And as a voltmeter it was accurate enough for nearly any use.

73, Bob K6DDX

6758. Ham radio audio mixer. Multiple outputs-one speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 03:17:51 UTC
From: TLNixon@home.com
Message-ID: <3be60452.135566598@news.moline1.il.home.com>
Source record: 48955

A couple of years ago, I remember seeing a mixer/fader type circuit in one of the amateur Radio magazines built so that one could feed multiple audio outputs to one nice speaker.

Does anyone have a diagram for such a device? I have searched my back issues of a couple ham mags and cannot locate it.

Wanting to build such a device in a mobile installation. as I recall it used some LM-324 chips.

Thanks-Terry WB0VQP

6759. Re: Ham radio audio mixer. Multiple outputs-one speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 04:57:01 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <tuc70v88p91q09@corp.supernews.com>
Source record: 48956

"Terry Nixon" wrote ...
> A couple of years ago, I remember seeing a mixer/fader type circuit
> in one of the amateur Radio magazines built so that one could feed
> multiple audio outputs to one nice speaker.
>
> Does anyone have a diagram for such a device? I have searched my back
> issues of a couple ham mags and cannot locate it.
>
> Wanting to build such a device in a mobile installation. as I recall
> it used some LM-324 chips.

The ones I've seen have been dirt-simple audio mixers with either simple resistive mixing or "virtual ground" current summing mixing (a fancy term but trivial to do with most any op-amp). You can probably draw the schematic from scratch and end up with something as good as any of those published ones.

6760. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 11:15:43 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <WxuF7.19814$CI3.3276062@news6-win.server.ntlworld.com>
Source record: 48957

> any sites describing how to make a 9:1 tx balun?
==========
Don't know any site ,but the above is very well described and explained in a book :

Building and Using Balans and Ununs - Practical Designs for the Experimenter.

Author : Jerry Sevick , W2FMI

Published in 1994 by CQ Communications Inc.

Library of Congress Catalog Card number 94-69520

ISBN 0-943016-09-6

This is a marvellous book for the home constructor with the Guanella 9:1 balun described (with photographs) on pages 51 through 55.

I bought it a few years ago at one of the Ham Radio Outlets in the LA area.

Frank gm0csz.kn6wh@ntlworld.com

6761. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 12:48:44 UTC
From: Steve <esteve@hctc.com>
Message-ID: <tud62ui0cn608a@corp.supernews.com>
Source record: 48960
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Thanks Ralph, I have the manual and the schematic for the CP-1 and you are correct about the optional RS-232 port on the CP-1. The it takes a couple common chips and the connector to bring the unit up to RS-232 capability. I could easily do that upgrade if I find this old unit worth while at all.

I guess I'm an "ole sucker" for obsolete technology. I hate to throw it away. I'm almost tempted to dig up an old Commadore 64 just so I can play with it. At least I have the software cartriges for that computer. (Just kidding.)

If anyone knows of a DOS or Windows shareware (freeware) that is still available for this equipment I would appreciate it.

Thanks

Steve

6762. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 12:55:07 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <b726s9.knp.ln@darkstar.localdomain>
Source record: 48965

marvin rosen wrote:

> any sites describing how to make a 9:1 tx balun?

I don't know if there are any on the web. The
'ARRL Electronics Data Book' has some good information
about baluns. If you don't have access to a copy,
send me an e-mail and we will arrange a minor
infringement of the copyright laws. Don't forget
to remove the X from my address.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.13

6763. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 13:12:40 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BE69048.3345D208@dialpoint.net>
Source record: 48958
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

The cp-1 was just a demodulator unit. The output was just a simple conversion of the audio tones to whatever the Commodore used or some versions had a rs-232 connector that could be plugged into a computer serial port and would put out a + and - voltage as the tones changed from mark to space. If you have the serial port installed in the cp-1 then you may be in good shape. All you need to do is find some old softwear to use it. It may take a long time to find any as most of it was written for old DOS computers. If the cp-1 does not have the serial interface for the IBM/MSDOS type computers it may be some problem to make it work unless you can find a schematic of the cp-1 and install the parts .

YOu may be beter off going here:

http://www.muenster.de/%7Ewelp/sb.htm

and looking at some of the sound card programs. The one called something like mmtty is very good for rtty.

Steve wrote:
>
> I picked up a box of Ham radio gear at a estate sale (old friend), felt
> sorry for the widow, you know.
>
> I'm not a Ham but thinking about it some since I was a kid.
>
> Anyway what I got was a AEA CP-1 set up for a Commodore 64 and a Heathkit
> HD3006 Crossfire Scope.
>
> Now I know technology has advanced and the Commodore has been replaced with
> PCs..
>
> Do I have anything here worth messing around with if I just want to DX CW
> and RTTY. I did a Google on the CP-1 and no one has discussed it since 1997.
> It seems to use it with a PC, I have to do so some wiring tricks with the
> RS232 cable coming out of the CP-1 and I need some software.
>
> Does anyone have any recommendation on public domain software and the wiring
> changes for the RS232 cable.
>
> Or should I just salvage the cables and start thinking about Pactor
> (someday).
>
> Thanks

>
> Steve

6764. Re: Ham radio audio mixer. Multiple outputs-one speaker

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 13:15:20 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <IhwF7.74982$ez.9788805@news1.rdc1.nj.home.com>
Source record: 48959

Look at Nat Semi application note 30 or 31 (yupp, these are from the 1970's
and 1980's) there is a mixer design contained therein.

Jack

"Terry Nixon" <TLNixon@home.com> wrote in message
news:3be60452.135566598@news.moline1.il.home.com...
> A couple of years ago, I remember seeing a mixer/fader type circuit
> in one of the amateur Radio magazines built so that one could feed
> multiple audio outputs to one nice speaker.
>
> Does anyone have a diagram for such a device? I have searched my back
> issues of a couple ham mags and cannot locate it.
>
> Wanting to build such a device in a mobile installation. as I recall
> it used some LM-324 chips.
>
> Thanks-Terry WB0VQP

6765. Re: newbie wants project help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 13:31:46 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <2c46s9.aop.ln@darkstar.localdomain>
Source record: 48966

Rob Crandall wrote:

> I am still studying for my ticket and want to build a 6 meter
> transceiver.

I disagree with those who would suggest that you buy a rig,
convert a CB or buy a kit. If you would prefer to build
your own rig, I think you should be encouraged to do so.
However, as several others have pointed out, building a complete
transceiver is not a trivial project.

You won't be able to transmit until you get your ticket so
you might as well start with a receiver. A high performance
receiver for 6M is a challenging project for a beginner. If
you have a HF (short-wave) receiver, either homebrew or
commercially made, a 6M to HF receive converter would be
a lot easier to build.

Have a look at the receive section of my homebrew transverter:
http://homepage.eircom.net/~ei9gq/50conv.html

Good luck with your homebrewing.

73, Ed. EI9GQ. Cork, Ireland.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.13

6766. Smithc Chart Calculator for GNU/Linux and X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 14:25:29 UTC
From: Lapo Pieri <lapo@iroe.fi.cnr.it>
Message-ID: <Pine.LNX.4.21.0111051417270.115-100000@embiolab.iroe.fi.cnr.it>
Source record: 48991
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Hi,
I've recently developed a Smith Chart calculator that run under GNU/Linux and X Windows. Since many similar program was available for DOS/Win but I was not able to find one for unix, the solution was to write one.

This is my second X probramm, should work fine but I don't master X programming...

The program is released under GNU/GPL license, so you can download from

www.qsl.net/ik5nax/

and use as you want, this program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

You can modify it and redistribute, copy as you need.

If you find somethings goes wrong or want to make me criticism, send me bug, or any other comment write me.

Lapo Pieri (IK5NAX)

Home address: via A. dei Corbizi 9 I-50127 Firenze Italy
Phone: +39 055 410209
e-mail: ik5nax@amsat.org
packet radio: ik5nax@ik5skv.#fi.itos.ita.eu
website: www.qsl.net/ik5nax

I'd like to know if xsmc-calc is usefull to you or whatever you think about it.

Lapo Pieri

6767. SWR due to coax switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 14:54:35 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9s69li$a2s$2@plutonium.btinternet.com>
Source record: 48961

Reflections from impedance mismatches at switches in coax feedlines are often mentioned on these walls and described as something which matters. But nobody ever says how much it matters. Very often it doesn't. Home-brew coax switch makers may be interested in the following.

Inside the switch box, as the inner coaxial conductor continues through the switch wiring it is defficient of capacitance. The inside walls of the box become the outer conductor of a short, much higher impedance line. The missing capacitance is proportional to the length of bare wire inside the switch. In the worst case the missing capacitance is equal to the capacitance of the same length of coax.

Insofar as reflections are concerned the missing capacitance has exactly the same effect as an excess of capacitance of the same value. It is a straightforward matter to calculate the SWR which results from a lump of capacitance across a transmission line. Furthermore we are interested only in small SWRs and the calculation for solid polyethylene coax then simplifies to -

SWR = 1 + F * L / 1250

where F is MHz and L is length of bare wire through the switch in inches.

At 144 MHz and a bare wire length of 2 inches, SWR is approx 1.23 which might not be considered excessive. Remember it is worst-case. It could be reduced by a small fixed capacitor across the line inside the box. (1.5" length of line ?)

Reflections below 50 MHz due to coaxial switches are entirely negligible in comparison with other causes of SWR > 1:1

A more accurate worst-case formula which applies when bare wire length is less than a very unlikely 1/10th wavelength is -

SWR = (1 + x) / (1 - x)

Where x = F * L / 2500

The formula can be used in other situations (a dummy load resistor ?) where a wire replaces a short length of solid Pe coax of any normal impedance.

Regards, Reg, G4FGQ
http://www.g4fgq.com

6768. Gel Cell Batteries - CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 16:35:07 UTC
From: "Joe Brancato <>< N6YYO" <n6yyo@Yahoo.com>
Message-ID: <3be6bf70_1@news.starnetinc.com>
Source record: 48962
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I have received my shipful (actually a few truckloads) of 7 Amp-Hour POWER STATION gel cell batteries with wall charger and car charger as described at http://www.hamcontact.com/products.html . These are the units that I have been advertising in QST, CQ, etc., for years and are excellent for powering the new Yaesu FT-817, Icom IC706, etc. I am offering them at $39.95 plus shipping. This is $20 below the price that the major ham radio stores offer. You'd be paying 50% more if you bought from them. This is a once in a long while offer, and will be valid only until the end of this month (Makes a great Christmas present).

If interested either call 800-933-4264 or order via our secure website at www.HamContact.com

YOU MUST MENTION THAT YOU SAW THE REC.RADIO.SWAP LISTING TO GET THIS SPECIAL PRICING.

Thank you and please pass this message to a friend who might be interested,

Joe N6YYO
THE HAM CONTACT.

p.s. We also have larger 17 Amp-Hr gel cell "Jump Start" systems, Solar Panels and DC to AC inverters from 140 to 3000 Watts in addition to our radio amateur gear (no radios).

6769. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 17:24:39 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <rXzF7.135627$P8.46182069@news1.elmhst1.il.home.com>
Source record: 48963
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Typical amplifiers sold in the 1960's and 1970's really for the CB market, but
marketed "under the disguise" that it is for amateur radio (10 meter band).
Be advised that these are not amateur type accepted amplifiers.

The dead give-away is the 5 watt input. Many early versions used old TV
"sweep tubes" for the finals and were of questionably spectral purity. They did not call
these TVI or RFI monsters for nothing. Be especially cautious of any units that have
been tampered with the "urban legend" to remove the band filtering for more power.
More power everywhere, except where you want to be transmitting.
A 5-element Chebyshev filter (1996 ARRL Handbook, p. 16.9) is always a good idea.

Give the wide spread availability of the solid state versions (Palomar and other clones)
why go tubes for regular operations.

Now if you want a collectable item for "the era", cosmetically it looks to be in good shape.

Greg
w9gb

"Steve Gale" <sgale11@home.com> wrote in message
news:OaiF7.38291$ya.8189841@news1.busy1.on.home.com...
> anyone have any experience with this amp or any models close to it....seems
> to generate about 100w from a 4w input....uses a EL519 Final tube
>
> http://members.kingston.net/sgale/pics/alank1313hi.jpg
>
> http://members.kingston.net/sgale/pics/alank13134.jpg
>
>
>

6770. wide-band FM detector/receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 17:40:31 UTC
From: RF <listaco@terra.es>
Message-ID: <9s6ihp$dq6$1@diana.bcn.ttd.net>
Source record: 48964

Please, I am searching a wide-band FM detector for 137 MHz.
Thanks.

6771. Wanted - Pair of 0.1uh - 20uh roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 20:17:49 UTC
From: Mockingbird Inn <sandbird@netdoor.com>
Message-ID: <NtCF7.147357$b47.15672929@bin3.nnrp.aus1.giganews.com>
Source record: 48967

Wanted - Pair of 0.1uh - 20uh roller inductors for legal limit balanced tune

6772. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 20:43:08 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BE6F9DC.BE3A7264@dialpoint.net>
Source record: 48968
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

You may look here for some sharewear disks.

http://www2.ari.net/ajr/rtty/wwwhome.html

Also see my direct email to you.

Steve wrote:
>
> Thanks Ralph, I have the manual and the schematic for the CP-1 and you are
> correct about the optional RS-232 port on the CP-1. The it takes a couple
> common chips and the connector to bring the unit up to RS-232 capability. I
> could easily do that upgrade if I find this old unit worth while at all.
>
> I guess I'm an "ole sucker" for obsolete technology. I hate to throw it
> away. I'm almost tempted to dig up an old Commadore 64 just so I can play
> with it. At least I have the software cartriges for that computer. (Just
> kidding.)
>
> If anyone knows of a DOS or Windows shareware (freeware) that is still
> available for this equipment I would appreciate it.
>
> Thanks
>
> Steve

6773. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 20:45:22 UTC
From: "D. Stussy" <kd6lvw@bde-arc.ampr.org>
Message-ID: <Pine.LNX.4.10.10111052044120.94-100000@exp.bde-arc.ampr.org>
Source record: 48969
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I think that your first problem is that you need to get an amateur radio
license before you hook the thing up to a radio.

On Sun, 4 Nov 2001, Steve wrote:
>I picked up a box of Ham radio gear at a estate sale (old friend), felt
>sorry for the widow, you know.
>
>I'm not a Ham but thinking about it some since I was a kid.
>
>Anyway what I got was a AEA CP-1 set up for a Commodore 64 and a Heathkit
>HD3006 Crossfire Scope.
>
>Now I know technology has advanced and the Commodore has been replaced with
>PCs..
>
>Do I have anything here worth messing around with if I just want to DX CW
>and RTTY. I did a Google on the CP-1 and no one has discussed it since 1997.
>It seems to use it with a PC, I have to do so some wiring tricks with the
>RS232 cable coming out of the CP-1 and I need some software.
>
>Does anyone have any recommendation on public domain software and the wiring
>changes for the RS232 cable.
>
>Or should I just salvage the cables and start thinking about Pactor
>(someday).

6774. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 21:39:54 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9s70va$150$1@woodrow.ucdavis.edu>
Source record: 48990
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Hi Greg (and Steve),

Your a little off track Greg, but I'll try to add in some corrections
where possible.

: In rec.radio.cb G. Beat <gregory.beat@home.com> wrote:
: Typical amplifiers sold in the 1960's and 1970's really for the CB market,
: but marketed "under the disguise" that it is for amateur radio (10
: meter band).
: Be advised that these are not amateur type accepted amplifiers.

More accurate to say the amplifier is of a style sold in the 70's, often
made for the 25 to 54Mhz band which includes the CB Radio Service. The
unit shown is a current production unit... made in Italy if my sources are
right. More and more, they are starting to pop up on Ebay and the news
groups. This one is not a vintage item...
-
Nope, they are not type accepted, nor were most of the legal amplifiers
sold back before the ban. They just had to make a legal spec for the most
part. Operation of the mentioned in the US Class D CB Band is not legal.
-
Operation in other adjacent services is/was possible.
-
: The dead give-away is the 5 watt input. Many early versions used old TV
: "sweep tubes" for the finals and were of questionably spectral purity.
-
While not orignally designed for RF amplifier service, the common sweep
power tubes can be used in an amplifier and with proper design care can be
quite clean in a linear application. It's all about doing the
proper design homework...
-
: They did not call these TVI or RFI monsters for nothing.

who is "they"..? Most people don't do the ground work to build a proper
sweep tube amplifier. Like any and all poor built/operated circuits...
the parts can get a bad rap.

Sweep tube amplifiers can be made quite practical. Many of the various
companies have put out various models through the years. Swan, Yaesu,
Dentron, Amp Supply, SBE ... the list goes on. Some were not so hot...
some were pretty nice.

: Be especially cautious of any units that have
: been tampered with the "urban legend" to remove the band filtering for more
: power.

Any tampering period... how come we haven't seen this "urban legend"
label before..? Wait a minute.... I've seen some pretty dumb posts about
removing the modulation internal limiter of a radio, made by Bill ...
that's an urban legend that's a lot of crap. So we actually do have a
current example.
-
: More power everywhere, except where you want to be transmitting.
: A 5-element Chebyshev filter (1996 ARRL Handbook, p. 16.9) is always a good
: idea.
-
You can actually do ok with just the pi output if your practical. But the
additional filter is a welcome addition.
-
: Give the wide spread availability of the solid state versions (Palomar and
: other clones) why go tubes for regular operations.
: Now if you want a collectable item for "the era", cosmetically it looks to
: be in good shape.
: Greg
: w9gb
-
Because it's a current production unit... Sweep tube amplifiers can be
heaven or hell. Your results will probably be different.

cheers
skipp
http://sonic.ucdavis.edu

6775. Looking for Capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 21:46:37 UTC
From: Frizz <kg4ivt@hotmail.spamsucks.leaveme.alone.com>
Message-ID: <1NDF7.102089$%B6.28651737@typhoon.southeast.rr.com>
Source record: 48970

Does anyone know where I can get some 40 microfarad at 450v electrolytic capacitors? Specific part numbers would be great but anything you got is good too. Thanks!!!!

6776. Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 22:31:17 UTC
From: Ian Jackson <ianjackson@g3ohx.demon.co.uk>
Message-ID: <JCcytBA1Mx57EwN3@g3ohx.demon.co.uk>
Source record: 48869

So why can't a diplexer combine two antennas into one transmitter?
Ian.

In article <NB3F7.1419$Is3.26414250@news2.randori.com>, Gary Glaenzer
<nobulltrans@irtc.net> writes
>no, its an antenna coupler
>
>probably consisting of two band-pass filters to a common connector
>
>a 'duplexer' permits simultaneous transmit and receive on one antenna
>
>a 'diplexer' combines two transmitters into a common antenna
>
>whereas you simply want to couple two antennas into one HT, but will be
>using only one frequency (or one band, anyway) at a time
>
>
>"burnt-kat" <burnt-katNOT@home.com> wrote in message
>news:8r3F7.155151$Pr1.41544744@news1.rdc1.tn.home.com...
>> I want to build a device that will enable me to combine inputs from a 2m
>and
>> a 70cm antenna into the one BNC connection on my HT. I believe this would
>be
>> a duplexer?
>>
>>
>>
>>
>
>

6777. Re: Looking for Capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 22:40:53 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BE71575.D1015F21@coqui.net>
Source record: 48762

Frizz wrote:
>
> Does anyone know where I can get some 40 microfarad at 450v electrolytic
> capacitors? Specific part numbers would be great but anything you got is
> good too. Thanks!!!!

Try www.mouser.com They have them. Nowadays most common tend to be
the smaller sized 47uf@450v but IIRC I got some of the big old-timey
Sprague ones from them in 40uf.
-Bill

6778. Re: HP Wave Analyzer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 23:17:06 UTC
From: Vittorio De Tomasi <ik2czl@amsat.org>
Message-ID: <3BE71DF2.B44863A9@amsat.org>
Source record: 48971

Henry Kolesnik wrote:
>
> Back in the 1960s HP made 2 wave analyzers. The 302A and the 310A. The
> 302 covers 20 cps to 50Kc and the 310 covers 1 kc to 1.5 mc. Apart from the
> coverage the differnces to me don't appear that great. Can anyone recall
> using these things and which is best for which application. I'm wondering
> if anyone has used either as a VLF receiver. I know they don't have AVC and
> wonder what other mods might make sense.
> Tnx
> Hank wd5jfr

Hi,

that guy http://www.sonic.net/~shageman/hp310.html is using an HP310 for
VLF reception.

On my own I tested a W&G selective voltmeter (I think it was the SPM-5)
of a friend of mine for 137 kHz reception: selective voltmeters works
quite nicely for VLF, but the lack of AGC and noise blankers is a bit
unpleasant! They are quite handy however for comparing antennas, since
you can measure signal amplitudes very precisely.

The W&G had a 10 kHz IF output that was *very* useful, since it allowed
to receive faint signals using our DSP software directly digitizing the
IF with a sound card. Don't know if HP wave analyzers have such a nice
feature.

vy 73

Vittorio ik2czl

--
****
Vittorio De Tomasi ik2czl@amsat.org
http://www.weaksignals.com

"Sometimes things just don't make sense, and that's just the way it is.
Live with it. More tea?" - Richard Feynman

6779. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-05 23:51:31 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9s7bbh$q0e$1@plutonium.btinternet.com>
Source record: 48972

To wind a 3-to-1 turns ratio, 9-to-1 impedance ratio transformer, just wind 3 wires alongside each other around a ferrite ring about 2 inches (50mm) diameter. Eight or 10 turns of each of the three wires will be OK from 1.8 to 30 MHz. Use a wire gauge and a fairly thick insulation thickness which nicely fills the ferrite ring.

The ferrite core material should be HF grade, permeabilty in the range 200 to 400.

Connect the three wires in series for the high impedance winding and make the appropriate connections for the unbal.

And there you have it ! It will handle several hundred watts.

It will be easier than you think than the impressions you may have gained by listening to the old wives who love to complicate matters.

Regards, Reg, G4FGQ
Free radio design software from
http://www.g4fgq.com

6780. BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:00:45 UTC
From: BUBBA SMITH <BUBBA49@PRODIGY.NET>
Message-ID: <3BE7366A.CD889079@PRODIGY.NET>
Source record: 48973

Which bleeder resistors should I use on a 5000 volt power supply? It is used on a 4-1000 amp. The capacitor bank I have constructed is made up of 15 computer grade capacitors with a value of 450 volt / 470uf. for a total of 6750 volts and 31uf for filtering. I have heard that wirewound resistors are not a good first choice because they can open up (burn up) and leave the cap bank charged. What should I use as far as ohm rating and wattage for these resistors?Thank you in advance.
73 de N8SGA
Jim Mohney

6781. Re: Wanted - Pair of 0.1uh - 20uh roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:12:35 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9s7dca$2g0$1@plutonium.btinternet.com>
Source record: 48974

> Wanted - Pair of 0.1uh - 20uh roller inductors for legal limit
balanced
> tune
==========

0.1 uH ??????

What on earth are you gabbing about ?

6782. Re: SWR due to coax switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:24:59 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9s7e3n$q6$1@neptunium.btinternet.com>
Source record: 48975

If the mismatch at the coax switch is considered to be due to the
inductance of the length of the bare wire passing through the
switch we arrive at exactly the same conclusion -

Worst-case SWR = 1 + F * L / 1250

where F is in MHz and

L is length of bare wire through the switch in inches.

Which applies to solid Pe coax of any impedance.

Regards, Reg, G4FGQ
Get free radio design software from -
http://www.g4fgq.com

==========
Reg Edwards wrote -
> Reflections from impedance mismatches at switches in coax
feedlines
> are often mentioned on these walls and described as something
which
> matters. But nobody ever says how much it matters. Very often it
> doesn't. Home-brew coax switch makers may be interested in the
> following.
>
> Inside the switch box, as the inner coaxial conductor continues
> through the switch wiring it is defficient of capacitance. The
> inside walls of the box become the outer conductor of a short,
much
> higher impedance line. The missing capacitance is proportional
to
> the length of bare wire inside the switch. In the worst case the
> missing capacitance is equal to the capacitance of the same
length
> of coax.
>
> Insofar as reflections are concerned the missing capacitance has
> exactly the same effect as an excess of capacitance of the same
> value. It is a straightforward matter to calculate the SWR which
> results from a lump of capacitance across a transmission line.
> Furthermore we are interested only in small SWRs and the
> calculation for solid polyethylene coax then simplifies to -
>
> SWR = 1 + F * L / 1250
>

> where F is MHz and L is length of bare wire through the switch in
> inches.
>
> At 144 MHz and a bare wire length of 2 inches, SWR is approx 1.23
> which might not be considered excessive. Remember it is
worst-case.
> It could be reduced by a small fixed capacitor across the line
> inside the box. (1.5" length of line ?)
>
> Reflections below 50 MHz due to coaxial switches are entirely
> negligible in comparison with other causes of SWR > 1:1
>
> A more accurate worst-case formula which applies when bare wire
> length is less than a very unlikely 1/10th wavelength is -
>
> SWR = (1 + x) / (1 - x)
>
> Where x = F * L / 2500
>
> The formula can be used in other situations (a dummy load
resistor
> ?) where a wire replaces a short length of solid Pe coax of any
> normal impedance.
> ----
> Regards, Reg, G4FGQ
> http://www.g4fgq.com

6783. Help design a receiver that simultaneously monitors 33 channels!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:32:46 UTC
From: voobner@yahoo.com
Message-ID: <fbc7a2.0111051732.42a69839@posting.google.com>
Source record: 48976
Cross-posted to: rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"Sylvester" <Why@YoureallyDontNeedIt.Com> wrote in message
news:y4GF7.73413$n5.10334245@typhoon.nyc.rr.com...
> No bright LED's It is just that I am trying to run 33 radios at the same
> time (so I can monitor other channels, don't want to get a scanner). Do
not
> want you to think I was doing anything ILLEGAL. they each draw 4.8amps.
>
> ;-)
>
> So Aaron Now that you know what I am doing is Legal what are your Ideas on
> how to do it. Or you don't know either?
>
> Sylvester
>

Thanks Sylvester,

Well, now that you made it clear what it is you are trying to do,
things are much easier. That was pretty silly of you to be thrashing
about with questions regarding supply voltages when it has so little
to do with your ACTUAL application. But we have got you on the right
track now! OK. Contrary to what you may think, I do not know
everything. No one can know everything. And since I don't consider
myself an expert in receiver design I cannot give you a solution off
the top of my head. BUT.....I bet there are a lot of folks in here
that can help you design a reciever that will monitor 33 channels
simultaneously, or at least get you the info you need. For instance
many commercial receivers have multiple VFO functions. How about a
design based on that idea?

Anyone with ideas that might help get Sylvester's receiver project
going, please feel free to join in.

-Aaron-

6784. Re: Wanted - Pair of 0.1uh - 20uh roller inductors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:40:19 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9s7f55$764$1@plutonium.btinternet.com>
Source record: 48977

You ask him, Reg. You ask him!

6785. Re: Gel Cell Batteries - CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 01:54:54 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <OpHF7.174505$W8.5661396@bgtnsc04-news.ops.worldnet.att.net>
Source record: 48978
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

i purchased used 7 AH "YUASA" gel cells with trickle charger at a hamfest
for $12 each! works fine
Joe Brancato <>< N6YYO <n6yyo@Yahoo.com> wrote in message
news:3be6bf70_1@news.starnetinc.com...
> I have received my shipful (actually a few truckloads) of 7 Amp-Hour POWER
> STATION gel cell batteries with wall charger and car charger as described
at
> http://www.hamcontact.com/products.html . These are the units that I
have
> been advertising in QST, CQ, etc., for years and are excellent for
powering
> the new Yaesu FT-817, Icom IC706, etc. I am offering them at $39.95 plus
> shipping. This is $20 below the price that the major ham radio stores
> offer. You'd be paying 50% more if you bought from them. This is a once
in
> a long while offer, and will be valid only until the end of this month
> (Makes a great Christmas present).
>
> If interested either call 800-933-4264 or order via our secure website at
> www.HamContact.com
>
> YOU MUST MENTION THAT YOU SAW THE REC.RADIO.SWAP LISTING TO GET THIS
SPECIAL
> PRICING.
>
> Thank you and please pass this message to a friend who might be
interested,
>
> Joe N6YYO
> THE HAM CONTACT.
>
> p.s. We also have larger 17 Amp-Hr gel cell "Jump Start" systems, Solar
> Panels and DC to AC inverters from 140 to 3000 Watts in addition to our
> radio amateur gear (no radios).
>
>
>
>

6786. Re: wide-band FM detector/receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 02:06:44 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111051806.4b2da790@posting.google.com>
Source record: 48979

How wide is wide? (50kHz, 150kHz, 1MHz, 10MHz, ???)
How clean is the signal you have to feed to the detector?

One possibility is a phase-locked loop, which could have nearly any lock range (therefore detection width) you want... another possibility is a quadrature detector directly at 137MHz, which might make sense for very wide signals. There are lots of other possibilities, including conversion down to an IF, perhaps to make use of standard commercial broadcast FM detectors or designs.

Hope these ideas help a little...more info about the requirement might get better answers.

Cheers,
Tom

RF <listaco@terra.es> wrote in message news:<9s6ihp$dq6$1@diana.bcn.ttd.net>...
> Please, I am searching a wide-band FM detector for 137 MHz.
> Thanks.

6787. Re: Looking for Capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 02:11:12 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <4FHF7.7840$Y6.474417@news1.rdc1.ct.home.com>
Source record: 48980

Your local NTE parts distributor should have them. Check Mouser, etc.
Panasonic makes them as well, check DigiKey..

"Frizz" <kg4ivt@hotmail.spamsucks.leaveme.alone.com> wrote in message
news:1NDF7.102089$%B6.28651737@typhoon.southeast.rr.com...
> Does anyone know where I can get some 40 microfarad at 450v electrolytic
> capacitors? Specific part numbers would be great but anything you got is
> good too. Thanks!!!!
>
>

6788. Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 02:13:31 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3BE7474B.AF3CCC55@ix.netcom.com>
Source record: 48981
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

No, I didn't throw the lamp away. What I found helps
a lot is a cap of around 0.2uF AC rated across the
powerline feed connected at the dimmer circuit. While
I was away, my mom bought a Chinese made floor
lamp with dimmer control. Very noisy. Well, she's
away for a few days so I took this lamp apart to
try to clean up the dimmer. With am AM radio tuned to
a weak station, I poked around the dimmer circuit.
Thus the above 0.2uF cap result. Also, the lamp
is made of metal, so to make this metal act as a
shield for the remaining RFI, I connected an AC
rated 0.01uF cap from the neutral to the metal.
(The dimmer circuit is completely in the hot side
of the line, the lamp has a polarized plug that
forces this to happen).

This may help for in the wall dimmers too. If
the house uses conduit or BX cable, that would
help act as a shield. Romex, don't know.

6789. Re: 20uh roller inductors - an apology

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 02:22:32 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9s7hff$m27$1@uranium.btinternet.com>
Source record: 48982

> 0.1 uH ??????
>
> What on earth are you gabbing about ?
==========

Please accept my sincere apologies. The 20 uH coil upper limits
are perfectly reasonable values. I do hope I have not spoiled your
request in any way and I hope you succeed in your search. I must
try to keep off the bottle and take more care reading and replying
to postings.

Reg

6790. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 03:11:06 UTC
From: Michael Schroeder <triumph@bytehead.com>
Message-ID: <AxIF7.25$0v6.1276@client>
Source record: 48983
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Thanks for the tip, Robert. I have one dimmer light in the living room that has been super noisy...yeah, made in China too. Going to work on it tomorrow after a trip to Radio Shack.

Mike Schroeder

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message news:3BE7474B.AF3CCC55@ix.netcom.com...
> No, I didn't throw the lamp away. What I found helps
> a lot is a cap of around 0.2uF AC rated across the
> powerline feed connected at the dimmer circuit. While
> I was away, my mom bought a Chinese made floor
> lamp with dimmer control. Very noisy. Well, she's
> away for a few days so I took this lamp apart to
> try to clean up the dimmer. With am AM radio tuned to
> a weak station, I poked around the dimmer circuit.
> Thus the above 0.2uF cap result. Also, the lamp
> is made of metal, so to make this metal act as a
> shield for the remaining RFI, I connected an AC
> rated 0.01uF cap from the neutral to the metal.
> (The dimmer circuit is completely in the hot side
> of the line, the lamp has a polarized plug that
> forces this to happen).
>
> This may help for in the wall dimmers too. If
> the house uses conduit or BX cable, that would
> help act as a shield. Romex, don't know.
>

6791. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 03:52:18 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <S7JF7.369$xT4.18353201@news2.randori.com>
Source record: 48984
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Robert Casey" <wa2ise@ix.netcom.com> wrote in message
news:3BE7474B.AF3CCC55@ix.netcom.com...
> No, I didn't throw the lamp away. What I found helps
> a lot is a cap of around 0.2uF AC rated across the
> powerline feed connected at the dimmer circuit. While
> I was away, my mom bought a Chinese made floor
> lamp with dimmer control. Very noisy. Well, she's
> away for a few days so I took this lamp apart to
> try to clean up the dimmer. With am AM radio tuned to
> a weak station, I poked around the dimmer circuit.
> Thus the above 0.2uF cap result. Also, the lamp
> is made of metal, so to make this metal act as a
> shield for the remaining RFI, I connected an AC
> rated 0.01uF cap from the neutral to the metal.
> (The dimmer circuit is completely in the hot side
> of the line, the lamp has a polarized plug that
> forces this to happen).

You've got a lot of faith that every outlet you are using doesn't have the
hot/neutral mis-wired.

Good luck.

>
> This may help for in the wall dimmers too. If
> the house uses conduit or BX cable, that would
> help act as a shield. Romex, don't know.
>
>

6792. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 04:08:32 UTC
From: Hagstar <yonny@att.net>
Message-ID: <3BE763A0.FB1829F4@att.net>
Source record: 48985
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Gary Glaenzer wrote:
>
> > I connected an AC
> > rated 0.01uF cap from the neutral to the metal.
> > (The dimmer circuit is completely in the hot side
> > of the line, the lamp has a polarized plug that
> > forces this to happen).
>
> You've got a lot of faith that every outlet you are using doesn't have the
> hot/neutral mis-wired.
>
> Good luck.
>

Hey, smarty pants, did you read the part about .01 mfd, as in "UL
approved generally non-lethal leakage" ?

John H.
> >
> > This may help for in the wall dimmers too. If
> > the house uses conduit or BX cable, that would
> > help act as a shield. Romex, don't know.
> >
> >

6793. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 04:11:17 UTC
From: Hagstar <yonny@att.net>
Message-ID: <3BE76445.B8AB152D@att.net>
Source record: 48986
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Michael Schroeder wrote:
>
> Thanks for the tip, Robert. I have one dimmer light in the living room that
> has been super noisy...yeah, made in China too. Going to work on it
> tomorrow after a trip to Radio Shack.

WARNING WILL ROBINSON !!! Save the trip- Rat Shack has absolutely
nothing even close to a .2 AC rated UL cap. In fact, you will have to
order them or go to a real electronics house in a place like Dayton OH.

John H.
>
> Mike Schroeder
>
> "Robert Casey" <wa2ise@ix.netcom.com> wrote in message
> news:3BE7474B.AF3CCC55@ix.netcom.com...
> > No, I didn't throw the lamp away. What I found helps
> > a lot is a cap of around 0.2uF AC rated across the
> > powerline feed connected at the dimmer circuit. While
> > I was away, my mom bought a Chinese made floor
> > lamp with dimmer control. Very noisy. Well, she's
> > away for a few days so I took this lamp apart to
> > try to clean up the dimmer. With am AM radio tuned to
> > a weak station, I poked around the dimmer circuit.
> > Thus the above 0.2uF cap result. Also, the lamp
> > is made of metal, so to make this metal act as a
> > shield for the remaining RFI, I connected an AC
> > rated 0.01uF cap from the neutral to the metal.
> > (The dimmer circuit is completely in the hot side
> > of the line, the lamp has a polarized plug that
> > forces this to happen).
> >
> > This may help for in the wall dimmers too. If
> > the house uses conduit or BX cable, that would
> > help act as a shield. Romex, don't know.
> >

6794. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 04:22:00 UTC
From: Sylvain <old_radioz@videotron.ca>
Message-ID: <3BE76567.73AC1A2C@videotron.ca>
Source record: 48987
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Hagstar wrote:

> Hey, smarty pants, did you read the part about .01 mfd, as in "UL
> approved generally non-lethal leakage" ?
>
> John H.

It's the -generally- that hurts when it becomes less general, like major...;o)

Syl

6795. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 04:29:47 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <%GJF7.376$8o5.20033603@news2.randori.com>
Source record: 48988
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

I repeat:

you have an excessive amount of faith that every outlet you use is wired
correctly.

there is no way to guarantee that your 'UL approved non-lethal leakage'
capacitor is going to remain that way

good luck

"Hagstar" <yonny@att.net> wrote in message news:3BE763A0.FB1829F4@att.net...
> Gary Glaenzer wrote:
> >
> > > I connected an AC
> > > rated 0.01uF cap from the neutral to the metal.
> > > (The dimmer circuit is completely in the hot side
> > > of the line, the lamp has a polarized plug that
> > > forces this to happen).
> >
> > You've got a lot of faith that every outlet you are using doesn't have
the
> > hot/neutral mis-wired.
> >
> > Good luck.
> >
>
> Hey, smarty pants, did you read the part about .01 mfd, as in "UL
> approved generally non-lethal leakage" ?
>
> John H.
> > >
> > > This may help for in the wall dimmers too. If
> > > the house uses conduit or BX cable, that would
> > > help act as a shield. Romex, don't know.
> > >
> > >
>

6796. Re: wide-band FM detector/receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 04:42:24 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BE76A2F.2CB61B9E@ay.com.au>
Source record: 48989

RF wrote:
>
> Please, I am searching a wide-band FM detector for 137 MHz.

I think hacking a normal FM broadcast receiver would be a start, if the
width is correct.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (75% of Full)

6797. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 10:47:37 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111060247.82f0b5c@posting.google.com>
Source record: 48992
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu> wrote in message
news:<9s70va$150$1@woodrow.ucdavis.edu>...
> Hi Greg (and Steve),
>
> Your a little off track Greg, but I'll try to add in some corrections
> where possible.
>
> : In rec.radio.cb G. Beat <gregory.beat@home.com> wrote:
> : Typical amplifiers sold in the 1960's and 1970's really for the CB market,
> : but marketed "under the disguise" that it is for amateur radio (10
> : meter band).
> : Be advised that these are not amateur type accepted amplifiers.
>
> More accurate to say the amplifier is of a style sold in the 70's, often
> made for the 25 to 54Mhz band which includes the CB Radio Service. The
> unit shown is a current production unit... made in Italy if my sources are
> right. More and more, they are starting to pop up on Ebay and the news
> groups. This one is not a vintage item...
> -
> Nope, they are not type accepted, nor were most of the legal amplifiers
> sold back before the ban. They just had to make a legal spec for the most
> part. Operation of the mentioned in the US Class D CB Band is not legal.
> -
> Operation in other adjacent services is/was possible.
> -
> : The dead give-away is the 5 watt input. Many early versions used old TV
> : "sweep tubes" for the finals and were of questionably spectral purity.
> -
> While not orignally designed for RF amplifier service, the common sweep
> power tubes can be used in an amplifier and with proper design care can be
> quite clean in a linear application. It's all about doing the
> proper design homework...
> -
> : They did not call these TVI or RFI monsters for nothing.
>
> who is "they"..? Most people don't do the ground work to build a proper
> sweep tube amplifier. Like any and all poor built/operated circuits...
> the parts can get a bad rap.
>
> Sweep tube amplifiers can be made quite practical. Many of the various
> companies have put out various models through the years. Swan, Yaesu,
> Dentron, Amp Supply, SBE ... the list goes on. Some were not so hot...
> some were pretty nice.

>
> : Be especially cautious of any units that have
> : been tampered with the "urban legend" to remove the band filtering for more
> : power.
>
> Any tampering period... how come we haven't seen this "urban legend"
> label before..? Wait a minute.... I've seen some pretty dumb posts about
> removing the modulation internal limiter of a radio, made by Bill ...
> that's an urban legend that's a lot of crap. So we actually do have a
> current example.
> -
> : More power everywhere, except where you want to be transmitting.
> : A 5-element Chebyshev filter (1996 ARRL Handbook, p. 16.9) is always a good
> : idea.
> -
> You can actually do ok with just the pi output if your practical. But the
> additional filter is a welcome addition.
> -
> : Give the wide spread availability of the solid state versions (Palomar and
> : other clones) why go tubes for regular operations.
> : Now if you want a collectable item for "the era", cosmetically it looks to
> : be in good shape.
> : Greg
> : w9gb
> -
> Because it's a current production unit... Sweep tube amplifiers can be
> heaven or hell. Your results will probably be different.
>
> cheers
> skipp
> http://sonic.ucdavis.edu

Geez Skipp, do you make this stuff up as you go along? Sweep tubes
were built for TVs, not radio amps: They work great in the kHz range,
but are terribly non-linear at 27MHz. The result is splatter all over
the band, regardless of how many filters you pile on top. The only
way they worked (with any kind of usefulness) was with heavy negative
feedback, and the tubes burned up very quickly. At the time when
sweep tubes were cheap it was a poor-man's alternative -- definately
not true today.

6798. Re: Gel Cell Batteries - CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 11:02:41 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <GIPF7.21553$sD3.4714040@news2-win.server.ntlworld.com>
Source record: 48994
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

For UK based readers ,Brand New ,make Kiel - Germany (nearing end of shelve life) 12V ,18Ah gel type batteries are available from Mainline Surplus - Leicester for GBP 12.50 each (incl VAT) equiv US$ 18.25
I bought quite a few and am very satisfied with their performance .
I use them in the shack (charged by a wind generator + home brew charge controller limiting voltage to 13.8 V).
To keep the batteries healthy I discharge them every 3-4 months to 11.5 V otherwise they become 'lazy'.

My wife uses one with her electric golf trolley as a direct replacement for the original Yuasa battery which lasted 4 years .

Just for info

Frank gm0csz.kn6wh@ntlworld.com

6799. Re: Help design a receiver that simultaneously monitors 33 channels!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 11:08:01 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111060308.3296a659@posting.google.com>
Source record: 48993
Cross-posted to: rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.amateur.misc

voobner@yahoo.com (Aaron H. Voobner) wrote in message
news:<fbc7a2.0111051732.42a69839@posting.google.com>...
> "Sylvester" <Why@YoureallyDontNeedIt.Com> wrote in message
> news:y4GF7.73413$n5.10334245@typhoon.nyc.rr.com...
> > No bright LED's It is just that I am trying to run 33 radios at the same
> > time (so I can monitor other channels, don't want to get a scanner). Do
> not
> > want you to think I was doing anything ILLEGAL. they each draw 4.8amps.
> >
> > ;-)
> >
> > So Aaron Now that you know what I am doing is Legal what are your Ideas on
> > how to do it. Or you don't know either?
> >
> > Sylvester
> >
>
> Thanks Sylvester,
>
> Well, now that you made it clear what it is you are trying to do,
> things are much easier. That was pretty silly of you to be thrashing
> about with questions regarding supply voltages when it has so little
> to do with your ACTUAL application. But we have got you on the right
> track now! OK. Contrary to what you may think, I do not know
> everything. No one can know everything. And since I don't consider
> myself an expert in receiver design I cannot give you a solution off
> the top of my head. BUT.....I bet there are a lot of folks in here
> that can help you design a reciever that will monitor 33 channels
> simultaneously, or at least get you the info you need. For instance
> many commercial receivers have multiple VFO functions. How about a
> design based on that idea?
>
> Anyone with ideas that might help get Sylvester's receiver project
> going, please feel free to join in.
>
> -Aaron-

A scanning CB transceiver would be the obvious solution. I have two
in my junk pile. But the current requirements seem a bit high: the
4.8 amp rating for a 4-watt CB? Hmmm... regardless, that's only on
transmit. When receiving the radio draws much less current, and I
don't think he will be transmitting on 33 radios at the same time.
But ok. Now, the radios draw even -less- current when there is no

signal and the radio is sqelched, something on the order of 50 to 300 mA per radio, assuming LED displays. So the minimum draw will be about 10 amps, and if he transmits on one radio that's another 4 - 5 amps.... hmmm... He doesn't really need 160 amps, does he?

6800. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 11:19:20 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <HIPF7.21554$sD3.4714613@news2-win.server.ntlworld.com>
Source record: 48995
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> You've got a lot of faith that every outlet you are using doesn't have the
> hot/neutral mis-wired.
==========
I hope you do not refer to 'certified ' electricians.

In the UK I have never heard of such a suspicion.
BTW all wall sockets are earthed ,each plug has an earth pin ,each plug has
a fuse.
Moreover most if not all modern/new houses have switchboard magnetic
circuit breakers rather than wire fuses and those circuit breakers
associated with wall sockets and heavy duty circuits for cookers and
immersion heaters incorporate earth leak detection (set @ 30 mA)

Frank gm0csz.kn6wh@ntlworld.com based in Scotland

6801. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 13:20:33 UTC
From: Hagstar <yonny@att.net>
Message-ID: <3BE7E4FD.D0EE8942@att.net>
Source record: 48847
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Gary Glaenzer wrote:
>
> I repeat:
>
> you have an excessive amount of faith that every outlet you use is wired
> correctly.

I have zero faith they are wired correctly. I guess you don't have any
radios, TV's or other devices in your home with .01 bypass caps hooked
to any metal parts, eh ? I'd like clarification on how this idea is
different in any way from thousands of other appliances ?

John H.

John H.

6802. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 13:27:49 UTC
From: jbyrns@enteract.com
Message-ID: <jbyrns-0611010727490001@207-229-151-155.d.enteract.com>
Source record: 48996
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

In article <HIPF7.21554$sD3.4714613@news2-win.server.ntlworld.com>, "Frank Dinger" <gm0csz.kn6wh@ntlworld.com> wrote:

> > You've got a lot of faith that every outlet you are using doesn't have the
> > hot/neutral mis-wired.
> ===========
> I hope you do not refer to 'certified ' electricians.
>
> In the UK I have never heard of such a suspicion.

I think the trouble developes when a "'certified" electrician from the UK comes to visit friends or relatives here in the US, helps them with a little wiring while here, and gets confused by the differences in our color coding schemes.

Regards,

John Byrns

Surf my web pages at, http://www.enteract.com/~jbyrns/index.html

6803. 5L4N Spec Analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 13:34:22 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <yFRF7.78970$ez.10182503@news1.rdc1.nj.home.com>
Source record: 48848

When I go through the setup procedures for the analyzer I can set the center frequency just fine at 50kHz. The comb generator works exactly as it should, 20kHz +/1 less than 1 Hz. and looks fine on my 7704 scope. The spacing to the right of the center mark (50kHz to 100kHz) is exactly on, but the spacing to the left (0 to 50kHz) is only 80% of what it should be. (The SPAN adj seems to be set correctly btw.) I would have thought that if there were a problem with the sweep, it would be a linear function across the span.

Any guesses as to why the sweep would be different on one side of the center mark?

6804. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 13:37:38 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <3be7e71a.1041896427@13.0.32.55>
Source record: 48885
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Tue, 06 Nov 2001 04:11:17 GMT, Hagstar <yonny@att.net> wrote:

>Michael Schroeder wrote:
>
>WARNING WILL ROBINSON !!! Save the trip- Rat Shack has absolutely
>nothing even close to a .2 AC rated UL cap. In fact, you will have to
>order them or go to a real electronics house in a place like Dayton OH.
>

A good source for the part is PC power supplies, monitors, TV sets
and microwave ovens. Just make sure any capacitors are discharged
before poking around.

73,
Jim
N2VNO

6805. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 14:55:40 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <MRSF7.397$cj2.32855132@news2.randori.com>
Source record: 48849
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Frank Dinger" <gm0csz.kn6wh@ntlworld.com> wrote in message
news:HIPF7.21554$sD3.4714613@news2-win.server.ntlworld.com...
> > You've got a lot of faith that every outlet you are using doesn't have
the
> > hot/neutral mis-wired.
> ==========
> I hope you do not refer to 'certified ' electricians.

no, I am not

>
> In the UK I have never heard of such a suspicion.
> BTW all wall sockets are earthed ,each plug has an earth pin ,each plug
has
> a fuse.
> Moreover most if not all modern/new houses have switchboard magnetic
> circuit breakers rather than wire fuses and those circuit breakers
> associated with wall sockets and heavy duty circuits for cookers and
> immersion heaters incorporate earth leak detection (set @ 30 mA)
>
>

Frank;

My concern is this:

in the US, we have, at least in new construction, and in any which has been
updated, three-wire outlets

'hot' terminal, color coded brass or copper colored (black wire)
neutral', coded silver (white wire)
ground (what you refer to as 'earth'), coded green (green wire)

it is no trick at all for an inexperienced person to switch the wires going
to the 'hot' and 'neutral'

if this happens, any device using a 'neutral to chassis' (transformerless)
scheme will have its chassis hot in respect to true or earth ground.

in the US, your 'earth-leak detector' circuit breakers are called
'ground-fault-circuit-interrupters' (GFCI's) and may be either installed in
the breaker panel or incorporated into an outlet in the circuit; if the
latter is the case, all outlets 'downstream' from the GFI outlet will be
protected.

they work by comparing the current in the 'hot' and 'neutral' leads, any imbalance beyond a certain point will cause a shut-off of the circuit protected.

I'm not sure of the trip-point for our GFI's, but 30 mA sounds awfully high.

My concern with the original poster is this:

Given an improperly wired outlet;
and the possibility of excessive leakage through the capacitor he installed between 'neutral' and the metal part of the lamp, a potential shock (or worse) hazard exists.

Perhaps it is excessive caution on my part, but years of working around high-voltage, high-power broadcast equipment has made me err on the side of caution in these matters.

6806. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 15:12:44 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <YfTF7.29093$Cl3.4362935@news6-win.server.ntlworld.com>
Source record: 48850

> Geez Skipp, do you make this stuff up as you go along? Sweep tubes
> were built for TVs, not radio amps: They work great in the kHz range,
> but are terribly non-linear at 27MHz. The result is splatter all over
> the band, regardless of how many filters you pile on top. The only
> way they worked (with any kind of usefulness) was with heavy negative
> feedback, and the tubes burned up very quickly. At the time when
> sweep tubes were cheap it was a poor-man's alternative -- definately
> not true today.
==========
I am afraid you 'll have to overhaul your knowledge base.

Sweep tubes can be very well used for RF linear operation.
The whole Yaesu range of transceivers in the 60s and 70 had them . They could also be found in Swan and other makes of RF equipment. There are even some published designs from the 1990s
The Yaesu FT -400 /401/560 had 2 of them in the final and worked well up to 29.7 MHz.

Last week I had a QSO with a G3 station using a Yaesu FT-200 (with 2 sweep tubes in the PA)
He has used the transceiver for the past 30 years and in all those years changed the 2 PA tubes only once. His signal is superb . The only sign of using this valve rig is the VFO stability .
When coming back after 1 'over' I had to adjust the rx about 100 Hz.
I am sure that after stabilizing the VFO power supply with zeners this would not be necessary.

I still have a FT-401 with 2 pcs 6KD6 sweep tubes , which I required a few years ago . After cleaning the switch contacts and general aligment I am sure it will be in an A1 condition again.
To extend the life of the sweep tubes they should not be run with an anode voltage in excess of 600 V.
Compared with modern rigs the rx is not all that sensitive ,that's the only negative point. Although even then with the many very strong sigs (often from High powered stations) this is not a serious problem.

Frank gm0csz.kn6wh@ntlworld.com

6807. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 15:33:07 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BE802B1.1AAE347@att.net>
Source record: 48851
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

GCFI breakers inthe US are designed for a 5 ma differential current. But,
that is only an approximate design objective and individual units could be
higher, though not likely much lower.

I find no reason to connect a capacitor between the metal case of a device
and "neutral."

Our National Electric Code requires that chassis and case be connected to
the a-c safety ground - our Green wire. The NEC requires that all
line-powered devices have their user-accessible metal parts be connected to
safety ground.

In the "old days" such as in the 40's, transformerless AC/DC radios, for
example, commonly had a "line capacitor" from the chassis to one side of
the line. In those days of unpolarized plugs and no real standard for
wiring or inspecting convenience outlets in the home, it was a crap shoot
as to whether the chassis was being returned to the line or to neutral via
the capacitor. Some designs also used a large resistor in parallel with the
line cap. A loud hum in the radio, sometimes tunable, was the clue that the
line cap had gone bad.

Funny the little things you remember 56 years later . . .

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

Gary Glaenzer wrote:

> I'm not sure of the trip-point for our GFI's, but 30 mA sounds awfully high.
>
> My concern with the original poster is this:
>
> Given an improperly wired outlet;
> and the possibility of excessive leakage through the capacitor he installed
> between 'neutral' and the metal part of the lamp, a potential shock (or
> worse) hazard exists.
>
> Perhaps it is excessive caution on my part, but years of working around
> high-voltage, high-power broadcast equipment has made me err on the side of
> caution in these matters.

6808. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 15:58:21 UTC
From: Mark Holden <msholden@ct2.nai.net>
Message-ID: <3BE8089C.2B75DB1C@ct2.nai.net>
Source record: 48852
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Gary Glaenzer wrote:

> I repeat:
>
> you have an excessive amount of faith that every outlet you use is wired
> correctly.
>
> there is no way to guarantee that your 'UL approved non-lethal leakage'
> capacitor is going to remain that way
>
> good luck
>

It's easy enough to check to make sure an outlet is wired correctly. You can get a testing plug at hardware stores or Radio Shack.

6809. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 16:10:38 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3BE7C508.B9584692@cfl.rr.com>
Source record: 48853
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"In God we trust. ALL others we verify!"

It is very easy to check the outlets.

I find more than half of the outlets I check are either reversed
polarity
or have an open ground.

michael N6CHV

Mark Holden wrote:
>
> Gary Glaenzer wrote:
>
> > I repeat:
> >
> > you have an excessive amount of faith that every outlet you use is wired
> > correctly.
> >
> > there is no way to guarantee that your 'UL approved non-lethal leakage'
> > capacitor is going to remain that way
> >
> > good luck
> >
>
> It's easy enough to check to make sure an outlet is wired correctly. You can
> get a testing plug at hardware stores or Radio Shack.

6810. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 16:52:52 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <EzUF7.405$fq3.35398718@news2.randori.com>
Source record: 48854
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Hagstar" <yonny@att.net> wrote in message news:3BE7E4FD.D0EE8942@att.net...

> I have zero faith they are wired correctly. I guess you don't have any
> radios, TV's or other devices in your home with .01 bypass caps hooked
> to any metal parts, eh ? I'd like clarification on how this idea is
> different in any way from thousands of other appliances ?
>

1) I KNOW that every outlet in my home is wired correctly
2) I do not install 0.01 caps from what is allegedly 'neutral' to exposed
metal parts on my appliances.

does that clarify it enough for you?

6811. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 17:01:11 UTC
From: Timeman <gault72@ccia.com>
Message-ID: <9s950n$613$0@208.239.203.51>
Source record: 48855
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Here's another way to test for proper polarity: take a small neon tester, stick one probe in the narrow slot of the receptacle, the other probe in the grounded "U" hole or center screw. The light should glow.

If the tester doesn't light, test between the wide slot and ground. If it lights now, the polarity is reversed. It it still doesn't light, the receptacle isn't grounded. Either way, the receptacle should be rewired.

Regards,

Steve C

Mark Holden wrote:
>
> Gary Glaenzer wrote:
>
> > I repeat:
> >
> > you have an excessive amount of faith that every outlet you use is wired
> > correctly.
> >
> > there is no way to guarantee that your 'UL approved non-lethal leakage'
> > capacitor is going to remain that way
> >
> > good luck
> >
>
> It's easy enough to check to make sure an outlet is wired correctly. You can
> get a testing plug at hardware stores or Radio Shack.

6812. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 17:11:18 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9s95jm$7jg$3@woodrow.ucdavis.edu>
Source record: 48856
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

: In rec.radio.cb Sparky <fgillil@tincan.org> wrote:

You are quite the bafoon Sparky... your follow up posts read just like the "grouchy ham hit the road types" mentioned on the last page of the http://sonic.ucdavis.edu/siltronix web page.

: Geez Skipp, do you make this stuff up as you go along? Sweep tubes
: were built for TVs, not radio amps: They work great in the kHz range,
: but are terribly non-linear at 27MHz.

Just because a device was designed for one application, doesn't mean it won't work well for other circuits. Sweep tubes can and do preform into the lower VHF spectrum.
Your terribly non linear statement is crap... They can and have been used in linear rf amplifiers that exceed past and current fcc spectral requirements, thus some could receive type acceptance numbers on the chassis (pre fcc 10 meter ban era).
Companies like Swan, SBE, Yaesu, Dentron, Amp Supply and others did a fine job making low cost linear rf sweep tube amplifiers. But of course, you know everything...

: The result is splatter all over
: the band, regardless of how many filters you pile on top. The only
: way they worked (with any kind of usefulness) was with heavy negative
: feedback, and the tubes burned up very quickly. At the time when
: sweep tubes were cheap it was a poor-man's alternative -- definately
: not true today.

I guess all the amplifiers I have working (on 10 meters) with their original sweep tubes need changing and an extra filter or two on board? Your lack of actual experience using sweep tubes in rf service is quite evident.
Something will have to be done... my restored sweep tube amplifiers are actually cleaner than my non modified type accepted Amateur Radio. I guess my spectral display tests are off the mark again... darn Agilent and original HP gear didn't hold up when I spilled coffee in the front panel...

I hate to rain on your faulty technical parade, but few if any of the above mentioned Amateur Radio - Company made rf amplifiers have negative feedback. You blow a lot of smoke there buck'o...

I do suggest most sweep tube amplifiers have a bit of degeneration installed as described in the Dentron Article above. But you can take your negative feed back back to your first year electronics class and

learn the difference between it and degeneration.

You might want to jump in with the neutralization crowd in your next post for a different angle. Darn sweep tubes in amplifier service seem to be working much better than you say they should.

Life goes on...

skipp
http://sonic.ucdavis.edu

6813. Re: wide-band FM detector/receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 17:20:19 UTC
From: RF <listaco@terra.es>
Message-ID: <9s95ureom2@diana.bcn.ttd.net>
Source record: 48859

Tom Bruhns wrote:
>
> How wide is wide? (50kHz, 150kHz, 1MHz, 10MHz, ???)
> How clean is the signal you have to feed to the detector?

I want to receive NOAA satellite images. It's about 50 kHz
bandwidth. I need a low noise signal.

I want to use a NE602 or NE612 to obtain a 10'7 Mhz RF IF.
Can you help me selecting a FM detector?

6814. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 17:23:51 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <H0VF7.410$%K3.36331683@news2.randori.com>
Source record: 48858
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Mark Holden" <msholden@ct2.nai.net> wrote in message
news:3BE8089C.2B75DB1C@ct2.nai.net...

>
> It's easy enough to check to make sure an outlet is wired correctly. You
can
> get a testing plug at hardware stores or Radio Shack.
>

yes

I would not plug anything into an 'unknown' outlet witrhout first testing it

>

6815. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 17:23:52 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <I0VF7.411$4H3.36117604@news2.randori.com>
Source record: 48857
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Timeman" <gault72@ccia.com> wrote in message
news:9s950n$613$0@208.239.203.51...
> Here's another way to test for proper polarity: take a small neon
> tester, stick one probe in the narrow slot of the receptacle, the other
> probe in the grounded "U" hole or center screw. The light should glow.
>
> If the tester doesn't light, test between the wide slot and ground. If
> it lights now, the polarity is reversed. It it still doesn't light, the
> receptacle isn't grounded. Either way, the receptacle should be
> rewired.
>

yes, but the plug in tester is more fun with those different colored LED's !

Hey, I wonder if 'reversed polarity' has any effect on the output sound !

Somebody get hold of that $ 399 power cord guy and ask him.....

6816. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 18:00:45 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <31729DE461E069A7.69CC9339E02BFEE1.4F12045796FE5D28@lp.airnews.net>
Source record: 48863
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Tue, 06 Nov 2001 04:05:30 GMT, Jack <n2hqc@earthlink.not> wrote:

>A word of caution is in order here. The electrical outlet
>is not always wired properly. I've actually seen licensed
>electricians get it wrong.

This is *exactly* why I follow the apt complex's electrician around
with a VOM whenever he's working on our wiring.

The phone wiring was pitiful. If I find anything on the AC lines done
that badly, I'm calling in the inspector.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6817. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 18:01:38 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <FE151BFA1CC27866.0AEBC1613D78002C.BB6CA19C76393EB3@lp.airnews.net>
Source record: 48862
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Tue, 06 Nov 2001 03:52:18 GMT, "Gary Glaenzer"
<nobulltrans@irtc.net> wrote:

>You've got a lot of faith that every outlet you are using doesn't have the
>hot/neutral mis-wired.

No faith required, only the intelligence to verify.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

6818. Re: wide-band FM detector/receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 18:20:34 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BE829F2.4087A4CF@dialpoint.net>
Source record: 48860

While it is not what you are really asking, I have seen modifications to some of the scanners where the 455 khz IF filter is removed and a capacitor of around .01 mfd is instaled to pass the signal. What you really need is a wide IF filter to go along with the detector. As there is not usually many signals on that band at one time the wider selectivity is usually not much of an issue.

RF wrote:
>
> Tom Bruhns wrote:
> >
> > How wide is wide? (50kHz, 150kHz, 1MHz, 10MHz, ???)
> > How clean is the signal you have to feed to the detector?
>
> I want to receive NOAA satellite images. It's about 50 kHz
> bandwidth. I need a low noise signal.
>
> I want to use a NE602 or NE612 to obtain a 10'7 Mhz RF IF.
> Can you help me selecting a FM detector?

6819. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 19:05:09 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3BE83465.2C0A78E1@ix.netcom.com>
Source record: 48861
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"George, W5YR" wrote:

>
> I find no reason to connect a capacitor between the metal case of a device
> and "neutral."

The lamp is a 2 wire with polarized plug. And the outlets in this
house are correctly wired (tested). And I found experimently
that connecting the metal case of the lamp and neutral reduced
the RFI. To avoid lethal shock hazard in case this lamp gets
used in another house which has miswired plugs, I used a 0.01uF
250VAC rated ceramic cap. 250VAC is equivalent to 1.4KVDC
(why that high: transient spikes on the powerline). Look at a
PC switching supply and you'll usually find 0.01 or similar
sized caps from both sides of the line to the case ground. Also
true of most VGA monitors.

>
>
>
>
> In the "old days" such as in the 40's, transformerless AC/DC radios, for
> example, commonly had a "line capacitor" from the chassis to one side of
> the line. In those days of unpolarized plugs and no real standard for
> wiring or inspecting convenience outlets in the home, it was a crap shoot
> as to whether the chassis was being returned to the line or to neutral via
> the capacitor. Some designs also used a large resistor in parallel with the
> line cap. A loud hum in the radio, sometimes tunable, was the clue that the
> line cap had gone bad.
>

If such radios are packaged properly, ie, no exposed metal
parts (including mounting screws) and captive knobs, it's
not a problem.

6820. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 19:28:36 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <9s9dl4ffc1@news.hawaii.edu>
Source record: 48865
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

In article <3BE76445.B8AB152D@att.net>, Hagstar <yonny@att.net> wrote:
>WARNING WILL ROBINSON !!! Save the trip- Rat Shack has absolutely
>nothing even close to a .2 AC rated UL cap. In fact, you will have to

Maybe not, but you can mail-order out of the stack of catalogs they
have on hand from industrial component suppliers. As an example, I
can go into the local RS store and order just about any tube you can
think of out of their various catalogs.

For many orders, they'll pick up the shipping charges.

73, Jeff KH6O

--
Telecommunication Specialist Mathematics Lecturer
U.S. Coast Guard University of Hawaii System
jherman @ d14.uscg.mil jeffreyh @ hawaii.edu

6821. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 19:36:42 UTC
From: Jan Ditzian <ditzian@alltel.net>
Message-ID: <1103_1005075402@Jan>
Source record: 48864
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Sun, 4 Nov 2001 16:55:49 -0800, "Steve" <esteve@hctc.com> wrote:
> I picked up a box of Ham radio gear at a estate sale (old friend), felt
> sorry for the widow, you know.
>
> I'm not a Ham but thinking about it some since I was a kid.
>
> Anyway what I got was a AEA CP-1 set up for a Commodore 64 and a Heathkit
> HD3006 Crossfire Scope.
>
> Now I know technology has advanced and the Commodore has been replaced with
> PCs..
>
> Do I have anything here worth messing around with if I just want to DX CW
> and RTTY. I did a Google on the CP-1 and no one has discussed it since 1997.
> It seems to use it with a PC, I have to do so some wiring tricks with the
> RS232 cable coming out of the CP-1 and I need some software.
>
> Does anyone have any recommendation on public domain software and the wiring
> changes for the RS232 cable.
>
> Or should I just salvage the cables and start thinking about Pactor
> (someday).
>
> Thanks
>
> Steve
>
>
Steve,

First, you do not need an amateur radio license to hook anything up to a radio, but you need one to transmit. Go ahead an listen all you want. Second, if you are talking about software to run an old TU, you should think twice about whether you simply want to see the old box run, or whether you want to copy RTTY and/or PSK31, and/or other modes. For the first two, if you have a PC with a sound card, free software is all you need.

Try here for Zakanaka (PSK and RTTY, using the MMTTY engine) and also Logger:

http://www.qsl.net/kc4elo/main.htm

Or here for MMTTY (RTTY) and also MMSSTV:

http://www.qsl.net/mmhamsoft/

Everything you find at these web sites (Logger included) is free, meaning you CANNOT pay any money. Once you have the PC, and tones coming out of a radio speaker, your cost to listen is the cost of a pair of wires from the audio output of your radio to the mic or line input of the sound card.

It seems to me that if you want to use the CP-1 for the sake of nostalgia, you should leave it unmodified and find a Commodore into which to plug it.

Your next step should be to drop by Radio Shack and pick up a copy of "Now You're Talking," and we'll see you on the air soon.

73,
Jan, KX2A

6822. Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 19:48:11 UTC
From: Robin Birch <robin@ruffnready.co.uk>
Message-ID: <JRW0PbB75D67EwU1@falstaf.demon.co.uk>
Source record: 48866

Any body got a simple circuit for something to generate three, 120 deg phase difference, outputs.

Regards

Robin

6823. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 19:56:57 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <dgXF7.15$fv5.3458110@news2.randori.com>
Source record: 48867

spin a small three phase motor with another?

although you'd be limited in your choice of frequencies.....

what's the application and frequency range needed?

"Robin Birch" <robin@ruffnready.co.uk> wrote in message
news:JRW0PbB75D67EwU1@falstaf.demon.co.uk...
> Any body got a simple circuit for something to generate three, 120 deg
> phase difference, outputs.
>
> Regards
>
> Robin

6824. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 20:20:06 UTC
From: "owen.home" <owen.home@ntlworld.com>
Message-ID: <gHXF7.23696$sD3.5124708@news2-win.server.ntlworld.com>
Source record: 48870

> Any body got a simple circuit for something to generate three, 120 deg
> phase difference, outputs.
>
> Regards
>
> Robin

Robin
The December issue of Wireless World has one in the Circuit Ideas section,
sorry it's Electronics World now!

John

6825. micro 80 tranceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 20:23:14 UTC
From: pearlanddavid <pearlanddavid@ic24.net>
Message-ID: <tughch71vsqbbf@corp.supernews.com>
Source record: 48868

I am building the micro 80 tranceiver circuit designed by oleg borodin rv3gm. The diagram I have has no information on the number of turns on the coil L1,or where to put the tap.

Does anybody know how many turns it would be for 80m and where to put the tap?
thanks

DAVID
M0DAD

6826. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 20:32:00 UTC
From: Robin Birch <robin@ruffnready.co.uk>
Message-ID: <umoNisCAjE67Ewig@falstaf.demon.co.uk>
Source record: 48872

In article <dgXF7.15$fv5.3458110@news2.randori.com>, Gary Glaenzer
<nobulltrans@irtc.net> writes
>spin a small three phase motor with another?
>
>although you'd be limited in your choice of frequencies.............
>
>what's the application and frequency range needed?
>
>
Ok,
Fair question. Variable from 0 to 400 Hz.

It's the drive circuit for a three phase inverter. It is to power 3
phase aircraft instruments in a glider so weight and size are critical
factors. If they weren't then I'd do something similar to what you
suggest.

I would prefer to use sine waves rather than the more common square wave
switching type circuits as I don't want much noise and so would like to
save some filter components and hence weight and so on.

As the current required isn't much I was just going to drive a three
phase transformer with three push/pull transistor circuits.

Cheers

Robin
>
>
>"Robin Birch" <robin@ruffnready.co.uk> wrote in message
>news:JRW0PbB75D67EwU1@falstaf.demon.co.uk...
>> Any body got a simple circuit for something to generate three, 120 deg
>> phase difference, outputs.
>>
>> Regards
>>
>> Robin
>
>
>
>

6827. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 20:34:43 UTC
From: Hagstar <yonny@att.net>
Message-ID: <3BE84AC3.2A8D8AF5@att.net>
Source record: 48871
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Gary Glaenzer wrote:
>
>
> 1) I KNOW that every outlet in my home is wired correctly
> 2) I do not install 0.01 caps from what is allegedly 'neutral' to exposed
> metal parts on my appliances.
>
> does that clarify it enough for you?

I have myself dozens of radios and appliances that come from the factory
with such caps, however. Such as every Philco I have, for example. Not
that i am even recommending doing this to lamps dimmers- I just avoid
using them as possible.

John H.

6828. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 21:19:31 UTC
From: Robin Birch <robin@ruffnready.co.uk>
Message-ID: <pWQMuCEjPF67EwwR@falstaf.demon.co.uk>
Source record: 48873

In article <gHXF7.23696$sD3.5124708@news2-win.server.ntlworld.com>,
owen.home <owen.home@ntlworld.com> writes
>
>
>> Any body got a simple circuit for something to generate three, 120 deg
>> phase difference, outputs.
>>
>> Regards
>>
>> Robin
>
>Robin
>The December issue of Wireless World has one in the Circuit Ideas section,
>sorry it's Electronics World now!
>
>John
>
>
As in last December? If so I don't have a copy, anyone got one?
>

6829. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 21:23:03 UTC
From: troglodite@aol.com
Message-ID: <20011106162303.22705.00003100@mb-fc.aol.com>
Source record: 48874

>Any body got a simple circuit for something to generate three, 120 deg
>phase difference, outputs.

We needed to do much the same thing in our organs for the synthetic "Leslie" speaker system. Analog circuits are generally a bit of a nuisance. In early models we generated the three phase signals digitally, then filtered the outputs. Now, since we use a microprocessor, we have a sine lookup table in ROM, and a counter that samples it every 120 degrees. There's more to it than that, but that's the basic idea. You could probably utilize a PIC to do the whole works, with an external D-A converter, an analog multiplexer and 3 sample and holds. It would be absolutely stable and fairly small.

Doug Moore

6830. Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 21:25:41 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <pzYF7.5$mW6.1992753@news2.randori.com>
Source record: 48875

good question

I've only seen the term 'diplexer' used to describe two transmitters to one antenna (TV station, once in a while 2 broadcast stations will use a common antenna)

Perhaps because the term 'diplexer' implies that both transmitters (both frequencies) will be active at the same time

"Ian Jackson" <ianjackson@g3ohx.demon.co.uk> wrote in message news:JCcytBA1Mx57EwN3@g3ohx.demon.co.uk...
> So why can't a diplexer combine two antennas into one transmitter?
> Ian.
>
> In article <NB3F7.1419$Is3.26414250@news2.randori.com>, Gary Glaenzer
> <nobulltrans@irtc.net> writes
> >no, its an antenna coupler
> >
> >probably consisting of two band-pass filters to a common connector
> >
> >a 'duplexer' permits simultaneous transmit and receive on one antenna
> >
> >a 'diplexer' combines two transmitters into a common antenna
> >
> >whereas you simply want to couple two antennas into one HT, but will be
> >using only one frequency (or one band, anyway) at a time
> >
> >
> >"burnt-kat" <burnt-katNOT@home.com> wrote in message
> >news:8r3F7.155151$Pr1.41544744@news1.rdc1.tn.home.com...
> >> I want to build a device that will enable me to combine inputs from a
2m
> >and
> >> a 70cm antenna into the one BNC connection on my HT. I believe this
would
> >be
> >> a duplexer?
> >>
> >>
> >>
> >>
> >
> >
>
>

6831. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 21:43:35 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <bQYF7.81395$tb2.6382115@bin2.nnrp.aus1.giganews.com>
Source record: 48876

I think conventional wisdom uses about 25-50k resistors, 25 Watt rating, across each capacitor. And they are wire wound.

Yes, an open one can cause trouble and I've seen it happen. But if you rate them conservatively and use high quality resistors you are probably safe.

The ones I saw give problems were not marked with a known brand name and were of poor appearance. The old standby US made shiny brown units, or in some cases charcoal gray, did just fine.

If you use 25W resistors make sure the actual power dissipation is less than half that, worst case. So if you have 400 Volts on a resistor, use 12k Ohms or more. This results in 33 mA of bleeder current in normal operation. The time constant with 300 microfarad capacitors becomes 3.6 seconds, so make sure after power is off, that you wait a minute or so before touching anything.

73, Bob K6DDX

6832. Re: Gel Cell Batteries - CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 21:56:55 UTC
From: TFW <tfwill@ibm.net>
Message-ID: <H0ZF7.627$r17.14429@news-west.eli.net>
Source record: 48878
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

12 v 7 a gel cell at Batteries.com $16.99 + $1.29 shipping

"Joe Brancato <>< N6YYO" <n6yyo@Yahoo.com> wrote in message
news:3be6bf70_1@news.starnetinc.com...
> I have received my shipful (actually a few truckloads) of 7 Amp-Hour POWER
> STATION gel cell batteries with wall charger and car charger as described
at
> http://www.hamcontact.com/products.html . These are the units that I
have
> been advertising in QST, CQ, etc., for years and are excellent for
powering
> the new Yaesu FT-817, Icom IC706, etc. I am offering them at $39.95 plus
> shipping. This is $20 below the price that the major ham radio stores
> offer. You'd be paying 50% more if you bought from them. This is a once
in
> a long while offer, and will be valid only until the end of this month
> (Makes a great Christmas present).
>
> If interested either call 800-933-4264 or order via our secure website at
> www.HamContact.com
>
> YOU MUST MENTION THAT YOU SAW THE REC.RADIO.SWAP LISTING TO GET THIS
SPECIAL
> PRICING.
>
> Thank you and please pass this message to a friend who might be
interested,
>
> Joe N6YYO
> THE HAM CONTACT.
>
> p.s. We also have larger 17 Amp-Hr gel cell "Jump Start" systems, Solar
> Panels and DC to AC inverters from 140 to 3000 Watts in addition to our
> radio amateur gear (no radios).
>
>
>
>

6833. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 22:00:38 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3BE85D86.EE02FA6B@enteract.com>
Source record: 48877

Robin Birch wrote:

> Any body got a simple circuit for something to generate three, 120 deg
> phase difference, outputs.

EDN Magazine, August 02, 2001, Design Ideas, page 102,
"Inverters form three-phase VCO", by Al Dutcher, West Deptford, NJ

http://www.e-insite.net/ednmag/index.asp?layout=article&articleId=CA149120&pubdate=08/02/2001

Uses one inverter chip; it's even voltage-controllable!

--
Mike Hall
http://www.enteract.com/~mghall

6834. Re: Three Phase Sine Wave Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 22:02:39 UTC
From: "owen.home" <owen.home@ntlworld.com>
Message-ID: <qbZF7.24191$sD3.5209475@news2-win.server.ntlworld.com>
Source record: 48879

> As in last December? If so I don't have a copy, anyone got one?

Robin
No it's this December's issue, I picked it up from my Newsagent today so
it's probably been out for a few days.

John

6835. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 22:39:19 UTC
From: lbrty4us@aol.com
Message-ID: <205ef942.0111061439.373f92d4@posting.google.com>
Source record: 48880
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> yes, but the plug in tester is more fun with those different colored LED's !

A lot faster as well.

> Hey, I wonder if 'reversed polarity' has any effect on the output sound !

Absolutely! Why, seductive bass becomes aggressive in presence...<G>

I find it interesting that the thread has ventured into GFCI outlets
as well, since I get ugly RFI from THEM too.

Latest source of quite strong RFI, and never before picked up by
another set than the one I had open last night: a rechargeable
toothbrush, on 75 meters.

6836. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 23:01:56 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <EZZF7.5$Kc.1099898@news2.randori.com>
Source record: 48881
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

<lbrty4us@aol.com> wrote in message
news:205ef942.0111061439.373f92d4@posting.google.com...
> > yes, but the plug in tester is more fun with those different colored
LED's !
>
> A lot faster as well.
>
> > Hey, I wonder if 'reversed polarity' has any effect on the output sound
!
>
> Absolutely! Why, seductive bass becomes aggressive in presence...<G>
>
> I find it interesting that the thread has ventured into GFCI outlets
> as well, since I get ugly RFI from THEM too.
>
> Latest source of quite strong RFI, and never before picked up by
> another set than the one I had open last night: a rechargeable
> toothbrush, on 75 meters.

if you take out the removeable brush part, does it go to a higher frequency?

6837. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-06 23:54:24 UTC
From: Steve Radcliff <sradcliff@yikes.com>
Message-ID: <3BE87823.5CEB919E@yikes.com>
Source record: 48882
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Reducing RFI from lamp dimmers.

Buy a lamp dimmer from the last 2 decades and replace the one you have from the 60s.

Any good quality dimmer like those from Lutron will be shielded and do not cause RFI to AM or shortwave radios. If yours does, it is old and probably the kind that you turn with a round knob. Time to get a new one, they don't cost very much.

6838. Heathkit Oscilloscope Probes, Two excellent items on Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 00:23:49 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <9s9uve$2df$1@slb1.atl.mindspring.net>
Source record: 48883

Heathkit Oscilloscope Probes, Two excellent items on Ebay

Heathkit Universal Oscilloscope Probe, PK-1

This universal scope probe is in excellent condition. Included are the original box, instruction brochure, and warranty card. I've never actually used the probe, so I'm not certifying its functionality (but there is not much to go wrong).

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1660000805

Demodulator Probe for Oscilloscope - 337-C

This demodulator probe is in excellent condition, except for a minor melt mark on the front plastic housing (see picture). Included are the original box, instruction brochure, and warranty card. I've never actually used the probe, so I'm not certifying its functionality (but there is not much to go wrong).

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1659996386

6839. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 01:04:01 UTC
From: MARK T OPPAT <moppat@flash.net>
Message-ID: <5M%F7.151$0b5.43861061@newssvr16.news.prodigy.com>
Source record: 48884
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Yeah, but why buy from Radio Shack when there are so many starving
restoration specialists out here? I sell tubes, so does Bill Turner, and
probably a dozen others on this site.

We appreciate your business more. Even Bill!

And, our prices are usually better, even with shipping.

Mark Oppat Antique Audio
email me for my capacitor and misc flyer....
Jeffrey Herman <jeffreyh@Hawaii.Edu> wrote in message
news:9s9dl4ffc1@news.hawaii.edu...
> In article <3BE76445.B8AB152D@att.net>, Hagstar <yonny@att.net> wrote:
> >WARNING WILL ROBINSON !!! Save the trip- Rat Shack has absolutely
> >nothing even close to a .2 AC rated UL cap. In fact, you will have to
>
> Maybe not, but you can mail-order out of the stack of catalogs they
> have on hand from industrial component suppliers. As an example, I
> can go into the local RS store and order just about any tube you can
> think of out of their various catalogs.
>
> For many orders, they'll pick up the shipping charges.
>
> 73, Jeff KH6O
>
> --
> Telecommunication Specialist Mathematics Lecturer
> U.S. Coast Guard University of Hawaii System
> jherman @ d14.uscg.mil jeffreyh @ hawaii.edu

6840. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 01:35:49 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <Vd0G7.9$xD1.4904044@news2.randori.com>
Source record: 48887

2 thoughts come to mind:

replacement hose for a shop vac

farm supply stores sell flexible suction hose for water pumps (a bit stiff due to internal re-inforcing)

"Douglas Snowden" <snowden@peoplepc.com> wrote in message news:tuh3e7804so81a@corp.supernews.com...
> I am looking to put a blower for a linear amplifier in a separate room
> probably 15 ft away and have my amp. blower hosr connected to it.
> I need something about 2 1/4 inch I.D. Is there a place that sells
> something like that? I'm sure there is, I just can't find it. Is there
> a truch radiator hose that might work? Surely many people have done
> this before.
>
> Doug N4IJ
>
>
>
>

6841. Re: Gel Cell Batteries - CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 01:41:06 UTC
From: "Mark L. Bary" <mNOSPEMbary@adelphia.net>
Message-ID: <3BE89113.D4A220E@adelphia.net>
Source record: 48888
Cross-posted to: rec.radio.swap,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Ummm, I think what he's saying is that he is selling the 'Power Station' product at reduced price; not just the battery and chargers. On the web page the 'Power Station' goes for $49.95 + about $11 shipping. So the price is down $10 which about pays for your shipping.

At least, that's how I read what he says below.... 8=)

Mark

"Joe Brancato <>< N6YYO" wrote:

> I have received my shipful (actually a few truckloads) of 7 Amp-Hour POWER
> STATION gel cell batteries with wall charger and car charger as described at
> http://www.hamcontact.com/products.html . These are the units that I have
> been advertising in QST, CQ, etc., for years and are excellent for powering
> the new Yaesu FT-817, Icom IC706, etc. I am offering them at $39.95 plus
> shipping. This is $20 below the price that the major ham radio stores
> offer. You'd be paying 50% more if you bought from them. This is a once in
> a long while offer, and will be valid only until the end of this month
> (Makes a great Christmas present).
>
> If interested either call 800-933-4264 or order via our secure website at
> www.HamContact.com
>
> YOU MUST MENTION THAT YOU SAW THE REC.RADIO.SWAP LISTING TO GET THIS SPECIAL
> PRICING.
>
> Thank you and please pass this message to a friend who might be interested,
>
> Joe N6YYO
> THE HAM CONTACT.
>
> p.s. We also have larger 17 Amp-Hr gel cell "Jump Start" systems, Solar
> Panels and DC to AC inverters from 140 to 3000 Watts in addition to our
> radio amateur gear (no radios).

6842. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 01:50:46 UTC
From: w4pqwhs@aol.com
Message-ID: <20011106205046.23612.00001604@mb-cf.aol.com>
Source record: 48889

Try an appliance parts store for a dryer hose they are about that diameter and they are flexible ..good luck Harold W4PQW

6843. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 01:55:34 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111061755.2281b377@posting.google.com>
Source record: 48890
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu> wrote in message
news:<9s95jm$7jg$3@woodrow.ucdavis.edu>...
> : In rec.radio.cb Sparky <fgillil@tincan.org> wrote:
>
> You are quite the bafoon Sparky... your follow up posts read just like
> the "grouchy ham hit the road types" mentioned on the last page of the
> http://sonic.ucdavis.edu/siltronix web page.
>
> : Geez Skipp, do you make this stuff up as you go along? Sweep tubes
> : were built for TVs, not radio amps: They work great in the kHz range,
> : but are terribly non-linear at 27MHz.
>
> Just because a device was designed for one application, doesn't mean it
> won't work well for other circuits. Sweep tubes can and do preform into
> the lower VHF spectrum.
> Your terribly non linear statement is crap... They can and have been used
> in linear rf amplifiers that exceed past and current fcc spectral
> requirements, thus some could receive type acceptance numbers on the
> chassis (pre fcc 10 meter ban era).
> Companies like Swan, SBE, Yaesu, Dentron, Amp Supply and others did a fine
> job making low cost linear rf sweep tube amplifiers. But of course, you
> know everything...

And you use toilet paper in your typewriter, too, huh? I never said
no amps were made for sweep tubes, I said they are non-linear when
used as an RF amp. And they are. I also said they can be made to
work with a reasonable amount of linearity, but not very efficiently.
AND I also said that if they are not linear, no filter will make
them linear. Why do you insist on putting words in my mouth?

> I guess all the amplifiers I have working (on 10 meters) with their
> original sweep tubes need changing and an extra filter or two on board?
> Your lack of actual experience using sweep tubes in rf service is quite
> evident.
> Something will have to be done... my restored sweep tube amplifiers are
> actually cleaner than my non modified type accepted Amateur Radio. I guess
> my spectral display tests are off the mark again... darn Agilent and
> original HP gear didn't hold up when I spilled coffee in the front
> panel...
>
> I hate to rain on your faulty technical parade, but few if any of the
> above mentioned Amateur Radio - Company made rf amplifiers have
> negative feedback. You blow a lot of smoke there buck'o...
>

> I do suggest most sweep tube amplifiers have a bit of degeneration
> installed as described in the Dentron Article above. But you can take
> your negative feed back back to your first year electronics class and
> learn the difference between it and degeneration.
>
> You might want to jump in with the neutralization crowd in your next post
> for a different angle. Darn sweep tubes in amplifier service seem to be
> working much better than you say they should.

I would like to see your data, because I haven't seen a sweep tube amp that didn't have spikes up the spectrum or noise sidebands less than 200kHz wide.

Now where did I say that degeneration = neutralization = negative feedback? I didn't. But it's obvious that you don't know what the terms mean. 'Neutralization' is degeneration included so to prevent oscillation. 'Degeneration' is any type of method used to limit the open-loop gain of an amplifier, and includes 'negative feedback'. And if you take a real good look you will see that the 'neutralization' added to an RF amp is usually in the form of 'negative feedback'. Degeneration is used to reduce distortion, and is usually done with either a cathode resistor or negative feedback. If distortion is heavy, as in the case of sweep tubes, both should be used.

Also, you seem to be under the mistaken impression that just because an amp was mass produced by a well-known company that it necessarily -must- be a good design. Corporate America has provided many examples proving that to be false. But I'll tell ya what, Skipp: You provide just -one- example of a commercial radio that uses a sweep tube for the RF final and I'll eat my words. I'm not talking about junk made for some impoverished amateurs, but radio equipment meant to be used in a commercial radio service. Just one. How about it?

6844. Re: micro 80 tranceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 02:25:11 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BE89B84.A35D36BF@home.com>
Source record: 48891

If it is a tapped coil, the normal is 1/4 of the turns up from the bottom. The inductance is determined from the standard equation F = 2*Pi*Sqrt(L*C). C is Farads. C in pf is 1x10**-12. L in in Henrys. It will likely end up somewhere in the 5 to 10 uH range (10*10**-6). C you can determine from the capacitors in the VFO circuit.

Knowing L, you can pick a Toroid core to wind the inductor on and calculate the number of turns needed.

- Dan, N7VE

pearlanddavid wrote:
>
> I am building the micro 80 tranceiver circuit designed by oleg borodin
> rv3gm. The diagram I have has no information on the number of turns on the
> coil L1,or where to put the tap.
>
> Does anybody know how many turns it would be for 80m and where to put the
> tap?
> thanks
>
> DAVID
> M0DAD

6845. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 02:47:13 UTC
From: rcnixon@mindspring.com
Message-ID: <3be8a042.8500619@news.mindspring.com>
Source record: 48892
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

fgillil@tincan.org (Sparky) wrote:

>Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu> wrote in message
news:<9s95jm$7jg$3@woodrow.ucdavis.edu>...
>> : In rec.radio.cb Sparky <fgillil@tincan.org> wrote:
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>> You are quite the bafoon Sparky... your follow up posts read just like
>> the "grouchy ham hit the road types" mentioned on the last page of the
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>>
>> : Geez Skipp, do you make this stuff up as you go along? Sweep tubes
>> : were built for TVs, not radio amps: They work great in the kHz range,
>> : but are terribly non-linear at 27MHz.
>>
>> Just because a device was designed for one application, doesn't mean it
>> won't work well for other circuits. Sweep tubes can and do preform into
>> the lower VHF spectrum.
>> Your terribly non linear statement is crap... They can and have been used
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>> requirements, thus some could receive type acceptance numbers on the
>> chassis (pre fcc 10 meter ban era).
>> Companies like Swan, SBE, Yaesu, Dentron, Amp Supply and others did a fine
>> job making low cost linear rf sweep tube amplifiers. But of course, you
>> know everything...
>
>And you use toilet paper in your typewriter, too, huh? I never said
>no amps were made for sweep tubes, I said they are non-linear when
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>work with a reasonable amount of linearity, but not very efficiently.
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>> I guess all the amplifiers I have working (on 10 meters) with their
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>> evident.
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>> installed as described in the Dentron Article above. But you can take
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>> working much better than you say they should.
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>amp that didn't have spikes up the spectrum or noise sidebands less
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>terms mean. 'Neutralization' is degeneration included so to prevent
>oscillation. 'Degeneration' is any type of method used to limit the
>open-loop gain of an amplifier, and includes 'negative feedback'.
>And if you take a real good look you will see that the 'neutralization'
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>Degeneration is used to reduce distortion, and is usually done with
>either a cathode resistor or negative feedback. If distortion is
>heavy, as in the case of sweep tubes, both should be used.
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>an amp was mass produced by a well-known company that it necessarily
>-must- be a good design. Corporate America has provided many examples
>proving that to be false. But I'll tell ya what, Skipp: You provide
>just -one- example of a commercial radio that uses a sweep tube for
>the RF final and I'll eat my words. I'm not talking about junk made
>for some impoverished amateurs, but radio equipment meant to be used
>in a commercial radio service. Just one. How about it?

I may be talking through my hat here, as I often do, but aren't the
finals in the Yaesu FT-101 sweep tubes. How about the finals in the
Drake TR4 series? Y'know, I think I'll go over to the Drakelist and
ask. More later.

Russ

6846. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 02:55:21 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9sa7p3gfi1@uranium.btinternet.com>
Source record: 48893

BUBBA SMITH <BUBBA49@PRODIGY.NET> wrote in message
news:3BE7366A.CD889079@PRODIGY.NET...
>
> Which bleeder resistors should I use on a 5000 volt power supply?
It is
> used on a 4-1000 amp. The capacitor bank I have constructed is
made up
> of 15 computer grade capacitors with a value of 450 volt / 470uf.
for a
> total of 6750 volts and 31uf for filtering. I have heard that
wirewound
> resistors are not a good first choice because they can open up
(burn up)
> and leave the cap bank charged. What should I use as far as ohm
rating
> and wattage for these resistors?Thank you in advance.
> 73 de N8SGA
> Jim Mohney
>
==========
If you are not happy at the thought of a bleeder resistor becoming
open circuit use two in parallel. This squares the probability of
failure. 1 in 10000 improves to 1 in 100000000.

6847. Sweep Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 03:03:32 UTC
From: rcnixon@mindspring.com
Message-ID: <3be8a3ed.9439021@news.mindspring.com>
Source record: 48894

Yep, I just checked. The 6JB6 finals in the Drake "4" line are indeed sweep tubes. No one seems to have complained too much over the last thirty or so years about the non-linearity of the finals in Drake equipment. In fact, the audio of thost transmitters is pretty good. Usually about 150 watts too.

Russ

6848. Radiofest DXcontestvention program update

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 03:24:13 UTC
From: k3bu@aol.com
Message-ID: <20011106222413.24864.00001080@mb-fo.aol.com>
Source record: 48895

Here is the latest program (still developing), please check
http://www.verkhovyna.com/radiofest.htm
for the latest updates

****
Program for 2001 Radiofest Eastï¿½
and DX-Contestvention at Verkhovyna resort in Glen Spey, NY

Due to shortage of promotion time and concern of some contest club's members this year's program will be compressed to one day event on Saturday Nov. 10, 2001

Come, see the place, meet the people, enjoy presentations, have fun!

8:00 am Breakfast, fresh NY bagels, muffins with fixins and fresh Starbucks coffee

10:00 - 12:00 am Antenna forum

10:00 - 10:45 pm Quads, multiple polarizations and techniques by Ken "Judge" Glanzer, K7GCO
Advantages of Quads, ways of feeding, 6 polarizations, multibanding, applications for contesters.

11:00 - 11:45 pm Miracle by the ocean by Yuri Blanarovich, K3BU, VE1BY, VE3BMV
Salt water phenomena and ground effects, vertical magic, search for the most effective vertical radiator, 3/8 vertical, 4-square, quad loops, EZNEC modeling, practical results and comparisons 4 square vs. 3 el. dual polarization Quad at Cape Hatteras, NC vs. NJ

12:00 - 01:45 pm Club's Lunch meeting - official "business meetings" of participating clubs
Welcome by UACF President Steven Kapczak
Business meetings of FRC, YCCC, PVRC, MRC, NJDXA, ?....
Cold buffet lunch available

01:00 - 04:00 pm Extreme Contesting Forum

1:00 - 1:45 pm SO2R on the same band by Yuri Blanarovich, K3BU, VE1BY, VE3BMV
Problems and techniques of using two or more radios on the same band, interference, phase noise, RX overload, polarization diversity, switching system. Application is SO or MM situations. Display and demo of hardware on 10m.

2:00 - 2:45 Invited speaker (KQ2M?)

3:00 - 3:45 On the way (V26B?)

5:00 pm PIZZA BEER Party
"Banquet" speaker. Tesla RC President Yuri Blanarovich, K3BUï¿½
History of Verkhovyna resort, plans for development and activities, home to ham radio, camps, meetings, conventions, plans for building N2EE M/M Tesla RC "mother of all contest stations"

Yuri's famous gourmet Ukrainian Pizza, salad buffet and Spaten Oktoberfest Beer on tap courtesy of Tesla RC and Verkhovyna Mountainview Resort will be served. Giant hospitality suite, bar, mingle with big guns and little pistols, tell the lies, show your slides and videos and have fun as long as you can stand it.

Admission free, tax deductible donations to UACF Verkhovyna Building Fund are welcome.ï¿½
For directions, more information and latest updates please check www.Verkhovyna.com and click on RADIOFEST

See you all there!

6849. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 03:46:33 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3BE8AE99.7EA2F65D@ix.netcom.com>
Source record: 48896
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

ZZZjim_cronin@juno.comZZZ wrote:

>
> A good source for the part is PC power supplies, monitors, TV sets
> and microwave ovens. Just make sure any capacitors are discharged
> before poking around.
>

That's where I get my parts. At work I'd scrounge the dead
VGA monitors out of the trash bin, remove the circuit board
and re-throw out the cabinet and CRT. Lots of high voltage
parts.

6850. Re: HP Wave Analyzer ??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 04:16:56 UTC
From: Joe Leikhim <jleikhim@nettally.com>
Message-ID: <3BE8B5B7.983A2544@nettally.com>
Source record: 48898

I use an HP3586B Selective levelmeter, it lacks AVC, and hunts a bit in volume level unless you set the meter to average or fix the input range. I am thinking of adding a simple AVC circuit to add to the audio output. You can pick these up for about $400 or less. They were many thousands new, but now analog microwave maintenance is a "lost art" so you can find a bargain. Be sure to check the power supply board as there is a (3volt?) nicad battery that tends to leak and needs to be replaced to hold the memory functions. Also check Aniritsu, they make a similar product that looks like a fine instrument. One things for sure, these are very accurate receivers!

Henry Kolesnik wrote:

> Back in the 1960s HP made 2 wave analyzers. The 302A and the 310A. The
> 302 covers 20 cps to 50Kc and the 310 covers 1 kc to 1.5 mc. Apart from the
> coverage the differnces to me don't appear that great. Can anyone recall
> using these things and which is best for which application. I'm wondering
> if anyone has used either as a VLF receiver. I know they don't have AVC and
> wonder what other mods might make sense.
> Tnx
> Hank wd5jfr

--
Joe Leikhim K4SAT
Jleikhim@nettally.com

Sky King, Sky King, do not answer.

"The Revolution will NOT be televised" -Gil Scott Heron

"Whats he building in there?"- Tom Waits

6851. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 04:18:43 UTC
From: gdsnkl@bellatlantic.net
Message-ID: <3be8b568.14043315@news.bellatlantic.net>
Source record: 48897

On Tue, 6 Nov 2001 20:34:52 -0800, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>I am looking to put a blower for a linear amplifier in a separate room
>probably 15 ft away and have my amp. blower hosr connected to it.
>I need something about 2 1/4 inch I.D. Is there a place that sells
>something like that? I'm sure there is, I just can't find it. Is there
>a truch radiator hose that might work? Surely many people have done
>this before.
>
Home Depot or the like will have various sizes of ducting, including
the setup for a built in shop vac system, dryer venting, air ducts,
etc.

You could also try McMaster-Carr, www.mcmaster.com or Grainger's
www.grainger.com, both of which sell all kinds of industrial goodies.

Happy trails,
Gary (net.yogi.bear)
---
at the 51st percentile of ursine intelligence

Gary D. Schwartz, Needham, MA, USA
Please reply to: garyDOTschwartzATpoboxDOTcom

6852. Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 04:34:52 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tuh3e7804so81a@corp.supernews.com>
Source record: 48886

I am looking to put a blower for a linear amplifier in a separate room probably 15 ft away and have my amp. blower hosr connected to it. I need something about 2 1/4 inch I.D. Is there a place that sells something like that? I'm sure there is, I just can't find it. Is there a truch radiator hose that might work? Surely many people have done this before.

Doug N4IJ

6853. Re: SWR due to coax switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 06:01:52 UTC
From: burnt-kat <burnt-katNOT@home.com>
Message-ID: <k74G7.7943$GD.2450756@news1.rdc1.tn.home.com>
Source record: 48899

How would one determine the value of the cap that should be soldered across
the leads of the switch, and where should they be soldered?

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:9s69li$a2s$2@plutonium.btinternet.com...
> Reflections from impedance mismatches at switches in coax feedlines
> are often mentioned on these walls and described as something which
> matters. But nobody ever says how much it matters. Very often it
> doesn't. Home-brew coax switch makers may be interested in the
> following.
>
> Inside the switch box, as the inner coaxial conductor continues
> through the switch wiring it is defficient of capacitance. The
> inside walls of the box become the outer conductor of a short, much
> higher impedance line. The missing capacitance is proportional to
> the length of bare wire inside the switch. In the worst case the
> missing capacitance is equal to the capacitance of the same length
> of coax.
>
> Insofar as reflections are concerned the missing capacitance has
> exactly the same effect as an excess of capacitance of the same
> value. It is a straightforward matter to calculate the SWR which
> results from a lump of capacitance across a transmission line.
> Furthermore we are interested only in small SWRs and the
> calculation for solid polyethylene coax then simplifies to -
>
> SWR = 1 + F * L / 1250
>
> where F is MHz and L is length of bare wire through the switch in
> inches.
>
> At 144 MHz and a bare wire length of 2 inches, SWR is approx 1.23
> which might not be considered excessive. Remember it is worst-case.
> It could be reduced by a small fixed capacitor across the line
> inside the box. (1.5" length of line ?)
>
> Reflections below 50 MHz due to coaxial switches are entirely
> negligible in comparison with other causes of SWR > 1:1
>
> A more accurate worst-case formula which applies when bare wire
> length is less than a very unlikely 1/10th wavelength is -
>
> SWR = (1 + x) / (1 - x)
>

> Where x = F * L / 2500
>
> The formula can be used in other situations (a dummy load resistor
> ?) where a wire replaces a short length of solid Pe coax of any
> normal impedance.
> ----
> Regards, Reg, G4FGQ
> http://www.g4fgq.com
>
>
>

6854. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 09:36:03 UTC
From: k3ky@erols.spamnocom
Message-ID: <3be8fe48.346759062@news.erols.com>
Source record: 48900

About 10 years ago, I bought a heater hose at my local Penn
Jersey auto parts store. I am looking at the box right now and
it is 2 1/4" dia. and 6ft long. Looks just like those flexible
dryer hoses (4") with the coil spring running its length, except
the plastic is black and of course it is smaller dia. If your local
auto parts store does not carry anything like this, you could
probably get hold of a J.C. Whitney mail order catalog and
order one. BTW if you could adapt to and use a 4" dia. hose,
that would be *way* better, and it would be well worth the
effort to try to find one that expands out with the smoothest
possible inner wall. The more expensive expanding aluminum
dryer hoses are much better in this regard. Longer lengths
with too much 'ripply' wall texture or too small a dia. will cause
restriction, especially due to turbulence, and your powerful fan
may no longer move enough air due to the excessive back
pressure. With a 15 ft. run of tubing and only 2 1/4" dia, you
better have a pretty powerful fan. Bigger pipe would be better.
73, David K3KY

On Tue, 6 Nov 2001 20:34:52 -0800, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>I am looking to put a blower for a linear amplifier in a separate room
>probably 15 ft away and have my amp. blower hosr connected to it.
>I need something about 2 1/4 inch I.D. Is there a place that sells
>something like that? I'm sure there is, I just can't find it. Is there
>a truch radiator hose that might work? Surely many people have done
>this before.
>
>Doug N4IJ
>
>
>
>

6855. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 09:43:22 UTC
From: k3ky@erols.spamnocom
Message-ID: <3be90212.347729213@news.erols.com>
Source record: 48901

BTW my "heater hose" was actually called Defroster Hose.
73, David K3KY

On Wed, 07 Nov 2001 09:36:03 GMT, k3ky@erols.spamnocom wrote:

>About 10 years ago, I bought a heater hose at my local Penn
>Jersey auto parts store. I am looking at the box right now and
>it is 2 1/4" dia. and 6ft long. Looks just like those flexible
>dryer hoses (4") with the coil spring running its length, except
>the plastic is black and of course it is smaller dia. If your local
>auto parts store does not carry anything like this, you could
>probably get hold of a J.C. Whitney mail order catalog and
>order one. BTW if you could adapt to and use a 4" dia. hose,
>that would be *way* better, and it would be well worth the
>effort to try to find one that expands out with the smoothest
>possible inner wall. The more expensive expanding aluminum
>dryer hoses are much better in this regard. Longer lengths
>with too much 'ripply' wall texture or too small a dia. will cause
>restriction, especially due to turbulence, and your powerful fan
>may no longer move enough air due to the excessive back
>pressure. With a 15 ft. run of tubing and only 2 1/4" dia, you
>better have a pretty powerful fan. Bigger pipe would be better.
>73, David K3KY
>
>On Tue, 6 Nov 2001 20:34:52 -0800, "Douglas Snowden"
><snowden@peoplepc.com> wrote:
>
>>I am looking to put a blower for a linear amplifier in a separate room
>>probably 15 ft away and have my amp. blower hosr connected to it.
>>I need something about 2 1/4 inch I.D. Is there a place that sells
>>something like that? I'm sure there is, I just can't find it. Is there
>>a truch radiator hose that might work? Surely many people have done
>>this before.
>>
>>Doug N4IJ
>>
>>
>>
>>
>

6856. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 11:35:10 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BE91C3C.261C515C@earthlink.net>
Source record: 48902
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Gary---

> Perhaps it is excessive caution on my part, but years of working
> around high-voltage, high-power broadcast equipment has made me err
> on the side of caution in these matters.

Well, when you're dealing with kilovolts at amps, I can understand that level of caution. Here, however, we are dealing with a lamp which at most, if miswired, has 120VAC (US standard, Frank) on the chassis if the chassis is ``grounded'' to the ``neutral'' lead.

I've been hit by a badly grounded institutional refrigerator before, as well as hit by a hot wire I didn't know was hot. It's not bad. Believe me---if he has a miswired outlet, he'll know it the first time he touches the lamp. Getting shocked by 120VAC isn't that nasty. Of course, there are always exceptions, however I would tend to believe that a low-current line-power shock wouldn't tend to be lethal.

In any case, however: Test that outlet! Better to be safe than sorry.

Good Luck,

Henry C. Gernhardt, III
KE4PIB

6857. Re: SWR due to coax switches

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 12:03:38 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9sb8p6iof2@neptunium.btinternet.com>
Source record: 48903

Don't use an ordinary capacitor. Its working voltage will probably be exceeded at some time or other. Just use a very short length of coax, a bit less than would be needed to pass through the switch contacts if the switch wasn't there.

The whole idea is to replace the capacitance of the missing short length of coax. If you don't know what the capacitance is just replace it with the same little bit of coax line.

Solder it to the switch's common input socket where it is always in circuit.

If you are pernickety, trim length for minimum SWR on the feeder. But how will you know whether the SWR is not due to a dozen other things which can cause the SWR to exceed 1-to-1 ? Best thing to do is nothing unless you are attempting to push a switch beyond its normal working performance.

Regards, Reg, G4FGQ
http://www.g4fgq.com

==========

> How would one determine the value of the cap that should be
soldered across
> the leads of the switch, and where should they be soldered?
>
>
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
> news:9s69li$a2s$2@plutonium.btinternet.com...
> > Reflections from impedance mismatches at switches in coax
feedlines
> > are often mentioned on these walls and described as something
which
> > matters. But nobody ever says how much it matters. Very often
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> > doesn't. Home-brew coax switch makers may be interested in the
> > following.
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> > Inside the switch box, as the inner coaxial conductor continues
> > through the switch wiring it is defficient of capacitance. The
> > inside walls of the box become the outer conductor of a short,
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> > higher impedance line. The missing capacitance is proportional
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> > the length of bare wire inside the switch. In the worst case
the
> > missing capacitance is equal to the capacitance of the same
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> > of coax.
> >
> > Insofar as reflections are concerned the missing capacitance
has
> > exactly the same effect as an excess of capacitance of the same
> > value. It is a straightforward matter to calculate the SWR
which
> > results from a lump of capacitance across a transmission line.
> > Furthermore we are interested only in small SWRs and the
> > calculation for solid polyethylene coax then simplifies to -
> >
> > SWR = 1 + F * L / 1250
> >
> > where F is MHz and L is length of bare wire through the switch
in
> > inches.
> >
> > At 144 MHz and a bare wire length of 2 inches, SWR is approx
1.23
> > which might not be considered excessive. Remember it is
worst-case.
> > It could be reduced by a small fixed capacitor across the line
> > inside the box. (1.5" length of line ?)
> >
> > Reflections below 50 MHz due to coaxial switches are entirely
> > negligible in comparison with other causes of SWR > 1:1
> >
> > A more accurate worst-case formula which applies when bare wire
> > length is less than a very unlikely 1/10th wavelength is -
> >
> > SWR = (1 + x) / (1 - x)
> >
> > Where x = F * L / 2500
> >
> > The formula can be used in other situations (a dummy load
resistor
> > ?) where a wire replaces a short length of solid Pe coax of any
> > normal impedance.
> > ----
> > Regards, Reg, G4FGQ
> > http://www.g4fgq.com
> >
> >
> >
>
>

6858. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 12:45:10 UTC
From: PipeDreams <pipedreams@hotmail.com>
Message-ID: <20011107074521.148$Kz@news.newsreader.com>
Source record: 48904
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Your talking out your ass Steve as usual.

<Moparholic@hotmailnospam.com> wrote in message
news:20011106224228.312$RV@newsreader.com...
> rcnixon@mindspring.com (Russell C. Nixon) wrote:
> > fgillil@tincan.org (Sparky) wrote:
> >
> > I may be talking through my hat here, as I often do,
> >
> Agreed.
>
> --
> -Moparholic
>
> "Keep on Rockin..in the free world".
> -Neil Young.

6859. wanted 2m preamp design

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 12:48:33 UTC
From: Andrew Rich <andrew.rich@bigpond.com>
Message-ID: <_CtG7.418$8x1.985@newsfeeds.bigpond.com>
Source record: 48940

do you have a reliable 2m pre-amp design ?

andrew.rich@bigpond.com

6860. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 14:02:11 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0111070602.28ab1c63@posting.google.com>
Source record: 48905

"Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<9s7bbh$q0e$1@plutonium.btinternet.com>...
> To wind a 3-to-1 turns ratio, 9-to-1 impedance ratio transformer,
> just wind 3 wires alongside each other around a ferrite ring about
> 2 inches (50mm) diameter. Eight or 10 turns of each of the three
> wires will be OK from 1.8 to 30 MHz. Use a wire gauge and a fairly
> thick insulation thickness which nicely fills the ferrite ring.
>

I don't think such a thing would be a 'balun', since one winding would
be common to both sides. What I suggested in an another post was to
wind 4 wires. One would be the primary and the other three the
secondary.

Jim
N8EE

6861. reply to myself, but found the solution

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 14:41:54 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <SKbG7.85013$ez.10899281@news1.rdc1.nj.home.com>
Source record: 48906

this is going to be harder than aligning my SX117, there is a pre-alignment
and alignment procedure!

Jack
"schatzie" <jdwalton@home.com> wrote in message
news:yFRF7.78970$ez.10182503@news1.rdc1.nj.home.com...
> When I go through the setup procedures for the analyzer I can set the
center
> frequency just fine at 50kHz. The comb generator works exactly as it
> should, 20kHz +/1 less than 1 Hz. and looks fine on my 7704 scope. The
> spacing to the right of the center mark (50kHz to 100kHz) is exactly on,
but
> the spacing to the left (0 to 50kHz) is only 80% of what it should be.
(The
> SPAN adj seems to be set correctly btw.) I would have thought that if
there
> were a problem with the sweep, it would be a linear function across the
> span.
>
> Any guesses as to why the sweep would be different on one side of the
center
> mark?
>
>

6862. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 14:52:26 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3BE94A68.D1732A2E@netscape.net>
Source record: 48907
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Sparky wrote:
>
> Geez Skipp, do you make this stuff up as you go along? Sweep tubes
> were built for TVs, not radio amps: They work great in the kHz range,
> but are terribly non-linear at 27MHz. The result is splatter all over
> the band, regardless of how many filters you pile on top. The only
> way they worked (with any kind of usefulness) was with heavy negative
> feedback, and the tubes burned up very quickly. At the time when
> sweep tubes were cheap it was a poor-man's alternative -- definately
> not true today.

Some TV's used 807's for the Horizontal output, and the tubes are NOT
built for a 15 KHz bandwidth. A Horizontal output is a PULSE
AMPLIFIER. Several of the early B&W Sweep tubes were IMPROVED 807's,
with modern bases so they could be made cheaper, and with the same
equipment other consumer tubes were built. Is the 8950 a TV tube?
Yes. It's the 6KD6 with a 12 volt filament. Several tube manuals
simply list the filament specs, then tell you to use 6KD6 Specs, because
they are built with the same internal components. As fare as being
non-linear, EVERY amp has some non-linear properties. After all, they
are used in the real world, not just on paper. By the way, some early
color TV's used 6146's for sweep tubes.

6863. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 16:40:25 UTC
From: Rick Karlquist <richard@karlquist.removethis.com>
Message-ID: <ZtdG7.2561$Vf4.1244146@news1.rdc1.sfba.home.com>
Source record: 48908

You are right, what Reg described is a balanced to balanced transformer. The
quadfilar winding I suggested in another post in an unbalanced
to unbalanced transformer. What Reg is suggesting will work fine
if used in conjunction with a 50 ohm to 50 ohm balun. That
is what I used at the ends of my 450 ohm open wire line. After
much research, I concluded that you cannot do 50/450 ohms and
unbalanced to balanced in the same device.

Rick Karlquist N6RK

"JLB" <jim.bolinger@lintek.aeroflex.com> wrote in message
news:8d5ec8a2.0111070602.28ab1c63@posting.google.com...
> "Reg Edwards" <g4fgq.regp@btinternet.com> wrote in message
news:<9s7bbh$q0e$1@plutonium.btinternet.com>...
> > To wind a 3-to-1 turns ratio, 9-to-1 impedance ratio transformer,
> > just wind 3 wires alongside each other around a ferrite ring about
> > 2 inches (50mm) diameter. Eight or 10 turns of each of the three
> > wires will be OK from 1.8 to 30 MHz. Use a wire gauge and a fairly
> > thick insulation thickness which nicely fills the ferrite ring.
> >
>
>
> I don't think such a thing would be a 'balun', since one winding would
> be common to both sides. What I suggested in an another post was to
> wind 4 wires. One would be the primary and the other three the
> secondary.
>
> Jim
> N8EE

6864. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 19:06:53 UTC
From: BH <radioguyx@texxas.net>
Message-ID: <3BE9778D.CCA02FBD@texxas.net>
Source record: 48909
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Much like the radio collector who told his wife if she ever saw
him being shocked not to grab him but get something like a board
and knock him loose from the voltage source. One day she came into
the kitchen and saw him standing next to the cabinet with his back
to her and he was shaking violently. She noticed a cord running
from him to the cabinet. She immediately rushed to the back door
where she found a length of 2X4, picking it up she rushed back and
swung with all her might, knocking him across the kitchen,
breaking his arm and two ribs. Up to that point he was happily
listening to his favorite song on his walkman.

Bill H.

Henry Gernhardt/Andrea Winship wrote:

> I've been hit by a badly grounded institutional refrigerator before, as
> well as hit by a hot wire I didn't know was hot. It's not bad. Believe
> me---if he has a miswired outlet, he'll know it the first time he
> touches the lamp. Getting shocked by 120VAC isn't that nasty. Of
> course, there are always exceptions, however I would tend to believe
> that a low-current line-power shock wouldn't tend to be lethal.
>
> In any case, however: Test that outlet! Better to be safe than sorry.

6865. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 19:09:41 UTC
From: rcnixon@mindspring.com
Message-ID: <3be98598.400440@news.mindspring.com>
Source record: 48910
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

As it happens, I wasn't talking through my hat. The Drake "4" line
and the Yaesu FT-101 both use sweep tubes as finals. Hmm, imagine
that. In over thirty years, no one seems to have complained all too
much about their non-linearity. In fact, both are known for good
sounding transmitted audio. Someone else pointed out that ALL amps
can exhibit non-linearity somewhere in their operating regime, but it
can be designed around. Oh, yeah, both transmitters put out about 130
to 150 watts.

Russ

"PipeDreams" <pipedreams@hotmail.com> wrote:

>Your talking out your ass Steve as usual.
>
>
><Moparholic@hotmailnospam.com> wrote in message
>news:20011106224228.312$RV@newsreader.com...
>> rcnixon@mindspring.com (Russell C. Nixon) wrote:
>> > fgillil@tincan.org (Sparky) wrote:
>> >
>> > I may be talking through my hat here, as I often do,
>> >
>> Agreed.
>>
>> --
>> -Moparholic
>>
>> "Keep on Rockin..in the free world".
>> -Neil Young.
>
>

6866. Receiver preselector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 19:30:51 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9sc2uqggg3@plutonium.btinternet.com>
Source record: 48912

Simple pre-selector consists of parallel tuned circuit with random wire antenna and receiver tapped down coil.

Enter diameter and length of coil former (toilet roll tube?), tuning capacitor maximum pF, mid-band frequency, antenna length, receiver input resistance.

Program will tell you wire gauge, number of coil turns and where to tap things into. Also 20 dB bandwidth.

Download in a few seconds from website below.

Regards, Reg, G4FGQ
Free Radio Design Software.
http://www.g4fgq.com

6867. Re: Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 19:32:19 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <7%fG7.32$KT5.1764546@news2.randori.com>
Source record: 48911

"spike" <mike@nospam.spikey-mike.freeserve.co.uk> wrote in message
news:kutiutshe8dadu8mdt2jrk44orjkj076ee@spikey-mike.home...
> On Sun, 04 Nov 2001 04:37:01 GMT, "Gary Glaenzer"
> <nobulltrans@irtc.net> wrote:
>
> >no, its an antenna coupler
> No, a coupler is a device to take a sample of a signal traveling along
> a transmission line. Usually they are directional, hence directional
> coupler.

tell that to all the hams using 'antenna couplers'.

>
> >a 'duplexer' permits simultaneous transmit and receive on one antenna
> A duplexer is a device which allows equipment operating on different
> frequencies to be connected to a common source or load. The
> 'simultaneous transmit and receive on one antenna' is a special case
> of this.
>

so what's the problem here? does not a duplexer permit simultaneous
transmit and receive, on different frequencies, on one antenna ?

> >a 'diplexer' combines two transmitters into a common antenna
> A diplexer is a device which connects two transmitters working on
> *exactly* the same frequency (ie from a common drive) to be combined
> together into a common load.

Gee, I guess all these years those two stations in Minneapolis using a
'diplexer' into the KQRS-AM array haven't been doing it properly; since they
are on different frequencies.

Two transmitters into a common load, yes. Required that they be on the same
frequency, no, witness what TV stations call the device that puts the visual
and aural transmitters into the feed line.

>The converse of this being a splitter,
> which is electrically the same but wired backwards.
>
> >probably consisting of two band-pass filters to a common connector
>
> A duplexer is what is required here.

nope.

'duplex' means simultaneous transmit and receive, as in 'full duplex'

>If you were to take two bandpass
> filters and connect one end of them together in a 'T', then you might
> get the required action, depending on the off frequency impedence of
> the filters.
> If they behave as open circuits at the stop frequency then you are OK.
> But if they are short circuits at the stop frequency, it will not
> work, unless you use a lenght of coax between the filter and the 'T'
> to rematch the short to an open circuit.
>
>
> All the best...Mike.
>

6868. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 20:41:06 UTC
From: Peter Maus <DPeterMaus@worldnet.att.net>
Message-ID: <3BE99C72.2B11AD51@worldnet.att.net>
Source record: 48913
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

J'm Sm'th wrote:
>
> Steve Radcliff wrote:
> >
> > Reducing RFI from lamp dimmers.
> >
> > Buy a lamp dimmer from the last 2 decades and replace the one you have
> > from the 60s.
> >
> > Any good quality dimmer like those from Lutron will be shielded and do
> > not cause RFI to AM or shortwave radios. If yours does, it is old and
> > probably the kind that you turn with a round knob. Time to get a new
> > one, they don't cost very much.
>
> Not so fast--there are very poorly made new ones, that make just as much RF
> junk as the old ones. Get a *well made* new one, and your RF woes will be
> mostly over--for the dimmer, that is. . .

Most all of the new dimmers are RFI suppressed, including the
Lutrons. The problem is less that they radiate RFI, but that they
still put switching transients on the mains, which is where most of
the noise getting into vintage sets comes from.

To cure this requires two things: Chokes on the mains to suppress
the transients, and caps to bypass the noise.

This is true of new dimmers, including the Lutrons.

> --
> J'm
>
> To Reply Direct, Remove Clothes.
> ...-.-

6869. 6kv transmitter valves and safety

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 21:44:43 UTC
From: Nick Sheldon <nick.sheldon@sheldonassociate.demon.co.uk>
Message-ID: <1005169516.1228.0.nnrp-12.c1eda3cf@news.demon.co.uk>
Source record: 48914

Hi

Although not active in the hobby, I passed my RAE in 1983, and now use 3.5kW transmitter valves for audio rather than RF - see www.sound.au.com/kolok.htm for details.

I have heard of ghastly fatal accidents to people constructing copper vapour and copper halide lasers (EHT PSUs), and have heard today that every amateur radio group knows of someone who had a similar accident while trying to build a high power valve-based linear amp.

Is this folklore or truth? I am a father of two, and if the risks associated with my 6kv valves are as great as they would appear from this anecdotal evidence, I may have to cut short my involvement.

Nick Sheldon

6870. Re: 6kv transmitter valves and safety

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 22:06:33 UTC
From: mikea@mikea.ath.cx
Message-ID: <JfiG7.283$8k7.116180032@newssvr16.news.prodigy.com>
Source record: 48915

Nick Sheldon <nick.sheldon@sheldonassociate.demon.co.uk> wrote:
: Hi

: Although not active in the hobby, I passed my RAE in 1983, and now use 3.5kW
: transmitter valves for audio rather than RF - see
: www.sound.au.com/kolok.htm for details.

: I have heard of ghastly fatal accidents to people constructing copper vapour
: and copper halide lasers (EHT PSUs), and have heard today that every amateur
: radio group knows of someone who had a similar accident while trying to
: build a high power valve-based linear amp.

: Is this folklore or truth? I am a father of two, and if the risks associated
: with my 6kv valves are as great as they would appear from this anecdotal
: evidence, I may have to cut short my involvement.

Are you talking about people somehow getting between the HV and
ground, or liquid getting into the PS cage or the final of the
amp, or do you have something else in mind?

I've been working with this stuff for 40 years now, and haven't
had anything worse happen to me than a capacitor explode and
imbed itself into the ceiling while I was working on the
(admittedly not HV) power supply. I haven't lost any friends or
co-workers to misadventure with their equipment, either.

But I'm not the only electron-pusher in the world, and I've
always steered clear of stuff in the multiple KV range.

--
Anyone who considers arithmetical methods of producing random digits
is, of course, in a state of sin.
-- John Von Neumann

6871. HELP: AEA Isoloop LC-1 schematic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 22:36:25 UTC
From: Will NR6Z <wonil_lim_1@email.msn.com>
Message-ID: <##y5uy9ZBHA.1912@cpimsnntpa02>
Source record: 48916

Could someone scan a copy of LC-1 controller
schematic diagram and please send it to me
by email ? It will be appreciated.

Thanks,
Will NR6Z

6872. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-07 22:41:48 UTC
From: hj3ort@yahoo.com
Message-ID: <eb031c73.0111071441.46e1521d@posting.google.com>
Source record: 48917

Hi all

yeah yeah, i find this "easy" way to make a 9:1 tranformer, you can look it at:
http://www.kc7nod.20m.com/new_page_1.htm.

Too easy, well for the mathematics fan try this:
http://members.aol.com/DXerCapeCod/z_transformers.pdf

73's de HJ3ORT Jose Luis

6873. SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:08:59 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3BE9CD1B.8F1D6BC2@one.net>
Source record: 48918
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I recently picked up an SB-200. It wasn't behaving quite right, but the price was very good.

It had about 30-40 mA of plate current when it was unkeyed (should be zero), about 60 mA when keyed but idling (should be 90), and about 250 to 320 mA when driven (should be 500). The grid current readins were similarly weird. The plate voltage was Ok.

I found a bad resistor on the grid of one of the two 572B's and an out-of-spec resistor on the other. Each tube is supposed to have a 33-Ohm, 1-W resistor connecting the grid to the bias line. One resistor reads 42 Ohms; the other is disintegrated. That explains the symptoms.

Now ... is there a Heath-amplifier expert out there who can tell me if I should just go ahead and replace those two resistors? Should I still be searching for a cause of the failure? (I don't see any obvious cause.) At one watt, I would think they could easily handle the expected dissipation (50 mA per tube => about 80 mW per resistor). Should I go for 2-W resistors anyway?

... Rich W2RG

6874. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:28:40 UTC
From: Woody <woody.white@att.net>
Message-ID: <3BE9D1BE.93C66DE3@att.net>
Source record: 48919
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew

Me Too! Don't forget the nice ferrite RF chokes including the big-un,
the yoke core.
Woody

Robert Casey wrote:
>
> ZZZjim_cronin@juno.comZZZ wrote:
>
> >
> > A good source for the part is PC power supplies, monitors, TV sets
> > and microwave ovens. Just make sure any capacitors are discharged
> > before poking around.
> >
>
> That's where I get my parts. At work I'd scrounge the dead
> VGA monitors out of the trash bin, remove the circuit board
> and re-throw out the cabinet and CRT. Lots of high voltage
> parts.

--
Woody, WB4QXE
Ham Radio Homebrew
&
Scanning Electron Microscope Images
http://woody.white.home.att.net

6875. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:45:45 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9sckjp$35o$1@woodrow.ucdavis.edu>
Source record: 48922
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Hi Michael...

: In rec.radio.cb Michael A. Terrell <michaelaterrell@netscape.net> wrote:
: Some TV's used 807's for the Horizontal output, and the tubes are NOT
: built for a 15 KHz bandwidth. A Horizontal output is a PULSE
: AMPLIFIER.

I'm about laughing out loud to think of a poor old 807 screaming it's fool anode cap off doing horizontal output duty. That must be one really old TV. An 807 tube is a very popular audio amplifier tube and it was the subject of some HF RF Amplifiers. I have a few articles in my files of said. Some even converted the similar 1625 to audio service.... boy we're going way back now.

: Several of the early B&W Sweep tubes were IMPROVED 807's,
: with modern bases so they could be made cheaper, and with the same
: equipment other consumer tubes were built.

: Is the 8950 a TV tube?
: Yes.

No it is not... no TV that I've ever seen or heard about had one. As I mentioned, it was designed by GE for beam power applications.

: It's the 6KD6 with a 12 volt filament.

No it is not, the 6KD6 has lower transconductance, lower plate dissipation, different internal capacitance values and probably a different pin out. The closest conventional sweep - beam power tube to the 8950 was/is the 6HF5. One can upgrade a Swan 350 from the 6HF5 to the 8950 with relative ease. I have done a few in my day.

: Several tube manuals
: simply list the filament specs, then tell you to use 6KD6 Specs, because
: they are built with the same internal components. As fare as being
: non-linear, EVERY amp has some non-linear properties. After all, they
: are used in the real world, not just on paper. By the way, some early
: color TV's used 6146's for sweep tubes.

Similar but not exact... the 8950 along with the similar type Maco output tube should be treated as different. Not only was the 6146 used in TV's, one can find it in the very popular early Ampeg SVT Bass Guitar Amplifier. Loud as heck and heavy like a boat anchor... but man it has some tone.

cheers
skipp

http://sonic.ucdavis.edu

6876. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:45:55 UTC
From: Steve Radcliff <sradcliff@yikes.com>
Message-ID: <3BE9D5B6.5D94B847@yikes.com>
Source record: 48920
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> > Any good quality dimmer like those from Lutron will be shielded and do
> > not cause RFI to AM or shortwave radios.
>
> Not so fast--there are very poorly made new ones, that make just as much RF
> junk as the old ones. Get a *well made* new one,

LOL. You might want to take another look at what you replied to again.

6877. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:47:18 UTC
From: Bill & Suzie Whatley <spud286@home.com>
Message-ID: <qCkG7.59493$IR4.32733140@news1.denver1.co.home.com>
Source record: 48921
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Hi Rich,

The most likely root cause of the grid resistors being damaged is someone overdriving the amp or applying an excessive drive signal for too long during tune-up. There is a possibility of a problem with the 572B tubes but if the idle current is correct with the resistors repaired then the tubes are probably usable.

I have had the SB-200 and never had any problems even running AM mode at very reduced drive levels.

73
WA5VRL
Willis

6878. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:48:16 UTC
From: Steve Radcliff <sradcliff@yikes.com>
Message-ID: <3BE9D643.B5A09B78@yikes.com>
Source record: 48923
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Peter Maus wrote:

> J'm Sm'th wrote:
> >
> > Steve Radcliff wrote:
> > >
> > > Reducing RFI from lamp dimmers.
> > >
> > > Buy a lamp dimmer from the last 2 decades and replace the one you have
> > > from the 60s.
> > >
> > > Any good quality dimmer like those from Lutron will be shielded and do
> > > not cause RFI to AM or shortwave radios. If yours does, it is old and
> > > probably the kind that you turn with a round knob. Time to get a new
> > > one, they don't cost very much.
> > >
> > Not so fast--there are very poorly made new ones, that make just as much RF
> > junk as the old ones. Get a *well made* new one, and your RF woes will be
> > mostly over--for the dimmer, that is. . .
>
> Most all of the new dimmers are RFI suppressed, including the
> Lutrons. The problem is less that they radiate RFI, but that they
> still put switching transients on the mains, which is where most of
> the noise getting into vintage sets comes from.
>
> To cure this requires two things: Chokes on the mains to suppress
> the transients, and caps to bypass the noise.
>
> This is true of new dimmers, including the Lutrons.

Not at all. Not even the SLIGHTEST noise difference on AM or SW when turning the lights on or off, or dimming them in-between with the RF shielded Lutron dimmers. ...now when I try to use one of my x-10 dimmers, then you can't listen to the radio at all, not even in another room.

6879. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 00:50:36 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <wFkG7.5736$gQ1.1599272@news1.elmhst1.il.home.com>
Source record: 48924
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Rich -

You should perform a "visual" test for other cracked or
bad components. I also perform a "nose" test to check for
burnt components.

Going to a resistor with a 2 watt rating should not be a problem.

Consider adding the "soft key module" (Harbach)
to lower the keying voltages for the modern solid state transceivers

The "soft-start" is a good idea, but a personal choice.

A great Amplifier Link Page !
http://www.csun.edu/~vfeen0br/johnpage/amp.html

Here is Rick Measure's Amplifier Page
Notes and Care of Amplifiers
http://www.vcnet.com/measures/

Greg
w9gb

Here are some Heathkit SB-2xx amplifier resources.
You can decide who you would like to consult !

Harbach Electronics. Jeff, W8CQ
http://www.harbachelectronics.com/

RTO Electronics
http://www.rtoham.com/

WB8VGE, The HeathKit Shop
http://www.theheathkitshop.com/

NOS Heathkit parts
http://users.softhouse.com/uptown/multi-volti/

Heathkit Amateur Radio Repair
Ed Daignault WA1LJY
7232 Lincoln Baroda, MI 49101
616-429-4295
Former Heath Technician

NC Total Electronics
http://www.nctotalelectronics.com/

Mike Shelton Cet.
2708 May Dr.
Burlington, N.C. 27215
Service and Repairs on Heath Products, Amateur,TV, Test Equipment.
Complete Refreshment on products, dependant on parts of course.
PH/FAX 336-229-5671 EMAIL ke4lgx@yahoo.com

Heath List Server at qth.net
send email to majordomo@qth.net
in the body of your message have: subscribe heath

"Rich Griffiths" <richg@one.net> wrote in message
news:3BE9CD1B.8F1D6BC2@one.net...
> I recently picked up an SB-200. It wasn't behaving quite right, but the
> price was very good.
>
> It had about 30-40 mA of plate current when it was unkeyed (should be
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> searching for a cause of the failure? (I don't see any obvious cause.)
> At one watt, I would think they could easily handle the expected
> dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> for 2-W resistors anyway?
>
> ... Rich W2RG

6880. Re: Sweep Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 01:16:34 UTC
From: Tony Seaton <tony.seaton@home.com>
Message-ID: <S1IG7.11616$GD.3257756@news1.rdc1.tn.home.com>
Source record: 48925

Then you obviously were not around in the mid to late sixties as the Drakes and other sweep tube final rigs were notorious for their splatter but the bands were much less crowded and everyone lived with it. I happened to have been a Drake owner at that time.

W4SX

"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message news:3be8a3ed.9439021@news.mindspring.com...
> Yep, I just checked. The 6JB6 finals in the Drake "4" line are indeed
> sweep tubes. No one seems to have complained too much over the last
> thirty or so years about the non-linearity of the finals in Drake
> equipment. In fact, the audio of thost transmitters is pretty good.
> Usually about 150 watts too.
>
> Russ

6881. looking for good books to read

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 01:50:58 UTC
From: Muuga <tidalforce@hotmail.com>
Message-ID: <SwlG7.24847$LD.882754@e3500-atl2.usenetserver.com>
Source record: 48926

Hi
I've had the 1990 ARRL handbook given to me. But I've always thought
it was lacking in some way,

I've read William Orr's Radio Handbook is
a real good one, but too expensive to for me buy new.
Can you suggest must read books on radio?

6882. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 02:10:55 UTC
From: Peter Maus <DPeterMaus@worldnet.att.net>
Message-ID: <3BE9E9C1.94F62518@worldnet.att.net>
Source record: 48927
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Steve Radcliff wrote:
>
> Peter Maus wrote:
>
> > J'm Sm'th wrote:
> > >
> > > Steve Radcliff wrote:
> > > >
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> > the noise getting into vintage sets comes from.
> >
> > To cure this requires two things: Chokes on the mains to suppress
> > the transients, and caps to bypass the noise.
> >
> > This is true of new dimmers, including the Lutrons.
>
> Not at all. Not even the SLIGHTEST noise difference on AM or SW when turning the
> lights on or off, or dimming them in-between with the RF shielded Lutron
> dimmers. ...now when I try to use one of my x-10 dimmers, then you can't listen
> to the radio at all, not even in another room.

I'm not sure what you're listening to, but I did refer to vintage
sets. I'll send you an MP3 of my Lutron dimmers through my Grundig
Majestic. Outdoor antenna, shielded transmission line...all the
noise is coming in through the mains.

6883. hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 02:29:27 UTC
From: anindita@uab.edu
Message-ID: <f7be43a2.0111071829.49806bb1@posting.google.com>
Source record: 48928

I am playing around with the idea of hooking up an FM radio to a PC
thru it's serial port.The ultimate impossible dream is to sample the
waves then through some software.
Can this be done?Any pointers/reading material is appreciated.

Anindita

6884. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 02:59:07 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BE9F4FB.9B452AF5@dialpoint.net>
Source record: 48929

Don't think this has been done but you might search for hamcom type programs. It uses an IC to square up the waveforms. Several programs have been dwritten for that type interface.

Also several sound card programs have been written to sample the waveforms.

Look here for some place to start:

http://www.muenster.de/%7Ewelp/sb.htm

Anindita wrote:
>
> I am playing around with the idea of hooking up an FM radio to a PC
> thru it's serial port.The ultimate impossible dream is to sample the
> waves then through some software.
> Can this be done?Any pointers/reading material is appreciated.
>
> Anindita

6885. Re: 9:1 balun construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 05:19:46 UTC
From: Rick Karlquist <richard@karlquist.removethis.com>
Message-ID: <SBoG7.4821$Vf4.2500253@news1.rdc1.sfba.home.com>
Source record: 48931

The transformers described in the references you cited will have
severe leakage inductance problems. The authors of those articles
obviously never measured their transformers.

Rick Karlquist N6RK

"Jose Luis" <hj3ort@yahoo.com> wrote in message
news:eb031c73.0111071441.46e1521d@posting.google.com...
> Hi all
>
> yeah yeah, i find this "easy" way to make a 9:1 tranformer, you can look
it at:
> http://www.kc7nod.20m.com/new_page_1.htm.
>
> Too easy, well for the mathematics fan try this:
> http://members.aol.com/DXerCapeCod/z_transformers.pdf
>
> 73's de HJ3ORT Jose Luis

6886. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 06:09:10 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111072209.152cc2df@posting.google.com>
Source record: 48932
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

rcnixon@mindspring.com (Russell C. Nixon) wrote in message
news:<3be98598.400440@news.mindspring.com>...
> As it happens, I wasn't talking through my hat. The Drake "4" line
> and the Yaesu FT-101 both use sweep tubes as finals. Hmm, imagine
> that. In over thirty years, no one seems to have complained all too
> much about their non-linearity. In fact, both are known for good
> sounding transmitted audio. Someone else pointed out that ALL amps
> can exhibit non-linearity somewhere in their operating regime, but it
> can be designed around. Oh, yeah, both transmitters put out about 130
> to 150 watts.
>
> Russ

Was that equipment intended to be used in the commercial radio
service as I specified, where the tolerances are tighter, and
the operator isn't required to follow the loose restriction of
using "good engineering practices"?

6887. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 06:19:58 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.1653c3e54392aed09896e8@localhost>
Source record: 48933

In article <f7be43a2.0111071829.49806bb1@posting.google.com>,
anindita@uab.edu says...

> I am playing around with the idea of hooking up an FM radio to a PC
> thru it's serial port.The ultimate impossible dream is to sample the
> waves then through some software.

????

I have no idea what you mean by "sample the waves," but you're
going to need to give a much more exact description of what, exactly,
you're trying to do before you'll get anything resembling an accurate
answer.

> Can this be done?Any pointers/reading material is appreciated.

It's not so much a question of "can it be done?" as "Why in the
Multiverse would you want to bother?"

If you're looking to do spectrum analysis, then get hold of a
decent spectrum analyzer. If you're looking to find a computer-controlled
FM broadcast receiver, there still exist PC-installable FM tuner cards.

If you're looking to get hold of a software-defined VHF radio that
you can have some fun assembling from kit form (WARNING: Not for
beginners! Assembly requires experience with surface-mount components,
top-rate tools, and good soldering skills), then check out this link:

http://www.tapr.org/tapr/html/Fdsp10.html

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

6888. Thordarson T 19P70 Transformer Specs ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 06:26:45 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <tujubv3ti2mdcc@corp.supernews.com>
Source record: 48930

I just came across a Thordarson T 19P70 transformer. Any ideas
as to what its current capacity is? It looks like about 1000vct.

Doug N4IJ

6889. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 06:42:26 UTC
From: K4ERG <K4ERG@notonurlife.com>
Message-ID: <3BEA2952.7D2BA4B0@notonurlife.com>
Source record: 48934

Look for dust collection hose at woodworkers supply houses. I think you should be able to find it in a 2 1/2" diameter size. You can also find universal adapters that will attach to anything between 1" and 4" in diameter.

k3ky@erols.spamnocom wrote:
>
> BTW my "heater hose" was actually called Defroster Hose.
> 73, David K3KY
>
> On Wed, 07 Nov 2001 09:36:03 GMT, k3ky@erols.spamnocom wrote:
>
> >About 10 years ago, I bought a heater hose at my local Penn
> >Jersey auto parts store. I am looking at the box right now and
> >it is 2 1/4" dia. and 6ft long. Looks just like those flexible
> >dryer hoses (4") with the coil spring running its length, except
> >the plastic is black and of course it is smaller dia. If your local
> >auto parts store does not carry anything like this, you could
> >probably get hold of a J.C. Whitney mail order catalog and
> >order one. BTW if you could adapt to and use a 4" dia. hose,
> >that would be *way* better, and it would be well worth the
> >effort to try to find one that expands out with the smoothest
> >possible inner wall. The more expensive expanding aluminum
> >dryer hoses are much better in this regard. Longer lengths
> >with too much 'ripply' wall texture or too small a dia. will cause
> >restriction, especially due to turbulence, and your powerful fan
> >may no longer move enough air due to the excessive back
> >pressure. With a 15 ft. run of tubing and only 2 1/4" dia, you
> >better have a pretty powerful fan. Bigger pipe would be better.
> >73, David K3KY
> >
> >On Tue, 6 Nov 2001 20:34:52 -0800, "Douglas Snowden"
> ><snowden@peoplepc.com> wrote:
> >
> >>I am looking to put a blower for a linear amplifier in a separate room
> >>probably 15 ft away and have my amp. blower hosr connected to it.
> >>I need something about 2 1/4 inch I.D. Is there a place that sells
> >>something like that? I'm sure there is, I just can't find it. Is there
> >>a truch radiator hose that might work? Surely many people have done
> >>this before.
> >>
> >>Doug N4IJ
> >>
> >>

> >>
> >>
> >

6890. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 06:53:06 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BEA2BD2.FAB8E90A@coqui.net>
Source record: 48763

Ralph Mowery wrote:
>
> Don't think this has been done but you might search for hamcom type
> programs. It uses an IC to square up the waveforms. Several programs
> have been dwritten for that type interface.
>
> Also several sound card programs have been written to sample the
> waveforms.
>
> Look here for some place to start:
>
> http://www.muenster.de/%7Ewelp/sb.htm
>
> Anindita wrote:
> >
> > I am playing around with the idea of hooking up an FM radio to a PC
> > thru it's serial port.The ultimate impossible dream is to sample the
> > waves then through some software.
> > Can this be done?Any pointers/reading material is appreciated.
> >
> > Anindita

I don't know about hooking thru a serial port, but if you simply want to
see/analyze/modify/record what comes out from an audio source, then
there are a zillion different audio programs that do that type of thing
via your sound card.
Cool Edit, Nero, DC-Art are some examples of programmes that do this.
Search google for their sites.
-Bill

6891. GE / Motorola FS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 07:39:15 UTC
From: wiseguy991@aol.com
Message-ID: <20011108023915.16217.00001811@mb-mp.aol.com>
Source record: 48935

Make an offer on one or all....
General Electric -
All items are NEW unless stated otherwise

(25) Speaker 19C850550G6
(16) Low band antenna base/spring 19C307172P1
(2) Swivel base and spring 19C307172P2
(6) Speaker 19A149590P1
(3) S550 Control Units 19B801550P5
(3) S550 Control Units 19B801550P3
(3) Speaker Mic w/ udc 19B801508P1
S550 Cable Set Sold

Motorola -

(8) TDB-6040A Low band broadcast couplers
sales@emf-electronics.com
www.emf-electronics.com

6892. HEADPHONE IMPEADANCE HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 07:40:13 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <xFqG7.102791$WW.6004769@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48936

is there a way of measuring the impeadance of a pair of magnetic headphones?

6893. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 08:31:26 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <yprG7.6066$gQ1.2004400@news1.elmhst1.il.home.com>
Source record: 48937
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Dean -

I would try the normal surplus dealers
(Fair Radio, Lima Ohio; Leeds in Brooklyn, NY; and in Texas, etc.)
Sounds like the specification for an HW-16 or DX-60B transformer
----

Try Surplus Stuff - I got lucky here with their current surplus Collins
power transformer
http://surplustuff.com/xfmr.html

Here are some of my standard look-ups - at least for the telephone call

Cin-Tran, Cincinnati, Ohio was one supplier of Drake Transformers
http://www.cintran.com/

Heyboer Transformers, Grand Haven Michigan
They supplied some Heathkit transformers
http://www.heyboertransformers.com/index.shtml

Peter Dahl
Peter can wind or fix about any transformer.
He may not be the cheapest price, but solid quality.
http://www.pwdahl.com/

"K5DH" <k5dh@raytheon.com> wrote in message
news:bGyD7.4$284.95@dfw-service2.ext.raytheon.com...
> Greetings, tube-gear fans...
>
> I'm looking for a small HV power transformer:
>
> Primary: 110 VAC
>
> Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA
> --- OR ---
> 150 to 180 VAC without C.T. at 50 to 100 mA
>
> Filament: 6.3 VAC at 2 to 3 A
> --- OR ---
> 12.6 VAC center-tapped at 2 to 3 A
>
> Size: No more than 2-1/2" W x 3" D x 3" H
>
> The application is for the power supply in a homebrew 80m
> and 40m tube-type VFO. After full-wave rectification and

> some stiff filtering, I want to wind up with +200 to +250
> VDC for the cathode follower and post-amp plate voltages,
> and I'll use a VR tube to regulate the oscillator plate
> voltage. I am very constrained on space in the cabinet
> (which is why I specified that small of a physical size).
> Anyone have something in that range that they can sell me?
> Yes, I'm aware that Antique Electronic Supply and other
> dealers sell new power transformers, but their cost is
> astronomical. I'm trying to do this "on the cheap" with
> all junkbox parts.
>
> 73,
> Dean, K5DH
> Visit my amateur radio web site at http://www.qsl.net/k5dh
>

6894. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 08:40:00 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <AxrG7.6068$gQ1.2007491@news1.elmhst1.il.home.com>
Source record: 48938
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Leeds Electronics has this Stancor model

Stancor PC-8405, 117V primary, secondaries: 270-0-270@120ma,
5V@3 amps, 6.3V (ct)@ 5 amps
$50.00

http://www.leedselect.com

Call them for potential better matches.

w9gb

> "K5DH" <k5dh@raytheon.com> wrote in message
> news:bGyD7.4$284.95@dfw-service2.ext.raytheon.com...
> > Greetings, tube-gear fans...
> >
> > I'm looking for a small HV power transformer:
> >
> > Primary: 110 VAC
> >
> > Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA
> > --- OR ---
> > 150 to 180 VAC without C.T. at 50 to 100 mA
> >
> > Filament: 6.3 VAC at 2 to 3 A
> > --- OR ---
> > 12.6 VAC center-tapped at 2 to 3 A
> >
> > Size: No more than 2-1/2" W x 3" D x 3" H
> >
> > The application is for the power supply in a homebrew 80m
> > and 40m tube-type VFO. After full-wave rectification and
> > some stiff filtering, I want to wind up with +200 to +250
> > VDC for the cathode follower and post-amp plate voltages,
> > and I'll use a VR tube to regulate the oscillator plate
> > voltage. I am very constrained on space in the cabinet
> > (which is why I specified that small of a physical size).
> > Anyone have something in that range that they can sell me?
> > Yes, I'm aware that Antique Electronic Supply and other
> > dealers sell new power transformers, but their cost is
> > astronomical. I'm trying to do this "on the cheap" with
> > all junkbox parts.
> >
> > 73,
> > Dean, K5DH

> > Visit my amateur radio web site at http://www.qsl.net/k5dh
> >
>
>

6895. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 10:31:40 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0111080231.734cc8e0@posting.google.com>
Source record: 48939
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Rich Griffiths <richg@one.net> wrote in message
Should I still be searching for a cause of the failure? (I don't see
any obvious cause.)

I'd check it out as close as possible. But it may be something that
doesn't show up until you turn it on. IE: flaky tube

> At one watt, I would think they could easily handle the expected
> dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> for 2-W resistors anyway?
>
> ... Rich W2RG

I don't think it would matter much on the size of resisters. If you
have the manual I believe they may have a "before start" checkout
routine that you can follow. You check resistances etc, with no power.
I'd go though that before you fired it up. It's possible you could
have a bad tube or two. MK

6896. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 11:09:09 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111080309.24019288@posting.google.com>
Source record: 48941
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu> wrote in message
news:<9sckjp$35o$1@woodrow.ucdavis.edu>...
> Hi Michael...
>
> : In rec.radio.cb Michael A. Terrell <michaelaterrell@netscape.net> wrote:
> : Some TV's used 807's for the Horizontal output, and the tubes are NOT
> : built for a 15 KHz bandwidth. A Horizontal output is a PULSE
> : AMPLIFIER.
>
> I'm about laughing out loud to think of a poor old 807 screaming it's fool
> anode cap off doing horizontal output duty. That must be one really old
> TV. An 807 tube is a very popular audio amplifier tube and it was the
> subject of some HF RF Amplifiers. I have a few articles in my files of
> said. Some even converted the similar 1625 to audio service.... boy we're
> going way back now.
>
> : Several of the early B&W Sweep tubes were IMPROVED 807's,
> : with modern bases so they could be made cheaper, and with the same
> : equipment other consumer tubes were built.
>
> : Is the 8950 a TV tube?
> : Yes.
>
> No it is not... no TV that I've ever seen or heard about had one. As I
> mentioned, it was designed by GE for beam power applications.
>
> : It's the 6KD6 with a 12 volt filament.
>
> No it is not, the 6KD6 has lower transconductance, lower plate
> dissipation, different internal capacitance values and probably a
> different pin out. The closest conventional sweep - beam power tube to
> the 8950 was/is the 6HF5. One can upgrade a Swan 350 from the 6HF5 to
> the 8950 with relative ease. I have done a few in my day.
>
> : Several tube manuals
> : simply list the filament specs, then tell you to use 6KD6 Specs, because
> : they are built with the same internal components. As fare as being
> : non-linear, EVERY amp has some non-linear properties. After all, they
> : are used in the real world, not just on paper. By the way, some early
> : color TV's used 6146's for sweep tubes.
>
> Similar but not exact... the 8950 along with the similar type Maco output
> tube should be treated as different. Not only was the 6146 used in TV's,

> one can find it in the very popular early Ampeg SVT Bass Guitar Amplifier.
> Loud as heck and heavy like a boat anchor... but man it has some tone.

"Similar but not exact"? What happened to your "not a rock solid rule"
excuse? Oh well...

I did a little research, and the 8950 was a 6KD6 beefed up for RF
service. It didn't get much call except for inexpensive amateur
equipment (just like sweep tubes), then it died.

It doesn't make any sense that a TV set would be designed using a
6146 for the sweep tube when less expensive and more capable tubes
exist. I have TV service manuals for sets going back to the early
50's and none of them use a 6146. Maybe you can enlighten us as to
the make and model to which you are referring?

6897. Re: Re: Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 14:07:35 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ul5ti.dqv.w9wi@linux1.localdomain>
Source record: 48942

On Thu, 08 Nov 2001 09:41:47 +0000, spike
<mike@nospam.spikey-mike.freeserve.co.uk> wrote:

>>> A diplexer is a device which connects two transmitters working on
>>> *exactly* the same frequency (ie from a common drive) to be combined
>>> together into a common load.
>>
>>Gee, I guess all these years those two stations in Minneapolis using a
>>'diplexer' into the KQRS-AM array haven't been doing it properly; since they
>>are on different frequencies.
>The special case duplexer which enables tx and rx together is usually
>called a duplexer. In the above case the device would be simply called
>a channel combiner. However, for MF antennas (presumed here), as the
>components are lumped, ie, discrete inductors and capacitors. The
>devices which effectively make up the channel combiner are refered to
>idividually rather than the whole as for example, acceptors and
>rejectors.
>>
>>Two transmitters into a common load, yes. Required that they be on the same
>>frequency, no, witness what TV stations call the device that puts the visual
>>and aural transmitters into the feed line.
>That would be a sound/vision combiner. I had a 25kW one in bits a few
>days ago.

It is common practice in the USA to call both devices (the one for combining
multiple MW stations into a common antenna, and the one for combining the TV
sound and picture transmitters into a common antenna) "diplexers". It's
not at all unusual for technical terminology to vary significantly across
the Atlantic!
--
Doug Smith W9WI
(engineer at a TV station)
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

6898. Re: HEADPHONE IMPEDANCE HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 14:55:12 UTC
From: markaren1@earthlink.net
Message-ID: <633f2e5d.0111080655.68b0fed4@posting.google.com>
Source record: 48943

"marvin rosen" <raghead@worldnet.att.net> wrote in message
news:<xFqG7.102791$WW.6004769@bgtnsc05-news.ops.worldnet.att.net>...
> is there a way of measuring the impeadance of a pair of magnetic headphones?

Feed a 1kHz tone through a variable resistor to the headphones.

Adjust the resistor until Vresistor = Vheadphone. VR is then roughly
the same as the headphone impedance.

Mark.

6899. About Antennas softs ..

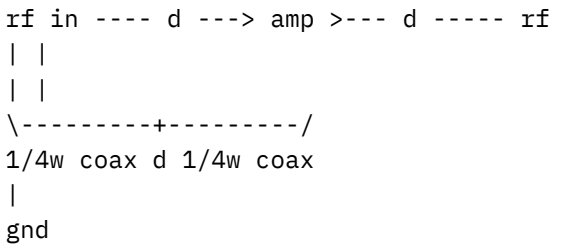
Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 15:29:45 UTC
From: poissondanlo@aol.com
Message-ID: <20011108102945.28786.00001779@mb-bk.aol.com>
Source record: 48944

Hello dears Hams
i am founding about NECWIN95 especialy V2.2.7
i had it but lost it after a crash HD
about , MMANA , i have installed it on on IBM Think Pad EL760 with W98 , but
,here is a big BUT , the characters (words) in the buttons like [geometry] ,
[View] , [Compute] , [Far Field Plot] and others , are like windings
fonts ....
is there a special font for this soft ?
in softs like Mininec or NEc do we put odd or even segmentation ?
regards
serge /F5JTM
y a t il des amateurs francophones modelisant des antennes sur ce forum pour
les antennes ?
me contacter en direct svp

6900. 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 17:27:11 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3beabd23.67171@news.freeserve.net>
Source record: 48945

Hi,
I'm thinking of using 1/4wave coax + diode switching for TX/RX control
of an FM RF Powerblock amplifier (SAV-7 or M57737 300mW in 20W out)
as below.



where d are two diodes back to back.
any comments as to why I should'nt do it this way ?
thanks Mike W, G8NXD

6901. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 17:34:10 UTC
From: Daniel Nicholson <dnicholson@socket.net>
Message-ID: <tulggfql5k3cb4@corp.supernews.com>
Source record: 48946
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

Hey guys keep this conversation going! I am learning a lot abt tubes from
it...

Sparky <fgillil@tincan.org> wrote in message
news:e182e02.0111080309.24019288@posting.google.com...
> Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu> wrote in message
news:<9sckjp$35o$1@woodrow.ucdavis.edu>...
> > Hi Michael...
> >
> > : In rec.radio.cb Michael A. Terrell <michaelaterrell@netscape.net>
wrote:
> > : Some TV's used 807's for the Horizontal output, and the tubes are
NOT
> > : built for a 15 KHz bandwidth. A Horizontal output is a PULSE
> > : AMPLIFIER.
> >
> > I'm about laughing out loud to think of a poor old 807 screaming it's
fool
> > anode cap off doing horizontal output duty. That must be one really old
> > TV. An 807 tube is a very popular audio amplifier tube and it was the
> > subject of some HF RF Amplifiers. I have a few articles in my files of
> > said. Some even converted the similar 1625 to audio service.... boy
we're
> > going way back now.
> >
> > : Several of the early B&W Sweep tubes were IMPROVED 807's,
> > : with modern bases so they could be made cheaper, and with the same
> > : equipment other consumer tubes were built.
> >
> > : Is the 8950 a TV tube?
> > : Yes.
> >
> > No it is not... no TV that I've ever seen or heard about had one. As I
> > mentioned, it was designed by GE for beam power applications.
> >
> > : It's the 6KD6 with a 12 volt filament.
> >
> > No it is not, the 6KD6 has lower transconductance, lower plate
> > dissipation, different internal capacitance values and probably a
> > different pin out. The closest conventional sweep - beam power tube to
> > the 8950 was/is the 6HF5. One can upgrade a Swan 350 from the 6HF5 to
> > the 8950 with relative ease. I have done a few in my day.
> >

> > : Several tube manuals
> > : simply list the filament specs, then tell you to use 6KD6 Specs,
because
> > : they are built with the same internal components. As fare as being
> > : non-linear, EVERY amp has some non-linear properties. After all, they
> > : are used in the real world, not just on paper. By the way, some early
> > : color TV's used 6146's for sweep tubes.
> >
> > Similar but not exact... the 8950 along with the similar type Maco
output
> > tube should be treated as different. Not only was the 6146 used in TV's,
> > one can find it in the very popular early Ampeg SVT Bass Guitar
Amplifier.
> > Loud as heck and heavy like a boat anchor... but man it has some tone.
>
> "Similar but not exact"? What happened to your "not a rock solid rule"
> excuse? Oh well...
>
> I did a little research, and the 8950 was a 6KD6 beefed up for RF
> service. It didn't get much call except for inexpensive amateur
> equipment (just like sweep tubes), then it died.
>
> It doesn't make any sense that a TV set would be designed using a
> 6146 for the sweep tube when less expensive and more capable tubes
> exist. I have TV service manuals for sets going back to the early
> 50's and none of them use a 6146. Maybe you can enlighten us as to
> the make and model to which you are referring?

6902. Re: Alan K1313 Amp 130w??

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 18:17:12 UTC
From: troglodite@aol.com
Message-ID: <20011108131712.02986.00004179@mb-fi.aol.com>
Source record: 48747

Regarding the 807, it is an excellent amplifier tube and very rugged. It is useable in class C up to 50Mhz. One company, (Harvey Wells) made a multi-band transmitter and pushed the 807 clear to 144Mhz. Not efficient, but it worked.

Regarding horizontal output or "sweep" tubes. You can look at things in either the frequency or time domain. Consider the rise times necessary for horizontal output use - convert this to the frequency domain and you will find this old bottle will run with the best of 'em.

The 6146 also makes a hell of a good amplifier as long as you watch the screen voltage. If you want to run UL you'll need a separate winding on the output transformer. Oh excuse me, you guys say "tranny."

Doug Moore

6903. Re: 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 18:29:16 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ull8d.f0o.w9wi@linux1.localdomain>
Source record: 48750

On Thu, 08 Nov 2001 17:27:11 GMT, Mike W <mike@corn2.freeserve.co.uk> wrote:
>Hi,
>I'm thinking of using 1/4wave coax + diode switching for TX/RX control
>of an FM RF Powerblock amplifier (SAV-7 or M57737 300mW in 20W out)
>as below.
>
>rf in ---- d ---> amp >--- d ----- rf out
> | |
> | |
> \---------+---------/
> 1/4w coax d 1/4w coax
> |
> gnd
>
>where d are two diodes back to back.
>any comments as to why I should'nt do it this way ?

I once had a Heath amplifier (similar power levels, 1w in/10w out, same band) that was switched that way. Worked fine. Unfortunately I no longer have the amp so I can't pass along any details but it sounds like you've already thought it out pretty well.
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

6904. Wanted UTC CVM transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 18:44:59 UTC
From: jackgxyz@one.net
Message-ID: <tulkgu7q11fpdf@corp.supernews.com>
Source record: 48748

Hi,

I am looking for a UTC modulation transformer in the range of CVM-2 up to a CVM-5.

Please remove the xyz from my email address to respond.

Thanks,

Jack, WB8BFS

6905. FA 6 - MORSE CODE HAND KEYS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 18:58:20 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <gBAG7.129652$My2.73825445@news1.mntp1.il.home.com>
Source record: 48749

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1295134576

6906. Re: 6kv transmitter valves and safety

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 19:48:32 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111081148.2644cc25@posting.google.com>
Source record: 48751

Well, people work around higher voltages than that all the time, with very few accidents. I think it comes down to designing things properly and taking the proper precautions. Professional broadcast equipment comes with interlocks that disable the power (and often also discharge any large energy storage components) when the cabinet is opened. Smart people don't disable those interlocks; and they put them on their home-built equipment as well. When you measure things, use the proper equipment and technique. Take to heart the old addage, "always keep one hand in your pocket." Don't have any holes into the equipment HV areas that are large enough to accomodate a pencil. Provide for safety in the event that the primary insulation between the HV and any output (or input, or control) terminals is lost. In summary, think ahead in the design, testing and maintenance of the equipment: anticipate the things that could go wrong, understand what you're going to do to keep you out of harm's way if they do go wrong, and then re-think again.

Cheers,
Tom

"Nick Sheldon" <nick.sheldon@sheldonassociate.demon.co.uk> wrote in message news:<1005169516.1228.0.nnrp-12.c1eda3cf@news.demon.co.uk>...
> Hi
>
> Although not active in the hobby, I passed my RAE in 1983, and now use 3.5kW
> transmitter valves for audio rather than RF - see
> www.sound.au.com/kolok.htm for details.
>
> I have heard of ghastly fatal accidents to people constructing copper vapour
> and copper halide lasers (EHT PSUs), and have heard today that every amateur
> radio group knows of someone who had a similar accident while trying to
> build a high power valve-based linear amp.
>
> Is this folklore or truth? I am a father of two, and if the risks associated
> with my 6kv valves are as great as they would appear from this anecdotal
> evidence, I may have to cut short my involvement.
>
> Nick Sheldon

6907. Re: 6146 usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 20:15:51 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <XJBG7.7012$gQ1.2319557@news1.elmhst1.il.home.com>
Source record: 48752
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

"Sparky" <fgillil@tincan.org> wrote in message
news:e182e02.0111080309.24019288@posting.google.com...
>
> I did a little research, and the 8950 was a 6KD6 beefed up for RF
> service. It didn't get much call except for inexpensive amateur
> equipment (just like sweep tubes), then it died.
>
> It doesn't make any sense that a TV set would be designed using a
> 6146 for the sweep tube when less expensive and more capable tubes
> exist. I have TV service manuals for sets going back to the early
> 50's and none of them use a 6146. Maybe you can enlighten us as to
> the make and model to which you are referring?

The 6146 was a very popular final output tube used for
low band VHF service (30 - 50 MHz) commercial radio units (Prog Line?)
from General Electric (GE). The RF section was one of the most
solid designs from the period. Of course, they were selling it to
the local and state law enforcement agencies. The only problem was heat.
Today, small reliable fans, Teflon wiring and modern capacitors
can be easily address and handle this issue.

Now you have me thinking about a winter project.

greg

6908. Re: HEADPHONE IMPEADANCE HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 20:16:40 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <IKBG7.1819$RI2.1275990@news2>
Source record: 48753

1. View headphones
2. If big and clunky, goto 4
3. goto 6
4. Place headphones on head
5. If heavy and uncomfortable goto 8
6. Headphones are about 4 ohms
7. Stop
8. Headphones are about 1K ohms

Mark's way is a little more scientific.

didleydadidah

"marvin rosen" <raghead@worldnet.att.net> wrote in message
news:xFqG7.102791$WW.6004769@bgtnsc05-news.ops.worldnet.att.net...
> is there a way of measuring the impeadance of a pair of magnetic
headphones?
>
>

6909. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 21:19:09 UTC
From: wieland@copland.udel.edu
Message-ID: <9sessd$21t$1@copland.udel.edu>
Source record: 48754
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

In article <3BE91C3C.261C515C@earthlink.net>,
Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote:
>Gary---
>
> Well, when you're dealing with kilovolts at amps, I can understand that
> level of caution. Here, however, we are dealing with a lamp which at
> most, if miswired, has 120VAC (US standard, Frank) on the chassis if the
> chassis is ``grounded'' to the ``neutral'' lead.
[snip]
> Of course, there are always exceptions, however I would tend to believe
> that a low-current line-power shock wouldn't tend to be lethal.
>
[snip]
>
>Good Luck,
>
> Henry C. Gernhardt, III
> KE4PIB

Ouch! There is nothing low-current or non-dangerous about 120-volt AC
line voltage.

The severity of electrical shock depends on the current flowing through the
victim, the current path, and sometimes on the frequency, if the current
is AC.

Assuming you have a current path that involves some vital organ(s), such
as the heart or lungs, 10mA is very dangerous, and many medical texts
simply say that currents of 25 mA "are lethal".

A current path through or across the chest is about the worst, which is
the source of the old electrician's maxim, "Keep one hand in a pocket."

AC power can also have the effect of fibrillating the heartbeat, and 60Hz
is a frequency right in the "most effective" range.

Because electrocution is caused by current, anecdotes cut both ways, as
human skin resistance can vary by three orders of magnitude. I certainly
know someone who put 800 VDC between two dry hands, and got nothing more
than a wake-up jolt; yet an old book on telegraphy asserts that one
unlucky man was killed by a 22.5 volt DC battery bank.

Sorry to sound like a scold, but any representation that line power isn't
lethal stuff is more than nonsense, its DANGEROUS nonsense.

Robert Wieland, who used to be in charge of Electrical Safety for the College of Engineering, University of Delaware.

P.S. Putting something across a solid-state dimmer to reduce the generation of RF interference is old stuff, in the 1970s, every dimmer & "speed control" schematic had a series combination of a resistor & a ceramic capacitor, which was called the "snubber network". Sounds like low-bidder equipment is now leaving that out.

6910. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 21:22:32 UTC
From: lbrty4us@aol.com
Message-ID: <205ef942.0111081322.79f36199@posting.google.com>
Source record: 48755
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

There really is no way to keep an SCR from making chop (not RFI as other intelligent life forms have illuminated, though it is line-current interference). Whether the chop affects one radio and not another is up for grabs and is the real world. For my shop area, I ended up filtering its whole branch ckt with a 20 amp L-C network on both legs. I found the filter dirt cheap from a reseller, and I wish I'd gotten a dozen & put one on every branch, to isolate it from the line-current interferences originating on other branches.

6911. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 21:33:15 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <vSCG7.14802$Y6.1294603@news1.rdc1.ct.home.com>
Source record: 48756
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

The idea is great when applied at a corded appliance. Where things fall apart is where folks start assuming they can safely modify a wall-mounted light dimmer without affecting its safety rating. Heck, an extension cord my be UL approved, but does that mean it can be used in place of romex for in the wall wiring?

Also, big difference for UL caps for line bypass and ACROSS the line ratings.

Pete

"Hagstar" <yonny@att.net> wrote in message news:3BE7E4FD.D0EE8942@att.net...
> Gary Glaenzer wrote:
> >
> > I repeat:
> >
> > you have an excessive amount of faith that every outlet you use is wired
> > correctly.
>
> I have zero faith they are wired correctly. I guess you don't have any
> radios, TV's or other devices in your home with .01 bypass caps hooked
> to any metal parts, eh ? I'd like clarification on how this idea is
> different in any way from thousands of other appliances ?
>
> John H.
>
> John H.

6912. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 21:33:54 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <6TCG7.14805$Y6.1295023@news1.rdc1.ct.home.com>
Source record: 48757
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Gary Glaenzer" <nobulltrans@irtc.net> wrote in message
news:I0VF7.411$4H3.36117604@news2.randori.com...
>
> "Timeman" <gault72@ccia.com> wrote in message
> news:9s950n$613$0@208.239.203.51...
> > Here's another way to test for proper polarity: take a small neon
> > tester, stick one probe in the narrow slot of the receptacle, the other
> > probe in the grounded "U" hole or center screw. The light should glow.
> >
> > If the tester doesn't light, test between the wide slot and ground. If
> > it lights now, the polarity is reversed. It it still doesn't light, the
> > receptacle isn't grounded. Either way, the receptacle should be
> > rewired.
> >
>
> yes, but the plug in tester is more fun with those different colored LED's
!
>
> Hey, I wonder if 'reversed polarity' has any effect on the output sound !
>
> Somebody get hold of that $ 399 power cord guy and ask him.....
>
>
>
>

6913. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 21:38:28 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <oXCG7.14834$Y6.1296115@news1.rdc1.ct.home.com>
Source record: 48758
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

So, you don't replace wax caps with 200 or 400 VDC ratings when used in early radios between the chassis and AC line? UL approved caps are made for that purpose.

Many early SW receivers, such as Hallicrafter S38 used a wax paper isolation cap between the 'hot' chassis and metal cabinet... 50/50 shot on the line cord polarity, and worse odds on the leakage currents in a 50 year old under-rated wax beauty.

Pete

> 1) I KNOW that every outlet in my home is wired correctly
> 2) I do not install 0.01 caps from what is allegedly 'neutral' to exposed
> metal parts on my appliances.
>
> does that clarify it enough for you?
>
>
>
>

6914. Re: 6146 usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-08 23:41:00 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <gKEG7.49$yZ4.3863707@news2.randori.com>
Source record: 48759
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

the 6146B/8298A was used in a lot of Motorola low and high-band bases and
mobiles up to about 30 watts output

"G. Beat" <gregory.beat@home.com> wrote in message
news:XJBG7.7012$gQ1.2319557@news1.elmhst1.il.home.com...
>
> "Sparky" <fgillil@tincan.org> wrote in message
> news:e182e02.0111080309.24019288@posting.google.com...
> >
> > I did a little research, and the 8950 was a 6KD6 beefed up for RF
> > service. It didn't get much call except for inexpensive amateur
> > equipment (just like sweep tubes), then it died.
> >
> > It doesn't make any sense that a TV set would be designed using a
> > 6146 for the sweep tube when less expensive and more capable tubes
> > exist. I have TV service manuals for sets going back to the early
> > 50's and none of them use a 6146. Maybe you can enlighten us as to
> > the make and model to which you are referring?
>
> The 6146 was a very popular final output tube used for
> low band VHF service (30 - 50 MHz) commercial radio units (Prog Line?)
> from General Electric (GE). The RF section was one of the most
> solid designs from the period. Of course, they were selling it to
> the local and state law enforcement agencies. The only problem was heat.
> Today, small reliable fans, Teflon wiring and modern capacitors
> can be easily address and handle this issue.
>
> Now you have me thinking about a winter project.
>
> greg
>
>
>

6915. Re: looking for good books to read

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 00:39:23 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tum9e7qjo5pg7c@corp.supernews.com>
Source record: 48760

try Single Sideband theory and Practice by Harry D. Hooton...
and Electronic Communication by Robert L Shrader..
and Single Sideband Systems & Circuits by William E Sabin and Edgar O
Schoenike..
good luck
hank wd5jfr
"Muuga" <tidalforce@hotmail.com> wrote in message
news:SwlG7.24847$LD.882754@e3500-atl2.usenetserver.com...
> Hi
> I've had the 1990 ARRL handbook given to me. But I've always
thought
> it was lacking in some way,
>
> I've read William Orr's Radio Handbook is
> a real good one, but too expensive to for me buy new.
> Can you suggest must read books on radio?
>
>
>

6916. Re: Wanted: small HV power transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 01:05:54 UTC
From: "G. Beat" <gregory.beat@home.com>
Message-ID: <SZFG7.7501$gQ1.2506961@news1.elmhst1.il.home.com>
Source record: 48761
Cross-posted to: rec.radio.swap,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Dean -

Check

eBay auction #1295155589

for potential candidates !!

gb
"K5DH" <k5dh@raytheon.com> wrote in message
news:bGyD7.4$284.95@dfw-service2.ext.raytheon.com...
> Greetings, tube-gear fans...
>
> I'm looking for a small HV power transformer:
>
> Primary: 110 VAC
>
> Secondary: 300 to 350 VAC center-tapped at 50 to 100 mA
> --- OR ---
> 150 to 180 VAC without C.T. at 50 to 100 mA
>
> Filament: 6.3 VAC at 2 to 3 A
> --- OR ---
> 12.6 VAC center-tapped at 2 to 3 A
>
> Size: No more than 2-1/2" W x 3" D x 3" H
>
> The application is for the power supply in a homebrew 80m
> and 40m tube-type VFO. After full-wave rectification and
> some stiff filtering, I want to wind up with +200 to +250
> VDC for the cathode follower and post-amp plate voltages,
> and I'll use a VR tube to regulate the oscillator plate
> voltage. I am very constrained on space in the cabinet
> (which is why I specified that small of a physical size).
> Anyone have something in that range that they can sell me?
> Yes, I'm aware that Antique Electronic Supply and other
> dealers sell new power transformers, but their cost is
> astronomical. I'm trying to do this "on the cheap" with
> all junkbox parts.
>
> 73,
> Dean, K5DH
> Visit my amateur radio web site at http://www.qsl.net/k5dh
>

6917. Blow out LOT Antenna / Mics For Sale NEW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 04:17:07 UTC
From: wiseguy991@aol.com
Message-ID: <20011108231707.24546.00002117@mb-cj.aol.com>
Source record: 48764

All products except where noted are new and must be sold ASAP.
Make a reasonable offer on one or all items
(58)ï¿½ Low band antenna base/spring 19C307172P1
(2) Swivel base and spring 19C307172P2ï¿½ï¿½ï¿½
(25) GE Personal Radio Mount Kits 149328g1
(21)ï¿½ Vehicular Chargers 19B801507P4
(30) Microphone 19D900141g light tan color Fits S550 Controlï¿½ï¿½ head
Antenna Specialists -
(26) ASPA1655 Mobile Conversion Antenna 406-420Mhz
(2) AP-3540 Mobile Antenna 35-40Mhz
(10) ASP-446 Mobile Antenna 1/2 wave 130-174Mhzï¿½
Decibal Products
(13) DB705-G11 Mobile Antenna 406-420Mhz
Motorola Products
(50) Microphones NMN6156Bï¿½ (used but excellent condition)
(50) Microphones NMN6082Aï¿½ (used but excellent condition)
www.emf-electronics.com
sales@emf-electronics.com

6918. Re: Sweep Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 04:30:27 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9sfm7upob1@plutonium.btinternet.com>
Source record: 48765

I suppose you got to stop them Sweep tubes getting Sooty?

6919. Re: 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 06:00:37 UTC
From: msix@plato.nmia.com
Message-ID: <9iKG7.58466$ta3.2022248@sjcpnn01.usenetserver.com>
Source record: 48766

Yes, it works FB here. RG174 and 1N4148 is OK at that level.
I think I used .66 x 19 inches either side, roughly 13 inches coiled up.
I can't see any diff in Rx sig on the HT with it in or out.
John W7ZFB

6920. Guide to the rec.radio Newsgroups

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 06:16:59 UTC
From: jeffreyh@Hawaii.Edu
Message-ID: <9sfscr$po2$1@news.hawaii.edu>
Source record: 48767
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Archive-name: radio/personal-intro

This message describes the rec.radio.amateur.*, rec.radio.cb, rec.radio.info, and rec.radio.swap newsgroups, as well as their Internet mailing list counterparts and complements. It is intended to serve as a guide for the new reader on what to find where. Questions and comments may be directed to Jeffrey Herman, KH6O, jeffreyh@hawaii.edu, or Paul Schleck, K3FU, pschleck@novia.net.

This message was last changed on 14 March, 1998.

History
=======

Way back when, before there was a Usenet, the Internet hosted a mailing list for hams, called (appropriately enough) INFO-HAMS. Ham radio discussions were held on the mailing list, and sent to the mailboxes of those who had signed up for it. When the Usenet software was created, and net news as we now know it was developed, a newsgroup was created for hams: net.ham-radio. The mailing list and the newsgroup were gatewayed together, eventually.

Over the years, as the net grew, the volume of discussion became progressively higher. First one by one, and then as part of two reorganizations, what was once one group became many. In the process, developments elsewhere on the net were reflected in the groups as they were created, most notably the change to place all of the ham radio groups in one hierarchy.

The collection of newsgroups continues to grow as more people join the net, and as more topics of discussion gain volume, I expect to see more groups be created as well. This follows what is happening on the rest of the net.

Nearly all of the radio newsgroups have corresponding mailing lists, the notable exception being rec.radio.swap. There are also a few mailing lists that don't have newsgroups.

The Current Groups
==================

It's important to post messages to the group that's appropriate for them, and not to the groups that aren't. The whole idea of having different newsgroups is so that folks who aren't interested in, say, homebrewing, don't have to wade through messages about homebrewing on the way to read about Field Day. Posting appropriately is just good etiquette.

The rec.radio.amateur.misc group is the catchall. It is what rec.ham-radio was renamed to during the first major reorganization. Any amateur radio-related message that's not more appropriate in one of the other groups belongs here, from contesting to DX to ragchewing on VHF to information on becoming a ham.

The group rec.radio.amateur.digital.misc is for discussions related to (surprise!) digital amateur radio. This doesn't have to be the common two-meter AX.25 variety of packet radio, either; some of the most knowledgeable folks in radio digital communications can be found here, and anything in the general area is welcome. The name was changed to emphasize this, and to encourage discussion not only of other text-based digital modes, such as AMTOR, RTTY, and Clover, but things like digital voice and video as well. The former group, rec.radio.amateur.packet, was removed on September 21st, 1993. It is obsolete, and you should use .digital.misc instead (or the appropriate new mailing list, mentioned below). The group has .misc as part of the name to allow further specialization if the users wish it, such as .digital.tcp-ip.

The swap group is rec.radio.swap. This recognizes a fact that became evident shortly after the original group was formed: Hams don't just swap ham radio gear, and other folks besides hams swap ham equipment. If you have radio equipment, or test gear, or computer stuff that hams would be interested in, here's the place. Equipment wanted postings belong here too. Discussions about the equipment generally don't; if you wish to discuss a particular posting with the buyer, email is a much better way to do it, and the other groups, especially .equipment and .homebrew, are the place for public discussions. There is now a regular posting with information on how to go about buying and selling items in rec.radio.swap; please refer to it before you post there. To answer a frequently asked question: No, there is no mailing list that goes along with this group. If you can't read Usenet news directly, you're out of luck.

The group rec.radio.amateur.policy was created as a place for all the discussions that seem to drag on interminably about the many rules, regulations, legalities, and policies that surround amateur radio, both existing and proposed. Recent changes to the Amateur Radio Rules (FCC Part 97) have finally laid to rest the Great Usenet Pizza Autopatch Debate - it's now legal to order a pizza on the autopatch, if you're not in the pizza business - as well as complaints about now-preempted local scanner laws hostile to amateurs, but plenty of discussion about what a bunch of rotten no-goodniks the local frequency coordinating body is, as well as the neverending no-code debate, may still be found here.

The group rec.radio.cb is the place for all discussion about the Citizens' Band radio service. Such discussions have been very inflammatory in rec.ham-radio in the past; please do not cross-post to both rec.radio.cb and rec.radio.amateur.* unless the topic is genuinely of interest to both hams and CBers - and very few topics are.

The rec.radio.info group is just what its name implies: it's the place where informational messages from across rec.radio.* may be found, regardless of where else they're posted. As of this writing, information

posted to the group includes Cary Oler's daily solar progagation bulletins, ARRL bulletins, the Frequently Asked Questions files for the various groups, and radio modification instructions. This group is moderated, so you cannot post to it directly; if you try, even if your message is crossposted to one of the other groups, your message will be mailed to the moderator, who is currently David Dodell, WB7TPY. The email address for submissions to the group is rec.radio.info-moderator@primenet.com. Inquires and other adminis- trivia should be directed to rec.radio.info-request@primenet.com. For more information about rec.radio.info, consult the introduction and posting guidelines that are regularly posted to that newsgroup.

The groups r.r.amateur.antenna, .boatanchors, .dx, .equipment, .homebrew, and .space are for more specialized areas of ham radio: discussions about antennas, the older tube based amateur, military, and commercial gear, commercially-made equipment, homebrewing, and amateur radio space operations. The .equipment group is NOT the place for buying or selling equipment; that's what rec.radio.swap is for. Similarly, the .space group is specifically about amateur radio in space, such as the OSCAR program and SAREX, the Shuttle Amateur Radio EXperiment; other groups cover other aspects of satellites and space. Homebrewing isn't about making your own alcoholic beverages at home (that's rec.crafts.brewing), but rather construction of radio and electronic equipment by the amateur experimenter. The .dx group is devoted to long distance amateur communications. Each of these subgroups has its own charter and FAQ; please refer to the archives to find these documents.

Except for rec.radio.swap and rec.radio.cb, all of these newsgroups are available by Internet electronic mail in digest format; send a mail message containing "help" on a line by itself to listserv@ucsd.edu for instructions on how to use the mail server.

All of the groups can be posted to by electronic mail, though, by using a gateway at the University of Texas at Austin. To post a message this way, change the name of the group you wish to post to by replacing all of the '.'s with '-'s - for example, rec.radio.swap becomes rec-radio-swap - and send to that name@cs.utexas.edu (rec-radio-swap@cs.utexas.edu, for example). You may crosspost by including multiple addresses as Cc: entries (but see below). This gateway's continued availability is at the pleasure of the admins at UT-Austin, and is subject to going away at any time - and especially if forgeries and other net.abuses become a problem. You have been warned.

Mailing Lists
==========

In addition to the mailing lists that mirror the Usenet newsgroups, there also are a few that stand alone. These cover specific areas of ham radio, and discussion is focused on just those areas. PLEASE BE SURE TO SAVE THE WELCOME MESSAGE YOU RECEIVE AFTER SUBSCRIBING -- IT WILL CONTAIN IMPORTANT INFO REGARDING UNSUBSCRIBING!

The cq-contest mailing list is for discussions of contesting in ham radio. To join, send an email to cq-contesting-request@contesting.com.

The DX mailing list covers the finer points of DXing. This one is also joined by mailing "subscribe" on a line by itself, this time to dx-request@unbc.edu.

There's also a VHF mailing list, for VHF operators of the weak signal persuasion. You can join this one be sending "subscribe vhf" on a line by itself to vhf-request@w6yx.stanford.edu.

The QRP-L list is devoted to building and operating gear at low-power outputs. To subscribe, send an email to listproc@lehigh.edu and only write: subscribe qrp-l Your Name.

The TopBand e-list is devoted to all areas of operation on 160m. To subscribe, send an email to majordomo@contesting.com and only write: subscribe topband and follow the instructions you'll be sent. This site, contesting.com, also hosts a couple dozen other ham-related e-lists. Use the above address, and only write: lists to get the entire index.

The Boatanchors e-list is devoted to the older tube-based ham, military, and commercial communications gear. To subscribe, send an email to: listserv@listserv.tempe.gov and only write: subscribe boatanchors

For homebuilding transmitters and receivers using tube technology, there is the Glowbugs e-list; send an email to: majordomo@piobaire.mines.uidaho.edu and only write: subscribe glowbugs <your@address.here>

The VHF DX discussion list can be accessed by sending an email to: majordomo@blacksheep.org and only writing: subscribe VHF-DX-discuss.

We now have a list devoted to amateur radio history. To subscribe, send an email to: ham-radio-history-subscribe@egroups.com - leave the body of the message blank.

Qth.net hosts over 100 ham-related e-lists, including lists devoted to each state, manufacturer, mode, band - too many to state here. Send an email to majordomo@qth.net and only write: lists to get the complete index.

For one of the most complete indexes of email lists, see the excellent web site http://pw2.netcom.com/~ac6v/pageae.html

Please do NOT send subscription requests to the mailing lists themselves; that doesn't work very often, and is very annoying to those on the list. Also, please keep your electronic mail address current with any mailing lists you subscribe to, as dealing with returned email is a nuisance for the person maintaining the mailing list.

A Few Words on Crossposting
==========

Please do not crosspost messages to two or more groups unless there is genuine interest in both groups in the topic being discussed, and when you do, please include a header line of the form "Followup-To: group.name" in your article's headers (before the first blank line). This will cause followups to your article to go to the group listed in the Followup-To: line. If you wish to have replies to go to you by email, rather than be posted, use the word "poster" instead of the name of a group. Such a line appears in the headers of this article.

One of the few examples of productive cross-posting is with the rec.radio.info newsgroup. To provide a filtered presentation of information articles, while still maintaining visibility in their home newsgroups, the moderator strongly encourages cross-posting. All information articles should be submitted to the rec.radio.info moderator so that he may simultaneously cross-post your information to the appropriate newsgroups. Most newsreaders will only present the article once, and network bandwidth is conserved since only one article is propagated. If you make regular informational postings, and have made arrangements with the moderator to post directly to the group, please cross-post as appropriate.

--
Jeffrey Herman, KH6O

--
Telecommunication Specialist Mathematics Lecturer
U.S. Coast Guard University of Hawaii System
jherman @ d14.uscg.mil jeffreyh @ hawaii.edu

6921. Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 06:43:20 UTC
From: "Gary \"Joe\" Mayfield" <gary_mayfield@hotmail.com>
Message-ID: <cWKG7.110216$kf1.33574966@news1.rdc1.ne.home.com>
Source record: 48768

A while back someone posted a link to a project called the "wave catcher" or something like that. It was a box with a few turns of wire around it, and variable cap for adjusting. Would some please repost the link?

Thanks and 73,
Joe

6922. Re: 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 07:21:54 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3beb8418$0$196@news.impulse.net>
Source record: 48769

"Doug Smith " <w9wi@linux1.localdomain> wrote in message
news:slrn9ull8d.f0o.w9wi@linux1.localdomain...
> On Thu, 08 Nov 2001 17:27:11 GMT, Mike W <mike@corn2.freeserve.co.uk>
wrote:
> >Hi,
> >I'm thinking of using 1/4wave coax + diode switching for TX/RX control
> >of an FM RF Powerblock amplifier (SAV-7 or M57737 300mW in 20W out)
> >as below.
> >
> >rf in ---- d ---> amp >--- d ----- rf out
> > | |
> > | |
> > \---------+---------/
> > 1/4w coax d 1/4w coax
> > |
> > gnd
> >
> >where d are two diodes back to back.
> >any comments as to why I should'nt do it this way ?
>
> I once had a Heath amplifier (similar power levels, 1w in/10w out, same
> band) that was switched that way. Worked fine. Unfortunately I no longer
> have the amp so I can't pass along any details but it sounds like you've
> already thought it out pretty well.
> --
> Doug Smith W9WI
> Pleasant View (Nashville), TN EM66
> http://www.w9wi.com
>

If you're thinking of the HA-201, it did have some precautions during the
initial tuning and alignment, but it looks as though most won't apply here.
Some which may apply:
Do initial testing at 11 to 12 volts before running it at 13.8 volts.
Watch for a low frequency oscillation. (possible, but unlikely, manual
says.)
Keep transmissions short during checkout.
Coax from radio to amp was odd multiple of quarter wavelength.

-CB

6923. Re: 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 09:02:08 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3beb99fb.591472@news.freeserve.net>
Source record: 48770

On Fri, 09 Nov 2001 06:00:37 GMT, <msix@plato.nmia.com> wrote:

>Yes, it works FB here. RG174 and 1N4148 is OK at that level.
>I think I used .66 x 19 inches either side, roughly 13 inches coiled up.
>I can't see any diff in Rx sig on the HT with it in or out.
>John W7ZFB
>
Thanks John, FYI the SAV-7 are available over here at the moment for a seriously good 20 ukp each or two for 30 ukp.
I built the amp last night and I'm due to cut the 1/4w lines this afternoon, strangely enough using RG174 and 1N4148 diodes. Its a small world ;-).
The complete project including a miniature BPF fits in a 100mm x 60mm x 30mm diecast box. I hope to get a webpage up about it soon.
Thanks for your comments, I was wondering where to start on the stub lengths. ATB Mike W, G8NXD

atb Mike W, G8NXD

6924. Re: 2m RF switching query

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 09:04:43 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3beb9bca.1054907@news.freeserve.net>
Source record: 48771

On Thu, 8 Nov 2001 23:21:54 -0800, "C. Bauman" <cbauman@impulse.net>
wrote:

>
>"Doug Smith " <w9wi@linux1.localdomain> wrote in message
>news:slrn9ull8d.f0o.w9wi@linux1.localdomain...
>> On Thu, 08 Nov 2001 17:27:11 GMT, Mike W <mike@corn2.freeserve.co.uk>
>wrote:
>> >Hi,
>> >I'm thinking of using 1/4wave coax + diode switching for TX/RX control
>> >of an FM RF Powerblock amplifier (SAV-7 or M57737 300mW in 20W out)
>> >as below.
>> >
>> >rf in ---- d ---> amp >--- d ----- rf out
>> > | |
>> > | |
>> > \---------+---------/
>> > 1/4w coax d 1/4w coax
>> > |
>> > gnd
>> >
>> >where d are two diodes back to back.
>> >any comments as to why I should'nt do it this way ?
>>
>> I once had a Heath amplifier (similar power levels, 1w in/10w out, same
>> band) that was switched that way. Worked fine. Unfortunately I no longer
>> have the amp so I can't pass along any details but it sounds like you've
>> already thought it out pretty well.
>> --
>> Doug Smith W9WI
>> Pleasant View (Nashville), TN EM66
>> http://www.w9wi.com
>>
>
>If you're thinking of the HA-201, it did have some precautions during the
>initial tuning and alignment, but it looks as though most won't apply here.
> Some which may apply:
>Do initial testing at 11 to 12 volts before running it at 13.8 volts.
>Watch for a low frequency oscillation. (possible, but unlikely, manual
>says.)
>Keep transmissions short during checkout.
>Coax from radio to amp was odd multiple of quarter wavelength.
>
>-CB

>
>
Thanks CB, I wonder why the odd 1/4w coax between rig and PA ?.
atb Mike W, G8NXD

6925. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 12:19:02 UTC
From: amdx <amdx@att.net>
Message-ID: <WQPG7.105229$WW.6136063@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48772

Hi Joe,

Do a Google search for loop antenna, you will find lots of info.
IIRC you need a 240uh coil and 365pf variable capacitor.
Mike

6926. FS: 1941 "Radiotron Designer's Handbook" $9

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 13:15:03 UTC
From: oldbooks78@aol.com
Message-ID: <20011109081503.09171.00002037@mb-df.aol.com>
Source record: 48773

I currently have for sale a 1941 copy of the "Radiotron Designer's Handbook" third edition, published by the Wireless Press. The 352 page hardbound book is in good+ condition, clean with no page tears or pen marks except for a previous owners name inside the front cover. Black cloth covers show some wear along the edges and at the top of the spine, but not too bad. A nice vintage text prepared for the radio set designer. Available for $9 plus $2 postage (book rate within the US). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks.

Dave

6927. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 17:24:08 UTC
From: Steve Radcliff <sradcliff@yikes.com>
Message-ID: <3BEC112C.DFB73B22@yikes.com>
Source record: 48774
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> Ouch! There is nothing low-current or non-dangerous about 120-volt AC
> line voltage.
>
> Assuming you have a current path that involves some vital organ(s), such
> as the heart or lungs, 10mA is very dangerous, and many medical texts
> simply say that currents of 25 mA "are lethal".

Yeah, we all read that and were told that BS in school, yet as many times as I have gotten shocked by so much more, and zapped from the 120 ac line throughout my long life, I laugh at that. People get struck by lighting and survive, so fear not your electrical outlet.

> AC power can also have the effect of fibrillating the heartbeat, and 60Hz
> is a frequency right in the "most effective" range.

You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz AC system and would go around finding lost dogs and cats and would electrocute them to death trying to scare people from Tesla's 60 Hz AC system and stay with Edison's DC system of supplying homes with power.

Telsa would play with AC and high voltage devices all his life, said they were healthy, and lived to a very old age dying in his sleep, not of any cancer.

> than a wake-up jolt; yet an old book on telegraphy asserts that one
> unlucky man was killed by a 22.5 volt DC battery bank.

Do you know how many AMPS you can get from a car battery? Ever try grabbing one hand on each post of a car battery to see what happens? Absolutely nothing.

> Sorry to sound like a scold, but any representation that line power isn't
> lethal stuff is more than nonsense, its DANGEROUS nonsense.

I'll agree with that! What ever adjective you want to put in front of it is fine.

6928. Re: Smithc Chart Calculator for GNU/Linux and X

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 17:26:41 UTC
From: dmlb@dmlb.org
Message-ID: <lIUG7.1182$Sf6.391708@news6-win.server.ntlworld.com>
Source record: 48776
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

In article <Pine.LNX.4.21.0111051417270.115-100000@embiolab.iroe.fi.cnr.it>,
Lapo Pieri <lapo@iroe.fi.cnr.it> writes:
> Hi,
> I've recently developed a Smith Chart calculator that run under GNU/Linux
> and X Windows. Since many similar program was available for DOS/Win but I
> was not able to find one for unix, the solution was to write one.
>
> This is my second X probramm, should work fine but I don't master X
> programming...
>
> The program is released under GNU/GPL license, so you can download from
>
> www.qsl.net/ik5nax/
>
> and use as you want, this program is distributed in the hope that it will
> be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of
> MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
>
> You can modify it and redistribute, copy as you need.
>
> If you find somethings goes wrong or want to make me criticism, send me
> bug, or any other comment write me.

Your program has many floating point bugs due to poor handling of
numerical exceptions. For example calc.c:float2prefs, you take the log
of negative numbers and zero values. Plotting Q circles cores, because
you divide by zero...

> Lapo Pieri (IK5NAX)
>
> Home address: via A. dei Corbizi 9 I-50127 Firenze Italy
> Phone: +39 055 410209
> e-mail: ik5nax@amsat.org
> packet radio: ik5nax@ik5skv.#fi.itos.ita.eu
> website: www.qsl.net/ik5nax
>
> I'd like to know if xsmc-calc is usefull to you or whatever you think
> about it.
>
>
> Lapo Pieri
>

--

____
Duncan Barclay | God smiles upon the little children,
dmlb@dmlb.org | the alcoholics, and the permanently stoned.
dmlb@freebsd.org| Steven King

6929. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 17:27:59 UTC
From: Steve Radcliff <sradcliff@yikes.com>
Message-ID: <3BEC1213.A5764D68@yikes.com>
Source record: 48775
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

J'm Sm'th wrote:

> Steve Radcliff wrote:
> >
> > > > Any good quality dimmer like those from Lutron will be shielded and do
> > > > not cause RFI to AM or shortwave radios.
> > >
> > > Not so fast--there are very poorly made new ones, that make just as much RF
> > > junk as the old ones. Get a *well made* new one,
> >
> > LOL. You might want to take another look at what you replied to again.
>
> I see your point, but reread the entire post. The general theme was "only old
> dimmers cause noise, new ones don't", and *that* is what I was responding to.

No, the point was all the old dimmers cause noise, but not any of the good quality new ones. There were no quality shielded old ones put into homes at the time of construction.

But yes, you can still find cheap $3 dimmers today that are not RF shielded and cause just as much noise as the one your are replacing.

6930. how mny watt is the foxx3?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 18:43:18 UTC
From: giulio <eiybma@tin.it>
Message-ID: <atVG7.29466$zl4.823020@news2.tin.it>
Source record: 48777

73s de Giulio IZ3EAW

6931. FS: Some nifty dual conversion IF/detector modules...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 19:32:57 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9shb3m$97$1@iac5.navix.net>
Source record: 48778

I've acquired some of the modules described below.
Photos and ordering instructions at:
http://199.184.215.33/catalog/view_item.php?id=256

<pre>
(C)2001 Bob Duckworth

Ultra cool dual conversion IF/detector module.

Block diagram, See photos as well

RF In>-[4pole 45MHz]--[Mix]--[2pole 455kHz]--[IFamp]--[2pole
455kHz]--[limiter]--[FM det/LPF]-->Audio

I've left out the 45MHz amps in the block diagram.
44.545 MHz xtal osc is used for mixing
AGC operates on the 455kHz IF amp and limiter and is available as RSSI
(received signal strength out)

Note: Limiter follows second 2nd IF filter. I am looking into possibility of
converting this stage to a linear stage and picking the band limited
signal off for input to a PeeCee sound card for digital detection and
audio gain. This should make it possible to demodulate AM, FM, and SSB
to make a more general purpose radio. Some detail of the 2nd
IF/detector
is included at the end of this document.
Note: IF bandwidth is about 30kHz at 6db down. This should be narrow enough
for 88kHz sampling by the sound card.

Use for radio receiver experimentation.
All you need to add is a tuneable RF converter
(VFO and mixer) and an audio amp and you have
a complete radio receiver.

There are many sites on the internet where you
can find schematics for a suitable RF stage.
Run the audio into your sound card, use an IC
audio amp, or ???

Specifications: operating supply 5.0Volts

Input Nominal Frequency 45MHz
12dB SINAD Sensitivity Max. -115dBm fa=1kHz FM=8kHz
Signal/Noise Min. 50dB fa=1kHz FM=8kHz P=-40dBm
1kHz output level -10.5dBV +-2dBV fa=1kHz FM=8kHz
RSSI output level Max. 1.6V P=-110dBm
Min. 1.1V P=-104dBm

Max. 2.5V Min. 3.7V P=-40dBm
RSSI Dynamic Range Min. 60dB
Intermodulation Ratio Min. 65dB deltaF1=+-60kHz
deltaF2=+-120kHz
Single Signal Interference Min. 70dB RSSI Output Constant
Power Supply Current Drain Typ. 5mA Max. 8mA

Nominal Input Impedence 50 Ohm
Max DC Supply Voltage 9.0V
Load Impedence Audio output 100k
RSSI output 100k

My actual measured specifications, operating supply 10V
This prior to learning that recommended Max Vcc=9.0V :-)

Power Supply Current Drain Vcc 5V to 12V = 10mA
Fo = 45MHz Delta F = +-10kHz @ 400Hz Audio OUt=0.14V RMS
12dB SINAD Pin ~= -100dBm
RSSI -60dBm = 9.5V
-80dBm = 8V
-100dBm = 6V
-120dBm(noise floor) = 5V

Dimensions, L x W x H, not including 26.0mm x 21.0mm x 10.0mm
pins and mounting tabs H 3.8mm
Pins 0.5mm x 0.5mm
Tabs 1.0mm x 0.4mm

Pin designation 1. Vcc
2. RSSI (Received Signal Strength Indicator)
3. Audio Out
4. Ground
5. 45MHz In

Some information on the 2nd IF amplifier/limiter/FM detector/AGC/Audio IC

The chip is a Sony CXA1002N which has been discontinued for some time.
It's a 16pin flat pack mounted on the underside of the modules double
sided board (see photos). Pinout with some notes re: internals follow...
or download the data sheet, in Japanese, from Sony at
http://www.sony.co.jp/~semicon/japanese/img/sonyjd01/86801565.pdf

1. 0.0V G
2. NC
3. NC
4. 5.0V Vcc
5. RSSI out (collector)
6. 2.5V Audio Out (totem pole)
7. 3.3V Quad In (base)
8. 1.7V Limiter out (emitter above 8k to ground)
9. NC
10. 1.7V Limiter DEC2 (15k pair emmitters, 15k pin 11)
11. 1.7V Limiter In (diff pair base)

12. 1.7V Limiter DEC1 (diff pair base)
13. 1.6V I.F. Out
14. 1.6V DEC2 (35k pair emitters, 15k pin 15)
An external resistor from pin 14 to ground should
lower the gain of this stage turning it into an amp
rather than a limiter. Perhaps a manual gain control
potentiometer could be wired here and pin 10.
15. 1.6V In (diff pair base)
16. 1.6V DEC1 (diff pair base)

</pre>

6932. Re: Help design a receiver that simultaneously monitors 33 channels!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 22:33:33 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3BEC59BD.78B6ED0A@nf.sympatico.ca>
Source record: 48781
Cross-posted to: rec.radio.cb,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Sparky wrote:
>
> voobner@yahoo.com (Aaron H. Voobner) wrote in message
news:<fbc7a2.0111051732.42a69839@posting.google.com>...
> > "Sylvester" <Why@YoureallyDontNeedIt.Com> wrote in message
> > news:y4GF7.73413$n5.10334245@typhoon.nyc.rr.com...
> > > No bright LED's It is just that I am trying to run 33 radios at the same
> > > time (so I can monitor other channels, don't want to get a scanner). Do
> > not
> > > want you to think I was doing anything ILLEGAL. they each draw 4.8amps.
> > >
> > > ;-)
> > >
> > > So Aaron Now that you know what I am doing is Legal what are your Ideas on
> > > how to do it. Or you don't know either?
> > >
> > > Sylvester
> > >
> >
> > Thanks Sylvester,
> >
> > Well, now that you made it clear what it is you are trying to do,
> > things are much easier. That was pretty silly of you to be thrashing
> > about with questions regarding supply voltages when it has so little
> > to do with your ACTUAL application. But we have got you on the right
> > track now! OK. Contrary to what you may think, I do not know
> > everything. No one can know everything. And since I don't consider
> > myself an expert in receiver design I cannot give you a solution off
> > the top of my head. BUT.....I bet there are a lot of folks in here
> > that can help you design a reciever that will monitor 33 channels
> > simultaneously, or at least get you the info you need. For instance
> > many commercial receivers have multiple VFO functions. How about a
> > design based on that idea?
> >
> > Anyone with ideas that might help get Sylvester's receiver project
> > going, please feel free to join in.
> >
> > -Aaron-
>
> A scanning CB transceiver would be the obvious solution. I have two
> in my junk pile. But the current requirements seem a bit high: the
> 4.8 amp rating for a 4-watt CB? Hmmm... regardless, that's only on
> transmit. When receiving the radio draws much less current, and I

> don't think he will be transmitting on 33 radios at the same time.
> But ok. Now, the radios draw even -less- current when there is no
> signal and the radio is sqelched, something on the order of 50 to
> 300 mA per radio, assuming LED displays. So the minimum draw will
> be about 10 amps, and if he transmits on one radio that's another
> 4 - 5 amps.... hmmm... He doesn't really need 160 amps, does he?

Compared to 160 amps, at 12 volts, that seems much more reasonable?
At 12 volts 160 amps is; Gee around 2000 watts. Nuff for welding
something!
Amazing how often, not knowing the whole application behind a question,
leads us off at a tangent!
Terry.

6933. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 22:33:35 UTC
From: la8ak@online.no
Message-ID: <3bec1768.115587738@news.online.no>
Source record: 48780

On Fri, 09 Nov 2001 06:43:20 GMT, "Gary \"Joe\" Mayfield"
<gary_mayfield@hotmail.com> wrote:

>A while back someone posted a link to a project called the "wave catcher" or
>something like that. It was a box with a few turns of wire around it, and
>variable cap for adjusting. Would some please repost the link?
>
>Thanks and 73,
>Joe
>
>
>
you only need a sheet of cardboard size A4 with - say 10-15 turns and
a link of 2 turns, the larger size you use reduce turns

I used one construction covering 500-1500kHz with Mosfet amplifier and
later found that it was perfectly OK to use only a link for many
purposes like 80 or 160m

If you make the frame large enough you can put an AM broadcast
receiver inside the frame and will discover that the frame amplify the
signal when tuned to desired frequency

73,
LA8AK

6934. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 22:39:02 UTC
From: Zoran Brlecic <zbrlecic@earthlink.net>
Message-ID: <3BEC5B3F.A559FA@earthlink.net>
Source record: 48782
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Steve Radcliff wrote:

> > Assuming you have a current path that involves some vital organ(s), such
> > as the heart or lungs, 10mA is very dangerous, and many medical texts
> > simply say that currents of 25 mA "are lethal".
>
> Yeah, we all read that and were told that BS in school, yet as many times as I
> have gotten shocked by so much more, and zapped from the 120 ac line throughout
> my long life, I laugh at that.

He keeps talking about the current, you keep harping about the voltage - if we're talking about the lethal amount of electricity, voltage has got nothing to do with it and your statements are non sequitur. The fact that you got zapped from 120VAC and I got zapped by 220 and 120VAC many times is completely irrelevant - in both of these cases the amount of current flowing through our hearts was not sufficient enough to defibrillate it. That kind of folklore, however, does not justify irresponsible handling of dangerous voltages. And yes, it is voltages in this case, since the current through our bodies pretty much follows the Ohm's law. The problem is that it is impossible to say "don't handle sources that will pump over 25mA through your heart" since that current depends on a variety of factors, from the person's weight, fluid intake, perspiration, to the voltage, frequency, path of the current, ground insulation, length of exposure, etc.
The bottom line is that the household voltage, either 120V or 220V is unsafe because it can be lethal under many circumstances. The fact that you survived touching it does not make it any more safe than the fact that many people survived playing Russian roulette.

> People get struck by lighting and survive, so
> fear not your electrical outlet.

This is such a nonsense that it almost doesn't deserve commenting. First of all, nobody survives after being "struck by lightning". One may survive an indirect hit a few dozen feet away or so, but being hit with a direct hit from the source of hundreds of million Volts kills a person flat out, not by defibrillating the heart (as the 120V would likely do), but by instantly cooking the vital organs, including the brain. According to this logic, we can safely stand in the bathtub full of water and grab the hot wire in the nearest electrical socket. After all, it is much less than a lightning.

> > AC power can also have the effect of fibrillating the heartbeat, and 60Hz
> > is a frequency right in the "most effective" range.
>
> You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz
> AC system and would go around finding lost dogs and cats and would electrocute
> them to death trying to scare people from Tesla's 60 Hz AC system and stay with

> Edison's DC system of supplying homes with power.

This is a strawman argument. Edison may have done that (while conveniently forgetting the fact that the same amount of DC kills just as efficiently as AC), but it's got nothing to do with the biological and medical facts.

> Telsa would play with AC and high voltage devices all his life, said they were
> healthy, and lived to a very old age dying in his sleep, not of any cancer.

And this is the argument from authority. Tesla said AC was healthy - it must be healthy!!! Not to mention that again you built up a nice non sequitur strawman - nobody mentioned cancer to begin with.

> > than a wake-up jolt; yet an old book on telegraphy asserts that one
> > unlucky man was killed by a 22.5 volt DC battery bank.
>
> Do you know how many AMPS you can get from a car battery? Ever try grabbing
> one hand on each post of a car battery to see what happens? Absolutely
> nothing.

First of all, no one claimed that the car battery would kill you. Second, the ampacity of the car battery is irrelevant. Third, the fact is that under the right conditions (admittedly, very bizarre and extremely rare conditions) 22.5V *can* be hazardous. It is considered, however, that voltages under 50V are safe to handle.

> > Sorry to sound like a scold, but any representation that line power isn't
> > lethal stuff is more than nonsense, its DANGEROUS nonsense.
>
> I'll agree with that! What ever adjective you want to put in front of it is
> fine.

Yet you feel compelled to deny it first, almost encouraging people to wander around during thunderstorms and to use a hairdryer while showering. Whatever.

73 ... Zoran WA7AA

--

Support freedom of speech or I'll kill you!

6935. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 23:40:41 UTC
From: amdx <amdx@att.net>
Message-ID: <ZPZG7.105804$WW.6183179@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48783

The optimum inductance depends on the frequency and the capacitor.
The usual values for the AM broadcast band are 240uh and a 365 picofarad capacitor. An average 365pf air variable capacitor will have a minimum capacitance of about 20pf.
The formula for resonance is
Frequency =1 / 2 pi sqrt L C
Example: 1/2 x 3.14 x sqrt 240uh x 365pf =Freq. of resonance
1/6.28 x sqrt .00024 x .000000000365=Freq. of resonance
1/ 6.28 x .000000296
1/ .00000185888
538,007 hz
So the lowest resonant freq. would be 538Khz

If you run the math you will see the highest freq is 2,298,365hz using 20pf as the minimum capacitance of the capacitor.

Now to complicate things you will not reach this frequency. The reason is, the coil you make will have capacitance between the turns, this will add to the air variable you use. Let's assume the coil you wind adds an aditional
20pf to the air variable capacitor. Now you have 40pf, if you run the math on this you will find a resonant freq of 1,625,192 hz. Now you say, but I want
to reach 1700Khz, at this point you could squeeze the turns together to adjust
the inductance so you could reach the upper freq.
That's enough for now, got to go, let me know what's happening.

Mike

6936. FA: Realistic Shortwave SX-190 RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 23:43:41 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <NSZG7.44128$ya.9888142@news1.busy1.on.home.com>
Source record: 48784
Cross-posted to:
alt.ham-radio.marketplace,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048622

6937. FA: Kenwood TS-120s

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 23:44:23 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <rTZG7.44130$ya.9888588@news1.busy1.on.home.com>
Source record: 48785
Cross-posted to:
alt.ham-radio.marketplace,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048580

6938. FA: Allied Amat Reciever AX-190

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-09 23:45:43 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <HUZG7.44131$ya.9888190@news1.busy1.on.home.com>
Source record: 48786
Cross-posted to:
alt.ham-radio.marketplace,alt.radio.amateur,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048541

6939. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 01:13:19 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <Ua%G7.3182$mG4.523064@news11-gui.server.ntli.net>
Source record: 48787
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Sorry to sound like a scold, but any representation that line power isn't lethal stuff is more than nonsense, its DANGEROUS nonsense.

I'll agree with that! What ever adjective you want to put in front of it is
fine.

++++++++++++

Just for info : At least in the UK and probably other countries as well , in industry , isolation transformers 230 ---> 110 V are used for portable tools ,with the secondary winding having an earthed (US terminology : grounded) centre tap.
This means that in case of equipment or cable failure the max voltage to earth (ground) is 55 V, which is considered SAFE ,eg does not constitute a risk of electrocution.

Frank gm0csz.kn6wh@ntlworld.com

6940. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 01:49:11 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3BEC8796.49275E66@valley.net>
Source record: 48788

Hello--

You can use an 18-inch diameter wooden embroidery hoop and a length of 16-conductor
ribbon cable to build the loop. Terminate the ends of the ribbon cable such that
the start of one turn connects to the end of the previous turn. Use 15 conductors, and
the 16th conductor becomes an electrically-isolated one-turn coupling winding that's
helpful for connecting to a receiver's low-impedance antenna input.

To tune the loop, you can use a two-section variable capacitor scrounged from an AA5
along with a SPST toggle switch to connect the oscillator capacitor's plates in parallel
with the main capacitor for extended low-frequency BC band coverage.

The ribbon cable makes a neater (i.e., more uniformly-spaced) winding than does hand winding of a single strand of magnet wire. And if you use 16-pin DIP mass-terminated plugs on the ribbon cable's ends, you can easily build a simple PC board (or even wire-wrap one) to make the turns' crossover connections.

One more design fillip: if you opt for a single-turn coupling link, you can add a common-mode
RF choke to the line connecting to thr receiver's antenna and ground terminals. The CM
choke minimizes hand-capacitance effects on loop Q and tuning.

A large loop antenna (regardless of design) runs rings around the typical loopstick antenna
commonly used in AA5s and transistor radios. You'll be amazed at the loop's improvements in receiver sensitivity and selectivity-- just position the receiver near the loop, and tune for maximum signal. You can rotate the loop to null an interfering station or peak a
desired station.

73--
Brad AA1IP
****
Gary \"Joe\" Mayfield wrote:

> A while back someone posted a link to a project called the "wave catcher" or
> something like that. It was a box with a few turns of wire around it, and
> variable cap for adjusting. Would some please repost the link?
>

> Thanks and 73,
> Joe

6941. Poor man's spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 02:12:07 UTC
From: richgsheltie18@my-deja.com
Message-ID: <8a7a6a9c.0111091812.11e6c68b@posting.google.com>
Source record: 48789

Anyone out there built this spectrum analyzer? I would like to correspond with someone who has. I have purchased all the modules and assembling them together. I have the book that describes how different people built them. I have a slight problem with hooking up a uhf tuner, a super uhf tuner and a tracking generator to the cable tuner. Thanks in advance.

Richard Gagnon

6942. Re: how mny watt is the foxx3?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 02:35:33 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9si3sf$ak9$1@uranium.btinternet.com>
Source record: 48790

about 1 watt on a good day with a well matched antenna.

6943. Re: AEA CP-1

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 02:36:07 UTC
From: Rob <Pse@NoEmail.Com>
Message-ID: <Ao0H7.2794$qb4.19594@tor-nn1.netcom.ca>
Source record: 48795
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

For information on the CP-1, see
http://www.angelfire.com/fl3/technicothica/cp1.html

It is a great site dedicated to the CP-1 and CP-100. Lots of great mods and
links for software!

Yes, with some FREEWARE, you can even use your CP-1 for PACTOR!!

Rob

"Steve" <esteve@hctc.com> wrote in message
news:tubsa1bdb0kt26@corp.supernews.com...
> I picked up a box of Ham radio gear at a estate sale (old friend), felt
> sorry for the widow, you know.
>
> I'm not a Ham but thinking about it some since I was a kid.
>
> Anyway what I got was a AEA CP-1 set up for a Commodore 64 and a Heathkit
> HD3006 Crossfire Scope.
>
> Now I know technology has advanced and the Commodore has been replaced
with
> PCs..
>
> Do I have anything here worth messing around with if I just want to DX CW
> and RTTY. I did a Google on the CP-1 and no one has discussed it since
1997.
> It seems to use it with a PC, I have to do so some wiring tricks with the
> RS232 cable coming out of the CP-1 and I need some software.
>
> Does anyone have any recommendation on public domain software and the
wiring
> changes for the RS232 cable.
>
> Or should I just salvage the cables and start thinking about Pactor
> (someday).
>
> Thanks
>
> Steve
>
>

6944. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 02:45:01 UTC
From: grumpy@lpws.zzzn.com
Message-ID: <9si4e6$3g3$1@neptunium.btinternet.com>
Source record: 48791

home brew harry has a packing crate antenna
on his site just search for home brew harry.
he does booze too

6945. Re: Poor man's spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 02:56:48 UTC
From: joel <joel@cyberbest.com>
Message-ID: <aI0H7.1133$6C1.461173807@twister1.starband.net>
Source record: 48792

I have one that I built from a kit I bought in Dayton a lot of years ago.
I'm not sure how it has changed over the years. But I doubt much. It seems
to work, but not very accurate. Maybe I can help ..

Joel
KA9ZTI@arrl.com

"richg" <richgsheltie18@my-deja.com> wrote in message
news:8a7a6a9c.0111091812.11e6c68b@posting.google.com...
> Anyone out there built this spectrum analyzer? I would like to
> correspond with someone who has. I have purchased all the modules and
> assembling them together. I have the book that describes how different
> people built them. I have a slight problem with hooking up a uhf
> tuner, a super uhf tuner and a tracking generator to the cable tuner.
> Thanks in advance.
>
> Richard Gagnon

6946. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 03:00:27 UTC
From: unkadean <dnorris@k7no.com>
Message-ID: <9d5puto242evj0c3mbtps4ndcli2pvt1uv@4ax.com>
Source record: 48793
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Fri, 09 Nov 2001 17:24:08 GMT, Steve Radcliff <sradcliff@yikes.com>
wrote:

>> Ouch! There is nothing low-current or non-dangerous about 120-volt AC
>> line voltage.
>>
>> Assuming you have a current path that involves some vital organ(s), such
>> as the heart or lungs, 10mA is very dangerous, and many medical texts
>> simply say that currents of 25 mA "are lethal".
>
>Yeah, we all read that and were told that BS in school, yet as many times as I
>have gotten shocked by so much more, and zapped from the 120 ac line throughout
>my long life, I laugh at that. People get struck by lighting and survive, so
>fear not your electrical outlet.
>
>> AC power can also have the effect of fibrillating the heartbeat, and 60Hz
>> is a frequency right in the "most effective" range.
>
>You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz
>AC system and would go around finding lost dogs and cats and would electrocute
>them to death trying to scare people from Tesla's 60 Hz AC system and stay with
>Edison's DC system of supplying homes with power.
>
>Telsa would play with AC and high voltage devices all his life, said they were
>healthy, and lived to a very old age dying in his sleep, not of any cancer.
>
>> than a wake-up jolt; yet an old book on telegraphy asserts that one
>> unlucky man was killed by a 22.5 volt DC battery bank.
>
>Do you know how many AMPS you can get from a car battery? Ever try grabbing
>one hand on each post of a car battery to see what happens? Absolutely
>nothing.
>
>> Sorry to sound like a scold, but any representation that line power isn't
>> lethal stuff is more than nonsense, its DANGEROUS nonsense.
>
>I'll agree with that! What ever adjective you want to put in front of it is
>fine.
>

Your knowledge of simple electronics is quite amazing. Never has one
person provided such a compilation of mis-information and
mis-understanding.

You can't get any AMPS from a battery unless there is a finite resistance.

Current through a body is determined by the resistance of the path. If you have a 12 volt potential and tests show that .025 Amp can kill, then R=12/.025 or 480 ohms. Less resistence = MORE current = More certain injury. For 110 VAC, 110/.025 = 440 Ohms. This resistance is quite possible for a path through the human body.

If you need further proof, I suggest you connect one side of a 110 V line to a bucket of water, Stand in the bucket and grab the other lead of the 110 source with your hand. Film at eleven (Darwin awards) Services on Saturday.

Marital problems? Toss your wife's hair dryed into her bathtub whilst she in basking therein. OOOPS. I didn't know the thing was loaded.

--
Let's Roll

6947. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 03:32:55 UTC
From: jbyrns@enteract.com
Message-ID: <jbyrns-0911012132550001@207-229-151-251.d.enteract.com>
Source record: 48794
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

In article <9d5puto242evj0c3mbtps4ndcli2pvt1uv@4ax.com>, unkadean
<dnorris@k7no.com> wrote:

> Your knowledge of simple electronics is quite amazing. Never has one
> person provided such a compilation of mis-information and
> mis-understanding.
>
> You can't get any AMPS from a battery unless there is a finite
> resistance.
>
>
> Current through a body is determined by the resistance of the path. If
> you have a 12 volt potential and tests show that .025 Amp can kill,
> then R=12/.025 or 480 ohms. Less resistence = MORE current = More
> certain injury. For 110 VAC, 110/.025 = 440 Ohms. This resistance is
> quite possible for a path through the human body.
>
> If you need further proof, I suggest you connect one side of a 110 V
> line to a bucket of water, Stand in the bucket and grab the other
> lead of the 110 source with your hand. Film at eleven (Darwin awards)
> Services on Saturday.
>
> Marital problems? Toss your wife's hair dryed into her bathtub whilst
> she in basking therein. OOOPS. I didn't know the thing was loaded.

I don't think that old trick works anymore, for years hair dryers have
come with a built in GFI at the plug end of the cord.

Regards,

John Byrns

Surf my web pages at, http://www.enteract.com/~jbyrns/index.html

6948. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 05:32:04 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <mq8putsci8cjitm7phdpklggrkceitiujh@4ax.com>
Source record: 48796
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Zoran Brlecic <zbrlecic@earthlink.net> wrote:

> Steve Radcliff wrote:
>
> > > Assuming you have a current path that involves some vital organ(s), such
> > > as the heart or lungs, 10mA is very dangerous, and many medical texts
> > > simply say that currents of 25 mA "are lethal".
> >
> > Yeah, we all read that and were told that BS in school, yet as many times as I
> > have gotten shocked by so much more, and zapped from the 120 ac line throughout
> > my long life, I laugh at that.
>
> He keeps talking about the current, you keep harping about the voltage - if we're
> talking about the lethal amount of electricity, voltage has got nothing to do with
> it and your statements are non sequitur. The fact that you got zapped from 120VAC
> and I got zapped by 220 and 120VAC many times is completely irrelevant - in both of
> these cases the amount of current flowing through our hearts was not sufficient
> enough to defibrillate it. That kind of folklore, however, does not justify
> irresponsible handling of dangerous voltages. And yes, it is voltages in this case,
> since the current through our bodies pretty much follows the Ohm's law. The problem
> is that it is impossible to say "don't handle sources that will pump over 25mA
> through your heart" since that current depends on a variety of factors, from the
> person's weight, fluid intake, perspiration, to the voltage, frequency, path of the
> current, ground insulation, length of exposure, etc.
> The bottom line is that the household voltage, either 120V or 220V is unsafe
> because it can be lethal under many circumstances. The fact that you survived
> touching it does not make it any more safe than the fact that many people survived
> playing Russian roulette.

That is true. The reason people survive is generally their skin has
high resistance but the internal organs do not. So for someone to
take a lethal shock they have to have conductive skin at the entry
and exit paths.

> > People get struck by lighting and survive, so
> > fear not your electrical outlet.
>
> This is such a nonsense that it almost doesn't deserve commenting. First of all,
> nobody survives after being "struck by lightning". One may survive an indirect hit
> a few dozen feet away or so, but being hit with a direct hit from the source of
> hundreds of million Volts kills a person flat out, not by defibrillating the heart
> (as the 120V would likely do), but by instantly cooking the vital organs, including
> the brain. According to this logic, we can safely stand in the bathtub full of
> water and grab the hot wire in the nearest electrical socket. After all, it is much

> less than a lightning.

Wrong.

People survive lightning strikes -- direct lightning strikes -- all
the time. Being in the Front Range of the Rockies, climbers get hit
all the time. Some die. Many do not. Those that don't get truly
memorable burns. Those that do die die because of the heart
fibrillation, not "instant cooking of the vital organs." The actual
amount of energy in a lightning strike is relatively low -- it is
just delivered over a very short period of time.

Having had these arguments before I can give you direct citations
if you are willing to listen to an opinion other than your own.

> > > AC power can also have the effect of fibrillating the heartbeat, and 60Hz
> > > is a frequency right in the "most effective" range.
> >
> > You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz
> > AC system and would go around finding lost dogs and cats and would electrocute
> > them to death trying to scare people from Tesla's 60 Hz AC system and stay with
> > Edison's DC system of supplying homes with power.
>
> This is a strawman argument. Edison may have done that (while conveniently
> forgetting the fact that the same amount of DC kills just as efficiently as AC),
> but it's got nothing to do with the biological and medical facts.

Wrong again. The higher the frequency, the more lethal
the current is. I don't know why. Do you have a ham license?
Do you remember anything about the RF safety/RF burn issue?

That's not to say that DC is safer -- it's just dangerous in
different ways. Breaking a DC short circuit is harder than
breaking an ac short because there's no zero-crossing to make
a nice interruption of the arc.

> > Telsa would play with AC and high voltage devices all his life, said they were
> > healthy, and lived to a very old age dying in his sleep, not of any cancer.
>
> And this is the argument from authority. Tesla said AC was healthy - it must be
> healthy!!! Not to mention that again you built up a nice non sequitur strawman -
> nobody mentioned cancer to begin with.

Agreed. Non-sequitur. "My great grampa lived to 133 and smoked 5
packs a day, therefore cigarettes are healthy." Not hardly.

> > > than a wake-up jolt; yet an old book on telegraphy asserts that one
> > > unlucky man was killed by a 22.5 volt DC battery bank.
> >
> > Do you know how many AMPS you can get from a car battery? Ever try grabbing
> > one hand on each post of a car battery to see what happens? Absolutely
> > nothing.

But if he got a low resistance path through the chest it could
possibly be lethal. Some people have more conductive skin than
others. I can get a nasty shock from 24 volts. An electrician
I knew as a child had exceedingly dry skin -- he tested 120 volt
circuits by licking his fingers and putting them across the circuit.
240 volt circuits didn't require licking his fingers.

If you want to see a low resitance path across a battery and
see how much current it can deliver, drop a wrench across a car
battery. Hint: Wear safety gear and a rubber lab coat, and
be prepared for splattering acid.

> First of all, no one claimed that the car battery would kill you. Second, the
> ampacity of the car battery is irrelevant. Third, the fact is that under the right
> conditions (admittedly, very bizarre and extremely rare conditions) 22.5V *can* be
> hazardous. It is considered, however, that voltages under 50V are safe to handle.
>
> > > Sorry to sound like a scold, but any representation that line power isn't
> > > lethal stuff is more than nonsense, its DANGEROUS nonsense.
> >
> > I'll agree with that! What ever adjective you want to put in front of it is
> > fine.
>
> Yet you feel compelled to deny it first, almost encouraging people to wander
> around during thunderstorms and to use a hairdryer while showering. Whatever.

I think he's agreeing with the use of the word "nonsense" and a
deliberate misparsing of the sentence.

Me, I think you guys both are off the deep end a little here.

The original guy was talking about tying a 0.01 uF AC cap from
the neutral to the lamp frame. Failure of that cap, combined with
a miswired house, would cause a potential safety hazard. Yet that
cap arrangement is done all the time. Take your Sony TV. Disconnect
it from the cable system, the satellite, the stereo/AV system --
isolate it. Now measure the voltage from the cable/antenna
shield (on the F connector) to ground. Surprised? That's 'cause
they have two caps, one to each side of the line, just as described
above. Yet UL approves. (I wonder if that arrangement is also
there on CE approved versions.) I know this because I am so
sick and tired of ground-loop-induced hum in my A/V system
because of this. I have to ground the shit out of everything
to get rid of it. At my old apartment the cable system wasn't
properly grounded -- big surprise -- and I had to use an
RF isolation transformer to get rid of the problems caused by
the cable system floating well above ground.

--
Eric F. Richards, efricha@dimensional.com
"This book reads like a headache on paper."
www.cnn.com/2001/CAREER/readingup/08/14/getting.things.done/index.html

6949. Wanted schema of MFJ 969

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 07:13:45 UTC
From: alain <f1mdt@libertysurf.fr>
Message-ID: <9sikc2$2om8$1@news5.isdnet.net>
Source record: 48797

hello
I seek the schema of antenna coupling MFJ 969
thank you
Alain

--
****
Call : F1MDT Locator : JN23SH
Mail: alain.st@free.fr
Mail: f1mdt@libertysurf.fr
Mail: f1mdt@qsl.net
Site: http://alain.st.free.fr/site1/aspicsite/index.html
Site: http://www.qsl.net/f1mdt/index.html
****

6950. Don't Panic !

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 09:57:17 UTC
From: Martin John Hallsworth <Martin@g1gyc.demon.co.uk>
Message-ID: <1005386486.15175.0.nnrp-01.9e98acde@news.demon.co.uk>
Source record: 48798
Cross-posted to: alt.ham-radio.vhf-uhf,alt.radio.amateur,rec.radio.amateur.boatanchors,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,uk.radio.amateur

Hello,

I am in need of some help.....
I have an SMC 2520 Band 3 radio and I am looking to convert it.
Has any one done this with one before ?
if so what did you do and on to which band ?
Also has any one got a manual / circuit details and or an
address for Argyle communications whom I believe had some thing
to do with the design / programming of the rig..

Ta.
Martin

6951. ARRL Handbook 1939

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 11:50:40 UTC
From: la8ak@online.no
Message-ID: <3bec803b.142426399@news.online.no>
Source record: 48799

got the 1939 ARRL bound handbook from a friend who found it on flea
marked, wonder if it is rare and what the value would be, it is very
good condx.
Info: IT IS NOT FOR SALE

73
LA8AK

6952. WS-38

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 11:50:40 UTC
From: la8ak@online.no
Message-ID: <3bec8107.142631104@news.online.no>
Source record: 48800

Can't find the documents, although I believe it is here in the house
somewhere, wonder where I could find a circuit diagram for download?
Need it for an article I am writing, so it wouldn't hurt if it is good
quality and gif formate

73
Jan-Martin
LA8AK

6953. Re: how mny watt is the foxx3?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 14:02:05 UTC
From: la8ak@online.no
Message-ID: <3bed2ebb.7193550@news.online.no>
Source record: 48802

On Sat, 10 Nov 2001 02:35:33 -0000, <grumpy@lpws.zzzn.com> wrote:

>about 1 watt on a good day with a well matched antenna.
>
>
isnt't that too much?

6954. Dirt cheap V to F converter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 14:20:10 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <uIaH7.101826$ez.12983673@news1.rdc1.nj.home.com>
Source record: 48803

this was in the Electronics World "Circuit Ideas" section -- the voltage control source (0-5VDC) is connected to a LED through a ballast resistor. The LED itself is placed on a TSL230 Light to frequency converter.

You can square up the pulse-train with a 4027. The TSL type devices are now made by TAOS, Inc. who bought the line from Texas Instruments.

6955. Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 14:45:30 UTC
From: web@ovrc.org
Message-ID: <Xns915563596B9D1vintageradiostations@24.2.9.58>
Source record: 48804

Does anyone know a good (cheap) schematic drawing program. I would like to create schematics of vintage homebrew equipment (tubes/coils/xfmrs). Will need have have or able to create 1920/30 style part templates.

Thanks
Cliff

6956. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 15:33:14 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3BED48BA.4A5DB664@one.net>
Source record: 48805
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Thanks to Willis, Greg Beat, and Mark Keith for constructive comments.

My guess also was that the previous owner simply used too much drive at
some point, or perhaps somehow got the amp to oscillate.

Well, another local ham happened to have several resistors of the right
ratings, so I went ahead and put them in, and the amp seems to be fine.
Power input is a bit low on the 15-meter band, but I hope that'll be
fixed with a little tweaking, which I'll do this weekend.

73

Rich

Bill & Suzie Whatley wrote:
>
> Hi Rich,
>
> The most likely root cause of the grid resistors being damaged is someone
> overdriving the amp or applying an excessive drive signal for too long
> during tune-up. There is a possibility of a problem with the 572B tubes but
> if the idle current is correct with the resistors repaired then the tubes
> are probably usable.
>
> I have had the SB-200 and never had any problems even running AM mode at
> very reduced drive levels.
>
> 73
> WA5VRL
> Willis

6957. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 16:33:30 UTC
From: "G. Skiffington" <skiffing@nbnet.nb.ca>
Message-ID: <3BED8EE0.42F7@nbnet.nb.ca>
Source record: 48806

Howdy Cliff....I'll be looking for replies to your query as well...but in the meantime, I'll tell you that all my schematics (which won't fit into say Electronics Workbench) such as tube type etc I draw using old Microsoft Paintbrush....I've tried a bunch of different drawing/cad programs and keep coming back to Paintbrush for its ease of modifying and "easy" ability to detail at the pixel level (Paintshop will do this as well but not nearly as easily). Very easy to add text and notes as well.
..files store in .bmp format which isn't the smallest but can be zipped if need be (like many). I could likely send you a sample drawing....maybe you could use it as a cut 'n paste file to build your own library.

73 - Gord VE1AJF

6958. Re: ARRL Handbook 1939

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 16:35:01 UTC
From: "G. Skiffington" <skiffing@nbnet.nb.ca>
Message-ID: <3BED8F3C.500D@nbnet.nb.ca>
Source record: 48807

How hard would it be to keep yourself from reading it cover to cover!
Bet its interesting.

73 - Gord VE1AJF

6959. Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 16:35:06 UTC
From: "J.C Menard" <menardjc@wanadoo.fr>
Message-ID: <9sjl41epe1@wanadoo.fr>
Source record: 48808

Where could I find schematics for such receivers : modern solid state versions with external quenching ?

F8ND

6960. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 16:57:40 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <80dH7.19756$Y6.1895741@news1.rdc1.ct.home.com>
Source record: 48809
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Not sure about 572 tubes--but blown grid resistors could indicate a VHF
parasitic oscillation and related arc-over damage.

pete

"Rich Griffiths" <richg@one.net> wrote in message
news:3BE9CD1B.8F1D6BC2@one.net...
> I recently picked up an SB-200. It wasn't behaving quite right, but the
> price was very good.
>
> It had about 30-40 mA of plate current when it was unkeyed (should be
> zero), about 60 mA when keyed but idling (should be 90), and about 250
> to 320 mA when driven (should be 500). The grid current readins were
> similarly weird. The plate voltage was Ok.
>
> I found a bad resistor on the grid of one of the two 572B's and an
> out-of-spec resistor on the other. Each tube is supposed to have a
> 33-Ohm, 1-W resistor connecting the grid to the bias line. One resistor
> reads 42 Ohms; the other is disintegrated. That explains the symptoms.
>
> Now ... is there a Heath-amplifier expert out there who can tell me if I
> should just go ahead and replace those two resistors? Should I still be
> searching for a cause of the failure? (I don't see any obvious cause.)
> At one watt, I would think they could easily handle the expected
> dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> for 2-W resistors anyway?
>
> ... Rich W2RG

6961. Re: Poor man's spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 17:11:04 UTC
From: richgsheltie18@my-deja.com
Message-ID: <8a7a6a9c.0111100911.130509cb@posting.google.com>
Source record: 48810

Hi Joel
Thanks for the reply. Ihave been out of rf for many years and I am
starting out again. I might even get my ham license again.
I had a couple of issues with a modification to the receiver board
instructions and I had to pry the information out of the author so I
am trying this newsgroup for possible answers to this issue.
The uhf and super uhf have a connection going to the cable tuner
prescaler for frequency readout purposes. The tracking generator also
picks up rf from the cable tuner swept oscillator. The prints show the
same connection point in the cable tuner. One page in the book I
bought with the modules shows the two uhf tuners connect to the input
to the prescaler and the tracking generator coax is connected to a
different point in the cable tuner. The page is 4-107 user feedback,
from Donald Rees. If you have the book you can see what I mean.
The tracking generator comes with coax connected to it. I have to hook
the coax up to the cable tuner.
I have double clad pcb boxes and rf connectors, plus a lot of 174 coax
and feedthrough capacitors.
We can probably switch to Email so as not to clutter up this
newsgroup. Let me know.
Thank you.

Richard

"joel" <joel@cyberbest.com> wrote in message
news:<aI0H7.1133$6C1.461173807@twister1.starband.net>...
> I have one that I built from a kit I bought in Dayton a lot of years ago.
> I'm not sure how it has changed over the years. But I doubt much. It seems
> to work, but not very accurate. Maybe I can help ..
>
> Joel
> KA9ZTI@arrl.com
>
>
> "richg" <richgsheltie18@my-deja.com> wrote in message
> news:8a7a6a9c.0111091812.11e6c68b@posting.google.com...
> > Anyone out there built this spectrum analyzer? I would like to
> > correspond with someone who has. I have purchased all the modules and
> > assembling them together. I have the book that describes how different
> > people built them. I have a slight problem with hooking up a uhf
> > tuner, a super uhf tuner and a tracking generator to the cable tuner.
> > Thanks in advance.
> >
> > Richard Gagnon

6962. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 17:21:24 UTC
From: Zoran Brlecic <zbrlecic@earthlink.net>
Message-ID: <3BED624A.98F96F5E@earthlink.net>
Source record: 48811
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Eric F. Richards" wrote:

> > > People get struck by lighting and survive, so
> > > fear not your electrical outlet.
> >
> > This is such a nonsense that it almost doesn't deserve commenting. First of all,
> > nobody survives after being "struck by lightning". One may survive an indirect hit
> > a few dozen feet away or so, but being hit with a direct hit from the source of
> > hundreds of million Volts kills a person flat out, not by defibrillating the heart
> > (as the 120V would likely do), but by instantly cooking the vital organs, including
> > the brain. According to this logic, we can safely stand in the bathtub full of
> > water and grab the hot wire in the nearest electrical socket. After all, it is much
> > less than a lightning.
>
> Wrong. People survive lightning strikes -- direct lightning strikes -- all
> the time. Being in the Front Range of the Rockies, climbers get hit
> all the time. Some die. Many do not. Those that don't get truly
> memorable burns. Those that do die die because of the heart
> fibrillation, not "instant cooking of the vital organs." The actual
> amount of energy in a lightning strike is relatively low -- it is
> just delivered over a very short period of time.

Oh, please... Have you ever seen a tree split in half by lightning? How about fulgurites (glass tubes) on a sandy beach produced by lightning strikes melting sand at about 12,000 degree Fahrenheit? Those effects cannot be made by a source of "relatively low" energy. Whoever was hit by a lightning and survived, most likely was hit by a stray weak(er) streak from the main path of the lightning. An average lightning releases about 250 kWh (that's kilowatt hours) of energy. The fact that the event is brief (a few ms) can be used in a simple mathematical calculation which will show that the amount of *power* released in those few milliseconds is enormous. The current flowing through the lightning bolts is in the order of tens of thousands of Amperes and the temperatures within the main bolt can reach over 50,000 degrees Fahrenheit!
No one survives a direct hit by lightning! If a lightning bolt hits you directly, your body will be cooked instantly. You *may* have a chance if you are hit with a streak from the main bolt (by far the most common case) and that streak happens to be relatively weak.

> Having had these arguments before I can give you direct citations
> if you are willing to listen to an opinion other than your own.

Please do. Testimonials will not count, btw, only scientific observations and data.

> > > You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz
> > > AC system and would go around finding lost dogs and cats and would electrocute
> > > them to death trying to scare people from Tesla's 60 Hz AC system and stay with

> > > Edison's DC system of supplying homes with power.
> >
> > This is a strawman argument. Edison may have done that (while conveniently
> > forgetting the fact that the same amount of DC kills just as efficiently as AC),
> > but it's got nothing to do with the biological and medical facts.
>
> Wrong again. The higher the frequency, the more lethal
> the current is.

Are you kidding me? You might want to look up "skin effect" and other phenomena.

> I don't know why. Do you have a ham license?

What's that got to do with anything? And yes, I do - a simple scrolling down to the bottom would have revealed it.

> Do you remember anything about the RF safety/RF burn issue?

RF burn is a completely different effect. You can have much more current flowing through your body in RF frequencies than the 50/60Hz current, yet nothing would happen except a varying degree of skin burn. Due to the skin effect, almost no electrical current flows through the body, but only through the skin. The skin effect is proportional to the frequency. Therefore, the statement that "The higher the frequency, the more lethal the current is" is clearly nonsense. That is not a license to handle high frequency sources like candy, but simply to be aware what the hazards are in what particular situation.

> That's not to say that DC is safer -- it's just dangerous in
> different ways.

There is no much difference between the DC and 50/60Hz, except for the biological fact about the heart valve palpitation timing which is fairly close to the household voltage cycle.

> Breaking a DC short circuit is harder than
> breaking an ac short because there's no zero-crossing to make
> a nice interruption of the arc.

Fine, but what has this got to do with what we're discussing.

> Me, I think you guys both are off the deep end a little here.
> The original guy was talking about tying a 0.01 uF AC cap from
> the neutral to the lamp frame. Failure of that cap....[snip]

I was purposely not addressing the issue of this method. I simply wanted to point out the fallacies of the unfounded, illogical, circular and backward reasoning, which in this case might make a difference between someone's life and death. But if you can show me in what point I was off the deep end, I'd be much obliged.

73 ... Zoran WA7AA

--

Support freedom of speech or I'll kill you!

6963. FA: Mfj Speech Processor 2 hrs left

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 18:15:43 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <j9eH7.44758$ya.10213772@news1.busy1.on.home.com>
Source record: 48812
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048610

6964. FA: Kenwood TS-120s Trans 2 hrs left

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 18:17:29 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <ZaeH7.44760$ya.10214037@news1.busy1.on.home.com>
Source record: 48813
Cross-posted to:
alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048580

6965. FA: SX-190 Shortwave Reciever 2 hrs left

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 18:18:44 UTC
From: Steve Gale <sgale11@home.com>
Message-ID: <8ceH7.44763$ya.10214916@news1.busy1.on.home.com>
Source record: 48814
Cross-posted to:
alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,rec.radio.swap

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1293048622

6966. Re: Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 18:37:55 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BED7403.68E05C5C@ay.com.au>
Source record: 48815

"J.C Menard" wrote:
>
> Where could I find schematics for such receivers : modern solid state
> versions with external quenching ?

The circuit diagram for the one on my website is in the ARRL handbook.
Its quenching isn't exactly external, it has a source tuned circuit that
does the quenching, while the drain tuned circuit is the RF end of the
business.

Around the net I've not seen many other designs, almost all are self
quenching. Spoiling the regenerative stage to the tune of an external
oscillator can't be too hard?

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Crescent (25% of Full)

6967. Re: Sir Douglas Halls Circuits

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 18:56:14 UTC
From: Juerg Tschirren <juerg-tschirren@uiowa.edu>
Message-ID: <iLeH7.10057$gQ1.4101077@news1.elmhst1.il.home.com>
Source record: 48816

geoffrey brown wrote:

> The Spontaflex website has moved
>
> the new addy is http://www.spontaflex.freeserve.co.uk
>
> Added a few more articles from The Radio Constructor
>
> and an explorer style pane using omentree. Feedback welcome.

From the webpage:

"This works fine with IE but not with Netscape"

... and not with Opera, and not with Konqueror (the navigation bar is empty, not a single link is accessible on the whole page). Too bad. Many people, including me, will never have a chance to navigate through you webpage.

Juerg

6968. Re: ARRL Handbook 1939

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 20:20:10 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BED8BFA.29E19A73@charter.net>
Source record: 48820

i found a 1943 Radio Amateur's handbook 12 th edition at a flea.
has lots of good info on the old stuff the ads in it are really Neat.
chris NI4L

J M Noeding wrote:

> got the 1939 ARRL bound handbook from a friend who found it on flea
> marked, wonder if it is rare and what the value would be, it is very
> good condx.
> Info: IT IS NOT FOR SALE
>
> 73
> LA8AK

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

6969. Sir Douglas Halls Circuits

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 20:23:56 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9she2a$7rn$1@news7.svr.pol.co.uk>
Source record: 48779

The Spontaflex website has moved

the new addy is http://www.spontaflex.freeserve.co.uk

Added a few more articles from The Radio Constructor

and an explorer style pane using omentree. Feedback welcome.

6970. Re: If it aint broke, don't fix it (LONG)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 20:45:07 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrn9ur5jp.oh9.w9wi@linux1.localdomain>
Source record: 48821
Body handling: HTML body converted to readable text

On Sun, 11 Nov 2001 19:37:35 -0000, geoffrey brown
wrote:
>if there was anything drastically wrong with the HTML
>then it would not work with IE5 so I am reluctant to tinker with it.
>Need expert help.Can anyone point me in the right direction

Doesn't work for me either, either with Opera 5 or Netscape 4.71. I use
Linux so switching to IE is not an option.

The problem is with the Javascript used in the "OmenTree" menu. Apparently
it uses some Microsoft-specific functions. There's another way of doing it,
attached. This method is probably not the only way to do it, other methods
may be more attractive as well.

On a vaguely related subject, you might want to reconsider having a
"mailto:" link. The spam crooks run automatic harvesters which look for
email addresses on web pages and put them on mailing lists for pornography
and scam advertisements. Making an *image* containing the text of your
address (Microsoft Paint works fine for this) and putting that image on your
site is a safer idea. (see mine)

Here's some HTML source which I think will do what you're trying to do and
still work with *all* browsers and OSs.
==

Singletran

page 1

page 2

page 3

The Autoflex

page 1

page 2

page 3

page 4

Multi-Tuner

page 1

page 2

Triple-S

page 1

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Silicon Spontaflex

page 1

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FM Spontaflex

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Miniflex

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Hybridyne

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DRC Junior

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Links

Circuit archive

Big Links List

email
Geoff

This works fine with IE but not with Netscape

The Ingenious Circuits of Sir Douglas Hall

As published in The Radio Constructor

Find the issue date below then navigate to it using the left-hand pane,
Explorer style.

ARTICLE
DATE
DETAILS

The Autoflex
Jun 1964
Very interesting article explaining how the automatic reflexing occurs
in the Autoflex (Spontaflex) circuit.

Silicon Spontaflex
may 1969
3 transistor MW/LW Receiver. Excellent loudspeaker results

DRC 3
Jun 1972

Very sensitive double reflex SW Receiver

DRC Junior
Oct 1973
Similar to DRC3. Easier to build.

Miniflex
Dec 1970
2 transistor MW/LW tuner

Multi-Tuner
Feb 1967
Six functions and the only switch is the on/off button

Hybridyne
Apr 1973
MW Hybrid 3 transistors + DL96 Valve

Triple-s
Nov 1968
Simplicity and Sensitivity with 3 transistors

FM Spontaflex
Jun 1969
4 transistor FM Receiver

Singletran
Aug 1963
Single transistor Loudspeaker Receiver

More to come when time permits.

--
Doug Smith W9WI
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http://www.w9wi.com

6971. 915MHz FM ATV component level design - TX & RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 21:26:07 UTC
From: markaren1@earthlink.notalotofspam.net
Message-ID: <3bed98c8.332969895@news.earthlink.net>
Source record: 48822

Hi all,

I am in the process of tinkering with an FM 915MHz video link.

TX is based on a VTO-9080 VCO + Preemphesis + Video buffer, PA will be a Hitachi PF0031.

RX is based in a Ku band RX IF section tuned down to 915MHz with a masthead preamp.

Before I commit to PCB with this design I am interested in similar designs for FM ATV on WWW pages - I haven't had much sucess so far finding many apart from:

PE1IPD http://www.dutch.nl/bdj/ in Holland and F6KEH http://f6keh.free.fr/f6keh%20ressources/menu_e.htm in France have done some interesting work (many thanks both of you).

I would be gratefull for any published 1.3GHz designs which I could adapt - or at least steal lock stock and barrel :)

I am also intersted in PCB Microwave design software which allows analysis of PCB couplers - preferably shareware. I have a copy of PUFF but it is rather hard work.

This is not a commercial project.

Please also reply by email - my address needs de-spammification.

Thanks,

Mark.

6972. Re: 915MHz FM ATV component level design - TX & RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 23:06:26 UTC
From: poissondanlo@aol.com
Message-ID: <20011110180626.16123.00002431@mb-cr.aol.com>
Source record: 48823

Hello
PCB couplers , try SONNET
i don't remember link but with GOOGLE.COM it is not difficult to find it
on the web page sonnet , there is a sonnet forum
bye
Serge /F5JTM

6973. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-10 23:15:07 UTC
From: anindita@uab.edu
Message-ID: <f7be43a2.0111101515.3e2c58f9@posting.google.com>
Source record: 48824

> If you're looking to do spectrum analysis, then get hold of a
> decent spectrum analyzer. If you're looking to find a computer-controlled
> FM broadcast receiver, there still exist PC-installable FM tuner cards.

I have been looking for decent FM tuner cards,but can't seem to find
any.Could u point me to manufacturers/websites?
Maybe I'm just not looking right.

Thanks!
Anindita

6974. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 00:20:45 UTC
From: CW <clinton.magers@home.com>
Message-ID: <xvjH7.12038$XJ4.8151211@news1.sttln1.wa.home.com>
Source record: 48825
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Simple testing will determine this.
--
CW
KC7NOD

"Gary Glaenzer" <nobulltrans@irtc.net> wrote in message
news:%GJF7.376$8o5.20033603@news2.randori.com...
> I repeat:
>
> you have an excessive amount of faith that every outlet you use is wired
> correctly.
>
> there is no way to guarantee that your 'UL approved non-lethal leakage'
> capacitor is going to remain that way
>
> good luck
>
>
>
>
> "Hagstar" <yonny@att.net> wrote in message
news:3BE763A0.FB1829F4@att.net...
> > Gary Glaenzer wrote:
> > >
> > > > I connected an AC
> > > > rated 0.01uF cap from the neutral to the metal.
> > > > (The dimmer circuit is completely in the hot side
> > > > of the line, the lamp has a polarized plug that
> > > > forces this to happen).
> > >
> > > You've got a lot of faith that every outlet you are using doesn't have
> the
> > > hot/neutral mis-wired.
> > >
> > > Good luck.
> > >
> >
> > Hey, smarty pants, did you read the part about .01 mfd, as in "UL
> > approved generally non-lethal leakage" ?
> >
> > John H.
> > > >
> > > > This may help for in the wall dimmers too. If

> > > > the house uses conduit or BX cable, that would
> > > > help act as a shield. Romex, don't know.
> > > >
> > > >
> >
>
>

6975. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 00:40:25 UTC
From: CW <clinton.magers@home.com>
Message-ID: <ZNjH7.12136$XJ4.8177610@news1.sttln1.wa.home.com>
Source record: 48826
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Over 200. The only reason you can grab the terminals with bare hands and not have a problem is the voltage is to low to overcome skin resistance. Go for a swim, get out and grab that same battery while you are still wet. We will wait a couple of days to give you time to complete the experiment. When you do, come back and tell us what you learned (if you can). I once built an arc welder that ran off batteries. One jeep battery (24 volt) or two car batteries and you could weld 1/8 inch steel quite well.
--
CW
KC7NOD
Web Page http://www.kc7nod.20m.com

"Steve Radcliff" <sradcliff@yikes.com> wrote in message
news:3BEC112C.DFB73B22@yikes.com...
>
> Do you know how many AMPS you can get from a car battery? Ever try
grabbing
> one hand on each post of a car battery to see what happens? Absolutely
> nothing.
>
>
>

6976. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 00:48:24 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <pshks9.7b1.ln@darkstar.localdomain>
Source record: 48828

Cliff wrote:

>
> Does anyone know a good (cheap) schematic drawing program. I would like to
> create schematics of vintage homebrew equipment <snip>

What OS do you use? Any good vector drawing program will
do the job. I use Xfig or Kontour for Linux. Both are
Free and open-source.

Smartdraw for Windows is pretty good. ClarisDraw for the Mac....

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

6977. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 00:53:05 UTC
From: CW <clinton.magers@home.com>
Message-ID: <RZjH7.12184$XJ4.8198084@news1.sttln1.wa.home.com>
Source record: 48827
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

This must not be very common practice. I am a woodworker and correspond with lots of UK woodworkers. Something that comes up all the time is voltage of tools. Many have expressed a desire to buy tools while visiting the US (because they are substantially less expensive here) but have the concern over the voltage difference. If what you say was that common, they would already own the transformers necessary. I'm not saying that it is not done, just that it is not standard practice. As far as 55 volts being safe, I doubt that anyone of any authority believes this to be true. The term is probably "safer".
"Frank Dinger" <gm0csz.kn6wh@ntlworld.com> wrote in message news:Ua%G7.3182$mG4.523064@news11-gui.server.ntli.net...
>
> Sorry to sound like a scold, but any representation that line power isn't
> lethal stuff is more than nonsense, its DANGEROUS nonsense.
>
> I'll agree with that! What ever adjective you want to put in front of
it
> is
> fine.
>
> ++++++++++++
>
> Just for info : At least in the UK and probably other countries as well ,
in
> industry , isolation transformers 230 ---> 110 V are used for portable
> tools ,with the secondary winding having an earthed (US terminology :
> grounded) centre tap.
> This means that in case of equipment or cable failure the max voltage to
> earth (ground) is 55 V, which is considered SAFE ,eg does not constitute a
> risk of electrocution.
>
> Frank gm0csz.kn6wh@ntlworld.com
>
>
>
>
>

6978. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 01:29:32 UTC
From: la8ak@online.no
Message-ID: <3bedaca4.663482@news.online.no>
Source record: 48829

On Sat, 10 Nov 2001 16:33:30 GMT, "G. Skiffington"
<skiffing@nbnet.nb.ca> wrote:

>Howdy Cliff....I'll be looking for replies to your query as well...but
>in the meantime, I'll tell you that all my schematics (which won't fit
>into say Electronics Workbench) such as tube type etc I draw using old
>Microsoft Paintbrush....I've tried a bunch of different drawing/cad
>programs and keep coming back to Paintbrush for its ease of modifying
>and "easy" ability to detail at the pixel level (Paintshop will do this
>as well but not nearly as easily). Very easy to add text and notes as
>well.
>..files store in .bmp format which isn't the smallest but can be zipped
>if need be (like many). I could likely send you a sample
>drawing....maybe you could use it as a cut 'n paste file to build your
>own library.
>
>73 - Gord VE1AJF

why don't you save as gif? My win95 and win98 versions easily save as
gif with just one stupid measure from Bill, but just forget about his
stupid ideas. Today downloaded symbols from
http://www.arrl.org/qexfiles/ the file
Schematic bitmap symbols from QST Hints and Kinks
they seem to be arranged for paintbrush, but I use powerpoint and the
symbols couldn't be transferred easily, so I make my own symbols and
copy from one circuit to another

It is easy to draw in powerpoint and save as gif, but if you will make
later changes you must also save as ppt

73
Jan-Martin
LA8AK

6979. Re: Some nifty dual conversion IF/detector modules...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 01:50:41 UTC
From: res0m4jh <res0m4jh@verizon.net>
Message-ID: <PPkH7.629$vv.969914@paloalto-snr2.gtei.net>
Source record: 48830

Web site: http://199.184.215.33/catalog/view_item.php?id=256 fails.

When might you know if one may pick a decent band-limited signal off for
AM, FM and SSB demodulation in a PC?

What do you want for these things, please?

Thanks! & 73, Doc KD4E

> Note: Limiter follows second 2nd IF filter. I am looking into possibility
of
> converting this stage to a linear stage and picking the band limited
> signal off for input to a PeeCee sound card for digital detection
and
> audio gain. This should make it possible to demodulate AM, FM, and
SSB
> to make a more general purpose radio.

6980. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 02:14:23 UTC
From: Steve Radcliff <no@spam.com>
Message-ID: <3BEDDEF6.FB4CCD57@spam.com>
Source record: 48831
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> Of course, even wet human skin is nowhere near as conductive as a
> 3/8" thick steel screwdriver shaft.

Fact once again prevails.

6981. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 03:01:47 UTC
From: Juerg Tschirren <juerg-tschirren@uiowa.edu>
Message-ID: <vSIH7.11364$gQ1.4461783@news1.elmhst1.il.home.com>
Source record: 48832

Cliff wrote:

>
>
> Does anyone know a good (cheap) schematic drawing program. I would like to
> create schematics of vintage homebrew equipment (tubes/coils/xfmrs). Will
> need have have or able to create 1920/30 style part templates.
>
> Thanks
> Cliff

Take a look at Eagle (http://www.cadsoft.de). It is a package for schematic drawing and PCB design. It is available for Linux and Windows. The basic version is free (restricted to one page of schematic diagram). The commercial versions are not too expensive.

If you run Linux (I hope you do ;-D) then you may also want to take a look at XCircuit (http://bach.ece.jhu.edu/~tim/programs/xcircuit/).

Juerg

6982. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 03:17:04 UTC
From: Juerg Tschirren <juerg-tschirren@uiowa.edu>
Message-ID: <Q4mH7.11412$gQ1.4474937@news1.elmhst1.il.home.com>
Source record: 48833

Juerg Tschirren wrote:

> Cliff wrote:
>
>>
>>
>> Does anyone know a good (cheap) schematic drawing program. I would like
>> to create schematics of vintage homebrew equipment (tubes/coils/xfmrs).
>> Will need have have or able to create 1920/30 style part templates.
>>
>> Thanks
>> Cliff
>
> Take a look at Eagle (http://www.cadsoft.de). It is a package for
> schematic drawing and PCB design. It is available for Linux and Windows.
> The basic version is free (restricted to one page of schematic diagram).
> The commercial versions are not too expensive.
>
> If you run Linux (I hope you do ;-D) then you may also want to take a
> look at XCircuit (http://bach.ece.jhu.edu/~tim/programs/xcircuit/).
>
> Juerg

... I just noticed, XCircuit runs under Windows too (according to the web page cited above).

Juerg

6983. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 03:53:01 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEDF61D.26082DCB@ay.com.au>
Source record: 48834

Eamon Skelton wrote:

> What OS do you use? Any good vector drawing program will
> do the job. I use Xfig or Kontour for Linux. Both are
> Free and open-source.

Xcircuit is fairly good for electronic specific stuff.

The Xcircuit site has tube libraries available for download.

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (21% of Full)

6984. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 03:54:00 UTC
From: Steve Radcliff <no@spam.com>
Message-ID: <3BEDF64E.DB31137A@spam.com>
Source record: 48835
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> >> Of course, even wet human skin is nowhere near as conductive as a
> >> 3/8" thick steel screwdriver shaft.
> >
> >Fact once again prevails.
> >
>
> Fact - 12 volt batteries rarely harm humans, at least from an
> electrical shock standpoint.

Fact once again prevails.

> 1. Wet your hands.

> 2. Put your feet in a bucket of water.
>
> 3. Remove the cover of an electrical outlet and grab tight to the wires inside to prove that the
> electric current is dangerous.

PS, you must wet your hands and stand in a bucket of water or else you will not die or get injured and
will only get a nasty unpleasant shock.

6985. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 03:54:40 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEDF680.F8366CF7@ay.com.au>
Source record: 48836

Juerg Tschirren wrote:

> ... I just noticed, XCircuit runs under Windows too (according to the web
> page cited above).

Yeah, but you need an X Server to do it.

And for best usage you really need a true 3-button mouse, most Win32 X
Servers do that really poorly. Other than that, I love XCircuit, I use
it for all my electronics stuff.

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (21% of Full)

6986. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:02:31 UTC
From: Steve Radcliff <no@spam.com>
Message-ID: <3BEDF84E.CC9A2CAC@spam.com>
Source record: 48837
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

> Wet human skin (R) is conductive enough to allow a fatal current (I)
> to pass through the body at electrical mains voltages (E).

Why is it we have to soak ourselves in water before working with electricity before you can somehow
prove a point that it is dangerous? Should we put some SALT in the water first and have someone shoot
a gun to our heads as we work around electricity so you can be REALLY right?

From someone who never turns the circuit breaker off when changing a light switch or dimmer, or unplugs
a radio or vcr before working on it, I have been shocked with the AC hundreds of times and it doesn't
even make me jump anymore. You can preach all you want, but you are NEVER going to convince me that
it is dangerous because I know from experience that it isn't.

Of course I don't do these things in the shower as you somehow are obsessed with.

6987. Re: If it aint broke, don't fix it (LONG)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:09:19 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEDF9EE.2092CD79@ay.com.au>
Source record: 48838

I have to agree with Doug here.

I'd love to take a look at the site, but the navigation pane requires stuff that my browser (NS 4.7 under linux) doesn't support. The JavaScript driving the DHTML in the nav is actually fairly elegant, its a shame it isn't written with portability in mind as well.

Perhaps you can contact omensoft (their URL in the code doesn't work for me) and ask them to fix it? If you can't I'd be willing to have a crack at fixing it.

You might just opt for a dumb flat nav system, or one that is just like the current one, but flatterned into several pages (one for each 'FolderNode').

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (21% of Full)

6988. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:33:23 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEDFF93.3BDE404E@ay.com.au>
Source record: 48839

John Byrns wrote:

> > Marital problems? Toss your wife's hair dryed into her bathtub whilst
> > she in basking therein. OOOPS. I didn't know the thing was loaded.
>
> I don't think that old trick works anymore, for years hair dryers have
> come with a built in GFI at the plug end of the cord.

It doesn't work if it is running at the time either, it just sits there and churns water. The motor and heating element are much better paths for the current to take than through the water and into the drainage piping. Sure you get some leakage and it will pop a RCD/GFI but it probably wouldn't kill an adult in the water, one not touching the drain wouldn't even feel it either.

However, if it is turned off at the unit, but on a GPO, that is an entirely different situation.

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (21% of Full)

6989. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:42:18 UTC
From: CW <clinton.magers@home.com>
Message-ID: <KknH7.12474$XJ4.8533006@news1.sttln1.wa.home.com>
Source record: 48840
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

So, Who claimed it was?
"Steve Radcliff" <no@spam.com> wrote in message
news:3BEDDEF6.FB4CCD57@spam.com...
> > Of course, even wet human skin is nowhere near as conductive as a
> > 3/8" thick steel screwdriver shaft.
>
> Fact once again prevails.
>
>

6990. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:45:20 UTC
From: Juerg Tschirren <juerg-tschirren@uiowa.edu>
Message-ID: <AnnH7.11668$gQ1.4553210@news1.elmhst1.il.home.com>
Source record: 48841

Alan Yates wrote:

> Juerg Tschirren wrote:
>
>> ... I just noticed, XCircuit runs under Windows too (according to the web
>> page cited above).
>
> Yeah, but you need an X Server to do it.
>
> And for best usage you really need a true 3-button mouse, most Win32 X
> Servers do that really poorly. Other than that, I love XCircuit, I use
> it for all my electronics stuff.
>

Check out Cygwin (http://www.cygwin.com). XFree86 (the most popular X server under Linux) is now available for Windows. It works very nicely from what I have seen. At it is free (free as in beer).

Juerg

6991. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 04:53:24 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEE0444.FC9FA52@ay.com.au>
Source record: 48842

Juerg Tschirren wrote:

> Check out Cygwin (http://www.cygwin.com). XFree86 (the most popular X
> server under Linux) is now available for Windows. It works very nicely from
> what I have seen. At it is free (free as in beer).

Yeah Cygwin is OK, but I don't need it, I have the real thing :)

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (21% of Full)

6992. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 07:01:01 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <nr0sutsg4p9j07686go586rqug4414c8to@4ax.com>
Source record: 48843
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Zoran Brlecic <zbrlecic@earthlink.net> wrote:

> "Eric F. Richards" wrote:
>
> > > > People get struck by lighting and survive, so
> > > > fear not your electrical outlet.
> > >
> > > This is such a nonsense that it almost doesn't deserve commenting. First of all,
> > > nobody survives after being "struck by lightning". One may survive an indirect hit
> > > a few dozen feet away or so, but being hit with a direct hit from the source of
> > > hundreds of million Volts kills a person flat out, not by defibrillating the heart
> > > (as the 120V would likely do), but by instantly cooking the vital organs, including
> > > the brain. According to this logic, we can safely stand in the bathtub full of
> > > water and grab the hot wire in the nearest electrical socket. After all, it is much
> > > less than a lightning.
> >
> > Wrong. People survive lightning strikes -- direct lightning strikes -- all
> > the time. Being in the Front Range of the Rockies, climbers get hit
> > all the time. Some die. Many do not. Those that don't get truly
> > memorable burns. Those that do die die because of the heart
> > fibrillation, not "instant cooking of the vital organs." The actual
> > amount of energy in a lightning strike is relatively low -- it is
> > just delivered over a very short period of time.
>
> Oh, please... Have you ever seen a tree split in half by lightning? How about fulgurites
> (glass tubes) on a sandy beach produced by lightning strikes melting sand at about 12,000
> degree Fahrenheit? Those effects cannot be made by a source of "relatively low" energy.

Yes, they can. The key words are "energy" and "relatively." It's a
high amount of power (energy/time) but low energy. According to

http://www.weatherwise.org/qr/qry.lightningpower.html

Which has the clearest description for those who need small words,
"The energy input in a typical 3-mile long lightning channel is
estimated to be one billion to ten billion joules. [One Joule is
one watt-second.] One hundred joules of energy will keep a 100-watt
light bulb going for one second. One billion joules will keep the
light bulb lit for 116 days." (References on that page.)

That's not all that much energy, relatively speaking. Release it
over 30ms, (IEEE 8/22 lightning profile) however, and you do have
a huge blast of *power.* The reason the trees explode and
the fulgerites form is that tree sap and fulgerites are poor
conductors, becoming the "weak link" in the circuit. The sand

melts; the water in the sap explosively expands when it boils.

> Whoever was hit by a lightning and survived, most likely was hit by a stray weak(er)
> streak from the main path of the lightning.

No. See below.

> An average lightning releases about 250 kWh
> (that's kilowatt hours) of energy.

Actually slightly higher at the bottom end, but it still doesn't
matter.

> The fact that the event is brief (a few ms) can be
> used in a simple mathematical calculation which will show that the amount of *power*
> released in those few milliseconds is enormous. The current flowing through the lightning
> bolts is in the order of tens of thousands of Amperes and the temperatures within the
> main bolt can reach over 50,000 degrees Fahrenheit!
> No one survives a direct hit by lightning!

Suggest you watch your local news on stormy days. Direct strikes are
common on soccer fields. Gary Coffman in r.r.a.antenna refers to a
PGA player (Hale Irwin?) who has been hit twice, on camera both times.

> If a lightning bolt hits you directly, your
> body will be cooked instantly. You *may* have a chance if you are hit with a streak from
> the main bolt (by far the most common case) and that streak happens to be relatively
> weak.
>
> > Having had these arguments before I can give you direct citations
> > if you are willing to listen to an opinion other than your own.
>
> Please do. Testimonials will not count, btw, only scientific observations and data.

From when I got into this argument last year, I basically collected
info over a three week period. Here is that info:

10-July-2000:

In Boulder today a 9 year old boy from Texas was hit by lightning
and is now in Denver Children's Hospital in critical condition.
He's alive because a bystander administered CPR. For Boulderites,
the strike occurred on Panorama Point off Flagstaff Mountain Rd.
Two other children had minor injuries from "flying debris" and
were treated and released from Boulder Community hospital.

I suppose you could call them to try and wangle out details if
they'll let you have them...

There are also numerous grass fires burning due to lightning from
these storms.

10-July-2000:

Follow up... John Albeter, 45 was struck a couple of days ago. He
was showing his burns off on KCNC-4, the local CBS affiliate. They
claim that at least 3 people have been hit and survived "in the last
few days."

Unfortunately, their web site is intentionally kept out of date as
compared to the broadcast info, so nothing is there, yet. But try

http://www.kcncnews4.com/

Later this week or consider getting a copy of tomorrow's (Tuesday's)
Rocky Mountain News (which shares stories with KCNC).

18-July-2000:

Follow up... because of the storms we have had over the last few
days, there have been a lot of strikes. KCNC-4 in Denver reports
that 9 people (including the above) have been hit, with only 1
fatality. One couple who were hit actually hiked to get help
for the burns on their legs (ouch!); the dead individual was
climbing a mountain when he was hit -- the rescue/recovery
crews needed a couple of days to pick up his body because the
lightning was too dangerous for them to go get him.

Bottom line -- lots of lightning survivors, and the single
fatality didn't get himself blasted into tiny fragments.

(I stopped collecting data at that point, given I'd made my
point in 8 days.)

There's even a survivors' support group:

http://www.mindspring.com/~lightningstrike/

Since you don't want testimonials -- a reasonable thing --
you might want to skip to the "links" section and follow
the one put there by the MD. I haven't explored them since
last year, so I don't vouch for their quality.

> > > > You sound just like Thomas Edison who said the same thing about Tesla's 60 Hz
> > > > AC system and would go around finding lost dogs and cats and would electrocute
> > > > them to death trying to scare people from Tesla's 60 Hz AC system and stay with
> > > > Edison's DC system of supplying homes with power.
> > >
> > > This is a strawman argument. Edison may have done that (while conveniently
> > > forgetting the fact that the same amount of DC kills just as efficiently as AC),
> > > but it's got nothing to do with the biological and medical facts.
> >
> > Wrong again. The higher the frequency, the more lethal
> > the current is.
>
> Are you kidding me? You might want to look up "skin effect" and other phenomena.
>
> > I don't know why. Do you have a ham license?
>

> What's that got to do with anything? And yes, I do - a simple scrolling down to the
> bottom would have revealed it.
>
> > Do you remember anything about the RF safety/RF burn issue?
>
> RF burn is a completely different effect. You can have much more current flowing through
> your body in RF frequencies than the 50/60Hz current, yet nothing would happen except a
> varying degree of skin burn. Due to the skin effect, almost no electrical current flows
> through the body, but only through the skin. The skin effect is proportional to the
> frequency. Therefore, the statement that "The higher the frequency, the more lethal the
> current is" is clearly nonsense. That is not a license to handle high frequency sources
> like candy, but simply to be aware what the hazards are in what particular situation.

Suggest you look up medical information on current necessary to stop
a heart at DC, 60 Hz, 400Hz and 1kHz. I may be totally out of line
on RF, but I do know that *up to a point, well within the frequencies
we are talking about,* ac is more lethal than DC.

> > That's not to say that DC is safer -- it's just dangerous in
> > different ways.
>
> There is no much difference between the DC and 50/60Hz, except for the biological fact
> about the heart valve palpitation timing which is fairly close to the household voltage
> cycle.
>
> > Breaking a DC short circuit is harder than
> > breaking an ac short because there's no zero-crossing to make
> > a nice interruption of the arc.
>
> Fine, but what has this got to do with what we're discussing.

Well, because you seem like a smartass, and so I felt I should explain
why DC can be dangerous in a different way. Next time I'll remember
to put "but I digress" on that part of the message to avoid the other
obvious smartass answer.

> > Me, I think you guys both are off the deep end a little here.
> > The original guy was talking about tying a 0.01 uF AC cap from
> > the neutral to the lamp frame. Failure of that cap....[snip]
>
> I was purposely not addressing the issue of this method.

Why? That was what the thread was all about? People bitch about
topic drift all the time, and instead of helping the guy, you
continue on a tangent? Dumbass, not smartass.

> I simply wanted to point out the
> fallacies of the unfounded, illogical, circular and backward reasoning, which in this
> case might make a difference between someone's life and death. But if you can show me in
> what point I was off the deep end, I'd be much obliged.
>

I was not able to give as complete a reply as I wanted. I would
suggest getting a copy of "The 'Grounds' for Lightning and EMP
Protection' published by Polyphaser corporation. They do
professional lightning and NEMP protection. People who use
their products properly (like many -- but not all -- radio and
TV stations) stay on the air while their towers are being
pounded. The Joule-rating of the supressors is surprisingly
low (their resistence when conducting is very very low).

Suggest also that you use your favorite usenet search engine
to look up any posts by Gary Coffman in rec.radio.amateur.antenna.
He's an expert -- a real one, not a wannabe -- in the field.

I will quote some of his postings in their entirety to spare
you the trouble of working on this:

> Path: wormhole.dimensional.com!pulsar.dimensional.com!dimensional.com!hermes.visi.com!ne
ws-out.visi.com!netnews.com!cpk-news-hub1.bbnplanet.com!news.gtei.net!newsfeed.atl!news3.a
tl.POSTED!not-for-mail
> From: Gary Coffman <ke4zv@bellsouth.net>
> Newsgroups: rec.radio.amateur.antenna
> Subject: Re: Lightning hit
> Message-ID: <s64ulsomvmpt1qr2bt4k9bm4ljf9vldv09@4ax.com>
> References: <395E381D.A3B19857@hiwaay.net>
<28596-395E56D6-61@storefull-113.iap.bryant.webtv.net>
> X-Newsreader: Forte Agent 1.8/32.548
> MIME-Version: 1.0
> Content-Type: text/plain; charset=us-ascii
> Content-Transfer-Encoding: 7bit
> Lines: 69
> Date: Sun, 02 Jul 2000 12:29:12 -0400
> NNTP-Posting-Host: 209.214.76.17
> X-Trace: news3.atl 962555303 209.214.76.17 (Sun, 02 Jul 2000 12:28:23 EDT)
> NNTP-Posting-Date: Sun, 02 Jul 2000 12:28:23 EDT
> Xref: wormhole.dimensional.com rec.radio.amateur.antenna:109879
>
> On Sat, 1 Jul 2000 15:38:46 -0500 (CDT), richardharrison@webtv.net (Richard Harrison)
wrote:
> >Bill Aycock wrote:
> >"If lightning is NOT RF, then why does it play merry hell with radio
> >reception, especially AM?"
> >
> >Lightning contains r-f because it starts very abruptly and declines
> >abruptly. It`s the fast switch on and fast switch off that generates
> >most of the r-f. Irregularites in what appears as a constantly
> >discharging d-c arc also produce static in your radio. So not all
> >interference is in the start and stop, but most is. Lightning has a
> >pretty good antenna in its ionized path.
> >
> >R-F is a-c which comes from the di/dt or dv/dt. R-F doesn`t nearly
> >account for all of the energy in a lightning stroke. The main electron
> >flow in the discharge of a capacitance makes up most of the energy in

> >the stroke. A lot of these little particles are not bouncing around at
> >any particular radio frequency.
>
> The lightning discharge isn't simple. The strike waveform is often
> modeled to a simple IEEE standard, with a sharp rise (less than 1
> microsecond), an 8 microsecond slow decline, then a 22 microsecond
> interval with a much steeper decline to the arc quench point. Fourier
> analysis shows RF energy across a broad spectrum for this waveform,
> but with the majority of the energy concentrated near and below 1 MHz.
> This IEEE 8/22 waveform is used to test the effects of lightning on
> equipment.
>
> However, that simple model misses quite a bit of what makes up
> the lightning discharge. In particular there is a plasma oscillation
> in the frequency range of 40-60 MHz which is quite strong. This
> is established in the step leaders initiating the discharge, and has
> significant influence on the way the discharge behaves. It is because
> of this plasma frequency that lightning simulations using the 8/22
> waveform don't always correctly predict the behavior of a real strike.
>
> There is also the lower frequency stroke-return stroke oscillation
> of charge which gives lightning its characteristic flicker. This is
> at a relatively low frequency, from a few Hz to a few hundred Hz,
> and we wouldn't normally consider this RF, though it certainly
> isn't DC either. It is worth noting that the return stroke is generally
> several times as strong as the initial stroke.
>
> Modeling the lightning discharge as DC will certainly give incorrect
> results. There is nothing steady state about lightning. Using the 8/22
> waveform gives better results, but it won't always accurately model
> the behavior either. We can't ignore the strong RF lines in the
> lightning spectrum. They have a dominant effect on the path the
> discharge will take. In other words, the discharge path will behave
> on conductors as if it were an RF path with dominant frequencies
> in the 1 MHz and 50 MHz range.
>
> Recalling that we aren't dealing with the steady state, ordinary
> standing wave models don't work either. We have to handle the
> RF impulse behavior using a finite element impulse model. (We
> can use a finite model because below a certain intensity the arc
> quenches.)
>
> The behavior in air is even more complex due to the particulars of the
> ionization status of individual bits of air in the path. We can say in a
> statistical way what the typical bolt will do, but individual bolts will
> behave according to the individual initial conditions they encounter.
> In other words, while lightning obeys ordinary electrical laws, we
> generally don't know initial conditions in enough detail to do an
> accurate model of a particular discharge.
>

> Gary
> Gary Coffman KE4ZV | You make it |mail to ke4zv@bellsouth.net
> 534 Shannon Way | We break it |
> Lawrenceville, GA | Guaranteed |

Next:

> Path: wormhole.dimensional.com!pulsar.dimensional.com!dimensional.com!hermes.visi.com!news-out.visi.com!news.maxwell.syr.edu!newsfeed.atl.bellsouth.net.MISMATCH!newsfeed.atl!news1.atl.POSTED!not-for-mail
> From: Gary Coffman <ke4zv@bellsouth.net>
> Newsgroups: rec.radio.amateur.antenna
> Subject: Re: Lightning hit
> Message-ID: <v51sls8d8cr48h36v5u7k04nqd7ohb30es@4ax.com>
> References: <8imut7jcj1@slb3.atl.mindspring.net> <394F01AD.F562A01D@mindspring.com> <8inqk1$q44$1@ausnews.austin.ibm.com> <394fe240.43647459@news.akorn.net>
> X-Newsreader: Forte Agent 1.8/32.548
> MIME-Version: 1.0
> Content-Type: text/plain; charset=us-ascii
> Content-Transfer-Encoding: 7bit
> Lines: 39
> Date: Sat, 01 Jul 2000 11:02:18 -0400
> NNTP-Posting-Host: 209.214.74.11
> X-Trace: news1.atl 962463687 209.214.74.11 (Sat, 01 Jul 2000 11:01:27 EDT)
> NNTP-Posting-Date: Sat, 01 Jul 2000 11:01:27 EDT
> Xref: wormhole.dimensional.com rec.radio.amateur.antenna:109715
>
> On Tue, 20 Jun 2000 21:35:14 GMT, 2w8ji@contesting.com (Tom W8JI) wrote:
> >On 20 Jun 2000 13:12:33 GMT, glass2@glass2.lexington.ibm.com wrote:
> >>
> >>If I remember correctly, the world record for surviving lightning hits
> >>was a Forest Ranger somewhere in the US who has been hit five times and
> >>survived.
> >>
> >Like UFO sexual abduction survivors, most people who claim to have
> >been directly hit by lightning and survived have only themselves to
> >verify the truth.
>
> That's a wildly inaccurate statement. Some of the best documented
> cases have occurred on the golf course where they've been witnessed
> not only by the other players and the gallery, but also caught on tape
> by the TV crews. One member of the PGA tour has been struck twice
> (different ocasions) in full view of TV. Physical evidence included
> his golf shoes being "blown" off (both times), and burns to his hands
> and arms. He refuses to play when lightning is likely now.
>
> (Losing one's shoes is typical in a lightning strike. The reason is the
> violent muscle contractions, though, and not an actual explosive effect.
> The same thing happens with linemen and industrial electricians
> who come in contact with high voltage lines.)
>

> >Having seen what lightning does to large conductors, I seriously doubt
> >CPR would help anyone hit directly by lightning.
> >
> >A shovel would be about the only thing useful, if it was a direct hit.
>
> Doubt if you will, but lightning strikes are not always fatal. In an average
> year, around 400 people in the US are killed by lightning strikes, but
> several times that number are struck. They survive, with varying degrees
> of injuries. Most of those killed would have survived too, if they had
> received prompt CPR.
>
> Gary
> Gary Coffman KE4ZV | You make it |mail to ke4zv@bellsouth.net
> 534 Shannon Way | We break it |
> Lawrenceville, GA | Guaranteed |

Next:

> Path: wormhole.dimensional.com!pulsar.dimensional.com!dimensional.com!hermes.visi.com!ne
ws-out.visi.com!feed1.news.rcn.net!rcn!newsfeed.atl!news1.atl.POSTED!not-for-mail
> From: Gary Coffman <ke4zv@bellsouth.net>
> Newsgroups: rec.radio.amateur.antenna
> Subject: Re: Lightning hit
> Message-ID: <a78slssgm7k1m6cvbha3pbab955lblkmnj@4ax.com>
> References: <8imut7jcj1@slb3.atl.mindspring.net> <8irl4v$9bi$1@uranium.btinternet.com>
> X-Newsreader: Forte Agent 1.8/32.548
> MIME-Version: 1.0
> Content-Type: text/plain; charset=us-ascii
> Content-Transfer-Encoding: 7bit
> Lines: 70
> Date: Sat, 01 Jul 2000 13:59:49 -0400
> NNTP-Posting-Host: 209.214.74.11
> X-Trace: news1.atl 962474338 209.214.74.11 (Sat, 01 Jul 2000 13:58:58 EDT)
> NNTP-Posting-Date: Sat, 01 Jul 2000 13:58:58 EDT
> Xref: wormhole.dimensional.com rec.radio.amateur.antenna:109741
>
> On Thu, 22 Jun 2000 01:00:20 +0100, "Reg Edwards" <G4fgq.Regp@btinternet.com> wrote:
> >As that American compatriate of yours was addicted to doing, you are
> >walking in open country in the middle of a thunderstorm.
> >
> >Unsurprisingly, you are directly struck by a lightning bolt.
> >
> >100,000 amps through your body resistance of 1000 ohms for 1
> >microsecond is equivalent to 10 KW applied for 1000 seconds.
> >
> >You will be dead. Well and truly cooked. Ready for serving. Your
> >electric chair, first tried on a circus elephant unjustly accused of
> >murdering his trainer, can do no better.
> >
> >Just like the blasted oak.
>

> Your numbers are off, and you're interpreting the results incorrectly.
>
> In the first place, the average bolt intensity is 18 kA, not 100 kA. The
> latter is called a superbolt, and is exceedingly rare. (The largest superbolt
> ever recorded was approximately 200 kA.)
>
> Most of the time, when a tree is struck, it is *not* "blasted". Usually there's
> just a burn about a centimeter wide down the side of the tree. The tree may
> or may not survive this in the long term (mainly depending on what infestation
> problems this breach of the protective bark may permit.)
>
> In the second place, the human body is 70% salt water, and after the skin
> is pierced, has a resistance considerably lower than 1 kohm. So, under typical
> conditions, and treating the bolt as if it were DC (it isn't), the energy dump
> comes out more on the order of 6.5E4 joules.
>
> Now in the convenient metric system, 1 calorie will raise the temperature
> of 1 gram of water 1 degree Celsius. A joule equals 0.24 calorie. So for a
> 100 kg man containing 70 kg of water, his temperature will be raised roughly
> 3.9 degrees by an energy dump of 6.5E4 joules. An uncomfortable flush,
> perhaps, but hardly the stuff of charbroiled flesh.
>
> Now of course lightning is not DC, and the energy dump won't be
> distributed uniformly throughout the body. It will tend to concentrate
> at the entry and exit points of the discharge. Most lightning strike
> victims who were standing at the time of the strike show RF burns
> on their feet, and on the part of their upper bodies where the bolt
> entered. Their nervous systems also show the consequences of
> electrical shock, often including ventricular fibrillation. But they are
> neither fried nor blasted in the sense you and Tom seem to be
> suggesting.
>
> It should also be noted that while superbolts are rare, bolts of
> lesser intensity than 18 kA aren't. Bolts with intensities as low
> as 3 kA aren't extremely unusual. In fact they are reasonably
> common during the precursor period to a storm, which incidently
> is the most common time for someone in the open to be struck
> by lightning.
>
> After people seek shelter, for example under some trees (safer
> than under a lone tree), the most common strike event would be
> a *sideflash* from the main strike to a tree. The intensity of the
> sideflash will be considerably less than the intensity of the full bolt.
> But it would still be true to say that the person had been struck
> by lightning.
>
> The story of the fellow who started this thread is not all that
> rare. He is most likely the victim of a sideflash. While fortunate
> not to suffer cardiac arrest, his injuries are consistent with that
> sort of event.

>
> Gary
> Gary Coffman KE4ZV | You make it |mail to ke4zv@bellsouth.net
> 534 Shannon Way | We break it |
> Lawrenceville, GA | Guaranteed |

This is a start. I will continue, online or off, if you wish.

>
> 73 ... Zoran WA7AA

--
Eric F. Richards, efricha@dimensional.com
"This book reads like a headache on paper."
www.cnn.com/2001/CAREER/readingup/08/14/getting.things.done/index.html

6993. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 07:42:30 UTC
From: peter.lacount@hqasc.army.mil
Message-ID: <964ba34d.0111102342.55144bbc@posting.google.com>
Source record: 48844
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

When one of the 33 ohm resistor is blown, it was because the 572B tube
grid shorted out to the filament. The grid resistor disappears with a
shotgun blast noise (happen to me three times). So replace the band
tube and 33 ohm resistor and, more than likely, normal operation will
be restored - good luck Pete (W8UXD)
"Peter J. Bertini" <commquart@home.com> wrote in message
news:<80dH7.19756$Y6.1895741@news1.rdc1.ct.home.com>...
> Not sure about 572 tubes--but blown grid resistors could indicate a VHF
> parasitic oscillation and related arc-over damage.
>
> pete
>
> "Rich Griffiths" <richg@one.net> wrote in message
> news:3BE9CD1B.8F1D6BC2@one.net...
> > I recently picked up an SB-200. It wasn't behaving quite right, but the
> > price was very good.
> >
> > It had about 30-40 mA of plate current when it was unkeyed (should be
> > zero), about 60 mA when keyed but idling (should be 90), and about 250
> > to 320 mA when driven (should be 500). The grid current readins were
> > similarly weird. The plate voltage was Ok.
> >
> > I found a bad resistor on the grid of one of the two 572B's and an
> > out-of-spec resistor on the other. Each tube is supposed to have a
> > 33-Ohm, 1-W resistor connecting the grid to the bias line. One resistor
> > reads 42 Ohms; the other is disintegrated. That explains the symptoms.
> >
> > Now ... is there a Heath-amplifier expert out there who can tell me if I
> > should just go ahead and replace those two resistors? Should I still be
> > searching for a cause of the failure? (I don't see any obvious cause.)
> > At one watt, I would think they could easily handle the expected
> > dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> > for 2-W resistors anyway?
> >
> > ... Rich W2RG

6994. Re: 6146 usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 09:31:03 UTC
From: dumpjunkmailhere@yahoo.com
Message-ID: <53893536.0111110131.3837128d@posting.google.com>
Source record: 48845
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

The 6146 was introduced by RCA in 1951, as a replacement for the 2E26 transmitting tube. It allowed you to crank-up the output of a transmitter (one using a 2E26 of course) without any modifications; you simply remove the 2E26 and plug-in a 6146! The 6146 could be used in the 2 meter (144 MHz) and 220 MHz VHF bands with reduced output. In the '50's and 60's, it was also used as finals in hi-fi audio amps, PA systems, and guitar amps.

The hi-fi version of the 6146, the 6550 (a.k.a. KT88), was later introduced for safety reasons (dangerous plate cap on the 6146) and is quite popular in hi-fi today. The 6550 is also used as a transmitting tube, though not as popular as the 6146. I have seen both 6550's and 6146's in illegally built radio jammers and CB radios.

> The 6146 was a very popular final output tube used for
> low band VHF service (30 - 50 MHz) commercial radio units (Prog Line?)
> from General Electric (GE). The RF section was one of the most
> solid designs from the period. Of course, they were selling it to
> the local and state law enforcement agencies. The only problem was heat.
> Today, small reliable fans, Teflon wiring and modern capacitors
> can be easily address and handle this issue.
>
> Now you have me thinking about a winter project.
>
> greg

6995. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 10:00:21 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <m7ils9.bn1.ln@darkstar.localdomain>
Source record: 48705

Alan Yates wrote:

>
> Xcircuit is fairly good for electronic specific stuff.
>

I have it and I think it is pretty good. I prefer Xfig.
It has a similar look and feel and IMHO is a more powerful
program. It has a fairly basic electronic component library.

Most of my schematics were drawn with Kontour/Killustrator -
see URL below.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

6996. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 10:04:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BEE4D37.EAC496E9@eznec.com>
Source record: 48698
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Eric F. Richards" wrote:

> . . .

> Which has the clearest description for those who need small words,
> "The energy input in a typical 3-mile long lightning channel is
> estimated to be one billion to ten billion joules. [One Joule is
> one watt-second.] One hundred joules of energy will keep a 100-watt
> light bulb going for one second. One billion joules will keep the
> light bulb lit for 116 days." (References on that page.)
>
> That's not all that much energy, relatively speaking. . .

> . . .

Yes, relative to a nuclear explosion, say, or a volcanic eruption, it's not much. But if a 100 kg (220 pound) man absorbed a billion joules, it would raise his temperature by 1100 degrees C (1900 degrees F). As far as the person is concerned, there's no practical difference between the energy in the lightning strike and the energy in a nuclear bomb.

Roy Lewallen, W7EL

6997. Re: If it aint broke, don't fix it

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 10:10:56 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <3sils9.dn1.ln@darkstar.localdomain>
Source record: 48706

geoffrey brown wrote:

> Need expert help.Can anyone point me in the right direction

http://www.w3.org is a good place to start. Try validator.w3.org
(from memory?) to check the accuracy of your code.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

6998. Re: Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 11:00:45 UTC
From: "J.C Menard" <menardjc@wanadoo.fr>
Message-ID: <9sllurroe1@wanadoo.fr>
Source record: 48846

Alan , Geoffrey,

Thank you for answering my message.

I have built the ARRL circuit using a JFET. An untuned FET isolation stage has been added for antenna coupling.
The output circuit has been modified to increase the AF level: the 12 k resistor is replaced by the winding of a small AF transformer (value not critical).
Regeneration control is better with a 10 pF adjustable capacitor between source and drain than with the 25 k pot .

It works fine to listen to AM and wide FM up to 400 MHz, sensitivity is good but bandwidth is too large, it could probably be significantly improved with a circuit using an HF filter like SAW.

I have also tried different circuits for external quenching, the problem is to find the optimum quenching wave envelope pattern.

Best regards.

F8ND
"J.C Menard" <menardjc@wanadoo.fr> a crit dans le message news:
9sjl41epe1@wanadoo.fr...
> Where could I find schematics for such receivers : modern solid state
> versions with external quenching ?
>
> F8ND
>
>

6999. Re: Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 11:33:44 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEE6218.15CA2D43@ay.com.au>
Source record: 48697

Thanks for that info, I'll have a fiddle with mine.

400 MHz, wow, what FET did you use?

I used a MPF102 and it clapped out around 270 MHz.

"J.C Menard" wrote:
>
> Alan , Geoffrey,
>
> Thank you for answering my message.
>
> I have built the ARRL circuit using a JFET. An untuned FET isolation stage
> has been added for antenna coupling.
> The output circuit has been modified to increase the AF level: the 12 k
> resistor is replaced by the winding of a small AF transformer (value not
> critical).
> Regeneration control is better with a 10 pF adjustable capacitor between
> source and drain than with the 25 k pot .
>
> It works fine to listen to AM and wide FM up to 400 MHz, sensitivity is good
> but bandwidth is too large, it could probably be significantly improved with
> a circuit using an HF filter like SAW.
>
> I have also tried different circuits for external quenching, the problem is
> to find the optimum quenching wave envelope pattern.
>
> Best regards.
>
> F8ND
> "J.C Menard" <menardjc@wanadoo.fr> a ï¿½crit dans le message news:
> 9sjl41epe1@wanadoo.fr...
> > Where could I find schematics for such receivers : modern solid state
> > versions with external quenching ?
> >
> > F8ND
> >
> >

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (18% of Full)

7000. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 13:14:23 UTC
From: Joe Lane <jlane@wcl.onNOSPAM.ca>
Message-ID: <rX9H7.54806$Z2.837067@nnrp1.uunet.ca>
Source record: 48801
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

One can only hope that no young experimenters take this liers advice at face
value.
His knowledge of electricity and its effects is nil.

The 120 volt receptacle in your house is dangerous. No exceptions !

To Steve: Go back to scholl and learn something before you post any
more lies to this group.

---Joe---

"Steve Radcliff" <sradcliff@yikes.com> wrote in message
news:3BEC112C.DFB73B22@yikes.com...
> > Ouch! There is nothing low-current or non-dangerous about 120-volt AC
> > line voltage.
> >
> > Assuming you have a current path that involves some vital organ(s), such
> > as the heart or lungs, 10mA is very dangerous, and many medical texts
> > simply say that currents of 25 mA "are lethal".
>
> Yeah, we all read that and were told that BS in school, yet as many times
as I
> have gotten shocked by so much more, and zapped from the 120 ac line
throughout
> my long life, I laugh at that. People get struck by lighting and survive,
so
> fear not your electrical outlet.
>
> > AC power can also have the effect of fibrillating the heartbeat, and
60Hz
> > is a frequency right in the "most effective" range.
>
> You sound just like Thomas Edison who said the same thing about Tesla's 60
Hz
> AC system and would go around finding lost dogs and cats and would
electrocute
> them to death trying to scare people from Tesla's 60 Hz AC system and stay
with
> Edison's DC system of supplying homes with power.
>
> Telsa would play with AC and high voltage devices all his life, said they
were
> healthy, and lived to a very old age dying in his sleep, not of any
cancer.

>
> > than a wake-up jolt; yet an old book on telegraphy asserts that one
> > unlucky man was killed by a 22.5 volt DC battery bank.
>
> Do you know how many AMPS you can get from a car battery? Ever try
grabbing
> one hand on each post of a car battery to see what happens? Absolutely
> nothing.
>
> > Sorry to sound like a scold, but any representation that line power
isn't
> > lethal stuff is more than nonsense, its DANGEROUS nonsense.
>
> I'll agree with that! What ever adjective you want to put in front of it
is
> fine.
>
>

7001. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 13:58:47 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3BEE8417.47B13B34@one.net>
Source record: 48699
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Far out!

I've got it fixed (for now, at least), but I'll make a note about this
in the manual. The "bad" resistor was indeed completely gone.

Thanks, Pete.

... Rich

Pete La Count wrote:
>
> When one of the 33 ohm resistor is blown, it was because the 572B tube
> grid shorted out to the filament. The grid resistor disappears with a
> shotgun blast noise (happen to me three times). So replace the band
> tube and 33 ohm resistor and, more than likely, normal operation will
> be restored - good luck Pete (W8UXD)
> "Peter J. Bertini" <commquart@home.com> wrote in message
news:<80dH7.19756$Y6.1895741@news1.rdc1.ct.home.com>...
> > Not sure about 572 tubes--but blown grid resistors could indicate a VHF
> > parasitic oscillation and related arc-over damage.
> >
> > pete
> >
> > "Rich Griffiths" <richg@one.net> wrote in message
> > news:3BE9CD1B.8F1D6BC2@one.net...
> > > I recently picked up an SB-200. It wasn't behaving quite right, but the
> > > price was very good.
> > >
> > > It had about 30-40 mA of plate current when it was unkeyed (should be
> > > zero), about 60 mA when keyed but idling (should be 90), and about 250
> > > to 320 mA when driven (should be 500). The grid current readins were
> > > similarly weird. The plate voltage was Ok.
> > >
> > > I found a bad resistor on the grid of one of the two 572B's and an
> > > out-of-spec resistor on the other. Each tube is supposed to have a
> > > 33-Ohm, 1-W resistor connecting the grid to the bias line. One resistor
> > > reads 42 Ohms; the other is disintegrated. That explains the symptoms.
> > >
> > > Now ... is there a Heath-amplifier expert out there who can tell me if I
> > > should just go ahead and replace those two resistors? Should I still be
> > > searching for a cause of the failure? (I don't see any obvious cause.)
> > > At one watt, I would think they could easily handle the expected
> > > dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> > > for 2-W resistors anyway?

> > >
> > > ... Rich W2RG

7002. Two coupled coils

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 14:15:40 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9sm159kv1@uranium.btinternet.com>
Source record: 48700

New program TWOCOILS.exe

Design two single-layer solenoid coils, magnetically coupled, and position them for a required coupling coefficient and mutual inductance. Coil inductances and values of associated tuning capacitors are calculated. Program is applicable to PA tank circuits, interstage couplings, unbalanced-to-balanced impedance-matching networks, antenna tuners, etc.

Can be used for quick design of individual solenoids. Enter dimensions in mm. Results shown in inches and AWG

To complete the picture the guts of this program need to be built into particular application programs. I'm thinking about it.

Download TWOCOILS, one file, 38 kbytes, in a few seconds from website below.

****
Regards, Reg, G4FGQ
Free Radio Design Software.
http://www.g4fgq.com
****

7003. HELP 70 cm mobile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 14:17:32 UTC
From: Spyros Kintzonides <spkintz@b-online.gr>
Message-ID: <1005488252.688161@athnrd02.forthnet.gr>
Source record: 48702

Does anyone now how much cm must be an antenna ¼ for 436,200 MHz?

Thanks indeed

7004. Screen Protective Layer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 14:22:06 UTC
From: bpasaric@mac.com
Message-ID: <1f2pu7i.1j03k1w5qf38cN%bpasaric@mac.com>
Source record: 48701

I could not find an appropriate news-group for my question, but I am sure that homebrewers are universal DIY people, so perhaps someone could help me.
I have a Samsung SyncMaster 900IFT monitor for my PC. Recently the anti-reflex protective layer on its screen has started to dissapear at places, so I must remove the whole layer now. I have tried my whole home collection of cleaning and melting liquids, but with no result. Does anyone know what kind of chemical should I use?
Thanks. Bozidar, 9A2HL

7005. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 15:04:22 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <hd4tut40svhcuqlumjjpaj204opc5772ot@4ax.com>
Source record: 48703
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Roy Lewallen <w7el@eznec.com> wrote:

> "Eric F. Richards" wrote:
>
> > . . .
>
> > Which has the clearest description for those who need small words,
> > "The energy input in a typical 3-mile long lightning channel is
> > estimated to be one billion to ten billion joules. [One Joule is
> > one watt-second.] One hundred joules of energy will keep a 100-watt
> > light bulb going for one second. One billion joules will keep the
> > light bulb lit for 116 days." (References on that page.)
> >
> > That's not all that much energy, relatively speaking. . .
>
> > . . .
>
> Yes, relative to a nuclear explosion, say, or a volcanic eruption, it's
> not much. But if a 100 kg (220 pound) man absorbed a billion joules, it
> would raise his temperature by 1100 degrees C (1900 degrees F).

And you feel that the entire lighning strike energy would be released
only in the person... why? No energy released to ionize the
atmosphere, released in light, etc?

> As far
> as the person is concerned, there's no practical difference between the
> energy in the lightning strike and the energy in a nuclear bomb.
>
> Roy Lewallen, W7EL

Since you didn't read Coffman's posts, I'll read them to you:

>
> In the second place, the human body is 70% salt water, and after the skin
> is pierced, has a resistance considerably lower than 1 kohm. So, under typical
> conditions, and treating the bolt as if it were DC (it isn't), the energy dump
> comes out more on the order of 6.5E4 joules.
>
> Now in the convenient metric system, 1 calorie will raise the temperature
> of 1 gram of water 1 degree Celsius. A joule equals 0.24 calorie. So for a
> 100 kg man containing 70 kg of water, his temperature will be raised roughly
> 3.9 degrees by an energy dump of 6.5E4 joules. An uncomfortable flush,
> perhaps, but hardly the stuff of charbroiled flesh.
>

Sorry, Roy, while I have respect for you and Tom W8JI, you are both dead wrong on this subject. There is too much actual, existing empirical evidence for you to study if you are willing to open your mind to it with regard to this subject. In my previous posting I gave references for you to follow up. I can't force you to do your legwork, but the references are there, and you can follow them up if you are willing.

--
73, Eric F. Richards, KB0YDN, efricha@dimensional.com
"A few old diehards still blazoned 'Spark Forever!' on their QSL cards..."
- from "200 Meters & Down", copyright 1936, ARRL

7006. Lots Of HomeBrew Links

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 15:27:29 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3BEE98E1.66F530F1@amsat.org>
Source record: 48704

At URL:
http://ac6v.com/homebrew.htm

--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com

7007. FS: New equipment enclosure

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 16:19:20 UTC
From: Terry Perdue <k8tp@home.com>
Message-ID: <cyxH7.13774$XJ4.9256938@news1.sttln1.wa.home.com>
Source record: 48707

Want to really dress up your next homebrew project? Check out item
#1295917425 on eBay.

Terry

7008. November Parts for Junkboxes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 16:32:43 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <0JxH7.358$o4.157683@news1.iquest.net>
Source record: 48708
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Parts for Sale as of 11/11/2001
==========
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice long leads.
These are not NPO and are made by S&M Components

50 for $3.00 or 100 for $5.00

22uF 35v electrolytics - $2.00 and 2 stamps for 100 These caps are on paper
tape, NOS (New, but old stock) made by Richey.

I have NEW BNC chassis connectors for (includes nut and lock washer)
==========
25 for $14.00
50 for $24.00
100 for $40.00

Voltage Regulators
==========
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

3 of each for $10

Transistors
==========
2N2222's in METAL TO18 case - 25 for $7.50 NEW PARTS
2N3906's plastic TO92 case - 50 for $4.00 NEW PARTS

Crystals
==========
3.579545 Mhz Crystals for 80m - These are pulls, $1.00 each

POTS
==========
10K 1 Turn Panel mount pots. These are pulls. No knobs, just shafts. Most
are Allen Bradley. Pot is about as big as a quarter. With nut. 5 for $4.00

Diodes
==========
1N4148 - You always need these. 75 for $2.00 These are NEW.

Speakers
==========
Little 3 inch PC speakers, 8 Ohm. $1.50 includes shipping in a padded

envelope. 10 for $8.00 - They work great for little external speakers on QRP rigs.
Just add a audio amp you make from 2N3906's and you can run your neighbors out of their house.

Let me know if you're interested. All prices are post paid to the USA, unless otherwise noted. I will ship to non USA addresses but we need to discuss the shipping charges first.

Thanks - My address on QRZ is good.

--
==========
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==========

7009. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 16:58:04 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BEEAE1B.3484FFD5@ay.com.au>
Source record: 48709

Eamon Skelton wrote:

> Most of my schematics were drawn with Kontour/Killustrator -
> see URL below.

OT Question if I may?

That blue PCB material on a few of the images on your site, do you
paint it that colour, or is that the natural colour of the substrate?

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (16% of Full)

7010. Re: Sir Douglas Halls Circuits

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:31:03 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9sjvb4$4hu$1@news5.svr.pol.co.uk>
Source record: 48817

Thanks for the feedback.
so sorry you cannot view the site.
if I can find the problem I'll sort it out but need to find someone more knowledgeable.

Juerg Tschirren <juerg-tschirren@uiowa.edu> wrote in message news:iLeH7.10057$gQ1.4101077@news1.elmhst1.il.home.com...
> geoffrey brown wrote:
>
> > The Spontaflex website has moved
> >
> > the new addy is http://www.spontaflex.freeserve.co.uk
> >
> > Added a few more articles from The Radio Constructor
> >
> > and an explorer style pane using omentree. Feedback welcome.
>
> From the webpage:
>
> "This works fine with IE but not with Netscape"
>
> ... and not with Opera, and not with Konqueror (the navigation bar is
> empty, not a single link is accessible on the whole page). Too bad. Many
> people, including me, will never have a chance to navigate through you
> webpage.
>
> Juerg
>

7011. Re: 915MHz FM ATV component level design - TX & RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:34:38 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <9smjr4$l84$1@wanadoo.fr>
Source record: 48710

I have some interesting stuff on the topic on my website. Try:

http://perso.wanadoo.fr/jf.fourcadier/accueil/accueil_e.htm

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER

"Mark Atherton" <markaren1@earthlink.notalotofspam.net> a &#65533;crit dans le message news: 3bed98c8.332969895@news.earthlink.net...
Hi all,

I am in the process of tinkering with an FM 915MHz video link.

TX is based on a VTO-9080 VCO + Preemphesis + Video buffer, PA will be a Hitachi PF0031.

RX is based in a Ku band RX IF section tuned down to 915MHz with a masthead preamp.

Before I commit to PCB with this design I am interested in similar designs for FM ATV on WWW pages - I haven't had much sucess so far finding many apart from:

PE1IPD http://www.dutch.nl/bdj/ in Holland and F6KEH http://f6keh.free.fr/f6keh%20ressources/menu_e.htm in France have done some interesting work (many thanks both of you).

I would be gratefull for any published 1.3GHz designs which I could adapt - or at least steal lock stock and barrel :)

I am also intersted in PCB Microwave design software which allows analysis of PCB couplers - preferably shareware. I have a copy of PUFF but it is rather hard work.

This is not a commercial project.

Please also reply by email - my address needs de-spammification.

Thanks,

Mark.

7012. If it aint broke, don't fix it

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:37:35 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9sjvnc$4ou$1@news5.svr.pol.co.uk>
Source record: 48818

```
if there was anything drastically wrong with the HTML
then it would not work with IE5 so I am reluctant to tinker with it.
Need expert help.Can anyone point me in the right direction
geoffrey brown <geoff@spontaflex.freeserve.co.uk> wrote in message
news:9sjvb4$4hu$1@news5.svr.pol.co.uk...
> Thanks for the feedback.
> so sorry you cannot view the site.
> if I can find the problem I'll sort it out but need to find someone more
> knowledgeable.
>
> Juerg Tschirren <juerg-tschirren@uiowa.edu> wrote in message
> news:iLeH7.10057$gQ1.4101077@news1.elmhst1.il.home.com...
> > geoffrey brown wrote:
> >
> > > The Spontaflex website has moved
> > >
> > > the new addy is http://www.spontaflex.freeserve.co.uk
> > >
> > > Added a few more articles from The Radio Constructor
> > >
> > > and an explorer style pane using omentree. Feedback welcome.
> >
> > From the webpage:
> >
> > "This works fine with IE but not with Netscape"
> >
> > ... and not with Opera, and not with Konqueror (the navigation bar is
> > empty, not a single link is accessible on the whole page). Too bad. Many
> > people, including me, will never have a chance to navigate through you
> > webpage.
> >
> > Juerg
> >
>
>
```

7013. Re: Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:46:50 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9sk08n$o1j$1@news7.svr.pol.co.uk>
Source record: 48819

ELEKTOR published a good vhf supreregen a few years ago but
it was self quenching though modern enough to use a dual gate fet.
will have the circuit somewhere if you really want it.

geofft
J.C Menard <menardjc@wanadoo.fr> wrote in message
news:9sjl41epe1@wanadoo.fr...
> Where could I find schematics for such receivers : modern solid state
> versions with external quenching ?
>
> F8ND
>
>

7014. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:52:04 UTC
From: Robert Casey <wa2ise@ix.netcom.com>
Message-ID: <3BEED6E4.D6D439FB@ix.netcom.com>
Source record: 48711
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Eric F. Richards" wrote:

>
> "The energy input in a typical 3-mile long lightning channel is
> estimated to be one billion to ten billion joules. [One Joule is
> one watt-second.] One hundred joules of energy will keep a 100-watt
> light bulb going for one second. One billion joules will keep the
> light bulb lit for 116 days." (References on that page.)
>
> That's not all that much energy, relatively speaking.

But it's still enough to propel a time traveling DeLorian
equiped with a flux capacitor. :-)

"Back to the Future"

7015. Re: SB-200 amplifier repair

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 19:56:47 UTC
From: John Siegel <JohnASiegel@worldnet.att.net>
Message-ID: <3BEED806.80DBD8BD@worldnet.att.net>
Source record: 48712
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I had a SB200 quite a few years ago(circa 1975) that alos blew one of
the grid resistors. I replaced the resistor and the amp ran fine - there
was no tube damage and the amp had never been over driven. That amp was
used for many more years under some rough conditions. I gave it to my
Dad and he kept it in the toolshed in Florida. Over time I replaced the
HV power supply diodes and the meter multiplier resistors for HV. I
understand the latter is a common problem; probably the original parts
were under-rated. Reading this thread, I wonder if that was also true
of the grid resistors.
John

Rich Griffiths wrote:
>
> Far out!
>
> I've got it fixed (for now, at least), but I'll make a note about this
> in the manual. The "bad" resistor was indeed completely gone.
>
> Thanks, Pete.
>
> ... Rich
>
> Pete La Count wrote:
> >
> > When one of the 33 ohm resistor is blown, it was because the 572B tube
> > grid shorted out to the filament. The grid resistor disappears with a
> > shotgun blast noise (happen to me three times). So replace the band
> > tube and 33 ohm resistor and, more than likely, normal operation will
> > be restored - good luck Pete (W8UXD)
> > "Peter J. Bertini" <commquart@home.com> wrote in message
news:<80dH7.19756$Y6.1895741@news1.rdc1.ct.home.com>...
> > > Not sure about 572 tubes--but blown grid resistors could indicate a VHF
> > > parasitic oscillation and related arc-over damage.
> > >
> > > pete
> > >
> > > "Rich Griffiths" <richg@one.net> wrote in message
> > > news:3BE9CD1B.8F1D6BC2@one.net...
> > > > I recently picked up an SB-200. It wasn't behaving quite right, but the
> > > > price was very good.
> > > >
> > > > It had about 30-40 mA of plate current when it was unkeyed (should be
> > > > zero), about 60 mA when keyed but idling (should be 90), and about 250

> > > > to 320 mA when driven (should be 500). The grid current readins were
> > > > similarly weird. The plate voltage was Ok.
> > > >
> > > > I found a bad resistor on the grid of one of the two 572B's and an
> > > > out-of-spec resistor on the other. Each tube is supposed to have a
> > > > 33-Ohm, 1-W resistor connecting the grid to the bias line. One resistor
> > > > reads 42 Ohms; the other is disintegrated. That explains the symptoms.
> > > >
> > > > Now ... is there a Heath-amplifier expert out there who can tell me if I
> > > > should just go ahead and replace those two resistors? Should I still be
> > > > searching for a cause of the failure? (I don't see any obvious cause.)
> > > > At one watt, I would think they could easily handle the expected
> > > > dissipation (50 mA per tube => about 80 mW per resistor). Should I go
> > > > for 2-W resistors anyway?
> > > >
> > > > ... Rich W2RG

7016. Re: 6146 usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 20:10:24 UTC
From: joemama@prozac.net
Message-ID: <3beed7e0.7976683@news.pon.net>
Source record: 48716
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

On 11 Nov 2001 01:31:03 -0800, dumpjunkmailhere@yahoo.com (Casino) wrote:

> The 6146 was introduced by RCA in 1951,
> it was also used as finals in
> and guitar amps.

The early Ampeg SVT bass amps are the only ones I am aware of which used 6146's, and they were later changed to 6550's..

> The hi-fi version of the 6146, the 6550 (a.k.a. KT88), was later
> introduced for safety reasons (dangerous plate cap on the 6146) and is
> quite popular in hi-fi today.

Unless you have a Peavey Roadmaster guitar amp head, where the factory wired pin #1 as a B+ tie point. I've seen two of them done that way, and on the first one I found out the hard way to the tune of, I think it was 600 vdc across my little finger, cuz the stainless ring around the base of the tube is tied to pin +1 which is supposed to be grounded..

> The 6550 is also used as a transmitting
> tube, though not as popular as the 6146.

Yup, 6146's are used in many of the old tube rigs, including my old Heath SB-101's and now in my Collins KWM-2. Fortunately, I have a few NOS 6146's to last me for a while..

-jm
1968 XLCH under construction

To return mail no spam, change the reply address to:

"joemama at rarebird dot net"

7017. Re: WS-38

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 20:14:52 UTC
From: arnoldg@c2i.net
Message-ID: <3beedbdd.13322150@news1.c2i.net>
Source record: 48714

In L. Meulstee excellent book 'Wireless for the Warrior, vol .2' you can find extensive information about the WS38 (more than 20 pages) If you just want the circuit diagram, I could scan it and send it to you by e-mail.

Regards,

Arnold Goks&#65533;yr

On Sat, 10 Nov 2001 11:50:40 GMT, la8ak@online.no (J M Noeding) wrote:

>Can't find the documents, although I believe it is here in the house
>somewhere, wonder where I could find a circuit diagram for download?
>Need it for an article I am writing, so it wouldn't hurt if it is good
>quality and gif formate
>
>73
>Jan-Martin
>LA8AK

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7018. Re: 6146 usage

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 20:28:44 UTC
From: fgillil@tincan.org
Message-ID: <e182e02.0111111228.3b8bfd82@posting.google.com>
Source record: 48715
Cross-posted to: alt.ham-radio.mods,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.cb

dumpjunkmailhere@yahoo.com (Casino) wrote in message
news:<53893536.0111110131.3837128d@posting.google.com>...
> The 6146 was introduced by RCA in 1951, as a replacement for the 2E26
> transmitting tube. It allowed you to crank-up the output of a
> transmitter (one using a 2E26 of course) without any modifications;
> you simply remove the 2E26 and plug-in a 6146! The 6146 could be used
> in the 2 meter (144 MHz) and 220 MHz VHF bands with reduced output.
> In the '50's and 60's, it was also used as finals in hi-fi audio amps,
> PA systems, and guitar amps.
>
> The hi-fi version of the 6146, the 6550 (a.k.a. KT88), was later
> introduced for safety reasons (dangerous plate cap on the 6146) and is
> quite popular in hi-fi today. The 6550 is also used as a transmitting
> tube, though not as popular as the 6146. I have seen both 6550's and
> 6146's in illegally built radio jammers and CB radios.

I should add that the 8552 (I think that's the number) was a 6146
with a 12V filament.

7019. FS: 0-5000Volt Power Supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 21:12:33 UTC
From: AC5YV <AC5YV--@hot.rr.com>
Message-ID: <5RBH7.5398$uO.182632@typhoon.austin.rr.com>
Source record: 48718

POWER SUPPLY. 0-5000Volt power supply with an internal 240V Variac. Fully metered with 40Amp breaker switch. USING K2AW high voltage modules. This power supply was built from QST article and will power your biggest amp projects. Email Pictures available, local pickup required (It's on coasters and it is heavy) $350

7020. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 21:28:24 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <ohqms9.s42.ln@darkstar.localdomain>
Source record: 48717

Alan Yates wrote:

> That blue PCB material on a few of the images on your site, do you
> paint it that colour, or is that the natural colour of the substrate?

Thats the colour of the PCB. I got it from a local supplier that
made blue PCB for IBM, way back in the old days when IBM used PCB.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

7021. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 21:40:07 UTC
From: mcalhoun@ksu.edu
Message-ID: <9smr7n$ljk@unix1.cc.ksu.edu>
Source record: 48719
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

>....[snip]....
>Wrong again. The higher the frequency, the more lethal the current is.
>....[snip]....

Must be some upper limit on that statement, 'cause I'm sure we've all seen
pictures, maybe even demonstrations, of someone holding onto the output of
a van de Graf generator with his/her hair looking like Medusa's?

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7022. Re: Spontaflex page now compatible with Nescape/Opera

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 22:05:17 UTC
From: Juerg Tschirren <juerg-tschirren@uiowa.edu>
Message-ID: <xCCH7.12643$gQ1.5221678@news1.elmhst1.il.home.com>
Source record: 48720

geoffrey brown wrote:

> Many thanks for all the offers of help.
> Dougs code was just what i was looking for

Nice! Now it works.

One suggestion: it may be a good idea to convert the jpg files into pdf files. One pdf file per project. It would be a little easier to handle this way (especially for printing). I converted "singletran" and can send it to you if you want to take a look. I could also convert the other articles if you want me to.

And something else. If you scan more pages then please don't save them in jpg format. Use a losless format like for example png or gif, or save jpg in lossless mode. jpg is not very well suited for written documents, at least not when used in lossy mode (text "smears").

Juerg

7023. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 22:20:22 UTC
From: CW <clinton.magers@home.com>
Message-ID: <GQCH7.14743$XJ4.9948307@news1.sttln1.wa.home.com>
Source record: 48721
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Extremely low current is what makes these things safe.
"Myron A Calhoun" <mcalhoun@ksu.edu> wrote in message
news:9smr7n$ljk@unix1.cc.ksu.edu...
> Must be some upper limit on that statement, 'cause I'm sure we've all seen
> pictures, maybe even demonstrations, of someone holding onto the output of
> a van de Graf generator with his/her hair looking like Medusa's?
>
> --Myron.
> --

7024. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 22:43:12 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <4aDH7.6195$Fb6.349829303@newssvr14.news.prodigy.com>
Source record: 48722
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

In article <GQCH7.14743$XJ4.9948307@news1.sttln1.wa.home.com>,
"CW" <clinton.magers@home.com> wrote:

> Extremely low current is what makes these things safe.
> "Myron A Calhoun" <mcalhoun@ksu.edu> wrote in message
> news:9smr7n$ljk@unix1.cc.ksu.edu...
> > Must be some upper limit on that statement, 'cause I'm sure we've all seen
> > pictures, maybe even demonstrations, of someone holding onto the output of
> > a van de Graf generator with his/her hair looking like Medusa's?
> >

Make that no current. The "Van de Graaff" generates a static charge.
The person is standing on a insulated platform.

The generator is turned off and discharged. Then the person on the
insulated platform places his hand on the upper sphere and keeps it
there. The generator starts raising the potential of the upper sphere
and the body of the person in contact with it.

The generator is shut down and discharged before the person removes
his hand from the sphere.

--
Telamon

7025. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-11 23:04:24 UTC
From: Jeffrey D Angus <jangus@socal.rr.com>
Message-ID: <3BEF043C.9010802@socal.rr.com>
Source record: 48723
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Get a grip people.

120 VAC *is* lethal. Period. Not always, but often enough.
Lightning is lethal. Not always but often enough.

Geeze, this is beginning to sound like one of the operating system dick
wars.

My first experience with 120 VAC was when my dad was remodeling the
kitchen back in 1965. He said, pointing to the wires hanging down where the
wall switch used to be, "If you together, the light comes on." Well, I
did, one
finger and thumb on each wire. Holy jumping Mary. The second time I held
on to the insulation.

I've been working with electrical and electronic equipment since about
1967 or
so. And I've been bitten by a variety of things. AC, DC, high voltage,
RF and
the ringer signal across the telephone line. All various degrees of
unpleasantness.

The below is a collection of anecdotal evidence.

An older electrician once told me, "The human body makes a great voltmeter.
120 VAC is annoying. 440 VAC knocks you across the room. 220 VAC hangs
on and kills you."

However, one of the electricians where I worked, who really should have
known
better, was vacuuming the pool at his house. He pulled the vacuum into
the pool
and reflexively grabbed it. He died.

The typical technique at the wrecking yards I used to go to for testing
a car battery
was to bounce a lug wrench across the terminals. Yeah, I know. I pointed
it out,
"I've been doing it like this for years." And eventually, he found one
with a full charge.
he's blind now.

I'm still breathing, and although my eyesight isn't was it used to be,
it hasn't been
altered by an exploding car battery.

Electricity can and will kill you. It just take the right combination of circumstances
to do it. I've just been lucky so far.

I think the key thing to keep in mind here is "Familiarity breeds contempt."

Sorry about the massive cross posting, but someone had to "Click here to check
reality."

Jeff Angus

7026. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 00:03:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BEF11DA.F6B527D1@eznec.com>
Source record: 48725
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Sorry, exactly what was it I said that was "dead wrong"? Of course a person doesn't absorb all the energy in a lightning strike, and I didn't say a person would. The purpose of my posting was to put the idea of "not all that much energy" in perspective. Although it looks from the simple minded analysis that only 1% of the energy of a 1 GJ strike, or 0.1% of the energy from a 10 GJ strike would be fatal just from heating effects, I doubt that's what kills most lightning victims. As I recall, it takes only somewhere between 10 and 100 mA through the heart to kill a person, and that can be accomplished with little energy indeed.

Roy Lewallen, W7EL

"Eric F. Richards" wrote:
>
> Roy Lewallen <w7el@eznec.com> wrote:
>
> > "Eric F. Richards" wrote:
> >
> > > . . .
> >
> > > Which has the clearest description for those who need small words,
> > > "The energy input in a typical 3-mile long lightning channel is
> > > estimated to be one billion to ten billion joules. [One Joule is
> > > one watt-second.] One hundred joules of energy will keep a 100-watt
> > > light bulb going for one second. One billion joules will keep the
> > > light bulb lit for 116 days." (References on that page.)
> > >
> > > That's not all that much energy, relatively speaking. . .
> >
> > > . . .
> >
> > Yes, relative to a nuclear explosion, say, or a volcanic eruption, it's
> > not much. But if a 100 kg (220 pound) man absorbed a billion joules, it
> > would raise his temperature by 1100 degrees C (1900 degrees F).
>
> And you feel that the entire lighning strike energy would be released
> only in the person... why? No energy released to ionize the
> atmosphere, released in light, etc?
>
> > As far
> > as the person is concerned, there's no practical difference between the
> > energy in the lightning strike and the energy in a nuclear bomb.
> >
> > Roy Lewallen, W7EL

>
> Since you didn't read Coffman's posts, I'll read them to you:
>
> >
> > In the second place, the human body is 70% salt water, and after the skin
> > is pierced, has a resistance considerably lower than 1 kohm. So, under typical
> > conditions, and treating the bolt as if it were DC (it isn't), the energy dump
> > comes out more on the order of 6.5E4 joules.
> >
> > Now in the convenient metric system, 1 calorie will raise the temperature
> > of 1 gram of water 1 degree Celsius. A joule equals 0.24 calorie. So for a
> > 100 kg man containing 70 kg of water, his temperature will be raised roughly
> > 3.9 degrees by an energy dump of 6.5E4 joules. An uncomfortable flush,
> > perhaps, but hardly the stuff of charbroiled flesh.
> >
>
> Sorry, Roy, while I have respect for you and Tom W8JI, you are both
> dead wrong on this subject. There is too much actual, existing
> empirical evidence for you to study if you are willing to open your
> mind to it with regard to this subject. In my previous posting I
> gave references for you to follow up. I can't force you to do your
> legwork, but the references are there, and you can follow them up
> if you are willing.
>
> --
> 73, Eric F. Richards, KB0YDN, efricha@dimensional.com
> "A few old diehards still blazoned 'Spark Forever!' on their QSL cards..."
> - from "200 Meters & Down", copyright 1936, ARRL

7027. fa: Beautiful PRECISE #610 Signal Generator @$9.99, Few hours left

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 02:00:35 UTC
From: rlucch2098@aol.com
Message-ID: <20011111210035.24303.00002747@mb-fv.aol.com>
Source record: 48724

Nice pics>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1292504630

7028. fa- gonset gpp-1 phone patch, beautiful condx, very cheep, tonight!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 02:06:53 UTC
From: rlucch2098@aol.com
Message-ID: <20011111210653.24303.00002757@mb-fv.aol.com>
Source record: 48726

at a mere few $, ends in a few hours,
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1292504635

7029. FS: RARE HEATHKIT SS-9000 TRANSCEIVER with MATCHING Supply!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 02:15:08 UTC
From: rlucch2098@aol.com
Message-ID: <20011111211508.24303.00002761@mb-fv.aol.com>
Source record: 48727

Hi Guys;
This one is a real nice & hard to find Heathkit.
The Model SS-9000 was built by Zenith from what I understand.
Comes with the original power supply/Speaker with Built in Dual Digital clocks!
Checked & seems to work fine, all bands including WARCS, Comes with the
Original Manual.
Check your books/brochures on this one
Price shipped is $1,000 CONUS.

Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7030. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 02:23:51 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <tuuclm5g0oib46@corp.supernews.com>
Source record: 48728

"Eamon Skelton" wrote
> Most of my schematics were drawn with Kontour/Killustrator -
> see URL below.
> http://homepage.eircom.net/~ei9gq

Nice web pages, but I didn't see any mention of Kontour or Killustrator.
Did I miss something?

RC

7031. FA: ALLIED/KNIGHTKIT CATALOGUE 1964, EXCELLENT$13, NOW!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 03:25:11 UTC
From: rlucch2098@aol.com
Message-ID: <20011111222511.24303.00002785@mb-fv.aol.com>
Source record: 48729

Few minutes left, a beauty>>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1292504644

7032. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 04:03:13 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <6vcuut0cm5ddcsvhqi6iv2flditak8ptbn@4ax.com>
Source record: 48730
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Roy Lewallen <w7el@eznec.com> wrote:

> Sorry, exactly what was it I said that was "dead wrong"? Of course a
> person doesn't absorb all the energy in a lightning strike, and I didn't
> say a person would.

Right here, when you wrote:
> But if a 100 kg (220 pound) man absorbed a billion joules, it
> would raise his temperature by 1100 degrees C (1900 degrees F). As far
> as the person is concerned, there's no practical difference between the
> energy in the lightning strike and the energy in a nuclear bomb.

The premise is wrong. The person does NOT absorb a billion joules.

> The purpose of my posting was to put the idea of
> "not all that much energy" in perspective.

As was mine. People do NOT die of being cooked down to carbon by lightning strikes (at least usually -- you could maybe find one example, but not 100); they die of cardiac arrest and if someone nearby knows CPR, they usually live.

Lightning is not so immensely powerful that people never survive a hit. The odds are in your favor, actually. Ask a doctor who works in an ER.

> Although it looks from the
> simple minded analysis that only 1% of the energy of a 1 GJ strike, or
> 0.1% of the energy from a 10 GJ strike would be fatal just from heating
> effects, I doubt that's what kills most lightning victims.

It is correct that 100,000,000 J would kill the person from heating effects, but that's not how much gets released. The analysis is too simple-minded. Consider a 3 mile long lighning strike (15840 feet) compared to the 6 foot height of a man. I'm sure this is wrong, but if we assume the conductivity of the lightning path through the atmosphere is uniform, a strike on a person suggests that he is slightly more conductive than the alternate path, the last 6 feet of ionized air to the ground.

Now, measuring my thumb-to-thumb resistance, and I have conductive skin (recall I said that I can feel a shock from 24 VDC), I got 2Mohm from thumb-to-thumb. Gary Coffman asserts that the interior body's resistance is less than 1kohm. Whether you agree what that figure or not, do we agree that the interior of the body is salt-water and far more conductive than the skin?

I figured that a 1 billion joule (10^9) lightning strike could at most
release 379000 joules over that 6 foot man before side-flashing past
him for better conductivity. Of that energy, 1/2000 of it will be
released as heat in internal organs. 190 joules.

This, too, is a simple-minded analysis. It assumes the ground is
of uniform conductivity within 6 feet of the man. This also assumes
that the ionized path is of uniform resistence. Finally, and this
is its weakest point, it makes no assumtions about the energy
necessary to form the ionized path, but generally stepped leaders
aren't visible but strikes are, so I suggest it is less than that
released by the strike.

Your turn.

Ob rec.radio.shortwave:

Lightning is not an immutable force. A good lightning protection
system will save your equipment from direct strikes -- everything
that is protected, provided you do it all properly. Commercial
equipment is hit all the time. Do you really think that TV stations
in FL replace their trasmitter equipment each time their towers
take a strike? (And most commercial sites do NOT do the job
perfectly. For example, running the coax across from the tower
to the building instead of running it to the ground, across the
ground, and up into the building. One extension cord bypassing
the "ground window" protection of the mains.)

Pick up a Polyphaser catalog for free and see what a *real* grounding
system looks like. Take a trip online as well to look at their
document on ham radio station protection.

http://www.polyphaser.com/pdf/PTD1016.pdf

(Just a satisfied customer, blah, blah, blah, etc.)

> As I recall,
> it takes only somewhere between 10 and 100 mA through the heart to kill
> a person, and that can be accomplished with little energy indeed.

And that is what does it, usually.

> Roy Lewallen, W7EL
>
> "Eric F. Richards" wrote:
> >
> > Roy Lewallen <w7el@eznec.com> wrote:
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> > > >
> > > > That's not all that much energy, relatively speaking. . .
> > >
> > > > . . .
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> > > Yes, relative to a nuclear explosion, say, or a volcanic eruption, it's
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> > > As far
> > > as the person is concerned, there's no practical difference between the
> > > energy in the lightning strike and the energy in a nuclear bomb.
> > >
> > > Roy Lewallen, W7EL
> >
> > Since you didn't read Coffman's posts, I'll read them to you:
> >
> > >
> > > In the second place, the human body is 70% salt water, and after the skin
> > > is pierced, has a resistance considerably lower than 1 kohm. So, under typical
> > > conditions, and treating the bolt as if it were DC (it isn't), the energy dump
> > > comes out more on the order of 6.5E4 joules.
> > >
> > > Now in the convenient metric system, 1 calorie will raise the temperature
> > > of 1 gram of water 1 degree Celsius. A joule equals 0.24 calorie. So for a
> > > 100 kg man containing 70 kg of water, his temperature will be raised roughly
> > > 3.9 degrees by an energy dump of 6.5E4 joules. An uncomfortable flush,
> > > perhaps, but hardly the stuff of charbroiled flesh.
> > >
> >
> > Sorry, Roy, while I have respect for you and Tom W8JI, you are both
> > dead wrong on this subject. There is too much actual, existing
> > empirical evidence for you to study if you are willing to open your
> > mind to it with regard to this subject. In my previous posting I
> > gave references for you to follow up. I can't force you to do your
> > legwork, but the references are there, and you can follow them up
> > if you are willing.
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> > --
> > 73, Eric F. Richards, KB0YDN, efricha@dimensional.com
> > "A few old diehards still blazoned 'Spark Forever!' on their QSL cards..."
> > - from "200 Meters & Down", copyright 1936, ARRL

--
73, Eric F. Richards, KB0YDN, efricha@dimensional.com
"A few old diehards still blazoned 'Spark Forever!' on their QSL cards..."
- from "200 Meters & Down", copyright 1936, ARRL

7033. Re: 915MHz FM ATV component level design - TX & RX

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 05:11:48 UTC
From: markaren1@earthlink.notalotofspam.net
Message-ID: <3bef58e4.86435347@news.earthlink.net>
Source record: 48731

Jean-Franï¿½ois,

Yes, thank you. I have already stolen your CCIR405 pre-emphesis. It
works quite well.

I wish there were some more sites like yours around. Tinkering and
Homebrew seems to be an old hobby nowadays.

When I asked in one Usenet Group about component level design I was
told that I could 'throw money at the problem to make it go away" by
buying commercial equipment !

I was brought into this world to cause mischief, tinker and to learn.

What is French for Tinker ?

Regards,

Mark.

On Sun, 11 Nov 2001 20:34:38 +0100, "J.F. FOURCADIER"
<jf.fourcadier@wanadoo.fr_NOSPAM> wrote:

>I have some interesting stuff on the topic on my website. Try:
>
>http://perso.wanadoo.fr/jf.fourcadier/accueil/accueil_e.htm
>
>
>73 de F4DAY
>
>Jean-Franï¿½ois FOURCADIER
>
>"Mark Atherton" <markaren1@earthlink.notalotofspam.net> a ï¿½crit dans le message news:
>3bed98c8.332969895@news.earthlink.net...
>Hi all,
>
>I am in the process of tinkering with an FM 915MHz video link.
>
>TX is based on a VTO-9080 VCO + Preemphesis + Video buffer, PA will be
>a Hitachi PF0031.
>
>RX is based in a Ku band RX IF section tuned down to 915MHz with a
>masthead preamp.
>
>Before I commit to PCB with this design I am interested in similar

>designs for FM ATV on WWW pages - I haven't had much sucess so far
>finding many apart from:
>
>PE1IPD http://www.dutch.nl/bdj/ in Holland and F6KEH
>http://f6keh.free.fr/f6keh%20ressources/menu_e.htm in France have done
>some interesting work (many thanks both of you).
>
>I would be gratefull for any published 1.3GHz designs which I could
>adapt - or at least steal lock stock and barrel :)
>
>I am also intersted in PCB Microwave design software which allows
>analysis of PCB couplers - preferably shareware. I have a copy of PUFF
>but it is rather hard work.
>
>This is not a commercial project.
>
>Please also reply by email - my address needs de-spammification.
>
>Thanks,
>
>Mark.
>
>
>
>

7034. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 06:51:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BEF7171.81666BC7@eznec.com>
Source record: 48735
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

I don't find anything to disagree with in your posting. I'm far from an expert on the topic (limited to the level of converting joules to calories with the aid of a book), and found it educational.

Wow, so you might get say 380 kJ, with very nearly all of it being dissipated in the skin (since you say only 190 J ends up inside the body). That's gotta cook the skin pretty badly. I imagine, then, that even victims who survive are often badly burned.

Roy Lewallen, W7EL

"Eric F. Richards" wrote:
>
> Roy Lewallen <w7el@eznec.com> wrote:
>
> > Sorry, exactly what was it I said that was "dead wrong"? Of course a
> > person doesn't absorb all the energy in a lightning strike, and I didn't
> > say a person would.
>
> Right here, when you wrote:
> > But if a 100 kg (220 pound) man absorbed a billion joules, it
> > would raise his temperature by 1100 degrees C (1900 degrees F). As far
> > as the person is concerned, there's no practical difference between the
> > energy in the lightning strike and the energy in a nuclear bomb.
>
> The premise is wrong. The person does NOT absorb a billion joules.
>
> > The purpose of my posting was to put the idea of
> > "not all that much energy" in perspective.
>
> As was mine. People do NOT die of being cooked down to carbon by
> lightning strikes (at least usually -- you could maybe find one
> example, but not 100); they die of cardiac arrest and if someone
> nearby knows CPR, they usually live.
>
> Lightning is not so immensely powerful that people never survive
> a hit. The odds are in your favor, actually. Ask a doctor who
> works in an ER.
>
> > Although it looks from the
> > simple minded analysis that only 1% of the energy of a 1 GJ strike, or
> > 0.1% of the energy from a 10 GJ strike would be fatal just from heating
> > effects, I doubt that's what kills most lightning victims.
>

> It is correct that 100,000,000 J would kill the person from heating
> effects, but that's not how much gets released. The analysis is
> too simple-minded. Consider a 3 mile long lighning strike (15840
> feet) compared to the 6 foot height of a man. I'm sure this is
> wrong, but if we assume the conductivity of the lightning path
> through the atmosphere is uniform, a strike on a person suggests
> that he is slightly more conductive than the alternate path, the
> last 6 feet of ionized air to the ground.
>
> Now, measuring my thumb-to-thumb resistance, and I have conductive
> skin (recall I said that I can feel a shock from 24 VDC), I got 2Mohm
> from thumb-to-thumb. Gary Coffman asserts that the interior body's
> resistance is less than 1kohm. Whether you agree what that figure or
> not, do we agree that the interior of the body is salt-water and
> far more conductive than the skin?
>
> I figured that a 1 billion joule (10^9) lightning strike could at most
> release 379000 joules over that 6 foot man before side-flashing past
> him for better conductivity. Of that energy, 1/2000 of it will be
> released as heat in internal organs. 190 joules.
>
> This, too, is a simple-minded analysis. It assumes the ground is
> of uniform conductivity within 6 feet of the man. This also assumes
> that the ionized path is of uniform resistence. Finally, and this
> is its weakest point, it makes no assumtions about the energy
> necessary to form the ionized path, but generally stepped leaders
> aren't visible but strikes are, so I suggest it is less than that
> released by the strike.
>
> Your turn.

7035. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 07:07:05 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <3F5D9A1321C8688A.0902C6A5A690656B.D26965022BF06F62@lp.airnews.net>
Source record: 48732
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Sun, 11 Nov 2001 23:04:24 GMT, Jeffrey D Angus
<jangus@socal.rr.com> wrote:

>The typical technique at the wrecking yards I used to go to for testing
>a car battery
>was to bounce a lug wrench across the terminals. Yeah, I know. I pointed
>it out,
>"I've been doing it like this for years." And eventually, he found one
>with a full charge.
>he's blind now.

I take it the wrench welded itself to the terminals and kept the short
going?

I've long been in the habit of checking before jumping a battery by
swinging the free ends of the jumper cables in a fast arc to justskip
across one another...always with the cables away from my face, and my
back to the connected battery.

There used to be a guy at one of the local shops who did the wrench
trick, but with a fuse-element shaped strip of tinfoil clipped to a
dowel rod instead of the wrench.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7036. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 07:10:51 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <4982F3175E40FF81.F46494E470CF6C2D.943038D36CD65CAB@lp.airnews.net>
Source record: 48733
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Sun, 11 Nov 2001 01:04:23 GMT, Jack <n2hqc@earthlink.not> wrote:

>What's the instantaneous surge current and discharge curve when a 18" screwdriver
>is accidentally dropped across the terminals and welds itself to them?
>All I know is that it made one hell of a mess of my mechanic's garage
>several decades ago...

Old Tupperware lids are your friends. Find one that's about
battery-sized, and lay it over the battery whenever you're working
under the hood.

Also keeps that nasty blue-white deposit off your clothes if you have
to lean over the battery.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7037. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 07:15:20 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <2A8490C5DEC53EBF.FBE5ED88B9F1FD6B.D281F36EC4D3C507@lp.airnews.net>
Source record: 48734
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Sun, 11 Nov 2001 04:02:31 GMT, Steve Radcliff <no@spam.com> wrote:

>> Wet human skin (R) is conductive enough to allow a fatal current (I)
>> to pass through the body at electrical mains voltages (E).
>
>Why is it we have to soak ourselves in water before working with electricity before you can somehow
>prove a point that it is dangerous? Should we put some SALT in the water first and have someone shoot
>a gun to our heads as we work around electricity so you can be REALLY right?

Toss a AA battery into a kiddie pool filled with sodium hydroxide,
then dive in, and you'll see how dangerous DC really is.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7038. Re: HELP 70 cm mobile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 09:03:46 UTC
From: Guido Wienands <g.wienands@fz-juelich.de>
Message-ID: <9so34k$4mdl$1@zam602.zam.kfa-juelich.de>
Source record: 48736

Hello Spyros, Lambda = 300/ freq
Units are Meter and Megacycles.
436,2 Mhz for lambd / 4 = 0,172 Meter
Mathematic it is 17,2 cm but there is a "kapacitive Load", this shortens
the length a bit.
Put a SWR Bridge between TX and Antenna (make the Antenna lets say 20cm) and
align SWR by cutting the Ant length cm by cm.

With kind regards
Guido

7039. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 10:45:21 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <39D1812169114B62.81DAEE75A366D00E.8CE7D73EFD95A8F1@lp.airnews.net>
Source record: 48737
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

On Sun, 11 Nov 2001 22:51:29 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>Wow, so you might get say 380 kJ, with very nearly all of it being
>dissipated in the skin (since you say only 190 J ends up inside the
>body). That's gotta cook the skin pretty badly. I imagine, then, that
>even victims who survive are often badly burned.

Lightning doesn't seek people, it seeks the ground. That's where the
other 380kJ is going.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7040. Re: HELP 70 cm mobile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 11:24:54 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BEFB13A.8E418F62@earthlink.net>
Source record: 48738

Guido---

> Put a SWR Bridge between TX and Antenna (make the Antenna lets say
> 20cm) and align SWR by cutting the Ant length cm by cm.

I would say cut it no more than one centimeter longer than the design frequency, then cut millimeter by millimeter. A centimeter is an awfully large amount of real estate on a 440MHz antenna.

Also, there are a few other considerations to take into account. When cutting a quarter-wavelength groundplane vertical, the orientation of the radials makes a difference on the input terminal impeadance at resonance. If I remember correctly, having the groundplane radials at the true horizontal gives a resonant impeadance of about 30 ohms or so, while a 45 degree down from horizontal bend gives about 50 ohms or so. The ARRL Radio Amateur's Handbook has, for the past decade or more, had a simple groundplane vertical design shown which can be built on a chassis-mount SO-239 out of a coat hanger (or brass/copper rod stock).

Henry C. Gernhardt, III
KE4PIB

7041. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 12:06:41 UTC
From: st599@ecs.soton.ac.uk
Message-ID: <3BEFBB51.22657F15@ecs.soton.ac.uk>
Source record: 48739

The serial port can't sample an analogue waveform, you'd need to use an ADC and shift register to turn your signal into PCM then use an RS232
converter to send it to your PC where you could view it in terminal. You would probably need to write some C code to control it all though.

Nice idea - hard work though

Anindita wrote:
>
> I am playing around with the idea of hooking up an FM radio to a PC
> thru it's serial port.The ultimate impossible dream is to sample the
> waves then through some software.
> Can this be done?Any pointers/reading material is appreciated.
>
> Anindita

7042. Obsolete Transistor Data

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 12:18:23 UTC
From: Dick <dick@langwang.demon.co.uk>
Message-ID: <dJVioFAP4777Ew$N@langwang.demon.co.uk>
Source record: 48743

I've been sorting out my 'come handy junk box' and discovered a lot
of transistors I must have had for a loooong time (not quite Ge point contact
but just about !!). Can anyone suggest good web sites for finding/reminding
me just what I can use these things for, I'd hate to junk something that still
had some minority carriers left in it !!
--
Dick
GM0MNL

7043. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 14:01:30 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <d0kvutk79dhm0g88llda0i3mugppaut4i6@4ax.com>
Source record: 48740
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Roy Lewallen <w7el@eznec.com> wrote:

> I don't find anything to disagree with in your posting. I'm far from an
> expert on the topic (limited to the level of converting joules to
> calories with the aid of a book), and found it educational.
>
> Wow, so you might get say 380 kJ, with very nearly all of it being
> dissipated in the skin (since you say only 190 J ends up inside the
> body). That's gotta cook the skin pretty badly. I imagine, then, that
> even victims who survive are often badly burned.
>
> Roy Lewallen, W7EL
>

That they do. The one example I sited -- the guy who was later
interviewed on TV, had3 or 4 4-inch diameter blisters on his
chest in a diagonal "string of pearls" pattern from each return
stroke. As they say, "that's gotta hurt."

--
Eric F. Richards, efricha@dimensional.com
"Nature abhors a vacuum tube." -- J. R. Pierce, Bell Labs, c. 1940

7044. Re: HELP 70 cm mobile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 17:25:20 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <1m0ps9.oo9.ln@darkstar.localdomain>
Source record: 48745

Guido Wienands wrote:

> Units are Meter and Megacycles.

<pedantic> Megacycles per second (MC/S) </pedantic>

73, Ed. EI9GQ

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

7045. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 17:30:16 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <8v0ps9.oo9.ln@darkstar.localdomain>
Source record: 48746

Richard Crowley wrote:

> Nice web pages, but I didn't see any mention of Kontour or Killustrator.
> Did I miss something?

My website is about homebrew radio. Kontour is part of the
KOffice office suite for KDE. Details from: www.kde.org
Killustrator is an older version of the same program.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

7046. Re: If it aint broke, don't fix it

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 17:35:44 UTC
From: tkell@blackhole.nyx.net
Message-ID: <1005586251.768155@irys.nyx.net>
Source record: 48741

IF you run the page with OPERA, you can rightclick in the page, go to frame,
and then select Validate HTML. You will be shown the error of your ways.

In article <9sjvnc$4ou$1@news5.svr.pol.co.uk>,
geoffrey brown <geoff@spontaflex.freeserve.co.uk> wrote:
>if there was anything drastically wrong with the HTML
>then it would not work with IE5 so I am reluctant to tinker with it.
>Need expert help.Can anyone point me in the right direction
>geoffrey brown <geoff@spontaflex.freeserve.co.uk> wrote in message
>news:9sjvb4$4hu$1@news5.svr.pol.co.uk...
>> Thanks for the feedback.
>> so sorry you cannot view the site.
>> if I can find the problem I'll sort it out but need to find someone more
>> knowledgeable.
>>
>> Juerg Tschirren <juerg-tschirren@uiowa.edu> wrote in message
>> news:iLeH7.10057$gQ1.4101077@news1.elmhst1.il.home.com...
>> > geoffrey brown wrote:
>> >
>> > > The Spontaflex website has moved
>> > >
>> > > the new addy is http://www.spontaflex.freeserve.co.uk
>> > >
>> > > Added a few more articles from The Radio Constructor
>> > >
>> > > and an explorer style pane using omentree. Feedback welcome.
>> >
>> > From the webpage:
>> >
>> > "This works fine with IE but not with Netscape"
>> >
>> > ... and not with Opera, and not with Konqueror (the navigation bar is
>> > empty, not a single link is accessible on the whole page). Too bad. Many
>> > people, including me, will never have a chance to navigate through you
>> > webpage.
>> >
>> > Juerg
>> >
>>
>>
>
>

7047. WTB: QRP/CW Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 19:07:08 UTC
From: Handi Ham <okiemansc@yahoo.com>
Message-ID: <WWUH7.5749$Uh7.242979@nntp3.onemain.com>
Source record: 48742

Wanted for portable operation. Prefer multi band with VFO.Anything
considered as long as price is reasonable.
...KC0EH...

7048. Spontaflex page now compatible with Nescape/Opera

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 20:14:22 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9smm8b$qt6$1@newsg3.svr.pol.co.uk>
Source record: 48713

Many thanks for all the offers of help.
Dougs code was just what i was looking for

7049. Re: Cardboard Box MW antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-12 21:27:23 UTC
From: Sylvan Butler <Znospam+noZs_0111@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrn9v0fk1.g55.Znospam+noZs_0111@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 48744

On Fri, 09 Nov 2001 20:49:11 -0500, Brad Thompson <brad.thompson@valley.net> wrote:
> The ribbon cable makes a neater (i.e., more uniformly-spaced) winding than does
> hand winding of a single strand of magnet wire. And if you use 16-pin DIP mass-
> terminated plugs on the ribbon cable's ends, you can easily build a simple PC
> board (or even wire-wrap one) to make the turns' crossover connections.

Or simply lay the ends down facing each other and offset by one
wire, and solder them. Pretty trivial.

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Fight terrorism, arm the population!

7050. HAL ST-6 Rack Kit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 00:57:51 UTC
From: dinoal7lz@aol.com
Message-ID: <20011112195751.27343.00005049@mb-mq.aol.com>
Source record: 48647

Know this is a long shot, but looking to put my ST-6 into a rack and looking for the rack adapter kit that HAL used to have available for the ST-6 TUs....If anyone has the rack ears kit and willing to part with please contact me direct....would consider a junker ST-6 that's in a rack mount chassis/case.

Dino KL0S/4

7051. Re: Screen Protective Layer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 02:29:27 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111121829.7890874c@posting.google.com>
Source record: 48648

You didn't mention just what you have tried...

It's unlikely that it's water-soluble since most screen cleaners are water based.

For organic solvents, I'd try MEK (or just acetone) but be aware that either is very likey to dissolve the monitor case. Another possibility: contact cement solvent.

If it's an inorganic coating that's been deposited, it might not be easy to find an appropriate solvent; you could try mechanical removal using a polish, but don't blame me if it results in something worse than the blotchy AR coating! (I've used Comet cleanser [with a damp rag] on my windshields for 40 years to remove road grime, and not noticed any scratching, at least not compared with what the wipers and environmental grime do anyway, but YMMV.)

All in all, I'd say there's significant probability that it will end up worse rather than better...test small areas first.

Cheers,
Tom

bpasaric@mac.com (Bozidar Pasaric) wrote in message news:<1f2pu7i.1j03k1w5qf38cN%bpasaric@mac.com>...
> I could not find an appropriate news-group for my question, but I am
> sure that homebrewers are universal DIY people, so perhaps someone could
> help me.
> I have a Samsung SyncMaster 900IFT monitor for my PC. Recently the
> anti-reflex protective layer on its screen has started to dissapear at
> places, so I must remove the whole layer now. I have tried my whole home
> collection of cleaning and melting liquids, but with no result. Does
> anyone know what kind of chemical should I use?
> Thanks. Bozidar, 9A2HL

7052. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 03:25:14 UTC
From: Zoran Brlecic <zbrlecic@earthlink.net>
Message-ID: <3BF092D2.46F99C68@earthlink.net>
Source record: 48649
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

"Eric F. Richards" wrote:

> > Oh, please... Have you ever seen a tree split in half by lightning? How about fulgurites
> > (glass tubes) on a sandy beach produced by lightning strikes melting sand at about 12,000
> > degree Fahrenheit? Those effects cannot be made by a source of "relatively low" energy.
>
> Yes, they can. The key words are "energy" and "relatively." It's a
> high amount of power (energy/time) but low energy. According to
> http://www.weatherwise.org/qr/qry.lightningpower.html
> Which has the clearest description for those who need small words,
> "The energy input in a typical 3-mile long lightning channel is
> estimated to be one billion to ten billion joules. [One Joule is
> one watt-second.] One hundred joules of energy will keep a 100-watt
> light bulb going for one second. One billion joules will keep the
> light bulb lit for 116 days." (References on that page.)

Right. It translates into over 250 kWh which is what I said - you even say up to 2.5 MWh - how low is that? The problem is your following statement:

> That's not all that much energy, relatively speaking. Release it
> over 30ms, (IEEE 8/22 lightning profile) however, and you do have
> a huge blast of *power.* The reason the trees explode and
> the fulgerites form is that tree sap and fulgerites are poor
> conductors, becoming the "weak link" in the circuit. The sand
> melts; the water in the sap explosively expands when it boils.

Let's forget the subjective feeling about what constitutes "not all that much energy". I consider 1e9 J a hefty amount of energy, but I suppose if you compare it to the fusion output of the Sun, it is very
little. You say, however, that the reason tress explode and fulgurites form is because "they are poor conductors". Just what kind of a conductor is the human body? You can't convince me that a lightning that
will split a 100 foot tree in half will simply pass through the human body without causing much damage at all. Now, having said that, there are lightnings and there are lightnings: obviously not all of them
will be as strong as what can be witnessed during a major thunderstorm. I don't think that what most people are being hit with is a full power lightning, especially considering the fact that these seem to be
mostly hits before the storm even begins (since no one in his right mind would probably be standing in the open during a thunderstorm). However, I concede that apparently it is possible to survive a direct
hit. Fine.

> > > Do you remember anything about the RF safety/RF burn issue?
> >
> > RF burn is a completely different effect. You can have much more current flowing
through
> > your body in RF frequencies than the 50/60Hz current, yet nothing would happen except a
> > varying degree of skin burn. Due to the skin effect, almost no electrical current flows
> > through the body, but only through the skin. The skin effect is proportional to the
> > frequency. Therefore, the statement that "The higher the frequency, the more lethal the
> > current is" is clearly nonsense. That is not a license to handle high frequency sources
> > like candy, but simply to be aware what the hazards are in what particular situation.
>
> Suggest you look up medical information on current necessary to stop
> a heart at DC, 60 Hz, 400Hz and 1kHz. I may be totally out of line
> on RF, but I do know that *up to a point, well within the frequencies
> we are talking about,* ac is more lethal than DC.

Up to a point is a different story, but once that point is crossed (fairly quickly, as far as AC goes), skin effect kicks in and the only damage comes from the skin burn. You failed to mention that point
before and the only thing you said was that the lethality of AC was proportional to the frequency, which is incorrect.

> > > Breaking a DC short circuit is harder than
> > > breaking an ac short because there's no zero-crossing to make
> > > a nice interruption of the arc.
> >
> > Fine, but what has this got to do with what we're discussing.
>
> Well, because you seem like a smartass, and so I felt I should explain
> *why* DC can be dangerous in a different way. Next time I'll remember
> to put "but I digress" on that part of the message to avoid the other
> obvious smartass answer.

I don't think I'm the only smartass in this discussion. It takes two to tango - after all, you are the one who steered my post (which obviously tried to point out the ridiculous notion of HV being safe) away
from the original point to the mostly irrelevant discussion about lightnings and such. Also, breaking a short circuit (either DC or AC) in the real world situation is difficult because the short electrically
welds the conductors, and once that happens, any amount of zero-crossing is irrelevant..

> > > Me, I think you guys both are off the deep end a little here.
> > > The original guy was talking about tying a 0.01 uF AC cap from
> > > the neutral to the lamp frame. Failure of that cap....[snip]
> >
> > I was purposely not addressing the issue of this method.
>
> Why? That was what the thread was all about? People bitch about
> topic drift all the time, and instead of helping the guy, you
> continue on a tangent? Dumbass, not smartass.

Excuse me, if you would for a second kindly remove your blinds, you would notice that my response (i.e. my first post in this thread) was meant to refute the nonsense of the

previous poster. My post dealt with
safety exclusively and nothing else. Now, go back and review your responses to my posts and see how on topic they are. And I'm supposed to be a smartass.

> > I simply wanted to point out the
> > fallacies of the unfounded, illogical, circular and backward reasoning, which in this
> > case might make a difference between someone's life and death. But if you can show me in
> > what point I was off the deep end, I'd be much obliged.
>
> I was not able to give as complete a reply as I wanted... [snip]

There you go again - notice who keeps drifting from the intended message of my sub-thread. Besides, the thread ceased to be on-topic (RFI from lamp dimmers) a long time ago. You keep accusing me of being a
dumbass/smartass when all the while you keep doing the very things I'm supposed to be guilty of. What has all this lightning stuff got to do with the safety with AC, DC and HV circuits? But I suppose I'm being
a smartass again? Any other insults to help your cause?

73 ..... Zoran WA7AA

--

Support freedom of speech or I'll kill you!

7053. FS: More Miller Coils, Cans & Stancor xfrmrs all NEW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 03:49:58 UTC
From: rlucch2098@aol.com
Message-ID: <20011112224958.01561.00000161@mb-fz.aol.com>
Source record: 48650

Hi Guys;
I have these three(3) lots of items for sale, All appear to be new in boxes.
Lot 1:
21-Miller coils, etc, $35.00ppd, see pics>>

http://www.baltimorepress.com/~wa2rqy/21miller1.jpg
http://www.baltimorepress.com/~wa2rqy/21miller2.jpg

Lot 2:

SOLD!

Lot 3:
3- Stancor(chicago) Items, all new in boxes as shown.
Power Xfmr= PC-8404, 520vct @90ma, 6.3v@3 amps, 5.0v @ 2 amp.
Filter Choke= C-1709, 8hy @85ma dc.
Audio Xfmr= A3877, 5 watts, Single plate to v.c., Pri=5K@ 40ma dc, sec= 4 ohm.
Price is $35.00ppd, Weights 8 lbs :-) Conus

http://www.baltimorepress.com/~wa2rqy/stancor1.jpg

http://www.baltimorepress.com/~wa2rqy/stancor2.jpg
Thanks fer lookin' es 73.
Rich WA2RQY

7054. fs: 125+ assorted IF Cans & coils for printed Circuits.>CHEEP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 03:52:29 UTC
From: rlucch2098@aol.com
Message-ID: <20011112225229.01561.00000167@mb-fz.aol.com>
Source record: 48651

Hi Fellas;
I have for SALE:
A whole bag of 125+ various & assorted IF Cans & coils.
This is small stuff but great stuff for the Keen-eyed, Hi!
Price is $17.00ppd, shipped US Priority, see pic>>
http://www.baltimorepress.com/~wa2rqy/125ifcans.jpg

And these 100+ adjustable coils, NOS for $15.00>>
http://www.baltimorepress.com/~wa2rqy/100coils1.jpg
http://www.baltimorepress.com/~wa2rqy/100coils2.jpg
Thanks es 73....Rich WA2RQY (1961)
RLUCCH2098@aol.com
"Keep those heaters on"

7055. central pa. into iceland dx question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 05:11:26 UTC
From: hexter@blazenet.net
Message-ID: <tv1arujl0pi421@corp.supernews.com>
Source record: 48652

i have found that 'hops' tend to prefer a distance of very nearly
1200 miles per bounce. So if you are 1200, or 2400 miles from a
given place, you can expect good transmit/receive operations. However,
for areas of say 600, or 1800 miles, you hardly ever get good hop
coverage. I am 2800 miles approximately from iceland, and am having
a difficult time on 20 mtrs qso'ing with my freinds there. Have you
any suggestions, like try 15mtrs or something. I suspect if I lived
in new york, and was closer to the '2400 mile' magic number I could
get better activity with far less effort.

7056. Re: central pa. into iceland dx question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 05:35:05 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BF0B108.C56E2A21@att.net>
Source record: 48653

Change antenna type or more effectively the height above ground if it is horizontal.

The "hop" distance is a function of height of the various ionosphere layers and the take-off vertical angle of your antenna pattern. The former we cannot control; the latter we can.

Good luck!

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

gudmundur wrote:
>
> i have found that 'hops' tend to prefer a distance of very nearly
> 1200 miles per bounce. So if you are 1200, or 2400 miles from a
> given place, you can expect good transmit/receive operations. However,
> for areas of say 600, or 1800 miles, you hardly ever get good hop
> coverage. I am 2800 miles approximately from iceland, and am having
> a difficult time on 20 mtrs qso'ing with my freinds there. Have you
> any suggestions, like try 15mtrs or something. I suspect if I lived
> in new york, and was closer to the '2400 mile' magic number I could
> get better activity with far less effort.

7057. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 07:44:10 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0111122344.60f7a5e6@posting.google.com>
Source record: 48654

st599@ecs.soton.ac.uk wrote in message news:<3BEFBB51.22657F15@ecs.soton.ac.uk>...
> The serial port can't sample an analogue waveform, you'd need to use an ADC
> and shift register to turn your signal into PCM then use an RS232
> converter to send it to your PC where you could view it in terminal.

Almost any temporary PC has a soundcard, which can sample an analogue
waveform up to 20 kHz or even more. There are software spectrum
analyzers etc. based on sondcards, too. Certain types of soundcards
contain even an on-borad FM receiver.
A serial port can process AF limited into squares. This is used in
certain communication modes (RTTY, SSTV, meteo-facsimile).

BR from Ivan

7058. need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 10:25:39 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <Dy6I7.168131$3d2.6822593@bgtnsc06-news.ops.worldnet.att.net>
Source record: 48655

what diodes are similar to the 1N34A

7059. Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 10:58:20 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <LXFaFiAMzP87Ewky@invest.fsbusiness.co.uk>
Source record: 48656

With the upsurge of interest in this mode I'm surprised not to have found any modern design AM mono or multi-band AM TX designs from any homebrewers.

Any PWM operatives out there who have any intention of publishing their work? Iron's getting to difficult to find now.

Thanks

Phil G4ZOW

7060. Re: need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 11:58:11 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3BF10AD3.594D66CD@mwci.net>
Source record: 48657

marvin rosen wrote:

> what diodes are similar to the 1N34A

Radio Shack has 1N34A. The 1N92 is similar.

Bill W0IYH

7061. Re: Screen Protective Layer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 13:41:00 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BF122A8.E382AA3D@earthlink.net>
Source record: 48658

Tom---

> For organic solvents, I'd try MEK (or just acetone) but be aware that
> either is very likey to dissolve the monitor case. Another
> possibility: contact cement solvent.

MEK is going to be difficult if not impossible to find. We couldn't get
it into my organic chemistry lab back in college.

> If it's an inorganic coating that's been deposited, it might not be
> easy to find an appropriate solvent; you could try mechanical removal
> using a polish [...]

Your proviso here is well warranted! Mechanical removal with a polish
will remove some of the glass surface of the monitor screen as well as
the offending AR coating. Because of the sheer size of a monitor
screen, however, I would suggest either having a pro do it or simply
replacing the monitor. The latter will most likely be cheaper. Comet
cleanser (or any other ``polishing'' agent that will work with any
amount of speed on a unit the size of a monitor screen) will leave
hazing that will simply drive you batty when you look at your screen.
It'll be like looking through a constant layer of dust.

Bozidar, I would suggest replacing the monitor. It will likely be
easier and less expensive.

Good luck,

Henry C. Gernhardt, III
KE4PIB

7062. FS: EF 14 Telefunken

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 14:15:24 UTC
From: arnoldg@c2i.net
Message-ID: <3bf12b2d.8848787@news1.c2i.net>
Source record: 48659

Hi,

3 pcs EF 14 Telefunken, NOS for sale. This valve is equivalent to the extremely scarce and expensive VF 14 EXCEPT for the heater voltage. EF 14 needs 6.3V, but the VF 14 needs 60V (Some Neumann mics run the valve on about 30V) The only thing you have to do is to alter the heater circuit in the powersupply of the microphone.
You can find a picture of the valves at my web site: www.demostenes.no
Just search for EF 14.
The VF 14 is extremely expensive, $ 750 - $ 1750 a piece. The EF 14 is much cheaper - only NOK 929.- each or about US$ 104.- + shipping.

Best regards,

Arnold Goks�yr
DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books,caps,resistors and other components. Web site is updated every week.
You can order on-line.

7063. Re: Screen Protective Layer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 14:29:58 UTC
From: Rory Davis <n7cr@nospambellsouth.net>
Message-ID: <12aI7.62424$jP3.2358048@e3500-atl1.usenetserver.com>
Source record: 48666

> > For organic solvents, I'd try MEK (or just acetone) but be aware that
> > either is very likey to dissolve the monitor case. Another
> > possibility: contact cement solvent.
>
> MEK is going to be difficult if not impossible to find. We couldn't get
> it into my organic chemistry lab back in college.
>

Not true. You just have to know where to look. Find somebody that builds or repairs tube and fabric airplanes, they usually have the stuff lying around in gallon cans.

Not that I'd recommend application of MEK to a monitor screen.

7064. TRADE: QUINTRON PWR SUPPLIES

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 14:37:52 UTC
From: Dee Almquist <w4pnt@vaix.net>
Message-ID: <tv2ccgoj605192@corp.supernews.com>
Source record: 48660

Hello Fellow AM'rs
I have a number of NICE Quintron rack mounted power supplies for trade. I need Johnson Rangers or parts rigs, panels cabinets bezels; Collins R390(A) or panels covers, parts rigs; Johnson 500 parts rigs, panels, cabs, bezels, etc. Might be interested in other ba gear. I refinish the above panels & cabs so need not be beautys. Just no rust & metal undamaged.

The Quintron is capable of 2000v + @ 300ma, primary 120vac. Fully metered, indicators, safety devices, switched & is >10" high. It also has primary taps so can run @ approx 1kv @ 350ma. I'm going to use a pair of these to power AM tx, 813s rf x 813 modulators (>20" of rack space) These have been fully tested & come w / documentation. Only money considerations is shipping (its heavy) but relativily unafected by bounce & vibration.
Pics available.
73 es Dee
http://w4pnt.8k.com
Patty & Dee's Marina Collectors of "firebottle" radios
Sound In Mind
534 W. Main St.
Waynesboro, Va. 22980
(540)249-3161 Cell: (540)480-7179

7065. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 15:20:36 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <TLHciqAEpT87EwmI@invest.fsbusiness.co.uk>
Source record: 48661

Hello Peter,

>Basically because it's hard to do, especially with powers much above 500mW.
>DSB suppressed carrier is easier to homebrew and gives good results on air
> with QRP. In contrast, QRP AM is a recipe for frustration and
>disappointment.
>
>AM is a big handicap, and you need greater power to achieve a given
>contact. The complexity, expense and power consumption of an extra
>PA stage is a big factor that makes QRP DSB much more attractive.
>Also DSB rigs are easy to team up with DC receivers.
>
>If I wanted to build something simple to get on the air and make lots of
>contacts, I would rather go for a few watts DSB rather than 20w AM.
>
>
>Though as you say, PWM techniques could be interesting!
Yes, all what you say is true however I and others yearn for that
broadcast quality audio something you'll have trouble achieving with a
typical QRP DSB with suppressed carrier rig.

there are pictures on the web of home-brew PWM rigs but no construction
articles other than a 40m 1Kw AM TX all in Portuguese!

A little more power than we're allowed here in the UK and a little rich
for a first timers project.

Phil G4ZOW

7066. tubes radios/amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 15:42:58 UTC
From: km5rt@home.com
Message-ID: <3bf44b94.6670771@news>
Source record: 48662

I have several sets of pulls (long unused) from local tv station
and several sets of pulls (some unused equipment) from FAA and Air
Force equipment
4cx 250/4cx150

I also have the following radios for sale

Ts 440 SAT all mode HF
TS700SP 10 watt all mode 2 meter
Clegg FM 76 rock bound 220
MFJ 989c Versa Tuner 3KW roller inductor
1296 homebrew kit xverter 2 meter in between 2-5 watts out with 5 in
220 homebrew xverter 6 meter in 5 watts in max 20 watts out
2304 mhz xverter homebrew kit
2304 mhz TWT amp 10 watts out (heavy, shipping costs will be $25)
1296 amplifier 1-5 watts in 400 max out, in a 7 foot rack (LOCAL DFW
only due to weight) needs to be rewired, also runs on 220
2 meter tube amp (4cx2/150) needs rewired has tube supply
no shipping on this amp due to weight dfw area only
2 meter all mode 25 in 170 out transistor 12 volt amp
6 meter 4cx 350(2 tube) amp in a case with power supply
(shipping would be $40) amp has not been turned on in 3 years
power supply was reworked, then lost 6 meter radio

I can be reached via email
km5rt@home.com
or by phone 8175143987 after 3pm CST
********remove nospam to reply*********
see ya on the bands

7067. Re: need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 15:45:22 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3bf14032$0$252$44c9b20d@news3.asahi-net.or.jp>
Source record: 48663

Hi Marvin

The 1N60S is quite often supplied when you order 1N34A...for a first-time user, there ain't no way to tell...even for the experienced, unless you play with different batches of them every day...altho they usually do look different (band, case colours) and are often priced differently...

OA90, OA91, OA92, [the one Bill actually meant to type, NOT the silicon rectifier, 1N92!] OA99 are the same animal...all the Germanium diodes mentioned are interchangeable with NTE109...

Don't sweat it too much, as there aren't all that many germanium diodes around these days...

Best wishes

"William E. Sabin" <sabinw@mwci.net> wrote in message news:3BF10AD3.594D66CD@mwci.net...
>
>
> marvin rosen wrote:
>
> > what diodes are similar to the 1N34A
>
> Radio Shack has 1N34A. The 1N92 is similar.
>
> Bill W0IYH
>
>

7068. Bill Orr's Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 16:13:33 UTC
From: Patrick Croft <mai@iquest.net>
Message-ID: <3BF146AD.FF4C5911@iquest.net>
Source record: 48664

Have some new copies of this excellent handbook. Its the latest 23rd edition, the hardbound bible of builders and superb classic reference for all areas of interest to hams.

Bill/W6SAI lives on via his many gifts of articles and books. His writing methods allow all levels of technical backgrounds to understand and learn from his expertise.

The Handbook normally sells for $52.95. We're selling them for $39.95 plus a flat $5 shipping within the US 48. You can order online or call, fax, email. Follow this link for more information: http://www.websitea.com/mai/Books/books.htm

Now is a good time to get a friend a copy for Christmas as well as one for your library.

7069. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 16:27:25 UTC
From: "Eric F. Richards" <efricha@dimensional.com>
Message-ID: <kag2vt0i4qln5uf5rn8ijpevgi9o5hlnh6@4ax.com>
Source record: 48665
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Zoran Brlecic <zbrlecic@earthlink.net> wrote:

[...]
> 73 ..... Zoran WA7AA

Your margins are off.

7070. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 19:20:40 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <vkeI7.21033$is2.3545763@news6-win.server.ntlworld.com>
Source record: 48667

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:LXFaFiAMzP87Ewky@invest.fsbusiness.co.uk...
> With the upsurge of interest in this mode I'm surprised not to have
> found any modern design AM mono or multi-band AM TX designs from any
> homebrewers.
>
> Any PWM operatives out there who have any intention of publishing their
> work? Iron's getting to difficult to find now.
>
> Thanks
>
> Phil G4ZOW

Well, I was lucky enough to acquire some, "iron", well, HT transformers and
modulation transformer, and when I get round to building it, I'm hoping to
run a single 813, plate-modulated AM rig. 150 watts out I believe. 813
will probably be employed as RF power amp for other modes. Erm, I need my
licence first though. :c) I wonder if I can take advantage of PWM, probably.
Not
that I really know much about PWM.

7071. Re: Screen Protective Layer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 20:16:45 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111131216.2e709143@posting.google.com>
Source record: 48669

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote in message
news:<3BF122A8.E382AA3D@earthlink.net>...
> Tom---
>
> > For organic solvents, I'd try MEK (or just acetone) but be aware that
> > either is very likey to dissolve the monitor case. Another
> > possibility: contact cement solvent.
>
> MEK is going to be difficult if not impossible to find. We couldn't get
> it into my organic chemistry lab back in college.
...
> Henry C. Gernhardt, III
> KE4PIB

Um, gee, I thought at first you might be outside the US. I have no trouble getting gallons of it at the local (WA state) home supply stores like Home Depot and Lowe's. It's a bit pricey at around $11 a gallon, but a gallon goes a long way, of course. I thought Xylene would be a bit harder to find, but Lowe's even had that in gallons at least as recently as last summer. If anything, I'd think acetone would be the hard one to find because of certain banned activities.

(Guess I'll just "agree to disagree" on the thought that Comet would leave the monitor hazy to the point of driving one batty. My experience with it on glass windshields over many scrubbings over a period of years just doesn't support that. But...I did warn that his MMV. ;-)

Cheers,
Tom

7072. Information needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 20:31:03 UTC
From: g3pho@nospam.qsl.net
Message-ID: <3bf2354b.6231274@news.free-online.net>
Source record: 48670

This posting is on behalf of Arthur, VE3ZV. Could anyone help him with the information he is looking for? If so please email him, not me, at the address shown at the end of his posting...

Many thanks,

Peter, G3PHO

.....

Hello,

I have been unsucessful in obtaining information (identification & data sheet info) on the following items from mailing lists to which I have submitted requests.

Anzac SW-526
Olektron P4-VPS-100-70
Olektron FP-CDB-185
Olektron FP-HJ-302U

I happened to notice that the manufacturers of these items are mentioned briefly in the appendix of the VHF/UHF Manual (Fourth Edition) by Jessop.

Any assistance appreciated.

Arthur Shulman, VE3ZV

mailto:dentist@nornet.on.ca

7073. Using 3 phase transformer on single phase power?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 21:40:50 UTC
From: jflanders2@home.com
Message-ID: <3bf19320.99166124@NEWS>
Source record: 48671

Can I get any practical use from a 3-phase transformer with single-phase power? I hope I can use this power supply at near original design ratings. Please read on:

I am trying to breathe life into an old HF power amp. It used 220 3 phase power originally and I am wondering what use I can get from it's combined screen grid and bias power supply transformer. The transformer primaries are for 220/440, and are currently wired up for 220 use. The primaries are all isolated from each other, can be rewired for 440 (i.e., I have 6 individual 220 windings), or isolated and fed separately as I did in a test below. Primaries are delta, and both secondaries are Y - one marked 800V and one marked 450V. Fortunately, complete wiring diagram and voltages are printed on the transformer. Filters appear to be choke input.

As a test, I isolated one of the delta primary legs and fed it 110VAC while monitoring the DC on the filter caps and looking for smoke. No smoke and I get about 450VDC (unloaded) on one filter cap and about 225VDC on the other. Looks pretty encouraging to me - maybe when I apply full 220VAC I will get roughly normal voltage from this thing.

Anybody have any advice on what I might run into in trying to use this supply on single phase under load? I realize DC filtering would not be up to original performance as-is, and I assume that the single leg primary might even be overloaded if I draw full current from it, but it was originally rated for 24/7 mil-spec CCS, so it might survive OK as is. If not, is it possible to apply power to another of the delta primaries with my single phase power in some way to spread out the load?

Fortunately the blower and filament transformer are single-phase, so this is the only part of the old amp that is in question.

Ideas?

Jerry W4UK

7074. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 22:22:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BF19D33.3856319C@eznec.com>
Source record: 48676

I have a little FM radio I got at the computer store that hooks to the USB port. I did have one that plugged into the PCI bus, but it didn't work well -- I think it got too much interference from the computer. I can capture the output from either one with my regular sound card software.

Roy Lewallen, W7EL

st599@ecs.soton.ac.uk wrote:
>
> The serial port can't sample an analogue waveform, you'd need to use an ADC and shift register to turn your signal into PCM then use an RS232
> converter to send it to your PC where you could view it in terminal. You would probably need to write some C code to control it all though.
>
> Nice idea - hard work though
>
> Anindita wrote:
> >
> > I am playing around with the idea of hooking up an FM radio to a PC
> > thru it's serial port.The ultimate impossible dream is to sample the
> > waves then through some software.
> > Can this be done?Any pointers/reading material is appreciated.
> >
> > Anindita

7075. Re: Bill Orr's Handbook

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 22:23:57 UTC
From: la8ak@online.no
Message-ID: <3bf196ba.5554154@news.online.no>
Source record: 48672

On Tue, 13 Nov 2001 11:13:33 -0500, Patrick Croft <mai@iquest.net>
wrote:

>Have some new copies of this excellent handbook. Its the latest 23rd
>edition, the hardbound bible of builders and superb classic reference
>for all areas of interest to hams.
>
>Bill/W6SAI lives on via his many gifts of articles and books. His
>writing methods allow all levels of technical backgrounds to understand
>and learn from his expertise.
>
>The Handbook normally sells for $52.95. We're selling them for $39.95
>plus a flat $5 shipping within the US 48. You can order online or call,
>fax, email. Follow this link for more information:
> http://www.websitea.com/mai/Books/books.htm
>
>Now is a good time to get a friend a copy for Christmas as well as one
>for your library.

W6SAI's Command Sets ?

7076. Re: FS: EF 14 Telefunken

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 22:23:57 UTC
From: la8ak@online.no
Message-ID: <3bf196fc.5620121@news.online.no>
Source record: 48673

On Tue, 13 Nov 2001 14:15:24 GMT, arnoldg@c2i.net (DEMOSTENES A. Goks&#65533;yr) wrote:

>The VF 14 is extremely expensive, $ 750 - $ 1750 a piece. The EF 14
>is much cheaper - only NOK 929.- each or about US$ 104.- + shipping.
>
>
Oh dear, I am rich! Thank you

7077. Re: advice on final amp choice

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 22:58:33 UTC
From: Jobst <jvandrey@geocities.com>
Message-ID: <tAhI7.39385$hZ.3676380@newsread2.prod.itd.earthlink.net>
Source record: 48674

Check with Communication Concepts - they still list the transistors on their
web site for $16:

http://www.communication-concepts.com/transist.htm

The MRF454 is part of one of their HF linear amp sets based on the AN762
design.

Jobst

"David B. Thomas" <dthomas@rt66.com> wrote in message
news:uvgh5ykjs.fsf@rt66.com...
> A friend and I are starting to design a 40m (single band) transceiver.
> We'd like it to be able to put out somewhere near 100 watts. I've
> used the MRF454 transistor before and it seems just about perfect for
> the job (5W in, 80W out, 30 MHz), but it looks like Motorola doesn't
> make them anymore.
>
> Can anyone recommend a good choice for a device to use as the final in
> a 100W 40m transceiver? I'm open to suggestions but what I have in
> mind is a single bipolar transistor biased class AB with a tuned
> output circuit, followed by a filter.
>
> Thanks...
> David
>

7078. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-13 23:41:53 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0111131541.5814c0e6@posting.google.com>
Source record: 48675

Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote in message
news:<TLHciqAEpT87EwmI@invest.fsbusiness.co.uk>...

> Yes, all what you say is true however I and others yearn for that

> broadcast quality audio something you'll have trouble achieving with a

> typical QRP DSB with suppressed carrier rig.

Do you want good audio, or do you want AM?

Any remotely competent phasing SSB transmitter will
have audio quality comparable to broadcast AM. Use
DSP for the audio processing and you can make the
audio as nice as you like with relatively little
hassle.

What happens at the other end is, of course, another
matter. Narrow receive filters will make any signal
sound bad.

If you think there is really something here, why not
design a rig yourself? If you think AM is anything
more than a nostalgia trip, perhaps you should show
people why.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7079. Another source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 00:40:54 UTC
From: Jobst <jvandrey@geocities.com>
Message-ID: <q4jI7.39709$hZ.3701914@newsread2.prod.itd.earthlink.net>
Source record: 48677

RF Parts also lists the MRF454 transistor on their web site:

www.rfparts.com

Jobst
"David B. Thomas" <dthomas@rt66.com> wrote in message
news:uvgh5ykjs.fsf@rt66.com...
> A friend and I are starting to design a 40m (single band) transceiver.
> We'd like it to be able to put out somewhere near 100 watts. I've
> used the MRF454 transistor before and it seems just about perfect for
> the job (5W in, 80W out, 30 MHz), but it looks like Motorola doesn't
> make them anymore.
>
> Can anyone recommend a good choice for a device to use as the final in
> a 100W 40m transceiver? I'm open to suggestions but what I have in
> mind is a single bipolar transistor biased class AB with a tuned
> output circuit, followed by a filter.
>
> Thanks...
> David
>

7080. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 06:44:55 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <5Jv2iIAnLh87EwCe@invest.fsbusiness.co.uk>
Source record: 48682

Hello Laura,

>If you think there is really something here, why not
>design a rig yourself? If you think AM is anything
>more than a nostalgia trip, perhaps you should show
>people why.
Why, because while I've successfully built several kits, one or two
quite involved, I'm no design engineer.

I do not mind admitting that my maths theory lets me down.

I have a good engineer friend and I've seen what he's put into the
calculations for his Class-E 160m PA project. To the point where he was
able to find fault with Fritz Raab's original calc's, the author of the
article.

Fritz kindly acknowledged his mistake.

I am not in this class and I do fancy PWM.

Sorry to hear you think AM is a nostalgia trip.

Phil G4ZOW

7081. Re: need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 07:48:20 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0111132348.2167267c@posting.google.com>
Source record: 48678

Hi Simon,
the number remembers me about selenium (!) diodes, which used to be implemented in some TV sets during the "discrete transistor era". They worked in synchronization circuits, usually in pairs. No direct replacement by germanium nor silicon parts was possible. They must be very rare today.

BR from Ivan

7082. Microwave detector diodes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 10:55:21 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <h0sI7.253132$8x1.54704@newsfeeds.bigpond.com>
Source record: 48679

Anybody help me with a retail source of Microwave detectors diodes, in a leaded package. I am after some 10ghz detectors diodes. I am having difficulty because these items appear to be special order items, or have minimum order requirements.

Thanks
Willy

7083. Re: Microwave detector diodes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 14:44:33 UTC
From: n7ws@yahoo.com
Message-ID: <3bf28213.42412404@news.triconet.org>
Source record: 48680

On Wed, 14 Nov 2001 21:55:21 +1100, "willy" <willyacht@yahoo.com> wrote:

|Anybody help me with a retail source of Microwave detectors diodes, in a
|leaded package. I am after some 10ghz detectors diodes. I am having
|difficulty because these items appear to be special order items, or have
|minimum order requirements.

What do you mean when you say "detector" and "leaded"?

Do you have a part number in mind or a package, or...?

You might look at www.rfparts.com. Their minimum order is $25 but this adds up
pretty quick.

Regards,

Wes

|
|Thanks
|Willy
|
|

7084. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 15:37:58 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BF28FD6.336B47AD@ay.com.au>
Source record: 48681

Laura,

I think it is "the other end" that is the problem in Philip's mind.

For 100% correct demodulation of a SSB or DSB carrier suppressed signal
you need a coherant demodulator. Without some phase reference in the
signal or a common reference for the two different end LOs the demod
will always be a little off.

Some people have more trouble "tuning-in" to a SSB signal than others,
I've never had a problem myself, but I know quite a few that just can't
get even remotely close to zero-beat with the (missing) carrier.

If Philip really wants good quality audio he may as well go FM and
suffer the larger bandwidth (just like AM). As a bonus he can use C
class stages at high efficiency and use an off-the-shelf IF strip and
demod chip, greatly simplifying the construction.

--
Alan Yates
http://www.vk2zay.net/ updated 2001-11-11
The Moon is Waning Crescent (1% of Full)

Laura Halliday wrote:
>
> Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote in message
news:<TLHciqAEpT87EwmI@invest.fsbusiness.co.uk>...
>
> > Yes, all what you say is true however I and others yearn for that
>
> > broadcast quality audio something you'll have trouble achieving with a
>
> > typical QRP DSB with suppressed carrier rig.
>
> Do you want good audio, or do you want AM?
>
> Any remotely competent phasing SSB transmitter will
> have audio quality comparable to broadcast AM. Use
> DSP for the audio processing and you can make the
> audio as nice as you like with relatively little
> hassle.
>
> What happens at the other end is, of course, another
> matter. Narrow receive filters will make any signal
> sound bad.
>

> If you think there is really something here, why not
> design a rig yourself? If you think AM is anything
> more than a nostalgia trip, perhaps you should show
> people why.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7085. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 16:50:10 UTC
From: "Frank A. Scaraglino" <fas@rtp.ericsson.se>
Message-ID: <3BF2A0C2.15544E4F@rtp.ericsson.se>
Source record: 48683

I have made on out of a safety pin, pencil lead and a copper penny
(oxidized)
Frank

7086. Re: Using 3 phase transformer on single phase power?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 19:08:56 UTC
From: Lew <lewis-jean@mediaone.net>
Message-ID: <cjzI7.1285$gr6.567686@typhoon.jacksonville.mediaone.net>
Source record: 48686

Good Electrical handbooks show how to make a Scott-T transformer set-up.
With the Scott T you feed it with 240vac (2 120vac & Netural) and get a 3
phase output
the output voltage will depend on the Transformers

Lew
"spike" <mike@nospam.spikey-mike.freeserve.co.uk> wrote in message
news:ol95vts7h29t9dk3ptoem3gqtlukefcar9@spikey-mike.home...
> On Tue, 13 Nov 2001 21:40:50 GMT, jflanders2@home.com (Jerry Flanders)
> wrote:
>
> >Can I get any practical use from a 3-phase transformer with
> >single-phase power? I hope I can use this power supply at near
> >original design ratings. Please read on:
> >
> >I am trying to breathe life into an old HF power amp. It used 220 3
> >phase power originally and I am wondering what use I can get from it's
> >combined screen grid and bias power supply transformer. The
> >transformer primaries are for 220/440, and are currently wired up for
> >220 use. The primaries are all isolated from each other, can be
> >rewired for 440 (i.e., I have 6 individual 220 windings), or isolated
> >and fed separately as I did in a test below. Primaries are delta, and
> >both secondaries are Y - one marked 800V and one marked 450V.
> >Fortunately, complete wiring diagram and voltages are printed on the
> >transformer. Filters appear to be choke input.
> >
> >As a test, I isolated one of the delta primary legs and fed it 110VAC
> >while monitoring the DC on the filter caps and looking for smoke. No
> >smoke and I get about 450VDC (unloaded) on one filter cap and about
> >225VDC on the other. Looks pretty encouraging to me - maybe when I
> >apply full 220VAC I will get roughly normal voltage from this thing.
> >
> >Anybody have any advice on what I might run into in trying to use this
> >supply on single phase under load? I realize DC filtering would not be
> >up to original performance as-is, and I assume that the single leg
> >primary might even be overloaded if I draw full current from it, but
> >it was originally rated for 24/7 mil-spec CCS, so it might survive OK
> >as is. If not, is it possible to apply power to another of the delta
> >primaries with my single phase power in some way to spread out the
> >load?
> >
> >Fortunately the blower and filament transformer are single-phase, so
> >this is the only part of the old amp that is in question.
> >

> >Ideas?
> >
> >Jerry W4UK
> You will only be able to use one of the three phase windings on single
> phase, because the magnetic circuit is a three phase system as well.
>
> There will be no problem in just using one of the primary/secondary
> assemlies though and isolating the others. You will of course get high
> volts from the other (unused) primaries and secondaries which you will
> have to safely isolate. You might get away with using two of the
> assemlies and wiring them out of phase. You could then double the
> output volts or current by suitable wiring of the secondaries,
> assuming the magnetic's don't saturate.
>
> There are schemes to get 3 phase motors to run on single phase, but
> these rely on the motor turning and contributing to the rotating
> field. If you really need a 3 phase supply, you could use a large 3
> phase motor and get it running using a capacitor. The three phase
> supply is then taken from the three motor windings. I've only ever
> seen this scheme work when trying to drive large 3 phase motors, and
> don't know if it will work with a transformer, but I don't see why
> not.
>
>
> All the best...Mike.

7087. Re: need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 19:18:12 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9sug0l$9t0$1@uranium.btinternet.com>
Source record: 48685

It's a bog standard Ge point-contact diode. You shouldn't have much trouble finding one. In Europe, the OA90 is very similar.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

"marvin rosen" <raghead@worldnet.att.net> wrote in message
news:Dy6I7.168131$3d2.6822593@bgtnsc06-news.ops.worldnet.att.net...
> what diodes are similar to the 1N34A
>
>

7088. Re: HELP 70 cm mobile antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 19:25:30 UTC
From: info@helenav.nl
Message-ID: <Xns9159CAE49C71Cinfohelenavnl@195.64.48.20>
Source record: 48684

Eamon Skelton <Xnospam@oceanfree.net> wrote in
<1m0ps9.oo9.ln@darkstar.localdomain>:

>Guido Wienands wrote:
>
>> Units are Meter and Megacycles.
>
><pedantic> Megacycles per second (MC/S) </pedantic>
>
>73, Ed. EI9GQ
>
<not in USA> Hz </not in USA>

Helen

--
HELENAV, Tri-M's European Distributor
for Mighty Mouse family of active GPS antennas
http://www.helenav.nl

7089. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 19:51:18 UTC
From: "George R. Gonzalez" <grg1@flash.net>
Message-ID: <9sruib$1k0$1@laurel.tc.umn.edu>
Source record: 48668
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

There are people with dry skin and calloused hands. They can fiddle with 120VAC
and not get much more than a tingle. I recall my 8th grade science teacher, who I tried to demonstrate a shocker box I'd built (2N107 transistor, resistor,
capacitor, and the audio output transformer from a defunct Muntz TV, all in a metal
band-aid can).

The box gave the me and the other students quite a zap, but the teacher's calloused hands didnt even get a tingle.

But that's a real gamble, it's just a tingle if the current
flows from one finger to another on the same hand (as when poking your hand into
a wall outlet box). But if it's from hand to hand, the path is right thru your chest,
wherein you probably have a heart that just takes a few milliamps to
get shocked into useless fibbrilations.

IMHO, Not a very good gamble.

Regards,

George

> >
>

7090. Re: Another source

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 20:25:50 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <2VV1FuAONt87EwDn@invest.fsbusiness.co.uk>
Source record: 48688

David,

>> Can anyone recommend a good choice for a device to use as the final in
>> a 100W 40m transceiver? I'm open to suggestions but what I have in
>> mind is a single bipolar transistor biased class AB with a tuned
>> output circuit, followed by a filter.
No contest.

The infamous Toshiba 2SC2879.

Less money, more output.

I can source them for $17.95 in 10's out of NJ.

You'll pay a little more.

12v 100w pep @ 30MHz

14v 120w pep

Phil G4ZOW

7091. Re: need diode info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 20:32:37 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.10.10111141524480.915-100000@gloria.cam.org>
Source record: 48687

On Wed, 14 Nov 2001, Leon Heller wrote:

> It's a bog standard Ge point-contact diode. You shouldn't have much trouble
> finding one. In Europe, the OA90 is very similar.
>
> Leon
>
And the irony is that when someone specifies a "1N34A diode", they
are more than likely saying "this should be a small signal germanium
diode", rather than specifying a specific part number. Just like
all those 1N914's (more recently, 1N4148's) for silicon small signal
diodes, "365-pf broadcast band variable" for a cheap fairly large
capacitance variable that is readily available, and all those 2N706's
(nowadays, 2N2222's or 2N3904's) for a general purpose small signal
silicon NPN. Yes, there are times when something specific is
required, but as one learns about the components, you tend to
read a generic type when you come across such numbers.

In the case of the 1N34A, the key point is that it be a
germanium diode and not a silicon or schottky diode.

Michael VE2BVW

>
>
> "marvin rosen" <raghead@worldnet.att.net> wrote in message
> news:Dy6I7.168131$3d2.6822593@bgtnsc06-news.ops.worldnet.att.net...
> > what diodes are similar to the 1N34A
> >
> >
>
>
>
>

7092. FS: variable caps, coils etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 22:39:18 UTC
From: arnoldg@c2i.net
Message-ID: <3bf2f20d.18915832@news1.c2i.net>
Source record: 48689

Hi,

Many variable capacitors, coilformers, IF-transformers and other RF components for sale. Have a look at my web site: www.demostenes.no

Regards,

Arnold Goks&#65533;yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7093. Academical project idea:Controlling a Kenwood TS50 with a computer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-14 23:22:46 UTC
From: Valentin <radiotito@yahoo.com>
Message-ID: <3BF2FCC6.96DA6F68@yahoo.com>
Source record: 48690
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello all people. I have an academical project idea. I have a Kenwood TS50 (not TS50S). I woule like to make an application to control my TS50. In my TS50 manual appears little info about the unit IF-10D (with a 6-pin connector). I have no idea how could later I connect the IF-10D to the computer. I think that I should connect to a RS-232 computer port, and perhaps also I need the IF-232...
Also I would like to connect my TS50 to a computer running a server (eg. in Linux OS), and a RealAudio server to broadcast to Internet "real time audio" from the TS50. Then I would like also to develope a Java "applet" to put on a web page on Internet, with the appearance of the TS50 front-end.Then the user should be able to change freq., mode (am/fm/usb/lsb/cw),memories,etc...And of course the operation should be taken on the TS50.
I have a lot of questions:
- What I need to connect the TS50 to a PC? I think IF-10D, but...anything more?
- Once I have connected the TS50 to the PC, I think I could send data from the serial port of the PC to the TS50, but...what data must I send to perform each of the different controls? I think there should be any reference from Kenwood...Any info about this?

73s de Valentin

7094. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 00:11:28 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0111141611.49935a7d@posting.google.com>
Source record: 48691

Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote in message
news:<5Jv2iIAnLh87EwCe@invest.fsbusiness.co.uk>...

> Hello Laura,

>

> >If you think there is really something here, why not

> >design a rig yourself? If you think AM is anything

> >more than a nostalgia trip, perhaps you should show

> >people why.

> Why, because while I've successfully built several kits, one or two

> quite involved, I'm no design engineer.
..

The question remains: why AM? Why use a mode that hogs
bandwidth, that is inefficient in its use of power,
and interferes with others? Other than warm fuzzy
nostalgia, what is the attraction?

> Sorry to hear you think AM is a nostalgia trip.

I didn't actually say that in the original posting,
though it is very much what I think. Not to lean on
you. Not at all: I'm genuinely baffled...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7095. Running Time Meter, Measures Hours - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 00:33:44 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <9sv2ij$765$1@slb2.atl.mindspring.net>
Source record: 48692

Running Time Meter, Measures Hours - Ebay

This running time meter reads in hours and tenths of hours. Timer scale is 10,000 hours, and currently reads 0.2 hours. This meter runs on 115 volts. It was made by Industrial Timer, Model C-25, and it is still in production. If interested, I'll send you the manufacturer's PDF file that describes the meter's specifications. It is in very good condition.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1664045217

I will be glad to provide additional information, or send more detailed pictures to your email address. Contact me at w4tq@mindspring.com

7096. Rotary Inductor - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 01:00:17 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <9sv44d$3mt$1@slb6.atl.mindspring.net>
Source record: 48693

Rotary Inductor - Ebay

This inductor has 20 turns, and a coil diameter of 3 &#65533; inches. The overall length, including brackets and shaft is 9 &#65533; inches. Overall width is about 4 inches, and height is 4 3/8 inches. It is very well made with smooth action, and a well designed contact mechanism.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1297783250

I will be glad to provide additional information, or send more detailed pictures to your email address. Contact me at w4tq@mindspring.com

7097. Re: Another source - Other posibilities

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 01:19:05 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3BF31808.CA3828FC@home.com>
Source record: 48694

It is possible that you could use inexpensive MOSFET switching transistors. It is pretty common to run something like a IRF510 at 5w using 12v. I tested the same unit at 24v and got over 20w out of it. From this experience, you could likely run 60 or 80v or even 180v using an isolation transformer (110v) rectified and filtered and get 100w easily from a higher voltage rated equivalent part.

For example, an IRF730 is rated at 400v, Rds on = 1 ohm, 3 A drain current, Pd = 100w. The MOSFETs with high "on" resistance tend to have a lower gate cap (500 - 600 pf), and Drain Cap (600 - 1000 pf) and as a result tend to switch faster. The 0.02 ohm Rds have too much internal cap to work well at 40m. However, they might be ok if your want a cheap 160m amp instead.

A pair of IRF730s in push-pull seems a good bet to deliver 100w output, while costing you only $2 (Mouser). Heat sink them well! Buy a few extras in case you blow one up during testing.

I would recommend at least biasing the pair separately so that you can balance the idle current in each transistor, perhaps 5% of full load current each.

Remember, MOSFETs do not like more than 12v or so peak on the gate for drive, so do not hit it with too much power. 5 watts drive is almost 22v peak into a 50 ohm load. The required drive would only be 1 to 2w if a 50 ohm load is tied from gate to ground.

Try it! It could be a lot of cheap fun.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions.

Jobst wrote:
>
> RF Parts also lists the MRF454 transistor on their web site:
>
> www.rfparts.com
>
> Jobst
> "David B. Thomas" <dthomas@rt66.com> wrote in message
> news:uvgh5ykjs.fsf@rt66.com...
> > A friend and I are starting to design a 40m (single band) transceiver.
> > We'd like it to be able to put out somewhere near 100 watts. I've
> > used the MRF454 transistor before and it seems just about perfect for
> > the job (5W in, 80W out, 30 MHz), but it looks like Motorola doesn't
> > make them anymore.
> >

> > Can anyone recommend a good choice for a device to use as the final in
> > a 100W 40m transceiver? I'm open to suggestions but what I have in
> > mind is a single bipolar transistor biased class AB with a tuned
> > output circuit, followed by a filter.
> >
> > Thanks...
> > David
> >

7098. Re: Microwave detector diodes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 02:26:47 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <sFFI7.272920$8x1.67723@newsfeeds.bigpond.com>
Source record: 48695

A diode that will detect microwave energy. These are typically mixer diodes with a square law character. The package I am looking for is the one with leads, wire leads. Macom make them but they have horrendous terms and conditions. They typically refer you to their agents like Richardson's etc. Problem is that for these specialized items the wait is long. That's why I asked about retail or specialized users who may use theses items.

Will
"Wes Stewart" <n7ws@yahoo.com> wrote in message
news:3bf28213.42412404@news.triconet.org...
> On Wed, 14 Nov 2001 21:55:21 +1100, "willy" <willyacht@yahoo.com> wrote:
>
> |Anybody help me with a retail source of Microwave detectors diodes, in a
> |leaded package. I am after some 10ghz detectors diodes. I am having
> |difficulty because these items appear to be special order items, or have
> |minimum order requirements.
>
> What do you mean when you say "detector" and "leaded"?
>
> Do you have a part number in mind or a package, or...?
>
> You might look at www.rfparts.com. Their minimum order is $25 but this
adds up
> pretty quick.
>
> Regards,
>
> Wes
>
> |
> |Thanks
> |Willy
> |
> |
>

7099. Re: Microwave detector diodes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 02:35:17 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BF32C6D.656F@pop.removethistomailme.net>
Source record: 48696

willy wrote:
>
> A diode that will detect microwave energy. These are typically mixer diodes
> with a square law character. The package I am looking for is the one with
> leads, wire leads. Macom make them but they have horrendous terms and
> conditions. They typically refer you to their agents like Richardson's etc.
> Problem is that for these specialized items the wait is long. That's why I
> asked about retail or specialized users who may use theses items.
>

Talk to Alan Rutz, WA9GKA at http://www.shfmicro.com. He's good at
tracking down stuff like this.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

7100. Re: WTB: QRP/CW Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 05:26:36 UTC
From: Larry Gagnon <"Larry Gagnon"@lagagnon.sprint.ca>
Message-ID: <slrn9v6kdu.3vvr03l.LarryGagnon@lagagnon.sprint.ca>
Source record: 48597

In article <WWUH7.5749$Uh7.242979@nntp3.onemain.com>, Handi Ham wrote:
> Wanted for portable operation. Prefer multi band with VFO.Anything
> considered as long as price is reasonable.
> ...KC0EH...
>
>

7101. Re: Microwave detector diodes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 06:17:15 UTC
From: n7ws@yahoo.com
Message-ID: <3bf35c74.98325764@news.triconet.org>
Source record: 48598

On Thu, 15 Nov 2001 13:26:47 +1100, "willy" <willyacht@yahoo.com> wrote:

What I meant was point-contact, Schottky, or...

Wire leads at 10 GHz? By leaded, I assumed that you meant something packaged
(1N21 or 1N23 style, pill, chip) as opposed to die.

| A diode that will detect microwave energy. These are typically mixer diodes
|with a square law character. The package I am looking for is the one with
|leads, wire leads. Macom make them but they have horrendous terms and
|conditions. They typically refer you to their agents like Richardson's etc.
|Problem is that for these specialized items the wait is long. That's why I
|asked about retail or specialized users who may use theses items.
|
|Will
|"Wes Stewart" <n7ws@yahoo.com> wrote in message
|news:3bf28213.42412404@news.triconet.org...
|> On Wed, 14 Nov 2001 21:55:21 +1100, "willy" <willyacht@yahoo.com> wrote:
|>
|> |Anybody help me with a retail source of Microwave detectors diodes, in a
|> |leaded package. I am after some 10ghz detectors diodes. I am having
|> |difficulty because these items appear to be special order items, or have
|> |minimum order requirements.
|>
|> What do you mean when you say "detector" and "leaded"?
|>
|> Do you have a part number in mind or a package, or...?
|>
|> You might look at www.rfparts.com. Their minimum order is $25 but this
|adds up
|> pretty quick.
|>
|> Regards,
|>
|> Wes
|>
|> |
|> |Thanks
|> |Willy
|> |
|> |
|>
|
|

7102. Is HP-ADS able to simualte DRO or SAW?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 06:30:13 UTC
From: zhenrong@juno.com
Message-ID: <68bd8232.0111142230.29537eb3@posting.google.com>
Source record: 48599
Cross-posted to: sci.electronics.cad,rec.radio.amateur.homebrew,sci.electronics.design

I want to simulate a DRO (dielectric resonator oscillator) and a SAW oscillator in HP-ADS. I checked the component library but can not find them. Are these two components availble in ADS? Is ADS able to simulate these two oscillators? I am using ADS version 1.3 currently. Could someone shed light on it?

Thanks in advance.

Ron

7103. Seek: source for SMD microwave components

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 08:15:44 UTC
From: Monty Brandenberg <mcbinc@ne.mediaone.net>
Message-ID: <3BF37A04.B84CB197@ne.mediaone.net>
Source record: 48600

Need a retail source for experimenter quantities. Immediate
need is for some caps in 0805 packages good out to 10GHz.
I know about downeast and SSB. Any peers?

tnx

m

--
Monty Brandenberg, Software Consultant MCB, Inc.
mcbinc@world.std.com P.O. Box 426188
mcbinc@ne.mediaone.net Cambridge, MA 02142-0021
617.864.6907

7104. Re: Galena Crystal detector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 08:27:28 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0111150027.1e2d2dd5@posting.google.com>
Source record: 48601

Hi all,
not to confuse the matter:
The original crystal detector used a galena crystal. Later it was replaced by a cuprox detector, based on copper semi-oxide Cu2O. I have a vintage cuprox detector named "Sirutor" somewhere in my shack. It contains 4 or 5 small pills of oxidized copper. Cuprox rectifiers were widely used also in AC meters before germanium and silicon diodes came into being.
Making a cuprox cell might be quite easy: take a piece of copper sheet (no alloy!), clean it thoroughly and heat it with gas flame to red glowing. The surface turns black - covers with copper oxide CuO. Bend the sheet a bit back and forth: the black oxide falls off and shows the red copper semi-oxide Cu2O. Put a clean steel wire (formed as a spring) into contact with it. Yes, the spring is one pole, the copper sheet the other. The cell should exhibit rectifying properties at very low voltages. Play around it !

BR from Ivan

7105. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 11:20:15 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <7uNI7.6824$n55.802976@news11-gui.server.ntli.net>
Source record: 48602

"Laura Halliday" <marsgal42@hotmail.com> wrote in message
news:d42b5a72.0111141611.49935a7d@posting.google.com...
> Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote in message
news:<5Jv2iIAnLh87EwCe@invest.fsbusiness.co.uk>...

> > Sorry to hear you think AM is a nostalgia trip.
>
>
> I didn't actually say that in the original posting,
> though it is very much what I think. Not to lean on
> you. Not at all: I'm genuinely baffled..

May I but in here.

So, you are baffled. Mmmm. No need to be. I don't think you have thought things through. Bandwidth and inefficiency are not issues that bother AMers. Perhaps they choose to indulge, because it's a challenge. And what if nostalgia is an issue, no big deal.

Long live AM!! :c)

7106. Re: Academical project idea:Controlling a Kenwood TS50 with a computer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 16:34:07 UTC
From: n1ist@panix.com
Message-ID: <9t0qpv$67t$1@panix2.panix.com>
Source record: 48603
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

In article <3BF2FCC6.96DA6F68@yahoo.com>,
Valentin <radiotito@yahoo.com> wrote:
-Hello all people. I have an academical project idea. I have a Kenwood
-TS50 (not TS50S). I woule like to make an application to control my
-TS50. In my TS50 manual appears little info about the unit IF-10D (with
-a 6-pin connector). I have no idea how could later I connect the IF-10D
-to the computer. I think that I should connect to a RS-232 computer
-port, and perhaps also I need the IF-232...

Yep, the IF-10D (which is just a box containing a 7404 hex inverter and some pullups) connects to an IF-232C which has a 25 pin serial connector for the PC. There are plans for the IF232C in the ARRL handbook - I just opened one and it looks like standard old 1488/1489 drivers with an opto and a 555, probably to generate -12V. I'd use a MAX-232 these days.

The data format is included in the IF-10D manual.

7107. Amplifier Classes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 16:42:00 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BF3F014.C874258B@earthlink.net>
Source record: 48604

Folks---

Now and again, I've heard reference to amps with classes other than the standard 4 with which I am familiar. I know what A, AB, B, and C are---would someone be so kind as to give me descriptions of what the remaining types are? I have heard class E referred to frequently, and read somewhere that they go all the way to J or something like that.

Thanks,

Henry C. Gernhardt, III
KE4PIB

7108. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 18:41:36 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <HYPpmYAgxA97Ewdc@invest.fsbusiness.co.uk>
Source record: 48605

Richard,

>May I but in here.
>
>So, you are baffled. Mmmm. No need to be. I don't think you have thought
>things through. Bandwidth and inefficiency are not issues that bother
>AMers. Perhaps they choose to indulge, because it's a challenge. And what
>if nostalgia is an issue, no big deal.
>
>Long live AM!! :c)
Now don't start them off:-)

Like yourself I have no argument with the bandwidth but current AM broadcast transmitters have 'overall' efficiency's up around 80% what with class-D/E/F PA's and digital pulse width modulators.

Broadcasters no longer have a cardiac arrest when the utility bill arrives:-)

Phil G4ZOW

7109. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 19:30:09 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <lFUI7.11659$6v1.1517505@news6-win.server.ntlworld.com>
Source record: 48606

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:HYPpmYAgxA97Ewdc@invest.fsbusiness.co.uk...
> Richard,
>
> >Long live AM!! :c)

> Now don't start them off:-)

True. I was just jesting around. I'm pretty laid-back about AM.

7110. FS: variable caps, coils, IF-transformers etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 21:08:52 UTC
From: arnoldg@c2i.net
Message-ID: <3bf42edd.6051349@news1.c2i.net>
Source record: 48607
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi,

Many variable capacitors, coilformers, IF-transformers and other RF components for sale. Have a look at my web site: www.demostenes.no and click on 'odds and ends' in the menue.

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books,caps,resistors and other components. Web site is updated every week. You can order on-line.

7111. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 22:36:44 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <8pXI7.10117$n55.1095403@news11-gui.server.ntli.net>
Source record: 48608

"Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
news:HYPpmYAgxA97Ewdc@invest.fsbusiness.co.uk...
>
> Like yourself I have no argument with the bandwidth but current AM
> broadcast transmitters have 'overall' efficiency's up around 80% what
> with class-D/E/F PA's and digital pulse width modulators.
>
> Broadcasters no longer have a cardiac arrest when the utility bill
> arrives:-)

I know there's stuff on the net, but does PWM, (re AM), do nothing but increase the efficiency of the final amp? Does it increase in any way intelligibility by affecting percentage modulation? What techniques affect modulation efficacy, just some form of compression? Anyone.

7112. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 22:47:28 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <4CXI7.9$ai1.2134119@news2.randori.com>
Source record: 48609

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:8pXI7.10117$n55.1095403@news11-gui.server.ntli.net...
>
> "Philip de Cadanet" <phil@invest.fsbusiness.co.uk> wrote in message
> news:HYPpmYAgxA97Ewdc@invest.fsbusiness.co.uk...
> >
> > Like yourself I have no argument with the bandwidth but current AM
> > broadcast transmitters have 'overall' efficiency's up around 80% what
> > with class-D/E/F PA's and digital pulse width modulators.
> >
> > Broadcasters no longer have a cardiac arrest when the utility bill
> > arrives:-)
>
> I know there's stuff on the net, but does PWM, (re AM), do nothing but
> increase the efficiency of the final amp? Does it increase in any way
> intelligibility by affecting percentage modulation? What techniques
affect
> modulation efficacy, just some form of compression? Anyone.
>

With PWM, your potential positive modulation is limited only by your power
supply and tubes.

Whereas trying to pump a non-symetrical signal (negative modulation limited
to 100% with accompanying higher positive modulation) thru a modulation
transformer causes all kinds of nasty stuff to appear in the sidebands.

'Modulation density' is a function of compression and limiting.

7113. Re: Amplifier Classes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 23:16:58 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111151516.2eaaaef3@posting.google.com>
Source record: 48610

I'm not sure there's a uniformly accepted set of definitions. (Some
seem to be driven by marketing hype.) However, a Google search will
turn up lots of ideas; I just typed in "amplifier classes" and got
lots of hits, as you might expect. One of the early ones was
http://www.its.caltech.edu/~mmic/reshpubindex/scott.html, which looked
kind of interesting in a limited area around classes "E" and "F".

Cheers,
Tom

Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net> wrote in message
news:<3BF3F014.C874258B@earthlink.net>...
> Folks---
>
> Now and again, I've heard reference to amps with classes other than the
> standard 4 with which I am familiar. I know what A, AB, B, and C
> are---would someone be so kind as to give me descriptions of what the
> remaining types are? I have heard class E referred to frequently, and
> read somewhere that they go all the way to J or something like that.
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

7114. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-15 23:29:21 UTC
From: Jerry Oxendine <joxendi@bellsouth.net>
Message-ID: <WIYI7.5057$q36.558768@e3500-atl2.usenetserver.com>
Source record: 48611

While I am not an avid Am'er, I do, however, indulge in it to some extent. I look at it as just another mode and, while I am aware of its limitations and the reasons some folks don't like it, I still believe it has a place in Amateur Radio--altho not to the extent that SSB does. I just like to come downstairs on a cold, winter morning with a cup of coffee and fire up the rig and chit chat with some of the regulars on 7.290 AM or, at times 29.000 AM. I don't have any special equip-ment--I just discovered that my IC706 does a pretty good job on AM and I have no difficulty enjoying QSOs while pumping out all of 40 watts. I haven't gotten into refurbishing Vikings and Rangers, or Collins AM gear, so my forays into AM are pretty simple.....and infrequent. If I interfere with a SSB station, I will yield, QSY, or go silent. It's no big deal and not a turf issue for me.

73

Jerry
K4KWH

Philip de Cadanet <phil@invest.fsbusiness.co.uk> wrote in message news:5Jv2iIAnLh87EwCe@invest.fsbusiness.co.uk...
> Hello Laura,
>
> >If you think there is really something here, why not
> >design a rig yourself? If you think AM is anything
> >more than a nostalgia trip, perhaps you should show
> >people why.
> Why, because while I've successfully built several kits, one or two
> quite involved, I'm no design engineer.
>
> I do not mind admitting that my maths theory lets me down.
>
> I have a good engineer friend and I've seen what he's put into the
> calculations for his Class-E 160m PA project. To the point where he was
> able to find fault with Fritz Raab's original calc's, the author of the
> article.
>
> Fritz kindly acknowledged his mistake.
>
> I am not in this class and I do fancy PWM.

>
> Sorry to hear you think AM is a nostalgia trip.
>
> Phil G4ZOW

7115. Re: Amplifier Classes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 00:35:47 UTC
From: Josh Fiden <josh@voodoolab.com>
Message-ID: <3BF45F39.28B0DC7C@voodoolab.com>
Source record: 48612

I believe the other classes refer to digital modes. Class E is the only one I've read a little about. The power transistor or vacuum tube is operated more like an on/off switch. Since the power dissipated by the device is the voltage across it times the current through it, you switch it on and off in such a manner to minimize simultaneous maximums. In other words if the current is high, you want the device fully on so the voltage across it is a minimum. If the voltage is high across it, then you want the device switched fully off to minimize the current. This works in conjunction with a load network which shapes the waveform to let the switching occur at friendly times so it doesn't burn lots of power while transitioning on/off. The end result is very high efficiency...beyond what you can achieve with class C.

I am going to speculate that the other modes relate to digital as well such as pulse width, etc. I'm just making this up so if someone knows better, please post.

I hope this is informative as I am by no means an expert in the topic.

73s,

Josh / AD6XI

Henry Gernhardt/Andrea Winship wrote:

> Folks---
>
> Now and again, I've heard reference to amps with classes other than the
> standard 4 with which I am familiar. I know what A, AB, B, and C
> are---would someone be so kind as to give me descriptions of what the
> remaining types are? I have heard class E referred to frequently, and
> read somewhere that they go all the way to J or something like that.
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB

7116. Re: Using 3 phase transformer on single phase power?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 01:32:32 UTC
From: Henry Kolesnik <wd5jfr@oklahoma.net>
Message-ID: <tv8r5o7eb67241@corp.supernews.com>
Source record: 48613

the dc filtering circuits will require more capacitance and or inductance as
3 phase ripple is effectively 180 or 360 Hz and your b plus will be much
lower...
rotary converters as used by machinists to ge 3 phase for their lathes that
have industrial 3 phase motors is probably a better idea..
"Lew" <lewis-jean@mediaone.net> wrote in message
news:cjzI7.1285$gr6.567686@typhoon.jacksonville.mediaone.net...
> Good Electrical handbooks show how to make a Scott-T transformer set-up.
> With the Scott T you feed it with 240vac (2 120vac & Netural) and get a 3
> phase output
> the output voltage will depend on the Transformers
>
> Lew
> "spike" <mike@nospam.spikey-mike.freeserve.co.uk> wrote in message
> news:ol95vts7h29t9dk3ptoem3gqtlukefcar9@spikey-mike.home...
> > On Tue, 13 Nov 2001 21:40:50 GMT, jflanders2@home.com (Jerry Flanders)
> > wrote:
> >
> > >Can I get any practical use from a 3-phase transformer with
> > >single-phase power? I hope I can use this power supply at near
> > >original design ratings. Please read on:
> > >
> > >I am trying to breathe life into an old HF power amp. It used 220 3
> > >phase power originally and I am wondering what use I can get from it's
> > >combined screen grid and bias power supply transformer. The
> > >transformer primaries are for 220/440, and are currently wired up for
> > >220 use. The primaries are all isolated from each other, can be
> > >rewired for 440 (i.e., I have 6 individual 220 windings), or isolated
> > >and fed separately as I did in a test below. Primaries are delta, and
> > >both secondaries are Y - one marked 800V and one marked 450V.
> > >Fortunately, complete wiring diagram and voltages are printed on the
> > >transformer. Filters appear to be choke input.
> > >
> > >As a test, I isolated one of the delta primary legs and fed it 110VAC
> > >while monitoring the DC on the filter caps and looking for smoke. No
> > >smoke and I get about 450VDC (unloaded) on one filter cap and about
> > >225VDC on the other. Looks pretty encouraging to me - maybe when I
> > >apply full 220VAC I will get roughly normal voltage from this thing.
> > >
> > >Anybody have any advice on what I might run into in trying to use this
> > >supply on single phase under load? I realize DC filtering would not be
> > >up to original performance as-is, and I assume that the single leg
> > >primary might even be overloaded if I draw full current from it, but
> > >it was originally rated for 24/7 mil-spec CCS, so it might survive OK

> > >as is. If not, is it possible to apply power to another of the delta
> > >primaries with my single phase power in some way to spread out the
> > >load?
> > >
> > >Fortunately the blower and filament transformer are single-phase, so
> > >this is the only part of the old amp that is in question.
> > >
> > >Ideas?
> > >
> > >Jerry W4UK
> > You will only be able to use one of the three phase windings on single
> > phase, because the magnetic circuit is a three phase system as well.
> >
> > There will be no problem in just using one of the primary/secondary
> > assemlies though and isolating the others. You will of course get high
> > volts from the other (unused) primaries and secondaries which you will
> > have to safely isolate. You might get away with using two of the
> > assemlies and wiring them out of phase. You could then double the
> > output volts or current by suitable wiring of the secondaries,
> > assuming the magnetic's don't saturate.
> >
> > There are schemes to get 3 phase motors to run on single phase, but
> > these rely on the motor turning and contributing to the rotating
> > field. If you really need a 3 phase supply, you could use a large 3
> > phase motor and get it running using a capacitor. The three phase
> > supply is then taken from the three motor windings. I've only ever
> > seen this scheme work when trying to drive large 3 phase motors, and
> > don't know if it will work with a transformer, but I don't see why
> > not.
> >
> >
> > All the best...Mike.
>
>

7117. Re: Is HP-ADS able to simualte DRO or SAW?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 02:16:13 UTC
From: "Don K." <dk@homepostage.com>
Message-ID: <3BF476D0.80FE24EA@homepostage.com>
Source record: 48614
Cross-posted to: sci.electronics.cad,rec.radio.amateur.homebrew,sci.electronics.design

Ron wrote:
>
> I want to simulate a DRO (dielectric resonator oscillator) and a SAW
> oscillator in HP-ADS. I checked the component library but can not find
> them. Are these two components availble in ADS? Is ADS able to
> simulate these two oscillators? I am using ADS version 1.3 currently.
> Could someone shed light on it?
>
> Thanks in advance.
>
> Ron

For the dielectric resonator, use the Momentum part of ADS to calculate a
set of S parameters from a description of the dielectric and conductor surfaces
and launch point locations. Then plug it into ADS schematic for further analysis
and optimization of the oscillator.

Don
--
To reply by email, remove the postage.

7118. Re: Poor man's spectrum analyzer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 02:53:15 UTC
From: TLNixon@home.com
Message-ID: <3bf47fa6.30499090@news.moline1.il.home.com>
Source record: 48615

Yes, I have built one, in fact I also wrote some of the stuff in his book.

It has been a few years since I built mine. Call up Murray, and he will answer your questions.

Terry-WB0VQP.

On 9 Nov 2001 18:12:07 -0800, richgsheltie18@my-deja.com (richg) wrote:

>Anyone out there built this spectrum analyzer? I would like to
>correspond with someone who has. I have purchased all the modules and
>assembling them together. I have the book that describes how different
>people built them. I have a slight problem with hooking up a uhf
>tuner, a super uhf tuner and a tracking generator to the cable tuner.
>Thanks in advance.
>
>Richard Gagnon

7119. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 03:05:13 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <Xj%I7.11499$n55.1213727@news11-gui.server.ntli.net>
Source record: 48616

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:8pXI7.10117$n55.1095403@news11-gui.server.ntli.net...
> I know there's stuff on the net, but does PWM, (re AM), do nothing but
> increase the efficiency of the final amp? Does it increase in any way
> intelligibility by affecting percentage modulation? What techniques
affect
> modulation efficacy, just some form of compression? Anyone.

Wait a minute, am I getting confused here. When I wrote the above I'm mixing AM with PWM am I not? I was thinking of a transmitter putting out an AM signal using PWM. With regular AM you Amplitude Modulate an RF carrier with an analogue audio signal and the carrier varies in amplitude according to the audio signal impressed upon it. This produces 2 sidebands either side of a carrier. With PWM the audio must be digitised into pulses (on/off), width of pulses related to audio signal. Well, what is the end result of that, a very efficient final, regular modulation density, but never-the-less an AM signal? I think I'm getting confused about the various issue, like modulation type, amp efficiency, and modulation density. I haven't much of a clue about negative modulation. What's that, when it's at home? Something to do with symmetry of modulating signal I perceive, accentuating the positive peaks to beyond normal, and restricting the negative so we do not acheive a cut off duration. Isn't that distortion? BTW, any answers need to be pretty basic.

7120. HQ-180 vernier tuning mod

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 03:15:08 UTC
From: Daniel Hicks <w8mmqnospam@email.com>
Message-ID: <0x%I7.21812$RI2.12048202@news2>
Source record: 48617

The HQ-180 vernier tuning mod currently featured at:
http://www.qsl.net/w8mmq/radioex/

Also, check out the W8MMQ Antique Radio Page:
http://www.qsl.net/w8mmq/

7121. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 03:37:01 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <xR%I7.56$AT3.9290861@news2.randori.com>
Source record: 48618

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:Xj%I7.11499$n55.1213727@news11-gui.server.ntli.net...
>
> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:8pXI7.10117$n55.1095403@news11-gui.server.ntli.net...
> > I know there's stuff on the net, but does PWM, (re AM), do nothing but
> > increase the efficiency of the final amp? Does it increase in any way
> > intelligibility by affecting percentage modulation? What techniques
> affect
> > modulation efficacy, just some form of compression? Anyone.
>
> Wait a minute, am I getting confused here. When I wrote the above I'm
> mixing AM with PWM am I not? I was thinking of a transmitter putting out
an
> AM signal using PWM. With regular AM you Amplitude Modulate an RF
carrier
> with an analogue audio signal and the carrier varies in amplitude
according
> to the audio signal impressed upon it. This produces 2 sidebands either
> side of a carrier. With PWM the audio must be digitised into pulses
> (on/off), width of pulses related to audio signal. Well, what is the end
> result of that, a very efficient final, regular modulation density, but
> never-the-less an AM signal? I think I'm getting confused about the
various
> issue, like modulation type, amp efficiency, and modulation density. I
> haven't much of a clue about negative modulation. What's that, when it's
at
> home? Something to do with symmetry of modulating signal I perceive,
> accentuating the positive peaks to beyond normal, and restricting the
> negative so we do not acheive a cut off duration. Isn't that distortion?
> BTW, any answers need to be pretty basic.
>
>

PWM works by sampling the audio at an approximately 70 kHz rate, and using those samples to switch the RF amp on in longer and longer intervals(pulse width becomes wider): higher audio sample = longer RF amp on.

benefits (and end result) is very efficient RF stage; no modulation transformer with its losses and insulation concerns, low frequency response theoretically down to DC, ease of adjustment of base RF level (a pot to control the quiescent on-off interval) with attendant RF output level switching (select one of several pots for different levels).

The end result is the same: carrier + 2 sidebands.

now, as far as more-than-100%-positive-modulation vs distortion: If the amplitude of the RF output envelope is a faithful reproduction of the input audio, there is no distortion within the transmitter. There may be deliberate distortion of the audio signal in the processing equipment ahead of the transmitter to produce an audio signal in which one polarity of audio is is greater than the other, but that is the 'fault' of the processing chain.

typically, positive modulation will run up to 125%. beyond that, the distortion gets pretty obvious.

an old trick in the 'traditional' AM transmitters was to run seperate power supplies for RF and modulator stages, this allowed some pretty wild positive modulation figures; for instance if the HV supply was originally 3000 V, then a modulator supply of 4000 V would get you + 133 % pretty easily.

at a 1000/250 watt station I worked for, we rigged the modulators to continue to work at the 1000 watt level at night when the RF stage B+ was cut back to the 250 watt level. this allowed a theoretical positive modulation figure of 400 %, but, as I said beyond about 125 %, distortion gets pretty bad.

we also used a pair of op amps set up as 'ideal diodes' to split the audio into positive-going and negative-going paths, the positive-going side was then run thru an amp that allowed us to vary it with respect to the negative-going half by a figure of 1.0 to 2.0 (100% to 200%), then we re-combined the halves. This let us set the positive modulation independently of the negative.

hope this helps.

7122. FS: DOW-KEY type coaxial relay w/"N" connectors & 6vac coil, LN

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 04:35:33 UTC
From: rlucch2098@aol.com
Message-ID: <20011115233533.14541.00000099@mb-df.aol.com>
Source record: 48619

Hi Guys;
I have for sale this Coaxial relay in great condition & military quality.
Has a 6vac coil.
Check out the picture>>
http://www.baltimorepress.com/~wa2rqy/rfrelay.jpg
Price is $30.00ea ppd, I have 2 of them for $55.00ppd.
Thanks es 73..........RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7123. FS: PRECISE #610 RF SIGNAL GENERATOR $25+

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 04:38:42 UTC
From: rlucch2098@aol.com
Message-ID: <20011115233842.14541.00000103@mb-df.aol.com>
Source record: 48620

Hi Guys;
I have for sale,
A Precise #630 Signal Generator & it is in Excellent Original Condition with only a few small minor rust spots(easy touch-up) and with almost a MINT front panel. It covers from .3 to 100mcs in 5 ranges and harmonics up to 330mcs as shown on the scale.I have tested it only by observing a signal on each range on my Sony Short-Wave receiver. The selector has OFF - AM 400hz- AM 60hz- CW EXT. Mod. & AF 400hz. Uses BNC's for output & ext. Mod. and has an adjustable "output" control. This is NOT a piece of Flea Market Junque but instead was well cared for & was being used.
May still need some TLC & calibration. A technician I am not ;-)
Price is $25 + UPS.
Pictures>>

http://www.baltimorepress.com/~wa2rqy/precise1.jpg

http://www.baltimorepress.com/~wa2rqy/precise2.jpg
Enjoy the look & tnx for your consideration.
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7124. LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 05:08:10 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3BF49F3A.292A4701@clifto.com>
Source record: 48621

Anyone have any data on how much LEDs can be overdriven in pulse service? Obviously I'm talking sub-second pulses. I'm sure it varies with duty cycle, but I'll bet there are other limits involved. I just can't picture driving a 20mA unit at 20A for one millisecond every second without something bad happening.

Also, what are rise times and fall times like, for both current and light output?

I'm already sure light output doesn't double when current does, just not sure what the curves look like.

--
"I would have been happy to explain further, except you had by that point made it clear you would believe whatever you wanted to believe"
-- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

7125. Re: Seek: source for SMD microwave components

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 06:48:55 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <rF2J7.188047$W8.6862878@bgtnsc04-news.ops.worldnet.att.net>
Source record: 48622

I would go with the ATC600S series; 0805s would be a little bit large for the frequencies that you are talking about. You could also use ATC100, A size.

Pete KE9OA

Monty Brandenberg <mcbinc@ne.mediaone.net> wrote in message news:3BF37A04.B84CB197@ne.mediaone.net...
>
> Need a retail source for experimenter quantities. Immediate
> need is for some caps in 0805 packages good out to 10GHz.
> I know about downeast and SSB. Any peers?
>
> tnx
>
> m
>
> --
> Monty Brandenberg, Software Consultant MCB, Inc.
> mcbinc@world.std.com P.O. Box 426188
> mcbinc@ne.mediaone.net Cambridge, MA 02142-0021
> 617.864.6907

7126. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 10:11:23 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <Az5J7.399$yV.160755@news6-win.server.ntlworld.com>
Source record: 48623

"Gary Glaenzer" <nobulltrans@irtc.net> wrote in message
news:xR%I7.56$AT3.9290861@news2.randori.com...
>
> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:Xj%I7.11499$n55.1213727@news11-gui.server.ntli.net...
[....]

> PWM works by sampling the audio at an approximately 70 kHz rate, and using
> those samples to switch the RF amp on in longer and longer intervals(pulse
> width becomes wider): higher audio sample = longer RF amp on.

> benefits (and end result) is very efficient RF stage; no modulation
> transformer with its losses and insulation concerns, low frequency
response
> theoretically down to DC, ease of adjustment of base RF level (a pot to
> control the quiescent on-off interval) with attendant RF output level
> switching (select one of several pots for different levels).
>
> The end result is the same: carrier + 2 sidebands.

Okay. In a regular AM set-up, you amplify a steady RF input in a class C mode PA, then acheive modulation by varying HT voltage to PA by using a modulation transformer. RF input to PA is clipped, (ie conduction at peaks only) but tank circuit restores sine wave of RF. You get out AM.

With PWM you amplify a PWM signal, in a class D?, E?, F? PA. RF input to PA, is steady, but pulse width varies. RF input to PA is clipped, (ie conduction at peaks only), but tank circuit restores sine wave of RF. You get AM out. I'm not sure if the RF PA is simply amplifying an AM signal. Maybe not, I muse that it's the tank circuit that is vital to producing AM out. IOW, if the PA had no tank circuit (say RC coupling) you would not be seeing AM out, but some distorted signal full of harmonics. Same to some degree with a regular AM set-up.

Nice to hear you do not need to rely on a modulation transformer. Looks like a neat way of producing AM. Pity, there are not some AM TX projects utilizing PWM as Philip commments.

Thoughts: Why cannot you use class E (say) with regular AM? Tank circuit restores sine wave.

7127. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 13:18:37 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <Nm8J7.138935$ez.17295014@news1.rdc1.nj.home.com>
Source record: 48624

Take a look at the application notes at Agilent -- some of the high efficiency LED's can be pulsed at 100ma - although with reduced duty cycle. There are also curves relating luminous intensity to current.

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message news:3BF49F3A.292A4701@clifto.com...
> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
>
> Also, what are rise times and fall times like, for both current and light
> output?
>
> I'm already sure light output doesn't double when current does, just not
> sure what the curves look like.
>
> --
> "I would have been happy to explain further, except you had by that
> point made it clear you would believe whatever you wanted to believe"
> -- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

7128. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 13:20:22 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9t3n6h$8t4$1@neptunium.btinternet.com>
Source record: 48629

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3BF49F3A.292A4701@clifto.com...
> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
>
> Also, what are rise times and fall times like, for both current and light
> output?
>
> I'm already sure light output doesn't double when current does, just not
> sure what the curves look like.

If you don't get any joy here, try posting to sci.electronics.design. There
are several people there who could help.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

7129. W32A Programming cable?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 15:54:43 UTC
From: Bruce Anderson <W1LUS@att.net>
Message-ID: <3BF536BE.FDD89F4D@att.net>
Source record: 48625

Is there any information available on the construction of the ICOM
OPC-478 Cloning cable used to program an ICOM IC-W32A?
I would like to know if there is a web site with schematic of the cable.

Or if there has been a magazine article on this subject.

Bruce Anderson
W1LUS

7130. Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 16:35:38 UTC
From: thardy@nautel.com
Message-ID: <228efcd2.0111160835.670a8e3f@posting.google.com>
Source record: 48626
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

I need some low impedance line to build a broadband transformer for a VHF solid state amplifier input matching cct. Does anyone know a commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?

Thanks.

7131. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 16:50:23 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BF543CE.9A4AFC14@midwestmicro-tek.com>
Source record: 48627

Thanks much Gary!

I built the McCoy "Full Gallon" CW transmitter shown in a 1962 article in QST (I don't have the article with me). The reason I built it was because it was a two part article and the second article showed how to install voice modulation. It was supposed to be a rig that would provide the novice with a CW transmitter that could be upgraded when the novice got his general ticket. I've been a novice for about 2 years now and I have no plans to upgrade (I really only like CW on 40 and 80 meters) but I am allowed to transmit voice on 10m. I'm thinking that one day I may want to experiment with AM.

I design embedded controllers for a living and PWM is no stranger to me but interfacing a PWM signal to my transmitter may be a bit tricky. Do you know of a web site or book that can give me some practical applications of this method? Any help would be much appreciated.

TNX

Rick KC0GIX

Gary Glaenzer wrote:

> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:Xj%I7.11499$n55.1213727@news11-gui.server.ntli.net...
> >
> > "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> > news:8pXI7.10117$n55.1095403@news11-gui.server.ntli.net...
> > > I know there's stuff on the net, but does PWM, (re AM), do nothing but
> > > increase the efficiency of the final amp? Does it increase in any way
> > > intelligibility by affecting percentage modulation? What techniques
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> > > modulation efficacy, just some form of compression? Anyone.
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> > Wait a minute, am I getting confused here. When I wrote the above I'm
> > mixing AM with PWM am I not? I was thinking of a transmitter putting out
> an
> > AM signal using PWM. With regular AM you Amplitude Modulate an RF
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> > with an analogue audio signal and the carrier varies in amplitude
> according
> > to the audio signal impressed upon it. This produces 2 sidebands either
> > side of a carrier. With PWM the audio must be digitised into pulses
> > (on/off), width of pulses related to audio signal. Well, what is the end
> > result of that, a very efficient final, regular modulation density, but
> > never-the-less an AM signal? I think I'm getting confused about the
> various

> > issue, like modulation type, amp efficiency, and modulation density. I
> > haven't much of a clue about negative modulation. What's that, when it's
> at
> > home? Something to do with symmetry of modulating signal I perceive,
> > accentuating the positive peaks to beyond normal, and restricting the
> > negative so we do not acheive a cut off duration. Isn't that distortion?
> > BTW, any answers need to be pretty basic.
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> PWM works by sampling the audio at an approximately 70 kHz rate, and using
> those samples to switch the RF amp on in longer and longer intervals(pulse
> width becomes wider): higher audio sample = longer RF amp on.
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> benefits (and end result) is very efficient RF stage; no modulation
> transformer with its losses and insulation concerns, low frequency response
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> control the quiescent on-off interval) with attendant RF output level
> switching (select one of several pots for different levels).
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> The end result is the same: carrier + 2 sidebands.
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> now, as far as more-than-100%-positive-modulation vs distortion: If the
> amplitude of the RF output envelope is a faithful reproduction of the input
> audio, there is no distortion within the transmitter. There may be
> deliberate distortion of the audio signal in the processing equipment ahead
> of the transmitter to produce an audio signal in which one polarity of audio
> is is greater than the other, but that is the 'fault' of the processing
> chain.
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> typically, positive modulation will run up to 125%. beyond that, the
> distortion gets pretty obvious.
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> an old trick in the 'traditional' AM transmitters was to run seperate power
> supplies for RF and modulator stages, this allowed some pretty wild positive
> modulation figures; for instance if the HV supply was originally 3000 V,
> then a modulator supply of 4000 V would get you + 133 % pretty easily.
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> at a 1000/250 watt station I worked for, we rigged the modulators to
> continue to work at the 1000 watt level at night when the RF stage B+ was
> cut back to the 250 watt level. this allowed a theoretical positive
> modulation figure of 400 %, but, as I said beyond about 125 %, distortion
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> we also used a pair of op amps set up as 'ideal diodes' to split the audio
> into positive-going and negative-going paths, the positive-going side was
> then run thru an amp that allowed us to vary it with respect to the
> negative-going half by a figure of 1.0 to 2.0 (100% to 200%), then we
> re-combined the halves. This let us set the positive modulation
> independently of the negative.

>
> hope this helps.

7132. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 17:10:25 UTC
From: Rick Haub <rhaub@midwestmicro-tek.com>
Message-ID: <3BF54881.37FC28D8@midwestmicro-tek.com>
Source record: 48628

I can't really answer many of your questions but when I was in college it was about the time that laser diodes got cheep. A friend of mine did his optics project on pulsing a diode. He used an article in Scientific America (early to mid '80s not really sure) that showed how to pulse a laser diode at about 75A for a few micro seconds. It worked well but as I recall the time between pulses had to be fairly large and the diode was in a metal case that was heat sunk (sinked?). Might be worth you time to look into some old SciA mags.

Rick KC0GIX

Clifton T. Sharp Jr. wrote:

> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
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> Also, what are rise times and fall times like, for both current and light
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> "I would have been happy to explain further, except you had by that
> point made it clear you would believe whatever you wanted to believe"
> -- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

7133. FS: Various RF components

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 19:08:46 UTC
From: arnoldg@c2i.net
Message-ID: <3bf5641c.5840829@news1.c2i.net>
Source record: 48630
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.boatanchors

Hi,

Special valves for VHF, UHF and SHF - receiving and transmitting
types. Variable capacitors, coilformers, IF-transformers and other RF
components for sale. Have a look at my web site: www.demostenes.no
and click on 'odds and ends' in the menue.

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7134. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 19:19:39 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <VBdJ7.4218$hU6.415628@news11-gui.server.ntli.net>
Source record: 48631

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:Az5J7.399$yV.160755@news6-win.server.ntlworld.com...
>
> Okay. In a regular AM set-up, you amplify a steady RF input in a class C
> mode PA, then acheive modulation by varying HT voltage to PA by using a
> modulation transformer. RF input to PA is clipped, (ie conduction at
peaks
> only) but tank circuit restores sine wave of RF. You get out AM.
>
> With PWM you amplify a PWM signal, in a class D?, E?, F? PA. RF input to
> PA, is steady, but pulse width varies. RF input to PA is clipped, (ie
> conduction at peaks only), but tank circuit restores sine wave of RF. You
> get AM out. I'm not sure if the RF PA is simply amplifying an AM signal.
> Maybe not, I muse that it's the tank circuit that is vital to producing AM
> out. IOW, if the PA had no tank circuit (say RC coupling) you would not
be
> seeing AM out, but some distorted signal full of harmonics. Same to some
> degree with a regular AM set-up.
>
> Nice to hear you do not need to rely on a modulation transformer. Looks
> like a neat way of producing AM. Pity, there are not some AM TX projects
> utilizing PWM as Philip commments.
>
>
> Thoughts: Why cannot you use class E (say) with regular AM? Tank circuit
> restores sine wave.

Thanks Gary for what you have said. I was pretty much thinking aloud and
trying to nail-down, in a bit more detail, how regular AM and AM employing
PWM worked.

I can see that if you are using CW and feed an RF signal into a class C
amplifier, the tank circuit restores the RF sinewave. But that is all you
have, RF. If you feed an AM signal (or SSB) into a class C amplifier the
audio component would distort despite the tank circuit. I'm not really sure
why an AM signal or SSB distorts if fed into a class C amplifier.

I see AM as an RF carrier varying in intensity at audio rate. I cannot see,
if tank circuit restores individual RF cycles in a class C amp, why you get
distortion, but I know you would. I would have thought RF at the plate,
would build up or eb at an audio rate, and that variance, at an audio rate,
would be a faithful replica of the RF input variance. Oh, maybe I just
twigged it. If the RF input goes up or down that would change the duty
cycle. You could end up driving in class B on input peaks, ie at the top
of the audio cycle. Is that why distortion occurs? Again, anybody. If so,

this may explain why you can feed a PWM into a class C or E amplifier, RF input remains a contant value, just width alters.

I'm still not absolutely sure why you cannot use a class E amplifier, modulating with a modulation transformer, to produce AM. Doesn't class E (whatever that is) just use a smaller duty cycle than C, and that tank circuit would simply restore the RF sinewave? You are not feeding the RF amp grid with an audio varying RFsignal. And why use class C for CW if you could get more efficiency from class E? Probably no real advantage when you consider pro's and con's.

7135. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 21:05:33 UTC
From: Bruce Anderson <W1LUS@att.net>
Message-ID: <3BF57F93.4B0E51D9@att.net>
Source record: 48632
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

I don't know of any 16 Ohm line but 3 52 Ohm lines in parallel makes ~17 Ohm.

W1LUS

Tim Hardy wrote:

> I need some low impedance line to build a broadband transformer for a
> VHF solid state amplifier input matching cct. Does anyone know a
> commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
>
> Thanks.

7136. WTB: PacComm Upgrade for Pactor Controller.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 21:09:39 UTC
From: Mike Pupeza <mpupeza@sympatico.ca>
Message-ID: <B81AEAC3.EC3A%mpupeza@sympatico.ca>
Source record: 48633
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.swap,rec.radio.amateur.homebrew,alt.ham-radio.packet

WTB: PacComm Packet TNC adapter for Pactor TNC!
I have a PacComm Pactor Controller (SCS PTC-1 design, made by PacComm) which
appears to be pre-wired for an upgrade kit to allow regular Packet Radio to
be used by pushing a front panel switch. The front panel has holes for
additional LEDs and the button is already installed. Inside there appears to
be a long header strip of pins where this ï¿½upgrade kitï¿½ could be plugged in.
Anyone have this unit available?
Please drop me a line if you have any info!
Thanks and 73,
Mike VE3EQP.....>

7137. Want Cubic Astro 102 or 103

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 21:18:39 UTC
From: "Douglas.R.Snowden" <Douglas.R.Snowden@noaa.gov>
Message-ID: <3BF582AF.4B3C629@noaa.gov>
Source record: 48634
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

All I need is one for parts but will consider a reasonably
priced 102 or 103 that works. I want it to be complete, as
the parts are getting scare and would like to keep this one
for a long time. I have had one on the shelf for some time now
that I would like to get running again. Also, I can't find the
service manual if you have a copy.

Doug N4IJ

7138. Transformer potting cans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 21:43:54 UTC
From: Bob Weiss <bob.weiss@verizon.net>
Message-ID: <3BF588C1.17A1A6F8@verizon.net>
Source record: 48635
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

Does anyone have a low-quantity source for empty transformer potting cans, such as those used on older audio and power transformers?

Thanks in advance...

Bob Weiss N2IXK

7139. Re: Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 21:48:10 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <uQfJ7.224$WL3.8162432@news2.randori.com>
Source record: 48636

"spike" <mike@nospam.spikey-mike.freeserve.co.uk> wrote in message
news:e2uavtoui1o8r133lm0q3t4nkgfnhocogm@spikey-mike.home...
> On Fri, 16 Nov 2001 03:37:01 GMT, "Gary Glaenzer"
> <nobulltrans@irtc.net> wrote:
>
>
> >PWM works by sampling the audio at an approximately 70 kHz rate,
>
> Not true, I'm affraid. If 70kHz was used, there would be alias's 70
> kHz either side of the carrier. The sample rate used is usually half
> carrier frequency for MF.
>
>
> All the best...Mike.

not quite

there is a low-pass filter between the modulator tube and the RF stage,
cut-off around 40 kHz, if memory is correct.

it's been 15+ yeasrs since I worked on this beast (MW-5 Harris), so I'm a
bit fuzzy, but there's a LPF in there somewhere

7140. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 22:48:55 UTC
From: John Larkin <jjlarkin@highlandSNIP_THIStechnology.com>
Message-ID: <lJf1O4rKptiGkqNPOmQH7fAut1CJ@4ax.com>
Source record: 48637
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On 16 Nov 2001 08:35:38 -0800, thardy@nautel.com (Tim Hardy) wrote:

>I need some low impedance line to build a broadband transformer for a
>VHF solid state amplifier input matching cct. Does anyone know a
>commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
>
>Thanks.

Tim,

How about 10, 12, or 18 ohms?

http://www.precisiontube.com/Coaxitube/Cables/Cable_Selection/Solid_Dielectric/Solid_Dielectric_pn/solid_dielectric_pn.html

John

7141. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 22:53:28 UTC
From: John Larkin <jjlarkin@highlandSNIP_THIStechnology.com>
Message-ID: <05j1O9ducJHNa4LJK+MszCQOxAEY@4ax.com>
Source record: 48638
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

On 16 Nov 2001 08:35:38 -0800, thardy@nautel.com (Tim Hardy) wrote:

>I need some low impedance line to build a broadband transformer for a
>VHF solid state amplifier input matching cct. Does anyone know a
>commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
>
>Thanks.

Or 17 ohms maybe?

http://www.micro-coax.com/semirigid/semirigid_speciallow.htm

John

7142. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 23:23:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3BF5A005.D77902A7@eznec.com>
Source record: 48644
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

How sharply can you bend it? Coax with Z0 that low will have a big diameter, therefore stiff, center conductor and not much dielectric between the center conductor and shield. PTFE is usually used for a dielectric, and it cold flows, so it might not take too much of bend to short the coax. I'd look carefully at the minimum bend radius spec and make sure it's small enough for your application.

Roy Lewallen, W7EL

redmondj wrote:
>
> Tim,
>
> Try Precision Tube and Microcoax. They both have some low Z semirigid.
> I think 18 is a standard and the length in the transformers is short
> enough that the small mismatch will not matter.
>
> 73, Alan - K6RFK
>
> Tim Hardy wrote:
>
> > I need some low impedance line to build a broadband transformer for a
> > VHF solid state amplifier input matching cct. Does anyone know a
> > commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
> >
> > Thanks.

7143. Re: Want Cubic Astro 102 or 103

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-16 23:51:02 UTC
From: Your friend Bill <"See the reply to address and take out NO"@coqui.net>
Message-ID: <3BF5A666.2B6D524A@coqui.net>
Source record: 48639
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

"Douglas.R.Snowden" wrote:
>
> All I need is one for parts but will consider a reasonably
> priced 102 or 103 that works. I want it to be complete, as
> the parts are getting scare and would like to keep this one
> for a long time. I have had one on the shelf for some time now
> that I would like to get running again. Also, I can't find the
> service manual if you have a copy.
>
> Doug N4IJ

Wow, what a masochist! Just kidding. For what its worth, the bulk of
the problems with SS rigs of that era are simply the little electrolytic
capacitors going bad. You pretty much have to recap them with the same
philosophy involved in replacing wax-paper caps in BAs from the 30s/40s.
Good luck with it. It was one of my dream rigs in those days.
-Bill WX4A

7144. FS: SWEEP TUBES and MORE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 00:10:02 UTC
From: ovrreactor@aol.com-nospam
Message-ID: <20011116191002.14512.00000189@mb-df.aol.com>
Source record: 48640

I am liquidating my supply of sweep tubes. A partial list is included in this post. I am also liquidating my supply of transmitting tubes and sockets, a couple chimneys, some pencil tubes, a photomultiplier tube, and a whole bunch of other stuff.

For the complete list, and for more information, check my "yardsale" website at;

http://members.aol.com/ecc81/yardsale

If you are interested in making a purchase, please EMAIL ME "off list" at < OvrReactor@aol.com >.

Regards,
Tom Mitchell

One (1) 6ME6 Sylvania
NOS/NIB - tested good.
$ 25.00

Ten (10) 6JE6C/6LQ6
NOS/NIB
(3) 6JE6C/6LQ6 - (Sylvania) Montgomery Ward Airline brand/box
(2) 6JE6C/6LQ6 - Raytheon
(1) 6JE6C/6LQ6 - (Sylvania) Westinghouse brand/box
(1) 6JE6C/6LQ6 - (GE) Realistic brnad/box
(1) 6JE6C/6LQ6 - (GE) Westinghouse brand - Lindal box
(1) 6JE6C/6LQ6 - GE
(1) 6JE6C/6LQ6 - GE - white box
$ 250.00 ALL

Eight (8) 6JE6/6JE6C/6LQ6
USED / TESTED
(1) 6JE6 - RCA
(1) 6JE6 - Sylvania
(1) 6LQ6/6JE6C - El-Menco (Japan)
(1) 6LQ6 - Magnavox (Japan)
(1) 6LQ6 - RCA
(1) 6JE6C - International Servicemaster (Japan)
(1) 6JE6C/6LQ6 - (GE) International Servicemaster branded
(1) 6LQ6/6JE6C - Raytheon (Japan)
$ 100.00 ALL

Four (4) 6HF5
(1) 6HF5 - GE - NOS/NIB

(1) 6HF5 - RCA - NOS - reboxed
(1) 6HF5 - Sylvania - NOS/NIB
(1) 6HF5 - GE - looks new, but might be lightly used - reboxed
$ 40.00 ALL

Seven (7) 6KD6
NOS/NIB
(3) 6KD6 - (Sylvania) Lindal
(1) 6KD6 - Raytheon
(1) 6KD6 - (Sylvania) Realistic Lifetime brand/box
(1) 6KD6 - (GE) Realistic Lifetime brand/box
(1) 6KD6 - ("Korea") Realistic Lifetime brand/box
$ 175.00 ALL

Eight (8) 6KD6
USED / TESTED
(4) 6KD6 - Sylvania
(2) 6KD6 - GE
(1) 6KD6 - Westinghouse
(1) 6KD6 - "Japan"
$ 75.00 ALL

Four (4) 6LF6
USED / TESTED
(2) 6LF6 - (Amperex) Zenith
(1) 6LF6 - Philips ECG Sylvania
(1) 6LF6 - (Sylvania) RCA
$ 75.00 ALL

Four (4) 6JS6C
NOS/NIB
(1) 6JS6C - GE
(1) 6JS6C - (GE) Realistic Lifetime brand/box
(1) 6JS6C - (Sylvania) Westinghouse
(1) 6JS6C - RCA
$ 100.00 ALL

Eight (8) 6JS6A/6JS6C
USED / TESTED
(1) 6JS6A - GE
(1) 6JS6C - (Sylvania) Zenith
(3) 6JS6C - GE
(3) 6JS6C - Sylvania
$ 100.00 ALL

Two (2) 6LB6
NOS/NIB
(1) 6LB6 - (GE) Realistic Lifetime brand/box
(1) 6LB6 - ("Japan") Realistic Lifetime brand/box
$ 30.00 BOTH

Five (5) 6LB6
USED / TESTED
(2) 6LB6 - Sylvania
(2) 6LB6 - (GE) Zenith
(1) 6LB6 - (GE) RCA
$ 35.00 ALL
==========
Other types and variants available,
email your "want list".
==========

Each of the tubes listed here have been checked on a B&K 667. All of the tubes listed below test STRONG, have no grid emission/gas/leakage, and have no shorts. The tubes marked "USED" may have discolored glass or significantly vaporized getters, but they STILL test strong. I have no way of in-circuit testing, so I can only warrant that these tubes will test good in a similar tube tester and not be DOA, but otherwise must be sold AS-IS.

7145. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 01:09:10 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3BF5B8A9.8A9EDB73@gte.net>
Source record: 48643
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Tim Hardy wrote:

> I need some low impedance line to build a broadband transformer for a
> VHF solid state amplifier input matching cct. Does anyone know a
> commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
>
> Thanks.

Communications Concepts, Inc has small 25 Ohm- not sure I have ever seen
16 Ohm. CCI 513 426 8600.

Dale W4OP

7146. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 01:14:32 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3BF5B9AB.FE8C3B4B@earthlink.net>
Source record: 48641

Richard---

> I'm not really sure why an AM signal or SSB distorts if fed into a
> class C amplifier.

The difference lies at the input point at which the amplifier active device starts to conduct. Remember: An amplifier is biased at class C when it conducts for less than 180 degrees of the input signal (assuming a sinewave input). In order to do this with most common class C amplifiers, the signal is input at a constant P-P level, and the active device biased such that it remains turned off below a certain voltage. The higher the voltage at which the device turns on, the shorter the angular length of the input signal which is amplified and output.

In FM, CW, and other modes where the input waveform is sinusoidal and of constant amplitude, the output angle remains the same and the resulting waveform can be cleaned up by tacking a tank circuit at the output. In AM and SSB, however, the tale is different.

With AM, if you feed the AM signal into a class-C amplifier, you effectively have a signal whose amplitude is not constant over time. Because of this, the amplifier conducts ONLY AT THE PEAKS of the RF envelope, thus leaving nothing for the tank circuit to work on. Instead of interpolating the fall and rise of the signal, the tank circuit gets hit when the AM signal comes to its peaks. In short, the angular length of the output waveform varies instead of remaining constant, and frequently vanishes. This is why it is necessary to modulate the amplifier if linearity at class C is desired for AM, instead of feeding it a modulated signal.

With SSB, we have to look at things a bit differently. The same action as described above occurs, that is that the individual frequency components are amplified at varying and sometimes vanishing anglular lengths. The difference, however, is we are forced to look at a spectrum rather than a carrier. In effect, the same thing that happens with SSB happens with AM, however it is simpler to understand with AM.

Does that help at all?

Thanks,

Henry C. Gernhardt, III
KE4PIB

7147. Re: Source for 16 ohm semi-rigid co-ax?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 01:16:11 UTC
From: redmondj <redmondj@concentric.net>
Message-ID: <3BF5BAA6.B7D6DC3C@concentric.net>
Source record: 48642
Cross-posted to: sci.electronics.design,rec.radio.amateur.homebrew

Tim,

Try Precision Tube and Microcoax. They both have some low Z semirigid.
I think 18 is a standard and the length in the transformers is short
enough that the small mismatch will not matter.

73, Alan - K6RFK

Tim Hardy wrote:

> I need some low impedance line to build a broadband transformer for a
> VHF solid state amplifier input matching cct. Does anyone know a
> commercial source for 16 ohm semi-rigid line, ~ 0.1" O.D.?
>
> Thanks.

7148. Microwave grade SMD caps - what are they ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 01:38:44 UTC
From: markaren1@earthlink.notalotofspam.net
Message-ID: <3bf5bf2c.267927289@news.earthlink.net>
Source record: 48645

Just what is the difference between the dielectrics used for run of the mill 0805 X7Rs, say 1nF and a true 'Microwave Grade' SMD decoupling caps.

If it's an issue of just geometry, you could always just go for the next package down.

Any pointers to a Micowave Capacitor FAQ welcome.

Thanks,

Mark.

7149. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 01:48:48 UTC
From: Edward A Slimak <sparksw4eas@mindspring.com>
Message-ID: <3BF5C200.B06@mindspring.com>
Source record: 48646

You are correct. The 70 kc must be filtered out. Folks just need to get their hands on some old military TM's and get a basic grounding in AM, FM, SSB... 73 Sparks W4EAS

7150. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 02:12:07 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <XHjJ7.250$QY5.14287015@news2.randori.com>
Source record: 48547

damn, I wish I had a copy of the manual for the MW-5 here.....

I know there's a filter to eliminate that 70 kc note, just can't remember WHERE it's at in the circuit.....I think its between the modulator tube (which acts as a 'variable ground' between the cathode of the final and ground) and the RF final, but can't recall for sure.

"Edward A Slimak" <sparksw4eas@mindspring.com> wrote in message news:3BF5C200.B06@mindspring.com...
> You are correct. The 70 kc must be filtered out. Folks just need to
> get their hands on some old military TM's and get a basic grounding in
> AM, FM, SSB... 73 Sparks W4EAS
>

7151. Re: Transformer potting cans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 04:57:59 UTC
From: Rob Lewis <Weyesguy@Qwest.NET>
Message-ID: <u8mJ7.516$7m2.567399@news.uswest.net>
Source record: 48548
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.homebrew

I have used the "candy cans" found at craft stores this time of year. They come up to about 3" X 3" X 3"and look a good deal like a Peerless transformer when finished appropriately.

R

"Bob Weiss" <bob.weiss@verizon.net> wrote in message news:3BF588C1.17A1A6F8@verizon.net...
> Does anyone have a low-quantity source for empty transformer potting
> cans, such as those used on older audio and power transformers?
>
> Thanks in advance...
>
> Bob Weiss N2IXK
>

7152. Re: Why no all solid state AM TX projects?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 05:55:12 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <oWmJ7.266$%p4.18433@news6-win.server.ntlworld.com>
Source record: 48549

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message
news:3BF5B9AB.FE8C3B4B@earthlink.net...
> Richard---
>
> > I'm not really sure why an AM signal or SSB distorts if fed into a
> > class C amplifier.
>
> The difference lies at the input point at which the amplifier active...

Henry

Thanks for your input. Yes, your explanation ties with what came to me as I was writing my post. As you say, it's the varying amplitude of RF input that leads to gaps or variations in plate conduction at AF that causes the problem, which the tank circuit cannot smooth out. Therefore, we get a distorted output. Well, that looks to me like the answer. So, as long as the RF input is steady in terms of amplitude, I think things are fine. I think you can feed a PWM (PDM) signal into a class E amp and get AM out.

I must get out some of my ham books and look at this subject, they are in the attic and I haven't been bothered to peruse them. :c) I'm sure if I do, other questions I have will resolve.

Rich.

7153. Best tubes to buy from live auction?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 06:42:32 UTC
From: googlyelmo@earthlink.net
Message-ID: <3BF606DE.19D690BB@earthlink.net>
Source record: 48550

I am going to an auction this weekend, a local "Americana"/Tchotke store
that is going out of business, and have the
opportunity to bid on numerous lots of tubes (perhaps 50 lots, from
50-200 tubes per lot). I am new to working with tubes, so
my question is this: which tubes should bid on?

I had a look over the lots, and much of it is grouped by tube function
(e.g. regulators, rectifiers, octal triodes, etc.) but not
more specifcally than that (except in a few cases where 7/9 pin minis
are grouped, and to some degree by type designator).
There weren't any really old or rare tubes in evidence at the auction
preview; mostly everything from post-WWII. I am not
going to bid on any high value tubes, especially since I cant test them
ahead of time. I just want to get a start, cheaply and
wisely I hope, at building up a stockpile of tubes to build with (and to
a lesser extent keep my few boatanchors running, though
I know what I need there).

So, please suggest the 10-20 most desireable tubes for all around
building with tubes. If you like, and are willing to put in the
time, you could tell me also which types of various functions/pin
count/era/etc. you think are most useful. Some indication of
value would help me too, but mostly I need to know what to focus on at
the auction. And oh yes, I am going to pick up some
transformers too. Any suggestions on a voltages/current ratings to go
with the tubes? I know this is short notice, but thank you
very much for the advice.

--
Will White/KD7BFX
Seattle WA US

7154. Tubes to buy at auction: recommendations of best choices

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 06:43:02 UTC
From: googlyelmo@earthlink.net
Message-ID: <3BF606FD.4EE200E5@earthlink.net>
Source record: 48551

I am going to an auction this weekend, a local "Americana"/Tchotke store
that is going out of business, and have the
opportunity to bid on numerous lots of tubes (perhaps 50 lots, from
50-200 tubes per lot). I am new to working with tubes, so
my question is this: which tubes should bid on?

I had a look over the lots, and much of it is grouped by tube function
(e.g. regulators, rectifiers, octal triodes, etc.) but not
more specifcally than that (except in a few cases where 7/9 pin minis
are grouped, and to some degree by type designator).
There weren't any really old or rare tubes in evidence at the auction
preview; mostly everything from post-WWII. I am not
going to bid on any high value tubes, especially since I cant test them
ahead of time. I just want to get a start, cheaply and
wisely I hope, at building up a stockpile of tubes to build with (and to
a lesser extent keep my few boatanchors running, though
I know what I need there).

So, please suggest the 10-20 most desireable tubes for all around
building with tubes. If you like, and are willing to put in the
time, you could tell me also which types of various functions/pin
count/era/etc. you think are most useful. Some indication of
value would help me too, but mostly I need to know what to focus on at
the auction. And oh yes, I am going to pick up some
transformers too. Any suggestions on a voltages/current ratings to go
with the tubes? I know this is short notice, but thank you
very much for the advice.

--
Will White/KD7BFX
Seattle WA US

7155. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 13:00:00 UTC
From: RF <listaco@terra.es>
Message-ID: <9t5mv3$978$1@diana.bcn.ttd.net>
Source record: 48552

Anindita wrote:
>
> I am playing around with the idea of hooking up an FM radio to a PC
> thru it's serial port.

I was also thinking something similar. I think (?) any experienced
homebrewer here would not have trouble making this project:

RF input -> MIXER (NE602) -> IF -> DETECTOR -> AUDIO -> ADC -> RS-232
^^ (NE604/PLL) (MAX232)
Local Oscilator

Another design:

RF input -> TDA7000 -> AUDIO -> PIC1xxxx -> PC-Serial Port
(ADC & RS232)

> The ultimate impossible dream is to sample the
> waves then through some software.

I am thinking about sampling the intermediate frecuency about 455 KHz
with an A/D conversor. And then through an USB port (faster than
RS-232) demodulate it with some software using Pentium MMX
instructions.

Another design will use a dsPIC (hibrid DSP/MCU) to sample and
demodulate simultaneously. Altough the internal dsPIC ADC (10 bits,
500 ksamples/s) is a bit slow in this application.

> Can this be done?Any pointers/reading material is appreciated.

Texas Instruments have some ADC chips (THS1230/40, THS1050/60)
for this purpose (they called it: "IF and baseband digitization")
used in Set-Top-Box (STB) and ADSL.

I think it is possible, but I wouldn't be able to make this works.
I don't know too much about electronics. Searching in the web I
have not found anything yet.

Regards (from Spain)
PD. Sorry for my english

7156. Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 13:42:56 UTC
From: Bill <bmessier@clinic.net>
Message-ID: <3bf659e2$1@News.Destek.net>
Source record: 48553

Hope this is Ok to post here. Cannot seem to find any Amateur Radio/Radar newsgroups to post to! I've played with amateur radio for over 30 years, Am, cw, ssb, packet, fm, etc. I like radar!

I was always fond of working with shipboard radar. In the 70's I worked on Navy ship radar's for 18 years 3 MW (million watt) stuff. 27,000 Volts at 90 AMPS plate current! I recently acquired 2 small
radar units. 1-Raytheon model 1500, and 1-Furuno model 701. They have no cables connecting the antenna unit to the indicator. I am looking for just the Schematic for both units. I have an electronics background and would have no problem making up some cabling. Want to put one of these radars on my tower at home. I use to have one mounted on my truck! (I don't do sea sickness anymore) I have a 250'(foot) tower in my back yard and have line of sight to the horizon,
and someday will mount a web-cam and radar unit and put it up on my web page for all to see. I live up on a hill overlooking Casco Bay in Maine. Would be fun for other amateurs to see live radar of ships at sea! Amateur
Radar. Fun stuff. Can anyone help. Thanks. Bill
K1mnw.
bmessier@clinic.net

7157. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 15:10:14 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3BF67DD6.581FA852@bloomer.net>
Source record: 48554

What frequency are they on? If you plan to do amateur radar, it would
have to be on a ham band (above 902 MHz) that allows Pulse modulation,
which rules out 1240-1300 MHz and 10.0-10.5 GHz. (97.305(c).

Also, Power Output might be a problem!

Scott
N0EDV

Bill wrote:
>
> Hope this is Ok to post here. Cannot seem to find any Amateur Radio/Radar
> newsgroups to post to! I've played with amateur radio for over 30 years, Am,
> cw, ssb, packet, fm, etc. I like radar!
>
> I was always fond of working with shipboard radar. In the 70's I worked on
> Navy ship radar's for 18 years 3 MW (million watt) stuff. 27,000 Volts at 90
> AMPS plate current! I recently acquired 2 small
> radar units. 1-Raytheon model 1500, and 1-Furuno model 701. They have no
> cables connecting the antenna unit to the indicator. I am looking for just
> the Schematic for both units. I have an electronics background and would
> have no problem making up some cabling. Want to put one of these radars on
> my tower at home. I use to have one mounted on my truck! (I don't do sea
> sickness anymore) I have a 250'(foot) tower in my back yard and have line of
> sight to the horizon,
> and someday will mount a web-cam and radar unit and put it up on my web page
> for all to see. I live up on a hill overlooking Casco Bay in Maine. Would be
> fun for other amateurs to see live radar of ships at sea! Amateur
> Radar. Fun stuff. Can anyone help. Thanks. Bill
> K1mnw.
> bmessier@clinic.net

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

7158. Re: hooking up an FM radio to a serial port

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 15:57:30 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <KNvJ7.29535$RI2.14102399@news2>
Source record: 48555

In it's simplest form, this really isn't very feasible. Think about it a little. The PC serial port can only do 115Kb, this translates to a little over 10K samples per second - assuming you could control the ADC through telepathy or something. To get a pretty good look at the waveform you need to sample about 10X the maximum frequency you want to see, so this would be adequate for frequencies up to about 1K. Not very intelligible audio, although adequate for many digital modes (like PSK-31). With real ADC's that need some housekeeping, you might get one half or one third of that rate.

In addition to that, most people when you say PC think in terms of Windows. The Windows interrupt handling is so inefficient that the interrupt stream from a 100% duty cycle serial input at max speed leaves almost no time to do anything except on the fastest PCs. You can get away with that speed on the Internet because the duty cycle is very low, and internal modems do some buffering so they significantly reduce the interrupt rate. To copy audio, you need to keep up with the data stream. Maybe if you had one of the newer 1.5+ GHz PC's, but even there it would be a push. Certainly not something you could do with the kind of PC's hams tend to have (Pentium's or P2's at 500MHz or less I suspect).

Although the sound card is more complex, and seems harder to deal with, it does do some processing on card and lets you get a lot more data per interrupt. On the sound card, a 44KHz sampling rate means you can get a decent sample of a 44KHz waveform. Not so with the ADC->Serial port approach.

You can actually do better by simply squaring up the audio and bringing it into an on-off sort of port like one pin of the parallel port or one of the serial port control lines. You now would have to write code directly to the iron, not impossible under Windows 9x but a real pain. Tougher under newer Windows OS's. Realistic under DOS or Linux, tho.

Using a parallel ADC into the parallel port might be a little more feasible. You are still left writing direct to the iron. Not impossible, but beyond the programming skills of most hobbyists on the newer operating systems.

The MMX instructions have a lot going for them in this sort of application, but getting the data in the first place at a useful rate is the real challenge. And again, actually using the MMX instructions isn't something you are going to do in an afternoon.

The sound card has a LOT going for it!

The PIC approach is a little more interesting. The PIC can keep up with the data rate (it doesn't have a day job). If you could send the PC some sort

of summarized information, like frequency and maybe some sort of shape characterization, then the data rate to the serial port could be a lot more reasonable. Perhaps you could get away with sending the top 3 or 4 Fourier coefficients or something along that line. Might be interesting doing an FFT on the PIC in real time, tho. I haven't tried that one!

didleydadidah

"RF" <listaco@terra.es> wrote in message
news:9t5mv3$978$1@diana.bcn.ttd.net...
>
> RF input -> MIXER (NE602) -> IF -> DETECTOR -> AUDIO -> ADC -> RS-232
> ^^ (NE604/PLL) (MAX232)
> Local Oscilator

> RS-232) demodulate it with some software using Pentium MMX
> instructions.

7159. Re: Academical project idea:Controlling a Kenwood TS50 with a computer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 16:22:57 UTC
From: Valentin <radiotito@yahoo.com>
Message-ID: <3BF68EE1.4D417CA8@yahoo.com>
Source record: 48556
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi Michael.Many thanks for the info.Do you have the data format (you told that its included in IF-10D manual). Have you connected a TS50 to a computer?
Yes, I have seen something on ARRL hanbook 2001, but unfortunately I have not much experience in electronic ;-(

Many thanks for your info...

73s de Valentin

Michael Ardai wrote:

> In article <3BF2FCC6.96DA6F68@yahoo.com>,
> Valentin <radiotito@yahoo.com> wrote:
> -Hello all people. I have an academical project idea. I have a Kenwood
> -TS50 (not TS50S). I woule like to make an application to control my
> -TS50. In my TS50 manual appears little info about the unit IF-10D (with
> -a 6-pin connector). I have no idea how could later I connect the IF-10D
> -to the computer. I think that I should connect to a RS-232 computer
> -port, and perhaps also I need the IF-232...
>
> Yep, the IF-10D (which is just a box containing a 7404 hex inverter and some
> pullups) connects to an IF-232C which has a 25 pin serial connector for the PC.
> There are plans for the IF232C in the ARRL handbook - I just opened one and it
> looks like standard old 1488/1489 drivers with an opto and a 555, probably to
> generate -12V. I'd use a MAX-232 these days.
>
> The data format is included in the IF-10D manual.

7160. FS: LF-chokes 10H 50mA - 400mA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 22:56:32 UTC
From: arnoldg@c2i.net
Message-ID: <3bf6ea9b.35259780@news1.c2i.net>
Source record: 48557

Hello,

We have now LF-chokes for valve amplifiers in stock. They are all 10H
and are available in 50mA max, 100mA, 150mA, 200mA, 300mA and 400mA
Pictures, technical data and price can be found at my web site -
www.demostenes.no

Best regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7161. Re: Microwave grade SMD caps - what are they ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-17 23:59:10 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3BF6F988.531A00E8@netscape.net>
Source record: 48558

Mark Atherton wrote:
>
> Just what is the difference between the dielectrics used for run of
> the mill 0805 X7Rs, say 1nF and a true 'Microwave Grade' SMD
> decoupling caps.
>
> If it's an issue of just geometry, you could always just go for the
> next package down.
>
> Any pointers to a Micowave Capacitor FAQ welcome.
>
> Thanks,
>
> Mark.

A couple pages at capacitor manufacturers:

http://www.avxcorp.com/TechInfo_catlisting.asp

http://www.atceramics.com/technicalnotes/index.html

7162. Re: Pic help/Programer...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 02:18:23 UTC
From: John B <robotwizard@nospamnospamworldnet.att.net>
Message-ID: <PTEJ7.173963$3d2.7368315@bgtnsc06-news.ops.worldnet.att.net>
Source record: 48559

The 16F84 has a code bit, which when set makes the device not reusable.
"Mark Dulcey" <mark@buttery.org> wrote in message
news:3BD6ED36.3050700@buttery.org...
> Russ Renaud wrote:
>
> >
> > I was shopping at the local Active Electronics store for some
> > PICs (I'm building a Blick prop clock), and they had both 4 and
> > 20 MHz 16F84 chips available. Someone had marked (OTP) on the
> > 4 MHz chip, but I didn't think 16F84 was available as OTP.
> >
> > The clerk didn't know for certain, so I bought the 20 MHz unit,
> > just in case...
>
> The "OTP" marking on the 4 MHz 16F84 chips is an error. There is no such
> thing as a one-time-programmable 16F84, since they use flash memory. I
> bought a couple of those chips from Active, and they erase and reprogram
> just fine.
>
> On the other hand, they seem to charge the same price for the 4 MHz and
> 20 MHz chips, so there isn't much reason to buy the slower ones. I
> bought the 4 MHz parts that I have before they started selling the 20
> MHz chips.
>
> So far, Active only offers two flash PICs: the 16F84 (4 and 20 MHz) and
> the 16F877 (4 MHz only). They do have quite a few varieties of windowed
> EPROM and OTP PICs. Signs in the store claim that new varieties are
> coming soon, but they have claimed that for months.
>

7163. Clemens Mfg. Co. Model SG-83A Signal Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 02:20:18 UTC
From: CF <ni4l@charter.net>
Message-ID: <3BF71AE2.8EDFCE59@charter.net>
Source record: 48560

any one have info on this s/g? Clemens Mfg. Co. Model SG-83A Signal
Generator
thanks chris NI4L

--
"We'll go to the utmost ends of the Earth to hunt down the last of
Satan's spawn. . ." William Pierce 1978

"Chance favors the prepared mind." Louis Pasteur

7164. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 04:41:56 UTC
From: hexter@blazenet.net
Message-ID: <tvef0kauebkje1@corp.supernews.com>
Source record: 48561

In article <3BF49F3A.292A4701@clifto.com>, clifto@clifto.com says...
>
>Anyone have any data on how much LEDs can be overdriven in pulse
service?
>Obviously I'm talking sub-second pulses. I'm sure it varies with duty
>cycle, but I'll bet there are other limits involved. I just can't
picture
>driving a 20mA unit at 20A for one millisecond every second without
>something bad happening.
>
>Also, what are rise times and fall times like, for both current and
light
>output?
>
>I'm already sure light output doesn't double when current does, just
not
>sure what the curves look like.
>
I ran a setup for several years doing a 1 of 8 muxing scheme.
I ran 8 times the normal 20ma current (160ma) for a .125 duty
cycle, and all was well. Light output seemed 'normal'

7165. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 05:28:09 UTC
From: "C. Bauman" <cbauman@impulse.net>
Message-ID: <3bf7545f$0$192@news.impulse.net>
Source record: 48562

"Bill" <bmessier@clinic.net> wrote in message
news:3bf659e2$1@News.Destek.net...
> Hope this is Ok to post here. Cannot seem to find any Amateur Radio/Radar
> newsgroups to post to! I've played with amateur radio for over 30 years,
Am,
> cw, ssb, packet, fm, etc. I like radar!
>
> I was always fond of working with shipboard radar. In the 70's I worked on
> Navy ship radar's for 18 years 3 MW (million watt) stuff. 27,000 Volts at
90
> AMPS plate current! I recently acquired 2 small
> radar units. 1-Raytheon model 1500, and 1-Furuno model 701. They have no
> cables connecting the antenna unit to the indicator. I am looking for just
> the Schematic for both units. I have an electronics background and would
> have no problem making up some cabling. Want to put one of these radars on
> my tower at home. I use to have one mounted on my truck! (I don't do sea
> sickness anymore) I have a 250'(foot) tower in my back yard and have line
of
> sight to the horizon,
> and someday will mount a web-cam and radar unit and put it up on my web
page
> for all to see. I live up on a hill overlooking Casco Bay in Maine. Would
be
> fun for other amateurs to see live radar of ships at sea! Amateur
> Radar. Fun stuff. Can anyone help. Thanks. Bill
> K1mnw.
> bmessier@clinic.net
>

Some time ago there was a lively thread here with claims and counterclaims
about the legality, practicality and RF exposure risks of what you're
thinking if doing. You may find it educational to look in deja news or
someplace similar to review them.

-CB

7166. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 08:33:06 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3BF7729A.944676B@bellatlantic.net>
Source record: 48563

I'd use 2 100K 10W resistors in parallel across each cap.
I would also time the discharge of the whole string with everything
assembled, and post a note on the front panel below the plate voltage
meter. Every so often, I'd check the time to see if it had changed.
I've seen too many power resistors open up over time to trust
the damn things. I've just finished working on a boat anchor
signal generator that has an open 20 W 10K resistor, even though
the thing dissipates only 3.8 watts. I like resistors to run at 1/4
of their wattage or less - but even that doesn't guarantee it won't
open, as the signal generator problem demonstrates. I don't know
why these things fail - I just know they do.

BUBBA SMITH wrote:

> Which bleeder resistors should I use on a 5000 volt power supply? It is
> used on a 4-1000 amp. The capacitor bank I have constructed is made up
> of 15 computer grade capacitors with a value of 450 volt / 470uf. for a
> total of 6750 volts and 31uf for filtering. I have heard that wirewound
> resistors are not a good first choice because they can open up (burn up)
> and leave the cap bank charged. What should I use as far as ohm rating
> and wattage for these resistors?Thank you in advance.
> 73 de N8SGA
> Jim Mohney

7167. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 08:51:06 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3BF776D2.6871C095@bellatlantic.net>
Source record: 48564
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Hagstar wrote:

> Hey, smarty pants, did you read the part about .01 mfd, as in "UL
> approved generally non-lethal leakage" ?

Hey , did you never hear of a shorted capacitor?

An guess what? UL does not *approve* anything.

Get your facts in order before you critcize.

>
>
> John H.

7168. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 12:40:46 UTC
From: adouglas@gis.net
Message-ID: <3bf7ab2f.3687499@news.newsguy.com>
Source record: 48565
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Hi,

>Hey , did you never hear of a shorted capacitor?

No, I never heard of an X- or Y-rated capacitor shorting. They're designed not to. Well, strictly, I believe they're designed to self-clear without catching fire, but the result is the same: they don't fail shorted.

73, Alan

7169. FS: HV transformers 250V - 700V 50mA - 350mA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 13:20:42 UTC
From: arnoldg@c2i.net
Message-ID: <3bf7b56f.6425247@news1.c2i.net>
Source record: 48566

Hello,

We have now an extensive range of high voltage transformers for valve amplifiers and other valve equipment in stock. 230V primary and secondaries for both anode and heater circuits.
Pictures, technical data and price can be found at my web site - www.demostenes.no

Best regards,

Arnold Goks�yr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books,caps,resistors and other components. Web site is updated every week.
You can order on-line.

7170. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 14:18:49 UTC
From: "George, W5YR" <w5yr@att.net>
Message-ID: <3BF7C347.29B9BBFB@att.net>
Source record: 48567

Words to the wise who want to remain alive: SHORTING STICK!

72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

ehsjr@bellatlantic.net wrote:
>
> I'd use 2 100K 10W resistors in parallel across each cap.
> I would also time the discharge of the whole string with everything
> assembled, and post a note on the front panel below the plate voltage
> meter. Every so often, I'd check the time to see if it had changed.
> I've seen too many power resistors open up over time to trust
> the damn things. I've just finished working on a boat anchor
> signal generator that has an open 20 W 10K resistor, even though
> the thing dissipates only 3.8 watts. I like resistors to run at 1/4
> of their wattage or less - but even that doesn't guarantee it won't
> open, as the signal generator problem demonstrates. I don't know
> why these things fail - I just know they do.

7171. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 17:07:58 UTC
From: Rich Griffiths <richg@one.net>
Message-ID: <3BF7EAEE.940DA891@one.net>
Source record: 48568

Clifton:

Here's yet another "I did this once, but I can't remember the
details...."

In the late 1980's, I was playing around with homebrew A/D converters
and a +150 kbps serial interface. I checked into the specs for LED
on/off times and found that even the cheapies had no trouble being
pulsed at several hundred kbps at typical currents (20 mA or so). They
switched on and off cleanly. I didn't try boosting the current.

... Rich

"Clifton T. Sharp Jr." wrote:
>
> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
>
> Also, what are rise times and fall times like, for both current and light
> output?
>
> I'm already sure light output doesn't double when current does, just not
> sure what the curves look like.
>
> --
> "I would have been happy to explain further, except you had by that
> point made it clear you would believe whatever you wanted to believe"
> -- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

7172. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 18:09:36 UTC
From: fmooney@sprintmail.com
Message-ID: <65b56c69.0111181009.61a50dd3@posting.google.com>
Source record: 48569
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Steve Radcliff <sradcliff@yikes.com> wrote in message
news:<3BE9D643.B5A09B78@yikes.com>...
> Peter Maus wrote:
>
> > J'm Sm'th wrote:
> > >
> > > Steve Radcliff wrote:
> > > >
> > > > Reducing RFI from lamp dimmers.
> > > >
> > > > Buy a lamp dimmer from the last 2 decades and replace the one you have
> > > > from the 60s.
> > > >
> > > > Any good quality dimmer like those from Lutron will be shielded and do
> > > > not cause RFI to AM or shortwave radios. If yours does, it is old and
> > > > probably the kind that you turn with a round knob. Time to get a new
> > > > one, they don't cost very much.
> > >
> > > Not so fast--there are very poorly made new ones, that make just as much RF
> > > junk as the old ones. Get a *well made* new one, and your RF woes will be
> > > mostly over--for the dimmer, that is. . .
> >
> > Most all of the new dimmers are RFI suppressed, including the
> > Lutrons. The problem is less that they radiate RFI, but that they
> > still put switching transients on the mains, which is where most of
> > the noise getting into vintage sets comes from.
> >
> > To cure this requires two things: Chokes on the mains to suppress
> > the transients, and caps to bypass the noise.
> >
> > This is true of new dimmers, including the Lutrons.
>
> Not at all. Not even the SLIGHTEST noise difference on AM or SW when turning the
> lights on or off, or dimming them in-between with the RF shielded Lutron
> dimmers. ...now when I try to use one of my x-10 dimmers, then you can't listen
> to the radio at all, not even in another room.

That's not the experience I had. I just put in a new LUTRON model
FS-5F today, to see if it'd reduce the RF noise. It did not. S9
noise interference before and after the swap. My receiver is an ICOM
R-70, with the antenna is in the attic and therefore close to house
wiring. Maybe that accounts for the difference between your situation
and mine. Seems to me, that whether the RF is radiating directly from

the device, or reradiating from the house wiring is a moot point. Are there any other models out there that are known to be better? How about the ones with three speeds vice continuous speed control? I just assume replace it entirely with an ON/OFF switch, but the wife likes the dimmers ;-)

7173. What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-18 18:36:14 UTC
From: anindita@uab.edu
Message-ID: <tvfvsu1hpfsme7@corp.supernews.com>
Source record: 48570
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

when there are no "alerts"?Does it continually broadcast weather information?

Anindita

7174. Re: ARRL Handbook 1939

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 00:50:30 UTC
From: la8ak@online.no
Message-ID: <3bf830c5.26169714@news.online.no>
Source record: 48571

On Sat, 10 Nov 2001 16:35:01 GMT, "G. Skiffington"
<skiffing@nbnet.nb.ca> wrote:

>How hard would it be to keep yourself from reading it cover to cover!
>Bet its interesting.
>
>73 - Gord VE1AJF
particularly interested to learn which techniques were introduced so
early. One such is Q-multiplier, but as regerative IF amplifier, and
it was even a suggestion for RF-amplifier. Have not seen much of the
latter application, only a OZ'stn proposed it for a QRP receiver.

Since ARRL handbook were obligatory for broadcast- and coast stations
- at least in Norway - eralier found 1948 and 49 issues such places, I
suspect that ARRL contributed to ideas for manufacturers of radio
equipment then

The first application of 'Q-multiplier' seems to be in a Telefunken
(Germany) receiver designed around 1936-37, it covered 1.5-20MHz, but
it was a modification in second issue - adding Q-multiplier.

This receiver also had a product detector using triode-hexode ACH1,
but haven't seen such application used elsewhere before 1960

73
Jan-Martin
LA8AK

7175. Programming cable for Yaesu FT-8000 / VX-5

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 03:58:57 UTC
From: Dave <dalden@home.com>
Message-ID: <296A6DF715F48480.28AAFAA42F3B0D72.A8A004F3D39F082E@lp.airnews.net>
Source record: 48572

I own a Yaesu VX-5 along with the ADMS programming software and cable.
I just bought a Yaesu FT-8000R mobile and can get the ADMS software
for it but what I want to know is if I can adapt the VX-5 cable to
work on the FT-8000R.

The VX-5 cable has the DB9 connector on one end and a regular 3 pin
Mini plug on the other. The 3 pin mini plug is then fitted with an
adaptor that converts the 3 pin plug into a 4 pin plug for the VX-5.

Pinout on the VX-5 3-pin mini plug is:

Ground : Ground
Ring : Programming
Tip : Not used

The FT-8000R Data Jack pins are as follows:

1 - Packet Input
2 - Signal Ground
3 - Ground to Transmit
4 - 9600 baud packet data output
5 -1200 baud packet data output
6 - Squelch

It seems to me that if I make an adaptor to connect the mini plug
programing connector to Pin 1 packet input and run ground to ground,
it should work. Has anyone tried this?

Thanks!

Dave - KB8VJD

7176. need 2 can capacitors

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 06:07:33 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3BF8A1A5.5010804@charter.net>
Source record: 48573

125 0r 150 uf @ 450 to 500 vdc
for drake power supply. twist on or computer grade ok.
please let me know what you have.
chris NI4L

7177. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 07:57:27 UTC
From: Hans Summers <Hans.Summers@Tudor.Com>
Message-ID: <9tae19$19hu7$1@ID-61331.news.dfncis.de>
Source record: 48574

I built a frequency counter and a clock using pulsed 7-segment LED's to remove the requirement for series resistors, thereby saving space and power consumption. The digits were pulsed using the blanking inputs of the 4511 driver chips I used. Additionally I used a 1n4001 diode in series with the display.

In the frequency counter the 8 digits were connected in pairs and displayed on a 20% duty cycle and everything went well (http://www.hanssummers.com/electronics/equipment/radiofreqcounter/intro.htm).

In the clock there were 4 digits, driven individually on a 1 in 6 duty cycle. Unfortunately overheating occurred while I was not watching it and the 7-segment displays partially melted, though they are still operational (http://www.hanssummers.com/electronics/clocks/panel/intro.htm).

Hans Summers
http://www.HansSummers.Com

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message news:3BF49F3A.292A4701@clifto.com...
> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
>
> Also, what are rise times and fall times like, for both current and light
> output?
>
> I'm already sure light output doesn't double when current does, just not
> sure what the curves look like.
>
> --
> "I would have been happy to explain further, except you had by that
> point made it clear you would believe whatever you wanted to believe"
> -- Jamie McCarthy, <b613732a.0107031352.5d337fbe@posting.google.com>

7178. FS Wire Wrap Bds Gold/Tin unused

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 09:34:32 UTC
From: tonys2@aol.com
Message-ID: <20011119043432.28312.00000524@mb-fp.aol.com>
Source record: 48575

```
Will fax list upon request
Tony S
Alex Va
```

7179. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 14:43:30 UTC
From: n7ws@yahoo.com
Message-ID: <3bf91921.52983057@news.triconet.org>
Source record: 48576

On Sun, 18 Nov 2001 14:18:49 GMT, "George, W5YR" <w5yr@att.net> wrote:

|Words to the wise who want to remain alive: SHORTING STICK!

Absolutely correct! Don't ever depend on a resistor other than one with a value of zero ohm.

Redundancy in the form of parallel resistors _might_ save a cap from overvoltage if one resistor opens. However, even if it doesn't, you can replaces caps but you can't replace your life.

|
|72/73, George W5YR - the Yellow Rose of Texas QRP-L 1373 NETXQRP 6
|Fairview, TX 30 mi NE of Dallas in Collin county EM13qe SOC 262
|Amateur Radio W5YR, in the 56th year and it just keeps getting better!
|Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
|
|
|ehsjr@bellatlantic.net wrote:
|>
|> I'd use 2 100K 10W resistors in parallel across each cap.
|> I would also time the discharge of the whole string with everything
|> assembled, and post a note on the front panel below the plate voltage
|> meter. Every so often, I'd check the time to see if it had changed.
|> I've seen too many power resistors open up over time to trust
|> the damn things. I've just finished working on a boat anchor
|> signal generator that has an open 20 W 10K resistor, even though
|> the thing dissipates only 3.8 watts. I like resistors to run at 1/4
|> of their wattage or less - but even that doesn't guarantee it won't
|> open, as the signal generator problem demonstrates. I don't know
|> why these things fail - I just know they do.

7180. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 16:08:21 UTC
From: mcalhoun@ksu.edu
Message-ID: <9tbapl$43d@unix1.cc.ksu.edu>
Source record: 48577
Body handling: HTML body converted to readable text

```
<< Which bleeder resistors should I use on a 5000 volt power supply? It is
<< used on a 4-1000 amp. The capacitor bank I have constructed is made up
>....[snip]....

....[snip]....

You might also consider choosing appropriately-sized Resistors and
connecting them like this (with another resister in series with the
Neon/Lamp as appropriate for your supply's voltage):

---+----------------+
| |
R R
| |
+----Neon/Lamp---+
| |
R R
| |
---+----------------+

If/When one Resistor opens, the bulb can warn you. Furthermore, one
might even add more Neons or Lamps to say "This resistor string is
still conducting current", and so on. Of course, you still can't
trust the indicators if ENOUGH resistors open!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)
```

7181. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 20:46:38 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111191246.481c8bc3@posting.google.com>
Source record: 48579

Hi Cliff,

A lot of your answers will be found in Agilent AN-1005, which you
should be able to get in .pdf format here:
http://literature.agilent.com/litweb/pdf/5091-9704E.pdf
If that doesn't work, go to www.agilent.com, and you should be able to
navigate to LEDs under components and find the ap notes section. You
can also get some specific LED data sheets.

Generally the light output follows the current very closely, and if
you're just muxing the LEDs, you're unlikely to be pushing the
envelope. If your pulses are in the 1usec or shorter range, then it's
fair to start asking about reverse recovery times and so forth.

There will normally be a "peak repetitive current" rating that you
shouldn't exceed...it's unlikely to be 20A for a common LED! But
optical efficiency is not a strong function of peak current...10% duty
cycle at 300mA peak is just about the same integrated optical output
as 30mA continuous. See the ap note.

Hope this helps some.

Cheers,
Tom

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:<3BF49F3A.292A4701@clifto.com>...
> Anyone have any data on how much LEDs can be overdriven in pulse service?
> Obviously I'm talking sub-second pulses. I'm sure it varies with duty
> cycle, but I'll bet there are other limits involved. I just can't picture
> driving a 20mA unit at 20A for one millisecond every second without
> something bad happening.
>
> Also, what are rise times and fall times like, for both current and light
> output?
>
> I'm already sure light output doesn't double when current does, just not
> sure what the curves look like.

7182. micro 80 cicuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 20:46:43 UTC
From: pearlanddavid <pearlanddavid@ic24.net>
Message-ID: <tviripap45c9cd@corp.supernews.com>
Source record: 48578

I am building the micro 80 tranceiver circuit designed by oleg borodin rv3gm. The diagram I have has no information on the number of turns on the coil L1,or where to put the tap.

Does anybody know how many turns it would be for 80m and where to put the tap?
thanks

DAVID
M0DAD

7183. Transistor Base Diagrams

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-19 21:59:25 UTC
From: Howard James <howardwj@btinternet.com>
Message-ID: <9th4p1eor1@plutonium.btinternet.com>
Source record: 48527

Can anyone recommend a good Web site that gives transistor base diagrams.
Thanks.
Howard
G3UPZ

7184. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:31:34 UTC
From: Robert McConnell <rmcconne.NOSPAM@lightlink.com>
Message-ID: <tvj936c1gkqpa6@corp.supernews.com>
Source record: 48580
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

On Sun, 18 Nov 2001 18:36:14 -0000, anindita@uab.edu (Anindita) wrote:

>when there are no "alerts"?Does it continually broadcast weather information?
>
>Anindita

Yes, there is a set of continuous reports and forecasts running at all
times. Each one gets updated periodically through the day and plugged
into a timed sequencer. The old Bingamtom (NY) office had audio loop
tape cartridges, just like the commercial radio stations use for ads
and announcements. I haven't been in the new facility to see what they
are using.

Bob McConnell
N2SPP

7185. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:31:35 UTC
From: Gary Hildebrand <ghldbrd@ccp.com>
Message-ID: <tvj937i8u98ka7@corp.supernews.com>
Source record: 48581
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Anindita wrote:
>
> when there are no "alerts"?Does it continually broadcast weather information?
>
> Anindita

NOAA broadcasts continuous weather repoerts, usualyl with a synthesized
voice. The weather alerts are only proceeded with an alert tone, that
unmutes equipped receivers and sounds a loud alarm. Once activated,
these receivers need to be reset for the next alert.

Gary Hildevbrand WA7KKP

7186. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:31:37 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <tvj939k6pg3a9@corp.supernews.com>
Source record: 48582
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

> when there are no "alerts"?Does it continually broadcast weather
information?
>
> Anindita
>
Yes

7187. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:31:43 UTC
From: DJ <kb5ylg@attglobal.net>
Message-ID: <tvj93f6n4uikb0@corp.supernews.com>
Source record: 48583
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Yes...

"Anindita" <anindita@uab.edu> wrote in message
news:tvfvsu1hpfsme7@corp.supernews.com...
> when there are no "alerts"?Does it continually broadcast weather
information?
>
> Anindita
>

7188. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:31:57 UTC
From: Ed Ellers <ed_ellers@msn.com>
Message-ID: <tvj93trbgpavbd@corp.supernews.com>
Source record: 48584
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Anindita <anindita@uab.edu> wrote:

"when there are no "alerts"? Does it continually broadcast weather information?"

Exactly, and this was the original purpose of the system years before any alerting feature was added. (Incidentally, NOAA Weather Radio was originally intended for marine users, both pleasure boats and commercial vessels; that's why it is in a band near the VHF marine band, so that it could be received on marine radios. The system was expanded to cover other areas after Radio Shack introduced its first Weatheradio in the early 1970s.)

7189. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 00:32:09 UTC
From: tom_bruhns@agilent.com
Message-ID: <tvj949qkci5cc7@corp.supernews.com>
Source record: 48585
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Yes. It's typically a combination of local conditions and forecasts,
and repeats (with occasional updates) every few minutes. Places near
the ocean or large bodies of water will typically have marine
advisories and include things like wave period and amplitude at
various bouys.

Cheers,
Tom

anindita@uab.edu (Anindita) wrote in message news:<tvfvsu1hpfsme7@corp.supernews.com>...
> when there are no "alerts"?Does it continually broadcast weather information?
>
> Anindita

7190. Re: Microwave grade SMD caps - what are they ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 02:59:12 UTC
From: markaren1@earthlink.notalotofspam.net
Message-ID: <3bf9c758.180560912@news.earthlink.net>
Source record: 48586

Michael,

Many thanks.

Mark

On Sat, 17 Nov 2001 23:59:10 GMT, "Michael A. Terrell"
<michaelaterrell@netscape.net> wrote:

>Mark Atherton wrote:
>>
>> Just what is the difference between the dielectrics used for run of
>> the mill 0805 X7Rs, say 1nF and a true 'Microwave Grade' SMD
>> decoupling caps.
>>
>> If it's an issue of just geometry, you could always just go for the
>> next package down.
>>
>> Any pointers to a Micowave Capacitor FAQ welcome.
>>
>> Thanks,
>>
>> Mark.
>
>
>A couple pages at capacitor manufacturers:
>
>
>http://www.avxcorp.com/TechInfo_catlisting.asp
>
>http://www.atceramics.com/technicalnotes/index.html

7191. More Parts Again

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 03:44:03 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <3ikK7.633$o4.259577@news1.iquest.net>
Source record: 48587
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I hate sending this out again so soon, but I've had a banner week scrounging stuff. Anyone need any of the following goodies? PAYPAL is gladly accepted.

Parts for Sale as of 11/19/2001
==========
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice long leads. These are not NPO and are made by S&M Components 50/$3 or 100/$5

NEW 12pf NPO Disc Ceramics, long leads, 50vdc 5% Marked 120J made by NKE, 50/$3
or 100/$5

NEW 470pf Disc Ceramics, 50vdc 5% Marked 471J, long leads, paper tape, 50/$3
or
100/$5

NEW .01uF Monolithic Ceramics, marked 103K, long leads, Made by AVX Corp, 100vdc 10%,
50/$3 or 100/$5

22uF 35v electrolytics - $2.00 and 2 stamps for 100 These caps are on paper tape, NOS (New, but old stock) made by Richey.

I still have some NEW BNC chassis connectors for (inc nut and lock washer)
==========
25 for $14.00
50 for $24.00
100 for $40.00

Voltage Regulators
==========
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

3 of each for $10

Transistors
==========
2N2222's NPN in METAL TO18 case - 25/$7.50 NEW PARTS
2N3906's PNP plastic TO92 case - 50/$4 NEW PARTS
2N7000's N-Channel FET plastic TO92 case - 6/2$ 10/$3 NEW PARTS

Surface Mount Transistors
BC847B NPN Gen Purp Amp - Vce=45v Veb=6v Ic=100mA Pd 350mW, Vbe Sat=.77V,

hfe 200-450, FT 200Mhz. 100/$3 500/$10

Crystals
========
3.579545 Mhz Crystals for 80m - These are pulls, $1.00 each (I have 4 left)

POTS
====
10K 1 Turn Panel mount pots. These are pulls. No knobs, just shafts. Most
are Allen Bradley. Pot is about as big as a quarter. With nut. 5 for $4.00
MAKE ME AN OFFER

Diodes
======
1N4148 - You always need these. 100 for $2.00 These are NEW.

Speakers
========
Little 2.5 inch PC speakers, 8 Ohm. $1.50 includes shipping in a padded
envelope. 10 for $8.00 - They work great for little external speakers on QRP
rigs.
Just add a audio amp you make from 2N3906's and you can run your neighbors
out of their house.

Let me know if you're interested. All prices are post paid to the USA,
unless otherwise noted. I will ship to non USA addresses but we need to
discuss the shipping charges first.

Thanks - My address on QRZ is good.

--
==
KB9BVN NORCAL 2792 FISTS 5695 QRP-L 1540 QRP-ARCI 10223
39.558 N 86.095 W Johnson Co., Indiana
GRID: EM69WN - Ten Tec Scout - Attic Dipole - 5w
Member of the American Radio Relay League - SOC #400
FISTS Century Club #764/#24 QRP - Flying PIG QRP #-57
==

7192. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 04:30:10 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3BF9DAB2.D32D6F5A@bellatlantic.net>
Source record: 48588
Body handling: HTML body converted to readable text

This is getting WAY out of hand. Yes, you can do the
neon thing, but that quickly kills your parts count. He's
got 15 capacitors - your circuit adds 3 parts to each
cap above and beyond 2 resistors in parallel across
each - that's 45 parts unnecessary parts.

Using parallel bleeders is good design practice. You can see
if one has opened by timing the voltage decrease, as I mentioned.
George mentioned using a shorting stick. Absolutely right when
working in the supply. Timing is NOT a means intended to replace
the need for a shorting stick when you are working on the supply.
It is just a means to detect an open bleeder, without opening the
supply up.

Myron A Calhoun wrote:

> << Which bleeder resistors should I use on a 5000 volt power supply? It is
> << used on a 4-1000 amp. The capacitor bank I have constructed is made up
> >....[snip]....
>
> >....[snip]....
>
> You might also consider choosing appropriately-sized Resistors and
> connecting them like this (with another resister in series with the
> Neon/Lamp as appropriate for your supply's voltage):
>
> ---+----------------+
> | |
> R R
> | |
> +----Neon/Lamp---+
> | |
> R R
> | |
> ---+----------------+
>
> If/When one Resistor opens, the bulb can warn you. Furthermore, one
> might even add more Neons or Lamps to say "This resistor string is
> still conducting current", and so on. Of course, you still can't
> trust the indicators if ENOUGH resistors open!
>
> --Myron.
> --
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge

> PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7193. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 04:49:26 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <qhlK7.42$NG6.4195382@news2.randori.com>
Source record: 48589
Body handling: HTML body converted to readable text

may I add a suggestion on safety/shorting stick ?

one way to make the supply safe when working on it is to use a solenoid mounted in such a way that the plunger shorts two contacts when power is turned off; in other words, power-on pulls the plunger UP away from the shorting contacts.

Harris used this scheme on the MW-5 and up units; the first time I fired one up, I damn near wet myself because of the WHAM of two large 220V solenoids slamming up into their coils.

you may want to use a DC solenoid with a capacitor across the coil, sized to give a long enough delay to prevent exessive arcing when it de-energizes.

if you choose not to use such a scheme, PLEASE build and use a shorting stick, religiously. and don't simply touch it to a high voltage terminal, hang it from one while you work on the beast.

you only get one strike with a 5 KV supply.

wrote in message
news:3BF9DAB2.D32D6F5A@bellatlantic.net...
> This is getting WAY out of hand. Yes, you can do the
> neon thing, but that quickly kills your parts count. He's
> got 15 capacitors - your circuit adds 3 parts to each
> cap above and beyond 2 resistors in parallel across
> each - that's 45 parts unnecessary parts.
>
> Using parallel bleeders is good design practice. You can see
> if one has opened by timing the voltage decrease, as I mentioned.
> George mentioned using a shorting stick. Absolutely right when
> working in the supply. Timing is NOT a means intended to replace
> the need for a shorting stick when you are working on the supply.
> It is just a means to detect an open bleeder, without opening the
> supply up.
>
> Myron A Calhoun wrote:
>
> > << Which bleeder resistors should I use on a 5000 volt power supply? It
is
> > << used on a 4-1000 amp. The capacitor bank I have constructed is made
up
> > >....[snip]....
> >
> > > > > > > > > > >....[snip]....

> >
> > You might also consider choosing appropriately-sized Resistors and
> > connecting them like this (with another resister in series with the
> > Neon/Lamp as appropriate for your supply's voltage):
> >
> > ---+----------------+
> > | |
> > R R
> > | |
> > +----Neon/Lamp---+
> > | |
> > R R
> > | |
> > ---+----------------+
> >
> > If/When one Resistor opens, the bulb can warn you. Furthermore, one
> > might even add more Neons or Lamps to say "This resistor string is
> > still conducting current", and so on. Of course, you still can't
> > trust the indicators if ENOUGH resistors open!
> >
> > --Myron.
> > --
> > Five boxes preserve our freedoms: soap, ballot, witness, jury, and
cartridge
> > PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785)
539-4448
> > NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle,
Pistol)
>

7194. Looking for Tek 492 manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 06:04:18 UTC
From: Paul T Breed <Paul@Rasdoc.com>
Message-ID: <kgsjvtgjhk279uajseg267bdr73s6n9jmi@4ax.com>
Source record: 48590

I am looking for both the user and
service manuals for a tektronics mdl 492 spectrum analizer.
Any suggestions on who might have one?

Paul

7195. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 12:22:42 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9tdhum$2og$1@uranium.btinternet.com>
Source record: 48591

The primary purpose of bleeder resistors across each capacitor in a bank of capacitors all in series is not to protect the careless maintenance man. It is to ensure the total voltage is divided equally between the capacitors. Safe capacitor working voltages are not then exceeded.

Reg, G4FGQ

7196. Re: Looking for Tek 492 manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 14:53:16 UTC
From: Dan Rae <rae4@ix.netcom.com>
Message-ID: <3BFA6E5C.44F0BFEA@ix.netcom.com>
Source record: 48592

Ed Matsuda
PO box 3728
Visalia, CA 93278
(559)739-8489

ematsuda@earthlink.net

has a very good selection of hp and tek manuals.......

Paul T Breed wrote:

> I am looking for both the user and
> service manuals for a tektronics mdl 492 spectrum analizer.
> Any suggestions on who might have one?
>
> Paul

7197. DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 15:46:25 UTC
From: Bob Powers <powersb@willinet.net>
Message-ID: <tvl8cbqiu1luce@corp.supernews.com>
Source record: 48595

I'm looking to build a DC-DC Transfer switch to swithc from my 35 amp Power Supply to battery power when the AC Fails.

My first attempt at designing it was pretty much shot down by friends that knew more than I did. I was going to use a DPDT Relay with an AC coil, but the coil would be energized at all times while AC was on.

I now think I need some kind of logic circuit that senses when the AC fails, THEN maybe energize a 12v Relay using the batteries. As I should be on AC more than Batteries (I hope anyway :))

Anyone have any other ideas or know of anyplace on the Web that has plans or discussion about this type of thing.

Bob
N�YKX
powersb@willinet.net

7198. WTB:Probe for HP 428 clip on ammeter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 16:12:49 UTC
From: mjzuccaro@aol.com
Message-ID: <20011120111249.26940.00000712@mb-cc.aol.com>
Source record: 48593

Gang:
Looking for a probe for this unit,mine is missing. Anyone have one in their junkbox? Please email me directly.
Thanks,
Mike zuccaro

7199. Woden UM3 Modulation Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 16:57:03 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <OTvK7.680$V65.102137@news11-gui.server.ntli.net>
Source record: 48594
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,uk.radio.amateur

Hi. I've got the connections and impedances table for this modulation transformer, but does anyone have the full specification, ie frequency response, current or power rating. Thanks.

7200. Elecraft EC1 Design contest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 18:06:52 UTC
From: Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
Message-ID: <3BFA9BBC.34AA4377@elecraft.com>
Source record: 48596

Hi,

To help stimulate the creative process, we'll be giving away three of
our new EC1 project enclosures to those who submit the most interesting
suggested designs (concepts only--no schematics required). Here are the
rules for the contest:

1. Design concepts submitted can be for virtually any ham-related
application, but they must be compatible with the EC1 enclosure.
(See http://www.elecraft.com/EC1.htm for pictures and inside dimensions.)
The EC1 is the same size and color as the K1 transceiver.

Designers are under no obligation or expectation to actually build
the proposed projects.

2. Entries will ONLY be accepted in ELECTRONIC form (Microsoft Word,
pdf, html, jpeg, gif, or some combination of these). Each entry must
include at least a one-page description, as well as one or more sketches
showing relevant detail (block diagram, panel layout, physical location
of boards, etc.). But it's the idea that counts, not the implementation,
so there's no need to provide formal documentation.

3. Entrants can submit more than one design, but no more than one EC1
enclosure will be awarded per person.

4. Entries must be sent (via e-mail) to contests@elecraft.com, no later
than Sunday, December 17th, 2001.

5. The three winning designs will be announced before December 31st.
Some or all designs submitted will then be posted on our web site. Judging
will be done by Wayne Burdick (N6KR), Eric Swartz (WA6HHQ), Gary
Surrency (AB7MY), Tom Hammond (N0SS), and Bob Friess (N6CM). (All of us
are hopeless home-brew fanatics.)

6. All designs submitted will be considered public domain. We reserve
the right to design similar products in the future.

We look forward to seeing what you come up with!

73,
Wayne, N6KR
Eric, WA6HHQ
--
http://www.elecraft.com

7201. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 18:41:29 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ttxK7.50547$Y6.5478594@news1.rdc1.ct.home.com>
Source record: 48497

It may not need be that complicated, depending on the power supply you are using. I have several switching supplies on remotely located base stations that simply have the battery paralleled across the supply output. The supply voltages are set to the battery manufacturer's float charge voltage. When the AC fails, the load is placed on the batteries. The trick here lies in IF you can backfeed voltage to your particular supply without damaging it.

Peter

"Bob Powers" <powersb@willinet.net> wrote in message
news:tvl8cbqiu1luce@corp.supernews.com...
> I'm looking to build a DC-DC Transfer switch to swithc from my 35 amp
Power
> Supply to battery power when the AC Fails.
>
> My first attempt at designing it was pretty much shot down by friends that
> knew more than I did. I was going to use a DPDT Relay with an AC coil,
but
> the coil would be energized at all times while AC was on.
>
> I now think I need some kind of logic circuit that senses when the AC
fails,
> THEN maybe energize a 12v Relay using the batteries. As I should be on AC
> more than Batteries (I hope anyway :))
>
> Anyone have any other ideas or know of anyplace on the Web that has plans
or
> discussion about this type of thing.
>
> Bob
> N�YKX
> powersb@willinet.net
>
>

7202. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 18:42:57 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BFAA431.F328B100@dialpoint.net>
Source record: 48498

Why did they shoot down that idea ? I have done the same thing but I
did use a time delay relay to pull in a heavy relay. The time delay was
set so that the AC power had to come back on for atleast 30 seconds
before the power would come off the battery and back on the AC supply.
That prevents a lot of chattering and surges if there is just some quick
off and on surges on the AC line.

Bob Powers wrote:
>
> I'm looking to build a DC-DC Transfer switch to swithc from my 35 amp Power
> Supply to battery power when the AC Fails.
>
> My first attempt at designing it was pretty much shot down by friends that
> knew more than I did. I was going to use a DPDT Relay with an AC coil, but
> the coil would be energized at all times while AC was on.
>
> I now think I need some kind of logic circuit that senses when the AC fails,
> THEN maybe energize a 12v Relay using the batteries. As I should be on AC
> more than Batteries (I hope anyway :))
>
> Anyone have any other ideas or know of anyplace on the Web that has plans or
> discussion about this type of thing.
>
> Bob
> Nï¿½YKX
> powersb@willinet.net

7203. Re: Woden UM3 Modulation Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 19:17:28 UTC
From: Johnny Melvin <johnny@melvin.com>
Message-ID: <9tea7o$mp3$1@newsg3.svr.pol.co.uk>
Source record: 48499
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,uk.radio.amateur

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:OTvK7.680$V65.102137@news11-gui.server.ntli.net...
> Hi. I've got the connections and impedances table for this modulation
> transformer, but does anyone have the full specification, ie frequency
> response, current or power rating. Thanks.
>
>
Hi Richard,
I remember many years ago using that mod tranny.
The spec used to be printed in the old RSGB HANDBOOKs if memory serves
me right.
I not sure if I got handbook around but I will look.
But this may jog other folks memories.

de Johnny G3LIV.

7204. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 20:48:44 UTC
From: "M. Stanton" <mstanton@centurytel.net>
Message-ID: <NkzK7.2452$2S2.1432175@feed.centurytel.net>
Source record: 48500

This can be overcome with a series diode which can handle the current...Keep
in mind that you will see a small voltage drop from the power supply due to
.6V or so being dropped by the diode..

Mike

When the AC fails, the load is placed on the batteries. The trick here
>lies in IF you can backfeed voltage to your particular supply without
>damaging it.
>
>

7205. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 20:49:38 UTC
From: "M. Stanton" <mstanton@centurytel.net>
Message-ID: <ClzK7.2453$2S2.1432431@feed.centurytel.net>
Source record: 48501

A nice touch. This delay is employed in commercial type transfer switches
as well....

Mike

The time delay was
>set so that the AC power had to come back on for atleast 30 seconds
>before the power would come off the battery and back on the AC supply.
>That prevents a lot of chattering and surges if there is just some quick
>off and on surges on the AC line.

7206. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 21:37:46 UTC
From: brokebob@aol.com
Message-ID: <20011120163746.09923.00000904@mb-da.aol.com>
Source record: 48502

Why not two diodes with the cathodes connected together and going to the load and the two anodes going to the battery and ac supply? Diodes heavy enough to carry the current are cheap and easy to find.
brokebob@aol.com (broke=not working, retired=not working, retired=broke)

7207. Re: Woden UM3 Modulation Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 22:22:15 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <rIAK7.1722$V65.245385@news11-gui.server.ntli.net>
Source record: 48503
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,uk.radio.amateur

"Johnny Melvin" <johnny@melvin.com> wrote in message
news:9tea7o$mp3$1@newsg3.svr.pol.co.uk...
>
> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:OTvK7.680$V65.102137@news11-gui.server.ntli.net...
> > Hi. I've got the connections and impedances table for this modulation
> > transformer, but does anyone have the full specification, ie frequency
> > response, current or power rating. Thanks.
> >
> >
> Hi Richard,
> I remember many years ago using that mod tranny.
> The spec used to be printed in the old RSGB HANDBOOKs if memory serves
> me right.
> I not sure if I got handbook around but I will look.
> But this may jog other folks memories.
>
> de Johnny G3LIV.
>
>
Johnny

I do have that table on page 502 of the 3rd Edn of the RSGB Hbbk. I'm looking for the info. on the other specs like audio response characteristics, and currents or voltages. I suppose that might not be easy to find. One might need to see a copy of a Woden brochure.

Rich

7208. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 23:10:00 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <cpBK7.51195$Y6.5548467@news1.rdc1.ct.home.com>
Source record: 48504

The advantage of using a supply that can withstand backfeeding is that you can use it to float the charge the batteries.

Also, unless special diodes are used, the .75 volt drop from a lead acid battery amounts to a major portion of its discharge cycle; the equipment may not like the apparent low DC voltage.

Pete

"Brokebob" <brokebob@aol.com> wrote in message news:20011120163746.09923.00000904@mb-da.aol.com...
> Why not two diodes with the cathodes connected together and going to the load
> and the two anodes going to the battery and ac supply? Diodes heavy enough to
> carry the current are cheap and easy to find.
> brokebob@aol.com (broke=not working, retired=not working, retired=broke)

7209. Re: Woden UM3 Modulation Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 23:15:54 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9teo7g$8d4$1@plutonium.btinternet.com>
Source record: 48505
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,uk.radio.amateur

Richard Daventry <newsgps_email@ntlworld.com> wrote in message
news:OTvK7.680$V65.102137@news11-gui.server.ntli.net...
> Hi. I've got the connections and impedances table for this
modulation
> transformer, but does anyone have the full specification, ie
frequency
> response, current or power rating. Thanks.
================
Measure seconday inductance and do a little arithmetic.
Compare physical size with an ordinary mains transformer of known
rating.

7210. Six Capacitors, Oil Filled, 35 mfd 2000 volts - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-20 23:20:10 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <9teoh4vob1@slb6.atl.mindspring.net>
Source record: 48506

Six Capacitors, Oil Filled, 35 mfd 2000 volts - Ebay

I purchased these at the Dayton Hamvention a few years ago for $60. There are six, all of them 35 mfd, at 2000 volts, oil filled. (I was going to build a big amp, and use them series/parallel to give me 52 mfd at 4000 volts). The dimensions of a single capacitor case are: 6"x 4"x 3". There is a set of mounting clamps for each capacitor.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1299911640

Other items:

Running Time Meter, Measures Hours

This running time meter reads in hours and tenths of hours. Timer scale is 10,000 hours, and currently reads 0.2 hours. This meter runs on 115 volts. It was made by Industrial Timer, Model C-25, and it is still in production. If interested, I'll send you the manufacturer's PDF file that describes the meter's specifications. It is in very good condition.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1664045217

Rotary Inductor

This inductor has 20 turns, and a coil diameter of 3 inches. The overall length, including brackets and shaft is 9 inches. Overall width is about 4 inches, and height is 4 3/8 inches. It is very well made with smooth action, and a well designed contact mechanism.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1297783250

I will be glad to provide additional information. Contact me at w4tq@mindspring.com

7211. Re: Six Capacitors, Oil Filled, 35 mfd 2000 volts - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 00:57:05 UTC
From: la8ak@online.no
Message-ID: <3bfafbcb.33255177@news.online.no>
Source record: 48507

On Tue, 20 Nov 2001 18:20:10 -0500, "Dan Long" <w4tq@mindspring.com>
wrote:

>Six Capacitors, Oil Filled, 35 mfd 2000 volts - Ebay
>
>I purchased these at the Dayton Hamvention a few years ago for $60. There
>are six, all of them 35 mfd, at 2000 volts, oil filled. (I was going to
>build a big amp, and use them series/parallel to give me 52 mfd at 4000
>volts). The dimensions of a single capacitor case are: 6"x 4"x 3". There
>is a set of mounting clamps for each capacitor.
>
>For auction on Ebay, click on:
>http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1299911640
>
suppose it is PCB type oil?

7212. Re: Looking for Tek 492 manual?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 01:34:02 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BFB04E0.5A4@pop.removethistomailme.net>
Source record: 48508

Paul T Breed wrote:
>
> I am looking for both the user and
> service manuals for a tektronics mdl 492 spectrum analizer.
> Any suggestions on who might have one?
>
> Paul

I hear by the grapevine that there is a scanned and OCR'ed .PDF of
the 492 operator's manual at http://209.95.122.40/jm/492/492opr.pdf.
Rumor has it that this file is 40 megabytes long. Some say that you can
find more 492-related files at http://209.95.122.40/jm/492/492mkt.pdf,
http://209.95.122.40/jm/492/492cat.pdf, and
http://209.95.122.40/jm/492/tsv12n1.pdf.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

7213. Re: Microwave grade SMD caps - what are they ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 02:18:45 UTC
From: "Michael A. Terrell" <michaelaterrell@netscape.net>
Message-ID: <3BFB0EC1.C0EC4DAD@netscape.net>
Source record: 48509

Mark Atherton wrote:
>
> Michael,
>
> Many thanks.
>
> Mark
>
> On Sat, 17 Nov 2001 23:59:10 GMT, "Michael A. Terrell"
> <michaelaterrell@netscape.net> wrote:
>
> >Mark Atherton wrote:
> >>
> >> Just what is the difference between the dielectrics used for run of
> >> the mill 0805 X7Rs, say 1nF and a true 'Microwave Grade' SMD
> >> decoupling caps.
> >>
> >> If it's an issue of just geometry, you could always just go for the
> >> next package down.
> >>
> >> Any pointers to a Micowave Capacitor FAQ welcome.
> >>
> >> Thanks,
> >>
> >> Mark.
> >>
> >
> >A couple pages at capacitor manufacturers:
> >
> >
> >http://www.avxcorp.com/TechInfo_catlisting.asp
> >
> >http://www.atceramics.com/technicalnotes/index.html

You're welcome.

7214. FS: NOS 9MHz McCoy Crystal filter with USB/LSB crystals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 02:31:23 UTC
From: lhndmw@aol.com
Message-ID: <20011120213123.08680.00000820@mb-cs.aol.com>
Source record: 48510

I have a new unused (in the original box) McCoy 9MHz crystal filter with both carrier crystals. Ideal for a homebrew SSB rig! Pic available.

$40 + shipping.

David.
KM5TZ
lhndmw@aol.com

7215. Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 02:54:37 UTC
From: rcnixon@mindspring.com
Message-ID: <3bfb171d.15015423@news.mindspring.com>
Source record: 48511

Ok, I was just given a genuine Heath "Cantenna" and now I need transformer oil. Any ideas out there as to where I can buy or scrounge a gallon.

Russ

7216. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 03:00:27 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3BFB18CB.B93C929B@coqui.net>
Source record: 48512

"Russell C. Nixon" wrote:
>
> Ok, I was just given a genuine Heath "Cantenna" and now I need
> transformer oil. Any ideas out there as to where I can buy or
> scrounge a gallon.
>
> Russ

Mineral oil works.
-Bill

7217. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 03:22:11 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <D5FK7.142$Rv6.20675677@news2.randori.com>
Source record: 48513

use MobilOne 5W30 synthetic engine oil

or mix it 50/50 with ATF to hold down the cost (M-1 is about 4 bucks a qt)

M-1 has heat-transfer abilities better than almost any oil available to the public

we use a 50-50 mix in heavy-duty truck transmissions

"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message news:3bfb171d.15015423@news.mindspring.com...
> Ok, I was just given a genuine Heath "Cantenna" and now I need
> transformer oil. Any ideas out there as to where I can buy or
> scrounge a gallon.
>
> Russ
>
>

7218. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 04:10:33 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3bfb28b7.6519153@news.cantech.net.au>
Source record: 48514

On Tue, 20 Nov 2001 23:10:00 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>The advantage of using a supply that can withstand backfeeding is that you
>can use it to float the charge the batteries.
>
>Also, unless special diodes are used, the .75 volt drop from a lead acid
>battery amounts to a major portion of its discharge cycle; the equipment
>may not like the apparent low DC voltage.
>
>Pete
>
>"Brokebob" <brokebob@aol.com> wrote in message
>news:20011120163746.09923.00000904@mb-da.aol.com...
>> Why not two diodes with the cathodes connected together and going to the
>load
>> and the two anodes going to the battery and ac supply? Diodes heavy
>enough to
>> carry the current are cheap and easy to find.

Simply choose Schottky diodes for this "wired-OR" supply technique to
keep the forward drop down. Also this does NOT preclude using the PSU
to charge the battery, That simply needs another feed across the
anodes via the method of your choice. Can use another diode.

7219. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 04:50:20 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <goGK7.51548$Y6.5684036@news1.rdc1.ct.home.com>
Source record: 48515

Probably makes more sense to use ONE diode in line with the supply to float charge the battery at the recommended voltage, and run the equipment from the battery terminals. Why bother with diode ORs and subsequent "patches" to keep the batteries charging? KISS.

Pete

"budgie" <budgie@nowhere.cantech.net.au> wrote in message news:3bfb28b7.6519153@news.cantech.net.au...
> On Tue, 20 Nov 2001 23:10:00 GMT, "Peter J. Bertini"
> <commquart@home.com> wrote:
>
> >The advantage of using a supply that can withstand backfeeding is that you
> >can use it to float the charge the batteries.
> >
> >Also, unless special diodes are used, the .75 volt drop from a lead acid
> >battery amounts to a major portion of its discharge cycle; the equipment
> >may not like the apparent low DC voltage.
> >
> >Pete
> >
> >"Brokebob" <brokebob@aol.com> wrote in message
> >news:20011120163746.09923.00000904@mb-da.aol.com...
> >> Why not two diodes with the cathodes connected together and going to the
> >load
> >> and the two anodes going to the battery and ac supply? Diodes heavy
> >enough to
> >> carry the current are cheap and easy to find.
>
> Simply choose Schottky diodes for this "wired-OR" supply technique to
> keep the forward drop down. Also this does NOT preclude using the PSU
> to charge the battery, That simply needs another feed across the
> anodes via the method of your choice. Can use another diode.

7220. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 05:31:10 UTC
From: hexter@blazenet.net
Message-ID: <tvmf0u29p5slbd@corp.supernews.com>
Source record: 48516

In article <3bf659e2$1@News.Destek.net>, bmessier@clinic.net says...
>
>Hope this is Ok to post here. Cannot seem to find any Amateur
Radio/Radar
>newsgroups to post to! I've played with amateur radio for over 30
years, Am,
>cw, ssb, packet, fm, etc. I like radar!
>
Radar is real fun to play with, and the ship board PPI stuff is
way more fun than the 90degree scan aircraft stuff. I doubt if you
can really legally do what you want to do, but I doubt if anyone
really cares, as long as you don't cause interferance to local weather
radars also running in X band. You can have a blast triggering every
'bird dog' for 30 miles in every direction. (hehehe) I kinda got away
with doing what you want to do, because I have a 'ships radar
endorsement' on my commercial ticket, and of course it was neccesary
for me to 'test' units live for 'proper operation'. There is a real
good furuno guy up in alaska, and he is both a ham, and reads this news
group. If no one comes to your aid, I can look up his email, or snail
mail addy for you. I am dead sure I have the snail mail addy. Please
post back your success or failures to the group. My return addy is bogus
to prevent spam, but I can send you a good 'reply to' if you are
interested.

KX3XXX but you know the x's are place fillers to protect
the guilty! best 73's and best luck! Gummi.

7221. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 05:35:34 UTC
From: hexter@blazenet.net
Message-ID: <tvmf96o1joun1c@corp.supernews.com>
Source record: 48517

In article <3bfb171d.15015423@news.mindspring.com>,
rcnixon@mindspring.comï¿½ says...
>
>Ok, I was just given a genuine Heath "Cantenna" and now I need
>transformer oil. Any ideas out there as to where I can buy or
>scrounge a gallon.
>
>Russ
>
Save your time, effort, and money, and just fill it with mineral oil
and forget it. I once filled one with 'inerteen'. Oh, do I have to
mention that inerteen is 50% pcb, and as F'ing flammable as kerosene!

As a matter of fact, many transformer oils will flash to flame at
low temps. Odd isn't it?

7222. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 05:39:06 UTC
From: hexter@blazenet.net
Message-ID: <tvmffq242qh279@corp.supernews.com>
Source record: 48518

In article <D5FK7.142$Rv6.20675677@news2.randori.com>,
nobulltrans@irtc.net says...
>
>use MobilOne 5W30 synthetic engine oil
>
>or mix it 50/50 with ATF to hold down the cost (M-1 is about 4 bucks a
qt)
>
>M-1 has heat-transfer abilities better than almost any oil available to
the
>public
>
>we use a 50-50 mix in heavy-duty truck transmissions
>
>
>"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message
>news:3bfb171d.15015423@news.mindspring.com...
>> Ok, I was just given a genuine Heath "Cantenna" and now I need
>> transformer oil. Any ideas out there as to where I can buy or
>> scrounge a gallon.
>>
>> Russ
>>
>>
You use 1/2 atf and 1/2 mobil one engine oil in your truck trannys?
Not 80/90W? How is it working for you? Replacing many trannys with
shot bearings? Cornering the market on metal chips?

7223. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 05:42:34 UTC
From: hexter@blazenet.net
Message-ID: <tvmfmaitlj4odc@corp.supernews.com>
Source record: 48519

In article <tvl8cbqiu1luce@corp.supernews.com>, powersb@willinet.net says...
>
>I'm looking to build a DC-DC Transfer switch to swithc from my 35 amp Power
>Supply to battery power when the AC Fails.
>
>My first attempt at designing it was pretty much shot down by friends that
>knew more than I did. I was going to use a DPDT Relay with an AC coil, but
>the coil would be energized at all times while AC was on.
>
>I now think I need some kind of logic circuit that senses when the AC fails,
>THEN maybe energize a 12v Relay using the batteries. As I should be on AC
>more than Batteries (I hope anyway :))
>
>Anyone have any other ideas or know of anyplace on the Web that has plans or
>discussion about this type of thing.
>
>Bob
>Nï¿½YKX
>powersb@willinet.net
>
So whats wrong with being energized all the time? If it is a low
current, or low wattage coil it will eat very little. Now a relay
to handle your current demand, with only a low wattage coil is an
entirely differant issue.

7224. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 06:25:07 UTC
From: ehsjr@bellatlantic.net
Message-ID: <3BFB4817.E35A0732@bellatlantic.net>
Source record: 48520
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

Alan Douglas wrote:

>
> No, I never heard of an X- or Y-rated capacitor shorting.

An "X- or Y-rated" capacitor was not mentioned, by me,
or Hagstar (to whom I addressed my post, or Glen to whom
Hagstar was responding, or Robert (the original poster) to whom
Glen was replying.

I take it you are willing to bet your life on an "X- rated or Y-rated"
capacitor, whatever that is.

What really surprises me about this thread is that no one mentioned
replacing the line cord with a 3 prong, grounding style cord and
plug, and connecting the ground to the metal part of the lamp.
(Hopefully it was mentioned, and I just missed it.) It solves the
problem safely.

> They're
> designed not to. Well, strictly, I believe they're designed to
> self-clear without catching fire, but the result is the same: they
> don't fail shorted.
>
> 73, Alan

7225. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 13:19:44 UTC
From: w4pqwhs@aol.com
Message-ID: <20011121081944.09530.00000822@mb-ca.aol.com>
Source record: 48521

Russ, the transformer oil is also used for lots of other industrial uses. Machine shops use it, stone cutters use it , electrical re-winding shops use it.. Texico sells it under the name "Almag"they normally sell it in 5 gallon cans or more, they may give you the name of some local users...Also MFJ will sell you a gallon.. good luck Harold W4PQW

7226. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 13:44:45 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3bfbaeac.1889614@news.cantech.net.au>
Source record: 48522

On Wed, 21 Nov 2001 04:50:20 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>Probably makes more sense to use ONE diode in line with the supply to float
>charge the battery at the recommended voltage, and run the equipment from
>the battery terminals. Why bother with diode ORs and subsequent "patches"
>to keep the batteries charging? KISS.

Couldn't agree more, but we use the two-diode approach with some PSU's
whose output is not readily adjustable to ideal float voltage. That
way, only the charge current (which is a lot less than full output)
needs to be "controlled" to get float voltage.

I also use a 20A @ 13.8V on the bench, which has provision to float a
backup battery and a changeover relay for mains fail event. In my
application, I didn't want the heat/magnetostriction_noise from the
20A supply going 24x7, so i disconnected the charge circuitry and put
a 13.8V 1.0A supply on the "backup" line. So 24x7 the 1A supply feeds
a couple of Rx, and when the need to Tx arises I bang the main switch
to ON and 20A is available.

Peter

>"budgie" <budgie@nowhere.cantech.net.au> wrote in message
>news:3bfb28b7.6519153@news.cantech.net.au...
>> On Tue, 20 Nov 2001 23:10:00 GMT, "Peter J. Bertini"
>> <commquart@home.com> wrote:
>>
>> >The advantage of using a supply that can withstand backfeeding is that
>you
>> >can use it to float the charge the batteries.
>> >
>> >Also, unless special diodes are used, the .75 volt drop from a lead
>acid
>> >battery amounts to a major portion of its discharge cycle; the equipment
>> >may not like the apparent low DC voltage.
>> >
>> >Pete
>> >
>> >"Brokebob" <brokebob@aol.com> wrote in message
>> >news:20011120163746.09923.00000904@mb-da.aol.com...
>> >> Why not two diodes with the cathodes connected together and going to
>the
>> >load
>> >> and the two anodes going to the battery and ac supply? Diodes heavy
>> >enough to

>> >> carry the current are cheap and easy to find.
>>
>> Simply choose Schottky diodes for this "wired-OR" supply technique to
>> keep the forward drop down. Also this does NOT preclude using the PSU
>> to charge the battery, That simply needs another feed across the
>> anodes via the method of your choice. Can use another diode.
>
>

7227. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 14:16:26 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <_GOK7.173$of2.29146174@news2.randori.com>
Source record: 48523

"gudmundur" <hexter@blazenet.net> wrote in message
news:tvmffq242qh279@corp.supernews.com...
> In article <D5FK7.142$Rv6.20675677@news2.randori.com>,
> nobulltrans@irtc.net says...
> >
> >use MobilOne 5W30 synthetic engine oil
> >
> >or mix it 50/50 with ATF to hold down the cost (M-1 is about 4 bucks a
> qt)
> >

> You use 1/2 atf and 1/2 mobil one engine oil in your truck trannys?
> Not 80/90W? How is it working for you? Replacing many trannys with
> shot bearings? Cornering the market on metal chips?
>

no, not in manual transmissions, in automatics

and it's working fine, I've run it in my old B-350 Dodge van for 5 years now

7228. 9Cms Solid State Amplifiers.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 14:41:07 UTC
From: Thomas Miles <Tmiles@mapct.com>
Message-ID: <9tgef0$4jm$1@plutonium.btinternet.com>
Source record: 48524

These units are solid state (Hewlett Packard Transistor) designed for 3456Mhz. They give approximately 13-15W unmodified, with biasing modifications (information supplied with amps) they give 18-20w. £50.00 (UK Sterling) + P&P

For more information email Amps@sbrs.org.uk

7229. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 16:51:17 UTC
From: Bill <bmessier@clinic.net>
Message-ID: <3bfbcbf6$1@News.Destek.net>
Source record: 48525

Thanks for the E mail. Glad to see someone that's not just interested in the DC ham bands. Been there done that! So far I did hear from a guy in Alaska. He was going to find a manual for me. But he doesn't have a scanner. So I'll have to wait and see. This is a Furuno 701 radar. I worked on the display all night. No schematic. But it would come on and then shut off. Found a spot on the PC board where the 200V line caused a burn trace on the board. Well I used a dental drill and ground out the carbon trace then gave it 2 coats with some Corona Dope I had. Waiting for it to dry. Need cable hook-up between Indicator and Scanner. Scanner has 2 terminal strips, that's it. Well wish me luck, and tahnks again. Bill

Radar is real fun to play with, and the ship board PPI stuff is way more fun than the 90degree scan aircraft stuff. I doubt if you can really legally do what you want to do, but I doubt if anyone really cares, as long as you don't cause interferance to local weather radars also running in X band. You can have a blast triggering every 'bird dog' for 30 miles in every direction. (hehehe) I kinda got away with doing what you want to do, because I have a 'ships radar endorsement' on my commercial ticket, and of course it was neccesary for me to 'test' units live for 'proper operation'. There is a real good furuno guy up in alaska, and he is both a ham, and reads this news group. If no one comes to your aid, I can look up his email, or snail mail addy for you. I am dead sure I have the snail mail addy. Please post back your success or failures to the group. My return addy is bogus to prevent spam, but I can send you a good 'reply to' if you are interested.

KX3XXX but you know the x's are place fillers to protect the guilty! best 73's and best luck! Gummi.

7230. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-21 19:52:04 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <o91ovtom08ooq56tj9plh841cgqcfdec2f@4ax.com>
Source record: 48526

rcnixon@mindspring.com (Russell C. Nixon)
shared these priceless pearls of wisdom:

->Ok, I was just given a genuine Heath "Cantenna" and now I need
->transformer oil. Any ideas out there as to where I can buy or
->scrounge a gallon.

Straight automatic transmission fluid will give you about 90% conduction; mixing the ATF with a *really* good synthetic winter motor oil (5W30 or so) will give you closer to 95%, while transformer oil is down in the high 80% range.

(Yes, given a Cantenna and enough time I could reduce the equations to ï¿½C/Watt rise of the elements, but Russ gets the idea.)

Jim
Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

7231. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 01:27:59 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0111211727.7766d54b@posting.google.com>
Source record: 48528

I've had notions from time to time about playing with
synthetic aperture radar. Why should NASA have all the fun?

You need some compute power to make it work, but that's
a minor consideration nowadays. There's lots of published
information.

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7232. Wanted CA3189 source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 01:48:08 UTC
From: aajham@yahoo.com
Message-ID: <3BFC5BAE.724F2DD5@yahoo.com>
Source record: 48530

Hi, Im looking for a source for 3189 or 3089 chip. It is an FM IF system it was produced by national semi and RCA. Im looking for 5. Thanks, Art KF7GD@arrl.net

7233. Re: Wanted CA3189 source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 02:25:19 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <jmZK7.10$7o6.2603167@news2.randori.com>
Source record: 48531

Newark lists the CA3089E at $ 1.26 each in current book, page 796.

NTE book lists the NTE 788 as a replacement for the 3089, and the NTE 7016
for the 3189

Regards,

G

<aajham@yahoo.com> wrote in message news:3BFC5BAE.724F2DD5@yahoo.com...
> Hi, Im looking for a source for 3189 or 3089 chip. It is an FM IF
> system it was produced by national semi and RCA. Im looking for 5.
> Thanks, Art KF7GD@arrl.net
>

7234. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 04:46:40 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3bfc825d_1@newsa.ev1.net>
Source record: 48532

Regular ATF (Automatic Transmission Fluid) works fine. I've been using it
for years.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message
news:3bfb171d.15015423@news.mindspring.com...
> Ok, I was just given a genuine Heath "Cantenna" and now I need
> transformer oil. Any ideas out there as to where I can buy or
> scrounge a gallon.
>
> Russ
>

7235. FS: Old Radio Books 1937-1980, $9 each

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 05:48:29 UTC
From: oldbooks78@aol.com
Message-ID: <20011122004829.22976.00001300@mb-mr.aol.com>
Source record: 48529

I currently have the following old radio-related books for sale. Available for $9 each postage ($2 for the first book and $1 for each additional item):

Terman, Frederick Emmons "Radio Engineering" published by McGraw-Hill, 1937 Second edition. The 813 page hardbound book is in about very good condition. Pages are clean with no page tears or pen marks except for a previous owners name inside the front cover, and a "Property of U.S. Navy" stamp lined out. A comprehensive engineering treatment of radio technology from the 1930's.

Massey, H.S.W. and R.L.F. Boyd "The Upper Atmosphere" published by Hutchinson of London, 1958 The 333 page hardbound book is in good+ condition. It is an ex-library copy from a corporate library, with a card pouch inside the rear cover, and the usual stamps and stickers. The rear inside hinge is split, but the cover is securely attached. Otherwise in decent condition.

U.S. Naval Training Schools "Basic Radio Notes & Communication Circuits" published in Chicago. The 147 page softbound book is in good+ condition, clean with no page tears or pen marks other than a previous owners name inside the front cover, and again on the page ends. The covers are a little chipped along the spine, but everything holdong together nicely. Not dated, but looks to be c1950.

Rider, John F. And Seymour D. Uslan "FM Transmission and Reception" published by John F. Rider Publisher, 1948 Cloth. No Jacket. First Printing. The 409 page hardbound book is in very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover. Covers the basic principles underlying the operation of FM transmitters and receivers.

Hornung, J.L. "Radio Operating Questions and Answers, 10th Edition" published by McGraw-Hill, 1950. No Jacket. The 588 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Blue cloth covers show quite a bit of wear, but the cloth is not torn, and everything is tight and secure.

Miller, Wayne "Radio Operators' License Manual 1944" published by Ziff-Davis Publishing, 1944 Cloth. No Jacket. The 229 page hardbound book is in very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover, and a note inside the rear cover. A nice early study guide for obtaining a radio operators license.

Bennington, T.W. "Short-Wave Radio and the Ionosphere" published in London: Iliffe & Sons, 1950 Cloth. The 138 page hardbound book is in very good condition, in a good dust jacket. A look at the role of the ionosphere in short-wave radio communications.

Saveskie, Peter N. "Radio Propagation Handbook" published by Tab Books, 1980 The 499 page hardbound book is in very good+ condition, clean with no page

tears or pen marks except for a previous owners name inside the front cover, and a name stamp on the bottom page ends.

Hoag, J. Barton "Basic Radio, The Essentials of Electron Tubes and Their Circuits" published by Van Nostrand, 1942 The 379 page hardbound book is in very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover.

Albert, Arthur Lemuel "Radio Fundamentals" published by McGraw-Hill, 1948. The 595 page hardbound book is in very good condition, clean with no page tears or pen marks, and a strong binding. Green cloth covers with gold lettering on the spine. The text covers all of the basic acoustical and electrical principles of radio. A very nice copy.

Ghirardi, Alfred A. "Radio Physics Course; An Elementary Text Which Explains the Principles of Electricity and Radio" published by Radio Technical Publishing Co., 1942, 2nd Edition The 972 page hardbound book is in about very good condition, clean with no page tears or pen marks, and a strong binding. Some minor spotting on the top page ends, otherwise very nice. Burgundy cloth covers with gold lettering on the spine. An excellent old radio reference.

Ballou, Willis H. "Radio Fundamentals" published by the U.S. Naval Institute, 1942 Second edition. The 260 page hardbound book is in about very good condition. Several passages are underlined in pencil, and there is a previous owners name stamp inside the front cover. Otherwise nice. A WWII era text for Naval Academy cadets to learn the fundamentals of radio.

If interested in any of the above, please email to "Oldbooks78@aol.com" to reserve. Thanks, and best regards.

Dave

7236. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 15:11:25 UTC
From: Jim Lacko <jjlsoa11@stargate.net>
Message-ID: <tvq5cvo5mjo168@corp.supernews.com>
Source record: 48533

Hi Russ:

When I purchased my Cantenna from Heathkit in the 1970s I was told, and have since used, pure mineral oil.
It's available in a 1 gal bottle/jug from any local drug store; expect a curious inquiry as to what you're going to do with it.

73's

Jim
"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message news:3bfb171d.15015423@news.mindspring.com...
> Ok, I was just given a genuine Heath "Cantenna" and now I need
> transformer oil. Any ideas out there as to where I can buy or
> scrounge a gallon.
>
> Russ
>

7237. Triplett 100-0-100 Microampere Meter Model 420 - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 16:13:50 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <9tj8d1del1@slb1.atl.mindspring.net>
Source record: 48534

Triplett 100-0-100 Microampere Meter Model 420 - Ebay

This is a very nice meter, with perfect movement. 100-0-100 microamperes, DC. The bezel dimensions are 4.625 x 4.125 inches. A 2.75 inch hole is required for mounting. Flaws: 1) One of the four mounting screws is missing, leaving three. 2) On the left side of the front bezel at the back, there is a 3/4 long by 3/32 wide area that is partially broken away. If a perfect appearance is important, this flaw could be easily patched after mounting, although I don't think many people would notice it if they didn't know it was there.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1666488890

I will be glad to provide additional information. Contact me at w4tq@mindspring.com

7238. Re: Woden UM3 Modulation Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 17:36:01 UTC
From: Philip de Cadanet <phil@invest.fsbusiness.co.uk>
Message-ID: <vbFTGGABeT$7EwY2@invest.fsbusiness.co.uk>
Source record: 48535
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew,uk.radio.amateur

Richard,

>Hi. I've got the connections and impedances table for this modulation
>transformer, but does anyone have the full specification, ie frequency
>response, current or power rating. Thanks.
Any chance of a copy of data collected so far?

Tnx

Phil G4ZOW

7239. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 19:48:11 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BFD55D7.10E574B5@ieee.org>
Source record: 48536

I have also thought about the idea (below). Also, since pulse is not
permitted at 10 GHz you could use a CW signal and FM modulate it.
Then do an FFT on the return to get range.

Unfortunately I am not that good a programmer.

Bill K7NOM

Laura Halliday wrote:

> I've had notions from time to time about playing with
> synthetic aperture radar. Why should NASA have all the fun?
>
> You need some compute power to make it work, but that's
> a minor consideration nowadays. There's lots of published
> information.
>
> Laura Halliday VE7LDH "Que les nuages soient notre
> Grid: CN89lg pied a terre..."
> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7240. Re: Elecraft EC1 Design contest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-22 23:56:06 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3BFD90E9.55F5@pop.removethistomailme.net>
Source record: 48538

Eric Swartz WA6HHQ - Elecraft wrote:
>
> Hi,
>
> To help stimulate the creative process, we'll be giving away three of
> our new EC1 project enclosures to those who submit the most interesting
> suggested designs (concepts only--no schematics required).

Looks like a nice enclosure. Sure wish they were bigger, though! 2.1"
x 5" x 5.5" isn't much real estate, especially for $50.

-- jm

---
http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

7241. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 01:25:08 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <aDhL7.6879$ww5.968636@news2-win.server.ntlworld.com>
Source record: 48539

> It may not need be that complicated, depending on the power supply you
are
> using. I have several switching supplies on remotely located base
stations
> that simply have the battery paralleled across the supply output. The
> supply voltages are set to the battery manufacturer's float charge
voltage.
> When the AC fails, the load is placed on the batteries. The trick here
> lies in IF you can backfeed voltage to your particular supply without
> damaging it.
========
Indeed ,keeping the battery all the time on 13.8 V float does not need any
switching over.
Any potential backfeed problems can be overcome by inserting a hefty diode
in the PSU output (before the battery) and adjusting the PSU output to 13.8
+ 0.7 = 14.5 V to overcome the voltage drop across the diode.
However it is essential always to place a fuse in one of the battery leads
(usually in the + lead) immediately after the battery.

To prevent the battery from 'sulfating' following long periods of
non-activity e.g. no power cuts ,it is important to make the battery doing
work ,by switching off the PSU for some time while operating the rig. This
should be done say 4 times per annum (once every 3 month)
The battery is considered discharged when its terminal voltage is 11-11.5 V
. It is important to monitor the battery voltage with a directly connected
voltmeter or a low voltage threshold alarm circuit (flashing LED or bleeper)
Alarm circuit can be a simple Opamp (comparator) arrangement using a zener
diode as a voltage reference .

Another advantage of using a permanently connected battery is the
non-requirement of a high power PSU. Depending on the battery capacity ,
duration of an operating session and mode of operation e.g. SSB or CW versus
AM or FM , instead of a fully rated PSU of say 25 Amperes ,you only need
a 10 Amperes PSU or even less . This because of the duty cycle of the power
supply system is often very low.
Assuming a typical transceiver with 100 W RF output requiring a peak
current of 20 Amperes during tx and say 2 Amperes during rx , and with
equal tx and rx periods the duty cycle is never larger than 60 % (under AM
,FM operating conditions).
When operating CW or SSB it is much lower ,perhaps as low as 15 -20 %.
This means the battery is providing the peak current ,with the PSU rated
for the average current.
In this situation the battery is 'healthily active ' on a regular basis (
with an active operator)

Also from a cost point of view always using a battery in combination with a low(er) power PSU might be attractive.

Safety considerations : Inside the shack ,only use sealed batteries . A non-sealed battery must be located in a well ventilated area ,
Any remote location involves heavy cable to minimise voltage drop . Welding cable with a copper cross section of at least 16 sqmm (0.025 sq inch) is particularly suitable .

I operate my station including peripherals and shack lighting solely on 12 V batteries which are charged by a wind generator (and in future also by two 64Wp solar panels) The 'wet' batteries sit on a well ventilated loft ,whereas a number of 18 Ah sealed batteries are used inside the shack.

Frank gm0csz.kn6wh@ntlworld.com

7242. FS: FS: SB-303(?) board extenders! $15ppd!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 03:26:16 UTC
From: rlucch2098@aol.com
Message-ID: <20011122222616.29663.00001390@mb-cj.aol.com>
Source record: 48540

Hi Guys;
A have these three(3), what look to be circuit board extenders for the SB-303 receiver but am not sure.
Heres a pic>>
http://www.baltimorepress.com/~wa2rqy/3extenders.jpg
Price is $15ppd.

Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

7243. FS: SBE-33 classic 4-bander :-) $150+UPS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 03:28:27 UTC
From: rlucch2098@aol.com
Message-ID: <20011122222827.29663.00001392@mb-cj.aol.com>
Source record: 48541

Hi Guys;
I have for sale this nice SBE-33 transceiver. Brought it up on a variac, was'nt used in years. The cabinet was discolored so I compounded it, looks much better.
There are 2 mods, one is a Headphone jack in front, nicely done.
The other is a tiny neon light in the back, its on when the rig is plugged in, why? who knows?
There are 4 rubber bumpers on the side so you can stand it on end during transport.
I get about 60 to 40 watts out depending on band, all seems to work, used Drake mike plug & wiring, ssb works also, receives well.
Uses Collins Mechanical Filter. I have the Alignment instructions & schematic.
While it works & looks nice, I cannot guaranteee the alignment but you can certainly make contact as it is!
Oh, all plug in transistors for receiver, 3 tubes in the Rf.
Check these pics, nicely made inside!
http://www.baltimorepress.com/~wa2rqy/sbe33-1.jpg
http://www.baltimorepress.com/~wa2rqy/sbe33-2.jpg
http://www.baltimorepress.com/~wa2rqy/sbe33-3.jpg
http://www.baltimorepress.com/~wa2rqy/sbe33-4.jpg
Price is $150 + UPS.
Thanks es 73....Rich WA2RQY (1961)
WA2RQY's "confusion Radio" Web-Page
Http://members.aol.com/rlucch2098/index.html
RLUCCH2098@aol.com
"Keep those heaters on"

7244. Re: Text Book Wanted/Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 03:47:25 UTC
From: michael abbey <m.abbey@worldnet.att.net>
Message-ID: <hFjL7.125133$WW.7754964@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48542
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,uk.radio.amateur

geoffrey brown wrote in message <9tjr6udil1@news8.svr.pol.co.uk>...
>Designing and building transistor radios by R.H.Warring.
>
>I had a copy in the 60's containing mainly OC44 germanium
>transistor circuits but lost it during a house move.
> for some strang reason I want to read it again!
>
>It's still listed by Barnes & Noble but I presume it will
>have been updated to silicon devices.
>
>Anyone know? or have a copy from the 60's to sell.
>
>Cheers
>
>Geoff
>
>P.S. Few more articles added to site
>
>http://www.spontaflex.freeserve.co.uk/
>

Hello:

Warring, R.H. BUILDING AND DESIGNING TRANSISTOR RADIOS A Beginners Guide Guilford: Lutterworth Press, 1977 First Edition. 8vo. pp.128. with circuit diagrams and illustrations by the Author Blue boards. VG ex-lib copy with new end-papers and stamps on page edges only contents not stamped. in a VG d/j. Book # 001528 Price: US$ 8.50

I found this @ http://www.bookfinder.com/

hope it helps, Michael A.

7245. Re: SBE-33 classic 4-bander :-) $150+UPS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 05:13:39 UTC
From: Mike Pershing <mpershing��@earthlink.net>
Message-ID: <7WkL7.3864$eT3.415498@newsread1.prod.itd.earthlink.net>
Source record: 48543

"RLucch2098" wrote:
> Hi Guys;
> I have for sale this nice SBE-33 transceiver. Brought it up on a variac, was'nt
> used in years. The cabinet was discolored so I compounded it, looks much
> better.
> There are 2 mods, one is a Headphone jack in front, nicely done.
> The other is a tiny neon light in the back, its on when the rig is plugged in,
> why? who knows?
--------snip--------

Why? The owner was obviously an experimenter who valued his life !

Take care.
--
Mike /\/\ |_ /*

7246. mirage b5030g help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 13:37:18 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3bfe510d$0$35614$2c3e98f8@news.voyager.net>
Source record: 48544

anyone have a schematic of the 5030g amp? or does anyone know what the
gasfet transistor is in this thing? thanks
ken w8ob

7247. Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 15:32:26 UTC
From: Ron H <123456@mediaone.net>
Message-ID: <e_tL7.1768$fN3.181516@typhoon.mn.mediaone.net>
Source record: 48545
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

I am gathering info to build an HF amplifier but have not been able to find a good design for a truly braodband tank circuit. I know that the amp will always be used with a tuner so it makes sense to make the amps output fixed at 50 ohms or close to that over the full range of each band. I suppose a resistor would do but then there would be the power considerations.

Tnx
K3PID

--
DO NOT REPLY TO THIS EMAIL! Send Email to K3PID at arrl.net of course you'll have to put it together correctly. Sorry for the inconvenience but it's the only way to beat SPAM.

7248. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 16:01:28 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BFE7232.F2791C2A@ieee.org>
Source record: 48546

spike wrote:

> On Thu, 22 Nov 2001 19:48:11 GMT, Bill Janssen <billj@ieee.org> wrote:
>
> >I have also thought about the idea (below). Also, since pulse is not
> >permitted at 10 GHz you could use a CW signal and FM modulate it.
> >Then do an FFT on the return to get range.
> >
> >Unfortunately I am not that good a programmer.
> If you frequency shift keyed the CW, with a series of pulses, shurely
> this would be just as good as a true radar type 'pulse' ? You could
> then use a simple FM demod to get the delay and hence range.
> Or is that what you said ?
>
> The info in the pulses could be your callsign in slow morse code.
>
>

Thats the basic idea. There are probably many variations.

Bill K7NOM

7249. Re: mirage b5030g help

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 16:55:17 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3BFE7F75.A77357D2@dialpoint.net>
Source record: 48447

The 1015G uses a MGF1402 or ne25337 from the print that came with it. I don't see why they would use another device in your preamp. The do have a web page somewhere with the schematics on it. You might have to search for Mirage or maybe it is the MFJ page as I think they were merged or bought out.

kenneth m cubilo wrote:
>
> anyone have a schematic of the 5030g amp? or does anyone know what the
> gasfet transistor is in this thing? thanks
> ken w8ob

7250. Re: Text Book Wanted/Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 17:05:04 UTC
From: Radio Ham <no.spam@no.spam>
Message-ID: <3bfe83f8$2_1@mk-nntp-1.news.uk.worldonline.com>
Source record: 48448
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,uk.radio.amateur

I recommend the services of :-
Nigel Jobson, Book Finder
(Out-of-print and antique books located)
(01367) - 252240 (Oxford area)

geoffrey brown <geoff@spontaflex.freeserve.co.uk> wrote in message
news:9tjr6udil1@news8.svr.pol.co.uk...
> Designing and building transistor radios by R.H.Warring.
>
> I had a copy in the 60's containing mainly OC44 germanium
> transistor circuits but lost it during a house move.
> for some strang reason I want to read it again!
>
> It's still listed by Barnes & Noble but I presume it will
> have been updated to silicon devices.
>
> Anyone know? or have a copy from the 60's to sell.
>
> Cheers
>
> Geoff
>
> P.S. Few more articles added to site
>
> http://www.spontaflex.freeserve.co.uk/
>
>
>

7251. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 17:26:39 UTC
From: "Don K." <dk@homepostage.com>
Message-ID: <3BFE869F.A00A6203@homepostage.com>
Source record: 48449
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

Ron H wrote:
>
> I am gathering info to build an HF amplifier but have not been able to find
> a good design for a truly braodband tank circuit. I know that the amp will
> always be used with a tuner so it makes sense to make the amps output fixed
> at 50 ohms or close to that over the full range of each band. I suppose a
> resistor would do but then there would be the power considerations.
>
> Tnx
> K3PID
>

You need to know the complex output impedance of the amplifier across each band and then devise a circuit that best matches it to 50 Ohms. Alternatively you can just get it closer to 50 Ohms, and rely on the tuner to do the rest. Keep the coax run between the amplifier and tuner as short as possible if you want to maximize the bandwidth.

Don
--
To reply by email, remove the postage.

7252. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 21:35:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9tmffpkrk1@uranium.btinternet.com>
Source record: 48450
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

Ron wrote
> I am gathering info to build an HF amplifier but have not been
able to find
> a good design for a truly braodband tank circuit. I know that the
amp will
> always be used with a tuner so it makes sense to make the amps
output fixed
> at 50 ohms or close to that over the full range of each band. I
suppose a
> resistor would do but then there would be the power
considerations.
>
> Tnx
> K3PID
==========
Tubes or transistors ?

7253. Text Book Wanted/Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 21:36:50 UTC
From: geoffrey brown <geoff@spontaflex.freeserve.co.uk>
Message-ID: <9tjr6udil1@news8.svr.pol.co.uk>
Source record: 48537
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,uk.radio.amateur

Designing and building transistor radios by R.H.Warring.

I had a copy in the 60's containing mainly OC44 germanium
transistor circuits but lost it during a house move.
for some strang reason I want to read it again!

It's still listed by Barnes & Noble but I presume it will
have been updated to silicon devices.

Anyone know? or have a copy from the 60's to sell.

Cheers

Geoff

P.S. Few more articles added to site

http://www.spontaflex.freeserve.co.uk/

7254. Nice BC221 Frequency Meter on the bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 21:42:12 UTC
From: John <john@yahoo.com>
Message-ID: <UozL7.786$WC1.89077@newsread2.prod.itd.earthlink.net>
Source record: 48451
Cross-posted to: alt.radio-shack,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave,rec.radio.swap

You can find this clean unit here:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1301309977&r=0&t=0&showTutorial=0&ed=1007150240&indexURL=0&rd=1

Jack.

7255. Re: Nice BC221 Frequency Meter on the bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-23 23:15:05 UTC
From: BD <bodu@pobox.com>
Message-ID: <EMAL7.385$BP.177338@newsfeed.slurp.net>
Source record: 48452
Cross-posted to: alt.radio-shack,rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave,rec.radio.swap

And if I were looking for one, I'd have already checked there without having
to be told to do so by your mucho cross-posted spamming, doncha think?...

"John" <john@yahoo.com> wrote in message
news:UozL7.786$WC1.89077@newsread2.prod.itd.earthlink.net...
> You can find this clean unit here:

7256. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 00:14:09 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3BFEE5A9.3185AD95@ieee.org>
Source record: 48453
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

"Don K." wrote:

> Ron H wrote:
> >
> > I am gathering info to build an HF amplifier but have not been able to find
> > a good design for a truly braodband tank circuit. I know that the amp will
> > always be used with a tuner so it makes sense to make the amps output fixed
> > at 50 ohms or close to that over the full range of each band. I suppose a
> > resistor would do but then there would be the power considerations.
> >
> > Tnx
> > K3PID
> >
>
> You need to know the complex output impedance of the amplifier across
> each band and then devise a circuit that best matches it to 50 Ohms.
> Alternatively you can just get it closer to 50 Ohms, and rely on the
> tuner to do the rest. Keep the coax run between the amplifier and tuner
> as short as possible if you want to maximize the bandwidth.
>
> Don
> --
> To reply by email, remove the postage.

No such thing as a "broad band tank circuit" A tank circuit implies energy
storage
such as used with a class C amplifier. As such it is narrow band. Other types
of amplifier operation can be coupled with a matching circuit and maybe a low
pass
filter.

What type of amplifier are you planning?

Bill K7NOM

7257. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 00:35:08 UTC
From: Steve Fleckenstein <spfleck@citlink.net>
Message-ID: <tvtqpsh196t8ca@corp.supernews.com>
Source record: 48454
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

The USA NWS broadcasts transmit weather , sometimes public service messages,
marine fishery notices in some areas, and other good stuff.

"Anindita" <anindita@uab.edu> wrote in message
news:tvfvsu1hpfsme7@corp.supernews.com...
| when there are no "alerts"?Does it continually broadcast weather
information?
|
| Anindita
|

7258. Re: What does a NOAA radio broadcast.. -- Weather Radio FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 00:35:13 UTC
From: Steve Fleckenstein <spfleck@citlink.net>
Message-ID: <tvtqq1ghlm0cf@corp.supernews.com>
Source record: 48455
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

http://205.156.54.206/nwr/nwrback.htm -- Weather radio background info

http://205.156.54.206/pa/secnews/nwr/nwrfaq.htm -- Weather Radio FAQ

http://205.156.54.206/er/okx/tour/radio.html -- pictures with conversion to digital from tape details

Real Old Stuff: Read original intent of transmitters per Carter admin was to broadcast nuclear attack warnings with weather being secondary.

Steve
N2UBP

7259. Re: What does a NOAA radio broadcast..

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 00:35:14 UTC
From: DavilaA <DavilaA@boeing.com>
Message-ID: <tvtqq287bc4hd0@corp.supernews.com>
Source record: 48456
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Yes it does continuosly broadcast weather information. In my local area
a test of the alerting system is broadcast on Wednesday afternoons which
causes receivers equipted with alert functions to turn on. Along the
gulf coast we are susceptible to VHF skip conditions that on occasion
allow us to hear stations as far away as Houston to the west and Tampa
to the east. til we meet again. . . . . Tony D. KC4YBE
dah-di-dah

Anindita wrote:
>
> when there are no "alerts"?Does it continually broadcast weather information?
>
> Anindita

7260. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 01:51:06 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111231751.e7047f1@posting.google.com>
Source record: 48457
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

You didn't mention if it's a solid state amp or a vacuum tube one.
For solid state, have a look at the work Helge Granberg (sp??) did
while at Motorola (Lots of ap notes!)...or see any number of other
references. For a vacuum-tube amp, if you use a tuned tank, you're
stuck with some minimum Q; but if you put a broadband transformer in
the circuit, you could get to rather a lower Q. Mind you, you may not
really WANT all that low a Q! Depends on what you're trying to
accomplish. But you could put in a 9:1 or even 16:1 broadband
transformer and have to match a much lower impedance ratio. I'd for
sure put the transformer at the output of the tuned tank. Do you have
any reference books to help you out? BTW, the old Central Electronics
rigs used cathode-follower outputs, as I recall, for broadband output.

Cheers,
Tom

"Ron H" <123456@mediaone.net> wrote in message
news:<e_tL7.1768$fN3.181516@typhoon.mn.mediaone.net>...
> I am gathering info to build an HF amplifier but have not been able to find
> a good design for a truly braodband tank circuit. I know that the amp will
> always be used with a tuner so it makes sense to make the amps output fixed
> at 50 ohms or close to that over the full range of each band. I suppose a
> resistor would do but then there would be the power considerations.
>
> Tnx
> K3PID

7261. dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 02:49:22 UTC
From: Rob Crandall <crandall@ee.net>
Message-ID: <SUDL7.133$d94.1664@news>
Source record: 48458

I'm sure this has been posted a hundred times but could someone tell me how to build a cheap dummy load? Keep in mind that I am extemely inexperienced in electronics.I have done some soldering and stuff but I'm not the best. In fact I just built my first ground plane antenna for 2 meter.I've read that you can use mineral oil for the solution but how do you do the board and stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2 meter handietalkie now but planning on a 25 or 50 watt one too.
Thaks!
Rob

--
Sure I'll get a life,
Just as soon as I download one!

7262. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 03:28:34 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3bff118b$1_1@newsa.ev1.net>
Source record: 48459

Radio Shack sells a small dummy load good up to 450mhz and can handle up to
100 watts for about a minute, or 10watts continuos.
They are very cheap too.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Rob Crandall" <crandall@ee.net> wrote in message
news:SUDL7.133$d94.1664@news...
> I'm sure this has been posted a hundred times but could someone tell me
how
> to build a cheap dummy load? Keep in mind that I am extemely inexperienced
> in electronics.I have done some soldering and stuff but I'm not the best.
In
> fact I just built my first ground plane antenna for 2 meter.I've read that
> you can use mineral oil for the solution but how do you do the board and
> stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2 meter
> handietalkie now but planning on a 25 or 50 watt one too.
> Thaks!
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!
>
>

7263. Re: Text Book Wanted/Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 09:23:29 UTC
From: acu@www.com
Message-ID: <3bff66ab.44602717@news.cis.dfn.de>
Source record: 48460
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,uk.radio.amateur

ON Fri, 23 Nov 2001 21:36:50 -0000, "geoffrey brown"
<geoff@spontaflex.freeserve.co.uk> WROTE:

>Designing and building transistor radios by R.H.Warring.
>
>I had a copy in the 60's containing mainly OC44 germanium
>transistor circuits but lost it during a house move.
> for some strang reason I want to read it again!
>
>It's still listed by Barnes & Noble but I presume it will
>have been updated to silicon devices.
>
>Anyone know? or have a copy from the 60's to sell.
>
>Cheers
>
>Geoff
>
>P.S. Few more articles added to site
>
>http://www.spontaflex.freeserve.co.uk/
>
>
>
Doing a search at http://dogbert.abebooks.com/
turned up three copies for sale (2 in the UK) all cheap

Tony Usher
http://www.10X50.com

7264. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 14:23:37 UTC
From: DJ <kb5ylg@attglobal.net>
Message-ID: <3bffb00e_1@news1.prserv.net>
Source record: 48462

Use a high wattage 50 ohm resistor, add a ventilated metal box to heat shield it so you don't burn your hands, and so-239 connectors on the ends.

David KB5YLG

"Rob Crandall" <crandall@ee.net> wrote in message news:SUDL7.133$d94.1664@news...
> I'm sure this has been posted a hundred times but could someone tell me how
> to build a cheap dummy load? Keep in mind that I am extemely inexperienced
> in electronics.I have done some soldering and stuff but I'm not the best. In
> fact I just built my first ground plane antenna for 2 meter.I've read that
> you can use mineral oil for the solution but how do you do the board and
> stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2 meter
> handietalkie now but planning on a 25 or 50 watt one too.
> Thaks!
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!
>
>

7265. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 14:29:18 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3BFFAEBE.6DE97F49@ay.com.au>
Source record: 48463

It is just a big non-inductive resistor of 50 Ohms.

You can make one out of any bunch of carbon composition resistors that
add up to 50 Ohms. For the lower HF bands, carbon film work fine too. 2
100 Ohm resistors in parallel, each being 2 watts power handing gives
you a 4 watt dummy load.

Just add more resistors of higher value to get more power handling.
The liquid cooled dummy loads work just the same, only the works is
bathed in an oil that helps get rid of the heat faster.

Rob Crandall wrote:
>
> I kinda want to build it so I can become more familar with how this stuff
> works.I might check that out if I can't find some decent plans.
> 73
> Rob
> "M.E." <bogus@nospam.com> wrote in message
> news:3bff118b$1_1@newsa.ev1.net...
> > Radio Shack sells a small dummy load good up to 450mhz and can handle up
> to
> > 100 watts for about a minute, or 10watts continuos.
> > They are very cheap too.
> >
> > --
> > Respond to my "real" e-mail;
> > kk5dr@ev1.net
> > "Rob Crandall" <crandall@ee.net> wrote in message
> > news:SUDL7.133$d94.1664@news...
> > > I'm sure this has been posted a hundred times but could someone tell me
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> > > to build a cheap dummy load? Keep in mind that I am extemely
> inexperienced
> > > in electronics.I have done some soldering and stuff but I'm not the
> best.
> > In
> > > fact I just built my first ground plane antenna for 2 meter.I've read
> that
> > > you can use mineral oil for the solution but how do you do the board and
> > > stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2
> meter
> > > handietalkie now but planning on a 25 or 50 watt one too.
> > > Thaks!
> > > Rob
> > >

> > > --
> > > Sure I'll get a life,
> > > Just as soon as I download one!
> > >
> > >
> >
> >

--
:wq!

7266. FS: 2 POWER SUPPLIES 13.8 VDC

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 14:33:49 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <hdOL7.175417$My2.102632163@news1.mntp1.il.home.com>
Source record: 48464

I have 2 power supplies for sale.

KENWOOD KPS 12 13.8 VDC AT 12 AMPS $65 + SHIPPING

ASTRON RS 35M 13.8 VDC AT 35 AMPS $110 + SHIPPING

k9vdd@home.com

7267. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 14:49:23 UTC
From: Rob Crandall <crandall@ee.net>
Message-ID: <TrOL7.155$d94.1915@news>
Source record: 48461

I kinda want to build it so I can become more familar with how this stuff
works.I might check that out if I can't find some decent plans.
73
Rob
"M.E." <bogus@nospam.com> wrote in message
news:3bff118b$1_1@newsa.ev1.net...
> Radio Shack sells a small dummy load good up to 450mhz and can handle up
to
> 100 watts for about a minute, or 10watts continuos.
> They are very cheap too.
>
> --
> Respond to my "real" e-mail;
> kk5dr@ev1.net
> "Rob Crandall" <crandall@ee.net> wrote in message
> news:SUDL7.133$d94.1664@news...
> > I'm sure this has been posted a hundred times but could someone tell me
> how
> > to build a cheap dummy load? Keep in mind that I am extemely
inexperienced
> > in electronics.I have done some soldering and stuff but I'm not the
best.
> In
> > fact I just built my first ground plane antenna for 2 meter.I've read
that
> > you can use mineral oil for the solution but how do you do the board and
> > stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2
meter
> > handietalkie now but planning on a 25 or 50 watt one too.
> > Thaks!
> > Rob
> >
> > --
> > Sure I'll get a life,
> > Just as soon as I download one!
> >
> >
>
>

7268. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 15:02:51 UTC
From: Eike Lantzsch <eikelan@gmx.net>
Message-ID: <slrn9vvdkn.l7o.eikelan@ID-77364.user.dfncis.de>
Source record: 48465

Rob Crandall wrote:
> I'm sure this has been posted a hundred times but could someone tell me how
> to build a cheap dummy load? Keep in mind that I am extemely inexperienced
> in electronics.I have done some soldering and stuff but I'm not the best. In
> fact I just built my first ground plane antenna for 2 meter.I've read that
> you can use mineral oil for the solution but how do you do the board and
> stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2 meter
> handietalkie now but planning on a 25 or 50 watt one too.
> Thaks!
> Rob
>

Dummy loads are more mechanics than electronics anyway ;-)

For HF:
What about a 1/4 gallon glass recipient with metal cover? Install SO239
in cover and solder copper electrodes to it. Fill recipient with
saltwater. Connect to rig and measure SWR. Add salty solution to lower
resistance or destilled water to rise resistance. Try on different bands
to watch frequency response. Stop when solution starts to cook.
Don't make the mistake to check resistance with ohm-meter (DC)!
This was a recipe that I was told 25 years ago by an active om.
OK - you can use a 1/2 gallon paint can as well but it will corrode
within short but offers shielding until then.

Unfortunately never tried this myself but I'm about to try now as soon
as I get my license (waiting for signature on desk of president of
local gov agency "CONATEL" - ready next week if I'm fortunate).

I would appreciate comments on this cheapy-method.

Another question: Why are the two dummy loads, which appeared in the
"Station Accessories" section (34-22 to 34-29) of the 1988 ARRL
Handbook, not reprinted anymore in the 2001 edition? Wouldn't matter
to have 1208 instead of 1200 pages...
Surplus Sales of Nebraska still offers low-L-high-wattage resistors.
As far as I could see surplus dummy loads are still more expensive
than homebrew.

Regards, Ike
--
. . Eike Lantzsch
<___> CdC 1519 ASUNCION PY
____|\|\ ____ .ooo../ www.geocities.com/cgelantzsch/index.html
_________\ _____/ rattle, aim, sting, wait, incorporate

7269. Do you need HV transformers?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 18:09:31 UTC
From: arnoldg@c2i.net
Message-ID: <3bffe28d.15172698@news1.c2i.net>
Source record: 48466

Hello,

We have now an extensive range of high voltage transformers for valve amplifiers and other valve equipment in stock. 230V primary and secondaries for both anode and heater circuits.
Pictures, technical data and price can be found at my web site - www.demostenes.no
(click on the English flag on the left side of the opening picture to get English text).

Best regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as sockets,transformers,books,caps,resistors and other components. Web site is updated every week.
You can order on-line.

7270. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 19:52:03 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9totvm$731$1@plutonium.btinternet.com>
Source record: 48467

Six 300-ohm 1-watt metal-film resistors in parallel make a 50-ohm 6-watt load.

Or ten 500-ohm 1-watt metal-film resistors in parallel make a 50-ohm 10-watt load.

Four 50-ohm 10-watt loads in series-parallel make a 50-ohm 40-watt load.

Nine 50-ohm 10-watt loads in series-parallel make a 50-ohm 90-watt load.

Dunked in oil the wattage ratings might be trebled for a short time. Or use a cooling fan. Suck it and see.

Don't use wire-wound resistors.

7271. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 20:22:49 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <s7UL7.3785$fa1.717724@news2-win.server.ntlworld.com>
Source record: 48468

"Rob Crandall" wrote :
> I kinda want to build it so I can become more familar with how this stuff
> works.I might check that out if I can't find some decent plans.
=======
Since you wish to use the dummy load on VHF ,it is not easy to make one from loose resistors ,since the SWR might be unacceptably high due to wiring inductance. There is a dummy load described in various editions of the ARRL Handbook ,built around a large carbon resistor of 50 Ohms ,but even then the SWR might be rather high at 144-148 MHz
The simplist way to get a good compact VHF dummy load is to use 1 or more MP-820 Kool-Tab power film resistors . They are made by Caddock - Riverside ,California ,but are generally available (perhaps not @ Ratshack).
The rating is 20 Watts (maybe a different model nr has a higher rating)
Uncertainty (accuracy) = 1% .
Hence 2pcs of 100Ohms in parallel can handle 40 Watts continously when put onto a large heatsink ,as close as possible to a BNC ,N-type or what ever suitable female socket connector you prefer.
The resistors come in a TO-220 package with a 0.142 inch hole for single screw/bolt connection to the heatsink. The 2 leads should be cut short for lowest possible SWR ,with the socket connector also attached to the heatsink through a drilled hole.
Following fixing/soldering ,the resistors can be covered by a metal cover.
For good heat conduction between resistors and heatsink use the usual paste.

Frank gm0csz.kn6wh@ntlworld.com

7272. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-24 22:58:18 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3C00255E.30D9CA07@ieee.org>
Source record: 48469

After you build the best dummy load you can, go out and buy 100 feet of RG58. Use that between the load and your transmitter. The cable loss improves the characteristics of the load.

Bill K7NOM

Rob Crandall wrote:

> I'm sure this has been posted a hundred times but could someone tell me how
> to build a cheap dummy load? Keep in mind that I am extemely inexperienced
> in electronics.I have done some soldering and stuff but I'm not the best. In
> fact I just built my first ground plane antenna for 2 meter.I've read that
> you can use mineral oil for the solution but how do you do the board and
> stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2 meter
> handietalkie now but planning on a 25 or 50 watt one too.
> Thaks!
> Rob
>
> --
> Sure I'll get a life,
> Just as soon as I download one!

7273. Re: Want Cubic Astro 102 or 103

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 00:04:52 UTC
From: william p werhane <KA8UZE@prodigy.net>
Message-ID: <EAWL7.1028$ZV7.162718918@newssvr17.news.prodigy.com>
Source record: 48470
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

Douglas.R.Snowden wrote in message <3BF582AF.4B3C629@noaa.gov>...
>All I need is one for parts but will consider a reasonably
>priced 102 or 103 that works. I want it to be complete, as
>the parts are getting scare and would like to keep this one
>for a long time. I have had one on the shelf for some time now
>that I would like to get running again. Also, I can't find the
>service manual if you have a copy.
>
>Doug N4IJ
ref thorderson 19p70 trans. it is a plate transformer possibly with
ct. have t-19p54 used with 5z3
in power supply schematic.

7274. Re: What does a NOAA radio broadcast.. -- Weather Radio FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 02:52:23 UTC
From: Ed Ellers <ed_ellers@msn.com>
Message-ID: <u00n77iafh9259@corp.supernews.com>
Source record: 48471
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Steve Fleckenstein <spfleck@citlink.net> wrote:

"Real Old Stuff: Read original intent of transmitters per Carter admin was to broadcast nuclear attack warnings with weather being secondary."

The system predates the Carter Administration by quite a few years, though it was expanded during that period.

7275. Re: What does a NOAA radio broadcast.. -- Weather Radio FAQ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 02:52:37 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <u00n7lqv6aih65@corp.supernews.com>
Source record: 48472
Cross-posted to: rec.radio.broadcasting,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Steve Fleckenstein wrote:
>
> http://205.156.54.206/nwr/nwrback.htm -- Weather radio background info
>
> http://205.156.54.206/pa/secnews/nwr/nwrfaq.htm -- Weather Radio FAQ
>
> http://205.156.54.206/er/okx/tour/radio.html -- pictures with conversion to
> digital from tape details
>
> Real Old Stuff: Read original intent of transmitters per Carter admin was to
> broadcast nuclear attack warnings with weather being secondary.
>
> Steve
> N2UBP

Source? I mean where did Carter say 'nuclear' instead of 'nookier'?
-Bill

7276. radios/tubes/amps

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 04:04:21 UTC
From: km5rt@home.com
Message-ID: <3c037993.126498679@news>
Source record: 48473

I have several sets of pulls (long unused) from local tv station
and several sets of pulls (some unused equipment) from FAA and Air
Force equipment
4cx 250/4cx150

I also have the following radios for sale

Clegg FM 76 rock bound 220
1296 homebrew kit xverter 2 meter in between 2-5 watts out with 5 in
2304 mhz xverter homebrew kit
2304 mhz TWT amp 10 watts out (heavy, shipping costs will be $25)
1296 amplifier 1-5 watts in 400 max out, in a 7 foot rack (LOCAL DFW
only due to weight) needs to be rewired, also runs on 220
2 meter tube amp (4cx2/150) needs rewired has tube supply
no shipping on this amp due to weight dfw area only
2 meter all mode 25 in 170 out transistor 12 volt amp
6 meter 4cx 350(2 tube) amp in a case with power supply
(shipping would be $40) amp has not been turned on in 3 years
power supply was reworked, then lost 6 meter radio

I can be reached via email or phone ONLY not via newsgroups
km5rt@home.com for a few more days, NOT via newsgroups
or by phone 8175143987 after 3pm CST
********remove nospam to reply*********
see ya on the bands

7277. Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 04:20:57 UTC
From: jgboyles@aol.com
Message-ID: <20011124232057.07994.00000825@mb-de.aol.com>
Source record: 48474

Hi,
Building a solid state amp 4 MRF150's push pull class ab1. Always heard that
the rf deck should be shielded with copper, tin, iron or anything but Aluminum.
Want maximum rf containment, and assume aluminum won't do it. Why should I
not use aluminum, and why?
73 Gary N4AST

7278. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 04:41:04 UTC
From: leeann_tweeden@hotmail.com
Message-ID: <3cfa88b7.0111242041.7681533e@posting.google.com>
Source record: 48475

"M.E." <bogus@nospam.com> wrote in message news:<3bfc825d_1@newsa.ev1.net>...
> Regular ATF (Automatic Transmission Fluid) works fine. I've been using it
> for years.
>
> --
> Respond to my "real" e-mail;
> kk5dr@ev1.net
> "Russell C. Nixon" <rcnixon@mindspring.com> wrote in message
> news:3bfb171d.15015423@news.mindspring.com...
> > Ok, I was just given a genuine Heath "Cantenna" and now I need
> > transformer oil. Any ideas out there as to where I can buy or
> > scrounge a gallon.
> >
> > Russ
> >

go to a heating or ac or refrigeration supply house and get a gallon
of mineral oil for about 7.00-10.00. get the thinnest you can, the
lowest viscosity

7279. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 05:51:58 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <2G%L7.128318$WW.7991906@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48476

I am not sure why aluminum wouldn't work. The current HP, Boonton, and Rohde & Swartz RF generators use aluminum for their RF assemblies. Rockwell-Collins HF80 and HF9000 equipment uses aluminum.Also, their R388/51J series, and their 51S-1 receivers were fabricated from aluminum. Motorola uses aluminum as the base metal for their power amp assemblies. Aluminum and brass are very good shielding materials for electrostatic shielding, while mu-metal is good for magnetic shielding. Sometimes a bi-metalic structure consisting of both of these materials is used. Copper is a good material for shielding coils; I believe it has a negligable effect on tuning and Q, but feel free to correct me if I am wrong on this one.

Pete Gianakopoulos KE9OA
Chicago, Il.

JGBOYLES <jgboyles@aol.com> wrote in message
news:20011124232057.07994.00000825@mb-de.aol.com...
> Hi,
> Building a solid state amp 4 MRF150's push pull class ab1. Always heard
that
> the rf deck should be shielded with copper, tin, iron or anything but
Aluminum.
> Want maximum rf containment, and assume aluminum won't do it. Why should
I
> not use aluminum, and why?
> 73 Gary N4AST

7280. Re: Elecraft EC1 Design contest

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 05:57:56 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <EL%L7.128325$WW.7992674@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48477

I could build a nice general coverage receiver in that one, but the ones that really "rang my bell" were the ones from MarkV Electronics. These were really cool black anodized front panel designs, that started at around 32 dollars. Too bad the company went under.

Pete KE9OA

John Miles <jmiles@pop.removethistomailme.net> wrote in message news:3BFD90E9.55F5@pop.removethistomailme.net...
> Eric Swartz WA6HHQ - Elecraft wrote:
> >
> > Hi,
> >
> > To help stimulate the creative process, we'll be giving away three of
> > our new EC1 project enclosures to those who submit the most interesting
> > suggested designs (concepts only--no schematics required).
>
> Looks like a nice enclosure. Sure wish they were bigger, though! 2.1"
> x 5" x 5.5" isn't much real estate, especially for $50.
>
> -- jm
>
> --
> http://www.qsl.net/ke5fx
> Note: My E-mail address has been altered to avoid spam
> --

7281. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 06:02:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C00897F.7A57E988@eznec.com>
Source record: 48489

Aluminum is fine for RF shielding. Where did you hear is isn't?

With a solid state amp, you're more likely to have trouble with RF currents in the "ground" conductors than fields being radiated through the air.

Roy Lewallen, W7EL

JGBOYLES wrote:
>
> Hi,
> Building a solid state amp 4 MRF150's push pull class ab1. Always heard that
> the rf deck should be shielded with copper, tin, iron or anything but Aluminum.
> Want maximum rf containment, and assume aluminum won't do it. Why should I
> not use aluminum, and why?
> 73 Gary N4AST

7282. Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 06:23:04 UTC
From: Mike Camp <mikerobin@home.com>
Message-ID: <c70M7.45397$RG1.23266334@news1.rdc1.sfba.home.com>
Source record: 48478

Hello-

I have several old unmarked tube era transformers. I can easily find out the voltages, unloaded, of the various windings.But, what is the technique to estimate the available current per winding, or the total power safely available from the transformer?

Thanks!
Mike Camp KI7FQ

7283. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:27:56 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <9a710usefviao4ajmhm7p0btlseeseo95s@4ax.com>
Source record: 48481

"Frank Dinger" <f.dinger@ntlword.com>
shared these priceless pearls of wisdom:

->Since you wish to use the dummy load on VHF ,it is not easy to make one from
->loose resistors

Could you translate this to English for us??

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

7284. The "broom-Stick" Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:32:44 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023243.1922757472.1242@blythe.org>
Source record: 48479
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

http://www.radiohc.org/Distributions/Dxers/broomstick.html

7285. Arnie's Simplest-to-Build Antenna Tuner

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:33:30 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023330.1139352160.1242@blythe.org>
Source record: 48480
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

http://www.radiohc.org/Distributions/Dxers/antenna-tuner2.html

7286. The G3JVL 5/8 6M Vertical Antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:35:13 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023513.1259577690.1242@blythe.org>
Source record: 48482
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

http://www.radiohc.org/Distributions/Dxers/vert6m-1.html

7287. A BROADBAND ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:36:06 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023606.1111800030.1242@blythe.org>
Source record: 48483
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

http://www.radiohc.org/Distributions/Dxers/ttfd2.html

7288. Regen RX Using Q-multiplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:37:44 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023744.1322623287.1242@blythe.org>
Source record: 48484
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://www.radiohc.org/Distributions/Dxers/regen2.html

7289. ULTRA-SIMPLE TRANSMITTER

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:39:21 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.023920.1521740435.1242@blythe.org>
Source record: 48485
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://www.radiohc.org/Distributions/Dxers/ultra-simple-transmitter.html

7290. DESERT RATT 3

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:41:19 UTC
From: All The News That Doesn't Fit <NY-Transfer-News@blythe.org>
Message-ID: <20011125.024118.2117303605.1242@blythe.org>
Source record: 48486
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

http://www.radiohc.org/Distributions/Dxers/dsratregen.html

7291. Re: Text Book Wanted/Info.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 07:52:35 UTC
From: Peter Crosland <g6jns@hotmail.com>
Message-ID: <9tq804$64t$1@newsg4.svr.pol.co.uk>
Source record: 48487
Cross-posted to:
rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.shortwave,uk.radio.amateur

http://www.abebooks.com/ will almost certainly locate a copy faster than any
individual "bookfinder" and there is not fee.
"geoffrey brown" <geoff@spontaflex.freeserve.co.uk> wrote in message
news:9tjr6udil1@news8.svr.pol.co.uk...
> Designing and building transistor radios by R.H.Warring.
>
> I had a copy in the 60's containing mainly OC44 germanium
> transistor circuits but lost it during a house move.
> for some strang reason I want to read it again!
>
> It's still listed by Barnes & Noble but I presume it will
> have been updated to silicon devices.
>
> Anyone know? or have a copy from the 60's to sell.
>
> Cheers
>
> Geoff
>
> P.S. Few more articles added to site
>
> http://www.spontaflex.freeserve.co.uk/
>
>
>

7292. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 08:00:59 UTC
From: Roger Halstead <rdhalste@tm.net>
Message-ID: <%y1M7.668$9d.179334@newshog.newsread.com>
Source record: 48488
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

"Ron H" <123456@mediaone.net> wrote in message
news:e_tL7.1768$fN3.181516@typhoon.mn.mediaone.net...
> I am gathering info to build an HF amplifier but have not been able to
find
> a good design for a truly braodband tank circuit. I know that the amp will
> always be used with a tuner so it makes sense to make the amps output
fixed
> at 50 ohms or close to that over the full range of each band. I suppose a
> resistor would do but then there would be the power considerations.
>
A broadband tank circuit is the antithis of what you find in an amplifier.
Tank circuits are high Q = narrow band, but you can add presets to cover the
bands in steps. Moving in frequency requires retunning to put the impedance
back where it belongs.

--
Roger Halstead (K8RI)
WWW.RogerHalstead.com
N833R, World's Oldest Debonair? (S# CD-2)

7293. 5/8 6m antenne

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 09:56:33 UTC
From: jb <Brandaris400@hotmail.com>
Message-ID: <mf3M7.388029$Jy2.24950871@news.quicknet.nl>
Source record: 48490

http://www.radiohc.org/Distributions/Dxers/vert6m-1.html

7294. Re: A BROADBAND ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 09:57:13 UTC
From: 'Doc <w5lz@icok.net>
Message-ID: <3C00C06D.AA3C2E91@icok.net>
Source record: 48491
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

The article compares this antenna to a rhombic. I'd
also compare it to a B&W folder dipole...except cheaper.
'Doc

7295. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 10:00:58 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <rgfqt9.d5q.ln@darkstar.localdomain>
Source record: 48494

JGBOYLES wrote:

> Hi,
> Building a solid state amp 4 MRF150's push pull class ab1. Always heard
> that
> the rf deck should be shielded with copper, tin, iron or anything but
> Aluminum.
> Want maximum rf containment, and assume aluminum won't do it. Why should
> I
> not use aluminum, and why?
> 73 Gary N4AST

Aluminium makes an excellent screened enclosure. Look at most
high-spec signal generators and spectrum analysers. Even in
very critical applications like duplexers for VHF/UHF repeaters,
aluminium works very well.

Some of the Motorola application notes recommend that you use
a copper plate between the transistors and the heatsink to
lower thermal resistance.

Be careful! don't let the smoke out of those lovely fets.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.15-pre1

7296. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 10:04:44 UTC
From: Eike Lantzsch <eikelan@gmx.net>
Message-ID: <slrna01gho.nk8.eikelan@ID-77364.user.dfncis.de>
Source record: 48492

Jim Weir wrote:
> "Frank Dinger" <f.dinger@ntlword.com>
> shared these priceless pearls of wisdom:
>
> ->Since you wish to use the dummy load on VHF ,it is not easy to make one from
> ->loose resistors
>
> Could you translate this to English for us??
>
> Jim
>
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

He's trying to convey the message that individual resistors soldered
firmly together in parallel might have less inductivity but far more
capacity against ground and thus not be suitable as a dummy load for
VHF and that the difficulty is mostly of mechanical nature.

;-)

The only homebrew dummy load for VHF *and* high power I've found so
far is in the 1988 ARRL handbook. The article is also the only one
that I found, which shows a plot of the SWR over frequency. Again:
you need to be mechanically skilled to build it - but not too much.
It is usable up to 1400MHz. Has the worst SWR of 1:1.5 @ 800MHz and
below 300MHz is about 1:1.1 SWR. Around 400MHz @ 1:1.25 SWR.
The only expensive part is the carborundum resistor.
Surplus Sales of Nebraska still seems to have such Rs.

I offer fotocopies to the original poster.

Regards, Ike
--
. . Eike Lantzsch
<___> CdC 1519 ASUNCION PY
____|\|\ ____ .ooo../ www.geocities.com/cgelantzsch/index.html
_________\ _____/ rattle, aim, sting, wait, incorporate

7297. rx tx crystal guide

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 10:28:23 UTC
From: bcl <bcl@sx.com.au>
Message-ID: <hN3M7.18673$li3.215217@ozemail.com.au>
Source record: 48493

looking for a rx tx crystal guide for an am set
thanks

7298. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 12:16:58 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3C00E0EB.8070901@cmcorp.com>
Source record: 48495

I load them until the unloaded voltage drops 10%.

Mike Camp wrote:

>Hello-
>
>I have several old unmarked tube era transformers. I can easily find out
>the voltages, unloaded, of the various windings.But, what is the technique
>to estimate the available current per winding, or the total power safely
>available from the transformer?
>
>Thanks!
>Mike Camp KI7FQ
>
>

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

7299. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 13:52:41 UTC
From: la8ak.xnd@online.no
Message-ID: <3c002ba8.198769988@news.online.no>
Source record: 48397

On Sat, 24 Nov 2001 14:49:23 GMT, "Rob Crandall" <crandall@ee.net>
wrote:

>I kinda want to build it so I can become more familar with how this stuff
>works.I might check that out if I can't find some decent plans.
>73
>Rob

I made one using 6x 300 ohm 2W resistors mounted radially on back of
N-type male chassis connector, shortest possible wire length. Measured
it and was still useful on 1296MHz with 13dB return loss, but
substantially better on the lower frequency bands.

It is easier to solder the resistors when a thin metal plate is fixed
to the connector with 4 screws.

Similar principle may be used for higher power, but maximum frequency
may be lower. Mine has been used up to 25W and the resistors are quite
burned after some years of service, but still measure 50ohm load
resistance

Made some different, but those with male connectors are most practical
as they may be connected directly to Bird model 43 without any cable

73
Jan-Martin
LA8AK
--
remove ,xnd to reply

7300. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 13:52:42 UTC
From: la8ak.xnd@online.no
Message-ID: <3c002dbf.199305293@news.online.no>
Source record: 48496

On Sat, 24 Nov 2001 08:23:37 -0600, "DJ" <kb5ylg@attglobal.net> wrote:

>Use a high wattage 50 ohm resistor, add a ventilated metal box to heat
>shield it so you don't burn your hands, and so-239 connectors on the ends.
>
>David KB5YLG
>
application of high wattage reistors decrease maximum frequency
because of the mechanical size, inductance depends on length and also
stray capacictance may be a problem.
I connected 6x 300 ohm 50W noninductive resistors from a discarded TV
transmitter, but it wasn't much useful above 30MHz, particularly
because of high stray capacitance, and physical size of the
construction.

73,
LA8AK
--
remove ,xnd to reply

7301. WTB: talking frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 15:51:46 UTC
From: k9sqg@aol.com
Message-ID: <20011125105146.08110.00001474@mb-bk.aol.com>
Source record: 48398

There is a blind ham looking for a talking frequency counter. Please contact Jim at 573-431-5112.

Thanks.

Evan

7302. FS: Telefunken ECC81/82/83/88 etc

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:08:58 UTC
From: arnoldg@c2i.net
Message-ID: <3c0117d3.13006088@news1.c2i.net>
Source record: 48399

Hi,

I have found a few nice Telefunken valves:

1 pcs ECC 81 NOS, original box <> $ 30.-
1 pcs ECC 82 NOS, original box <> $ 30.-
1 pcs ECC 82 NOS, white box $ 20.-
1 pcs ECC 83 NOS, original box $ 25.-
1 pcs EL 84 NOS, original box $ 30.-
3 pcs EF 86 NOS, original box <> $ 35.- each
1 pcs EF 86 NOS, white box <> $ 30.-
1 pcs EF 806S NOS original box <> $ 35.-
2 pcs E88CC a little used <> $ 25.- each

<> means diamond mark between the pins.
E-mail me if you are interested.

If you visit my web shop at www.demostenes.no you will find a lot of
valves, sockets, transformers, components, books etc. etc.

Best regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7303. Re: rx tx crystal guide

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:18:44 UTC
From: la8ak.xnd@online.no
Message-ID: <3c00f870.251202103@news.online.no>
Source record: 48401

On Sun, 25 Nov 2001 21:28:23 +1100, "bcl" <bcl@sx.com.au> wrote:

>looking for a rx tx crystal guide for an am set
>thanks
>
>
8MHz for TX and 45 for RX in mine.
good luck!

--
remove ,xnd to reply

7304. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:18:44 UTC
From: la8ak.xnd@online.no
Message-ID: <3c00f9b4.251526578@news.online.no>
Source record: 48402

On Sun, 25 Nov 2001 07:04:44 -0300, Eike Lantzsch <eikelan@gmx.net>
wrote:

>Jim Weir wrote:
>> "Frank Dinger" <f.dinger@ntlword.com>
>> shared these priceless pearls of wisdom:
>>
>> ->Since you wish to use the dummy load on VHF ,it is not easy to make one from
>> ->loose resistors
>>
>> Could you translate this to English for us??
>>
>> Jim
>>
>> Jim Weir, VP Eng. RST Eng. WX6RST
>> A&P, CFI, and other good alphabet soup
>
>He's trying to convey the message that individual resistors soldered
>firmly together in parallel might have less inductivity but far more
>capacity against ground and thus not be suitable as a dummy load for
>VHF and that the difficulty is mostly of mechanical nature.
>
I think he has read it in a book, but have no experience of his own
--
remove ,xnd to reply

7305. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:19:54 UTC
From: Michael Melland <w9wis@charter.net>
Message-ID: <u026dm1lpb0f82@corp.supernews.com>
Source record: 48400

I went to my local electric company service center (where they rebuild their transformers) and they gave me a gallon. They buy it by the tanker load every now and then and the cost of a gallon is so small they don't fool with charging for it. It's a very refined type of mineral oil with a few other additives to fight corrosion and water absorbtion... and it's pcb free. It is available to the public from petrolium distributers but the minimum purchase is 5 gallons <grin> or a 55 gal drum depending on the distributer. It's also used in Bird coaxial loads.

Mike, W9WIS

7306. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:45:27 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C012027.5919012D@ay.com.au>
Source record: 48403

J M Noeding wrote:
>
> On Sat, 24 Nov 2001 08:23:37 -0600, "DJ" <kb5ylg@attglobal.net> wrote:
>
> >Use a high wattage 50 ohm resistor, add a ventilated metal box to heat
> >shield it so you don't burn your hands, and so-239 connectors on the ends.
> >
> >David KB5YLG
> >
> application of high wattage reistors decrease maximum frequency
> because of the mechanical size, inductance depends on length and also
> stray capacictance may be a problem.
> I connected 6x 300 ohm 50W noninductive resistors from a discarded TV
> transmitter, but it wasn't much useful above 30MHz, particularly
> because of high stray capacitance, and physical size of the
> construction.

Indeed, for UHF/SHF stuff at relatively low powers I've used chip resistors soldered radially between the center and the flaring of an N connector. A few chip resistors across the end of a short piece of hardline soldered into a SMA connector works well too. Such a contraption is flat to 5 GHz or better if carefully made and not cooked too often. It can't handle much power though, but power loads up there can just be a bucket of water.

The original poster was concerned with mid VHF, so even better carbon film resistors will work fine. I've noticed that the lower value carbon films are a solid film and have no spiral groove, but as you try higher values for extra power handling the inductance goes up (the groove thing), but as you are paralleling more of them it is quite acceptable for the lower bands.

I'd recommend building it radially on the back of a SO-239 and testing it, the return loss should be quite acceptable. Just file the back of the connector down to its brass core and using a heavy iron tin the whole back side. (Needless to say you need one made with teflon insulation). Then solder all the resistors to the flange. Once you've done that, let it cool so you can handle it. Bring all the resistors together towards the center pin and carefully solder them all together.

Another method that I don't recommend (but it does work quite well) is to carefully chip or file off the encapsulating gunk on the end caps of the resistors. Once you've exposed most of it you can tin the cap easily and the rest of the stray rubbish will slogh off as slag. If you are careful you'll end up with an undamaged resistor with no legs, just

a ceramic tube with the film and the two end caps ready to be soldered directly across the connector just like with chip resistors. It takes a while to do, but makes the result more useful at UHF.

Of course the important part in making any dummy load is to burn yourself several times. Burnt offerings of human flesh appease the radio Gods and ensure high return losses.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (74% of Full)

7307. Re: A BROADBAND ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 16:46:34 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9tr79a$8oh$2@208.206.142.68>
Source record: 48404
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.antenna

'Doc wrote:
>
> The article compares this antenna to a rhombic. I'd
> also compare it to a B&W folder dipole...except cheaper.
> 'Doc

It certainly won't perform anywhere near a rhombic, and you are right it
is similiar to a B&W unit.

Dick

7308. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 17:07:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <rz9M7.66056$Y6.7298186@news1.rdc1.ct.home.com>
Source record: 48405

I'm surprised no one else suggested this. Make it cheap RG58 for
best results.

"Bill Janssen" <billj@ieee.org> wrote in message
news:3C00255E.30D9CA07@ieee.org...
> After you build the best dummy load you can, go out and buy 100 feet of
> RG58. Use that between the load and your transmitter. The cable loss
improves
> the characteristics of the load.
>
> Bill K7NOM
>
> Rob Crandall wrote:
>
> > I'm sure this has been posted a hundred times but could someone tell me
how
> > to build a cheap dummy load? Keep in mind that I am extemely
inexperienced
> > in electronics.I have done some soldering and stuff but I'm not the
best. In
> > fact I just built my first ground plane antenna for 2 meter.I've read
that
> > you can use mineral oil for the solution but how do you do the board and
> > stuff? It doesn't have to be an oil one just easy.I have a 6 watt 2
meter
> > handietalkie now but planning on a 25 or 50 watt one too.
> > Thaks!
> > Rob
> >
> > --
> > Sure I'll get a life,
> > Just as soon as I download one!
>

7309. Re: Broadband Tank Circuit Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 17:53:27 UTC
From: Dick Carroll <dixie@townsqr.com>
Message-ID: <9trb6n$4b$0@208.206.142.68>
Source record: 48406
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,sci.electronics.design

Roger Halstead wrote:
>
> "Ron H" <123456@mediaone.net> wrote in message
> news:e_tL7.1768$fN3.181516@typhoon.mn.mediaone.net...
> > I am gathering info to build an HF amplifier but have not been able to
> find
> > a good design for a truly braodband tank circuit. I know that the amp will
> > always be used with a tuner so it makes sense to make the amps output
> fixed
> > at 50 ohms or close to that over the full range of each band. I suppose a
> > resistor would do but then there would be the power considerations.
> >
> A broadband tank circuit is the antithis of what you find in an amplifier.
> Tank circuits are high Q = narrow band, but you can add presets to cover the
> bands in steps. Moving in frequency requires retunning to put the impedance
> back where it belongs.
>

But there ARE no-tune broadband amps on the market, such as the AL80B
(IIRC) and it began with the 600L.

Dick

7310. FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 19:02:01 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <JebM7.197333$3d2.8253005@bgtnsc06-news.ops.worldnet.att.net>
Source record: 48407

where can i find instructions on how to build a ferrite rod antenna for the
am broadcast band?

7311. FS H.P. 608E

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 19:38:38 UTC
From: timandjoann20@aol.com
Message-ID: <20011125143838.28367.00001299@mb-fj.aol.com>
Source record: 48408

Vintage 608 in excellent working condition. Calibration is very close. Bandswitch shaft has been sheered off flush with front panel. It can be repaired with a coupling and short shaft extension. Local only, no shipping. Atlanta area. Make offer

Tim Wilson

7312. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 20:47:36 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0158cb.275873275@news.online.no>
Source record: 48409

On Sun, 25 Nov 2001 17:07:35 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>I'm surprised no one else suggested this. Make it cheap RG58 for
>best results.
>
>
perhaps amateurs have bad experience that they cannot solder coax
connectors?
--
remove ,xnd to reply

7313. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 21:08:00 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C015DB0.CAD7F98C@coqui.net>
Source record: 48410

J M Noeding wrote:
>
> On Sun, 25 Nov 2001 17:07:35 GMT, "Peter J. Bertini"
> <commquart@home.com> wrote:
>
> >I'm surprised no one else suggested this. Make it cheap RG58 for
> >best results.
> >
> >
> perhaps amateurs have bad experience that they cannot solder coax
> connectors?
> --
> remove ,xnd to reply

Not as funny as it seems. I knew a guy once who bought top-of-the line everything - his radios, his car, his house, his blender, (his YF :-)) etc. He was convinced that his method of cramming coax shield into a connector, unsoldered, was the best way since the "heat affected the dielectric constant". Haven't heard him on the air in years, though.
-Bill WX4A

7314. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 21:31:28 UTC
From: la8ak.xnd@online.no
Message-ID: <3c015a90.276326190@news.online.no>
Source record: 48411

On Sun, 25 Nov 2001 16:45:27 GMT, Alan Yates <alany@ay.com.au> wrote:

> Another method that I don't recommend (but it does work quite well) is
>to carefully chip or file off the encapsulating gunk on the end caps of
>the resistors. Once you've exposed most of it you can tin the cap
>easily and the rest of the stray rubbish will slogh off as slag. If you
>are careful you'll end up with an undamaged resistor with no legs, just
>a ceramic tube with the film and the two end caps ready to be soldered
>directly across the connector just like with chip resistors. It takes a
>while to do, but makes the result more useful at UHF.
>
the problem is you have more than 4 resistors mounted radially from
center pin of connector it is physicly impossible to get near the
center pin, then you still need some wire length - at least in one
end, but for 3-4 power resistors it might work

73
LA8AK
--
remove ,xnd to reply

7315. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 21:34:43 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0163e7.278717535@news.online.no>
Source record: 48412

On Sun, 25 Nov 2001 17:08:00 -0400, Your Friend Bill <"Remove The NO
In The Reply Address"@coqui.net> wrote:

>J M Noeding wrote:
>>
>> On Sun, 25 Nov 2001 17:07:35 GMT, "Peter J. Bertini"
>> <commquart@home.com> wrote:
>>
>> >I'm surprised no one else suggested this. Make it cheap RG58 for
>> >best results.
>> >
>> >
>> perhaps amateurs have bad experience that they cannot solder coax
>> connectors?
>> --
>> remove ,xnd to reply
>
>Not as funny as it seems. I knew a guy once who bought top-of-the line
>everything - his radios, his car, his house, his blender, (his YF :-))
>etc. He was convinced that his method of cramming coax shield into a
>connector, unsoldered, was the best way since the "heat affected the
>dielectric constant". Haven't heard him on the air in years, though.
>-Bill WX4A
>
did you expect it....
--
remove ,xnd to reply

7316. trade a talking freq ctr for a mute wife

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 21:41:41 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <pAdM7.184723$ez.25099131@news1.rdc1.nj.home.com>
Source record: 48413

or at least a mute switch
"K9SQG" <k9sqg@aol.com> wrote in message
news:20011125105146.08110.00001474@mb-bk.aol.com...
> There is a blind ham looking for a talking frequency counter. Please
contact
> Jim at 573-431-5112.
>
> Thanks.
>
> Evan

7317. WTB: Kenwood AM filter (YK-88A)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 21:54:50 UTC
From: Argus <argus2400@hotmail.com>
Message-ID: <KMdM7.5305$Kc2.557970@newsread1.prod.itd.earthlink.net>
Source record: 48414

Gentlemen:

Please reply if you have such an item for sale or trade.

Best regards,

Argus

7318. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 22:18:38 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3c016d6a_1@newsa.ev1.net>
Source record: 48415

In Bill Orr's Radio Handbook, there is a chart to estimate the output levels of many power transformers, in the Power Supply chapter near the back of the book.

A good way to figure the secondary voltage, is to use a "Variac" on the input, apply 1.2vac or 2.4vac, and add "00" to the readings on your DVM, on the secondary. This should give you a good idea of what the "actual" full voltage should be.

Wire Ga. size can also help you determine the current rating, by using the continuos current rating of the given wire Ga. size, de-rated by 1 wire Ga. size from the actual size, to take into account the windings poor heat dissapation capacity.

I hope this helps you.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Mike Camp" <mikerobin@home.com> wrote in message
news:c70M7.45397$RG1.23266334@news1.rdc1.sfba.home.com...
> Hello-
>
> I have several old unmarked tube era transformers. I can easily find out
> the voltages, unloaded, of the various windings.But, what is the technique
> to estimate the available current per winding, or the total power safely
> available from the transformer?
>
> Thanks!
> Mike Camp KI7FQ
>
>

7319. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 22:37:10 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3C017296.9CAD25EF@dialpoint.net>
Source record: 48416

Some of the old ARRL handbooks had a chart in them that tells how much
cross section of the core is needed for a certain power level. It takes
so much 'iron' to handle the magnetic field.

Mike Camp wrote:
>
> Hello-
>
> I have several old unmarked tube era transformers. I can easily find out
> the voltages, unloaded, of the various windings.But, what is the technique
> to estimate the available current per winding, or the total power safely
> available from the transformer?
>
> Thanks!
> Mike Camp KI7FQ

7320. WANTED:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 22:39:14 UTC
From: davearea51@aol.com
Message-ID: <20011125173914.04766.00001709@mb-mc.aol.com>
Source record: 48417

Amplifier or RF deck I can dedicate to 160-meters. Need not have the power supply, but if it does, so much the better. I am a home brewer, so have NO NEED for the Alphas, AL-1500's, Clipperton L's, and the like - don't bother. If it needs "fixing", so much the better! I will DEDICATE it to one and only one band: 1.8 to 2.0 MHz. MUST also have adequate dissipation to operate AM with reserve (4 X 572B's will NOT do the job). Please reply by email to either:
DaveArea51@aol.com or W0LEV@ARRL.net
Thanks for reading.

7321. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-25 23:47:06 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <jrfM7.9148$fa1.1859386@news2-win.server.ntlworld.com>
Source record: 48418

> I have several old unmarked tube era transformers. I can easily find out
> the voltages, unloaded, of the various windings.But, what is the technique
> to estimate the available current per winding, or the total power safely
> available from the transformer

==========
A generally accepted rule of thumb is to measure the no load voltage then load the winding
increasingly and measure the current when the voltage has dropped by 5%.
That current can be safely considered the rated current.

If the voltage is in the multikilo-volt range it might be tricky to measure the current in the winding. Voltage can be safely measured via a resistive 'tap'
Current can then be measured in the primary winding, however the no-load primary winding current should then be taken into consideration.
At 5% voltage drop from no load to rated load of the winding being measured ,the increase in primary winding current can be used
assuming that transformer loss is constant (probably not entirely true) ,P (primary) = P (secondary) from which the secondary winding current can be calculated. This method is perhaps not very scientific ,but good enough to determine the rated current and hence rated power of the winding .

Of course loading a HV (multi-kilovolt winding) is a topic in its own right. Perhaps it is possible to decrease the primary voltage with a variac (variable auto-transformer) to such a level that loading the secondary winding becomes manageable, but then determination of the rated current at HV level becomes much more complex . Any comments ? Perhaps from RF Power Amp constructors ?

Frank gm0csz.kn6wh@ntlworld.com

7322. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 01:04:16 UTC
From: poissondanlo@aol.com
Message-ID: <20011125200416.27487.00001604@mb-cl.aol.com>
Source record: 48419

hello
4 resistors radialy mounted = capacitive -jX
4 wires = inductive +jX
but :
(-jX) + (+jX) = 0 ?
no ?
so , may be no reactive component ?
try it with various lenght of wires to get a R without reactive component , or
try for very small SWR

Serge /F5JTM

7323. Re: Superregenerative VHF receivers

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 02:25:47 UTC
From: arm@helix.nih.gov
Message-ID: <LKhM7.176$%D6.234475@mencken.net.nih.gov>
Source record: 48420

Charles Kitchin has published several excellent QEX articles on
superregen receivers, including some VHF circuits. He has found
ways to obviate the need for external quenching.

geoffrey brown (geoff@spontaflex.freeserve.co.uk) wrote:
: ELEKTOR published a good vhf supreregen a few years ago but
: it was self quenching though modern enough to use a dual gate fet.
: will have the circuit somewhere if you really want it.
:
: geofft
: J.C Menard <menardjc@wanadoo.fr> wrote in message
: news:9sjl41epe1@wanadoo.fr...
: > Where could I find schematics for such receivers : modern solid state
: > versions with external quenching ?
: >
: > F8ND
: >
: >
:
:

7324. iLINK pc Boards, Kits, Assembled units

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 03:21:57 UTC
From: Duffer <hduff@ica.net>
Message-ID: <3C01B555.6FCF6CBF@ica.net>
Source record: 48421

Interested in setting up an iLINK gateway to your Repeater or Link ?

Bare interface pc boards, partial and full kits, built and tested boards
for iLINK now available.
Visit www.ilinkca.com for more details + pricing... OR e-mail
ve3fgk@rac.ca OR va3to@rac.ca

(Note: Boards/ kits made available at little to no profit...for the
purpose of promoting iLINK !)

7325. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 03:47:19 UTC
From: jgboyles@aol.com
Message-ID: <20011125224719.28955.00001327@mb-cm.aol.com>
Source record: 48422

>Aluminum is fine for RF shielding. Where did you hear is isn't?

About 30 years ago when I was a young engineer an old and respected engineer
told me it wasn't. I didn't ask why until now. I have noticed over the years
that consumer electronics that required shielded sections did not use Aluminum.
That may be because it does not solder to the circuit boards too well.
Initial testing of the amp without an enclosure or shielding produced a large
increase in rfi to all electronic in the house. Even with no power to the amp
I got rfi just going thru the t/r relay on the amp. I did not get a chance to
test whether the increased power caused the rfi to increase. At this point I
decided that shielding and careful control of common mode currents throughout
the entire rig, tuner, amp, feedline, antenna was in order.
BTW thanks for EZNEC Roy.
73 Gary N4AST

7326. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 04:05:16 UTC
From: jgboyles@aol.com
Message-ID: <20011125230516.28955.00001331@mb-cm.aol.com>
Source record: 48423

>Be careful! don't let the smoke out of those lovely fets.

Ed., You may not believe this but I installed the fets backwards! I was convinced there was only one way they could be installed. Wrong. Anyway I applied the 50 volts to fets installed wrong and got no output. After much head scratching and when I found out what I had done, butt kicking, I unsoldered the fets, put them right, and the amp worked. They must be pretty tough because I applied wrong voltages, and a lot of heat unsoldering. Amazing they lived thru that.
Nice web site, visit often.
73 Gary N4AST

7327. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 10:21:28 UTC
From: Leon Heller <leon_heller@hotmail.com>
Message-ID: <9tu22sntf2@plutonium.btinternet.com>
Source record: 48435

"marvin rosen" <raghead@worldnet.att.net> wrote in message
news:JebM7.197333$3d2.8253005@bgtnsc06-news.ops.worldnet.att.net...
> where can i find instructions on how to build a ferrite rod antenna for
the
> am broadcast band?
>
>

You can buy them ready made, with a long wave winding to boot.

Leon
--
Leon Heller, G1HSM leon_heller@hotmail.con
http://www.geocities.com/leon_heller
Low-cost Altera Flex design kit: http://www.leonheller.com

7328. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 10:21:59 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C0217C6.6602FE93@ay.com.au>
Source record: 48424

J M Noeding wrote:

> the problem is you have more than 4 resistors mounted radially from
> center pin of connector it is physicly impossible to get near the
> center pin, then you still need some wire length - at least in one
> end, but for 3-4 power resistors it might work

It is mechanically challenging yes, but not impossible, 1 watt resistors fit quite nicely leg-less between the flange and the center conductor, staggering them up and down on the center pin helps pack them in, you end up with a large blob of solder in the middle linking the center pin and all the resistors, the result is probably more capacitive than inductive.

You are correct though, 8 resistors is probably a practical limit with 1 watters. The 1/4 watts are much easier to handle, but are obviously limited in power handling.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (80% of Full)

7329. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 11:04:04 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C0221A3.D3372338@ay.com.au>
Source record: 48425

marvin rosen wrote:
>
> where can i find instructions on how to build a ferrite rod antenna for the
> am broadcast band?

There is some info in the ARRL antenna book for 160 metres, just add more turns to get onto the MW band. Basically you get yourself a ferrite rod, wind enough turns to resonate at about 500 kHz with your average BC tuning cap at its fully meshed point. Pick off the signal with a few turns, you can add an active pickup using a FET if you like.

Using litz wire is recommended, but not required.

I've recently built a tuned loop for the MW band. It is air cored though, and really works very well with good nulls to put noise or local stations you are trying to ignore into. I wrote up the details on my website last night in fact.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (81% of Full)

7330. Re: WTB: talking frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 11:10:20 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C02231C.E54E504F@ay.com.au>
Source record: 48426

K9SQG wrote:
>
> There is a blind ham looking for a talking frequency counter. Please contact
> Jim at 573-431-5112.

I saw a PIC based one floating around that spits out the frequency in
morse at the click of a button. IIRC it was built into an altoids tin
and did up to about 50 MHz.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (81% of Full)

7331. Re: WTB: talking frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 11:13:35 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C0223DF.BCBA42BC@ay.com.au>
Source record: 48427

Alan Yates wrote:
>
> K9SQG wrote:
> >
> > There is a blind ham looking for a talking frequency counter. Please contact
> > Jim at 573-431-5112.
>
> I saw a PIC based one floating around that spits out the frequency in
> morse at the click of a button. IIRC it was built into an altoids tin
> and did up to about 50 MHz.

This is not the one I had in mind, but looks equivalent:

http://smallwonderlabs.com/swl_frq.htm

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (81% of Full)

7332. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 11:50:59 UTC
From: "Jim Bromley, K7JEB" <j.e.bromley@worldnet.att.net>
Message-ID: <D0qM7.129632$WW.8159883@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48428

J M Noeding, la8ak, wrote (about homebrew dummy loads):

> the problem is you have more than 4 resistors mounted radially from
> center pin of connector it is physicly impossible to get near the
> center pin, then you still need some wire length - at least in one
> end, but for 3-4 power resistors it might work

One of the approaches to making a dummy load from low-power
film or composition resistors is to construct it as a
series of cascaded attenuators. This allows the heat
dissipation to be spread out over a large number of resistors
without running into impedance mismatching problems trying
to get all of the resistors close to each other. To make
the approach work at VHF/UHF, the attenuator sections can
be built over a ground plane, microstrip-style. The power
dissipated in each attenuator section is equalized by
designing the first sections to have a small amount of
attenuation (say 0.1 dB) and then gradually increasing it
in the downstream sections. The downside of this is that
one has to manage a plethora of different-valued resistors
rather than a number of identical ones. Of course the last
'section' would be a 50-ohm termination that can safely
dissipate the 'attenuated' signal.

--
Jim Bromley, K7JEB k7jeb@arrl.net
Glendale, Arizona, USA

7333. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 12:56:37 UTC
From: Bob Camp <bob@cq.nu>
Message-ID: <9_qM7.103676$636.13672233@news02.optonline.net>
Source record: 48430

Hi,

The main reason not to use aluminum is that it is hard to make a good connection to. With an amp you want to be able to do multiple low impedance connections to ground. They handle a *lot* of current so the need for a good connection is worse in an amp than it is in a lot of gear. In the days of resonant output (pi match) networks the circulating currents often ran 10X the current out to the antenna.

The second reason is that aluminum joints to other metals if not properly cared for can oxidize fairly heavily. The resulting connection will be an RFI producer. This is not as big a deal if everything is made from aluminum. It is a big deal if you have a steel chassis with aluminum shielding on top of it.

Enjoy!

Bob Camp
KB8TQ

"JGBOYLES" <jgboyles@aol.com> wrote in message
news:20011124232057.07994.00000825@mb-de.aol.com...
> Hi,
> Building a solid state amp 4 MRF150's push pull class ab1. Always
heard that
> the rf deck should be shielded with copper, tin, iron or anything
but Aluminum.
> Want maximum rf containment, and assume aluminum won't do it. Why
should I
> not use aluminum, and why?
> 73 Gary N4AST

7334. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 13:04:02 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <eT0xtSFC3jA8EAro@ifwtech.com>
Source record: 48431

Jim Bromley, K7JEB wrote:
>One of the approaches to making a dummy load from low-power film or
>composition resistors is to construct it as a series of cascaded
>attenuators. This allows the heat dissipation to be spread out over a
>large number of resistors

Unfortunately it doesn't spread the dissipation as well as you'd like,
because most of the dissipation will always be in the earlier stages.
For example, if you put 100W into three cascaded 3dB attenuators,
followed by a dummy load, the dissipations will be:

Stage 1 50W
Stage 2 25W
Stage 3 12.5W
Load 12.5W

The same applies to dummy loads made from very long lengths of lossy
coax - they always melt at the input end.

--
73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

7335. Re: WTB: talking frequency counter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 13:09:07 UTC
From: Michael Neverdosky <michaeln@cfl.rr.com>
Message-ID: <3C01F883.9B79264B@cfl.rr.com>
Source record: 48429

K9SQG wrote:
>
> There is a blind ham looking for a talking frequency counter. Please contact
> Jim at 573-431-5112.
>
> Thanks.
>
> Evan

Take a look at;

http://www.extremezone.com/~nk7m/cwafc.htm

This is a real nice unit, but it is a kit so he (she?) will need someone
to build it.

I have two of them in my shack.

michael N6CHV

7336. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 16:12:39 UTC
From: Bill Janssen <billj@ieee.org>
Message-ID: <3C026943.C52A5928@ieee.org>
Source record: 48432

Frank Dinger wrote:

> > I have several old unmarked tube era transformers. I can easily find out
> > the voltages, unloaded, of the various windings.But, what is the technique
> > to estimate the available current per winding, or the total power safely
> > available from the transformer
>
> =============
> A generally accepted rule of thumb is to measure the no load voltage then
> load the winding
> increasingly and measure the current when the voltage has dropped by 5%.
> That current can be safely considered the rated current.
>
> If the voltage is in the multikilo-volt range it might be tricky to measure
> the current in the winding. Voltage can be safely measured via a resistive
> 'tap'
> Current can then be measured in the primary winding, however the no-load
> primary winding current should then be taken into consideration.
> At 5% voltage drop from no load to rated load of the winding being measured
> ,the increase in primary winding current can be used
> assuming that transformer loss is constant (probably not entirely true) ,P
> (primary) = P (secondary) from which the secondary winding current can be
> calculated. This method is perhaps not very scientific ,but good enough to
> determine the rated current and hence rated power of the winding .
>
> Of course loading a HV (multi-kilovolt winding) is a topic in its own
> right. Perhaps it is possible to decrease the primary voltage with a variac
> (variable auto-transformer) to such a level that loading the secondary
> winding becomes manageable, but then determination of the rated current at
> HV level becomes much more complex . Any comments ? Perhaps from RF Power
> Amp constructors ?
>
> Frank gm0csz.kn6wh@ntlworld.com

You can get a idea of current handling by measuring the temperature rise after running a know current through the winding. You do that by measuring the temperature
and resistance of the winding. Then put a know current through the winding and after a suitable
delay again measure the resistance. The change of resistance will give you the temperature
rise. Of course you have to look up the constant related to temperature and resistance.

The transformer should not exceed 140 deg.. F. at a high maximum.

Cheers.
Bill K7NOM

7337. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 16:49:12 UTC
From: "Jim Bromley, K7JEB" <j.e.bromley@worldnet.att.net>
Message-ID: <couM7.237166$W8.8067278@bgtnsc04-news.ops.worldnet.att.net>
Source record: 48434

>> I originally posted:

>>One of the approaches to making a dummy load from low-power film or
>>composition resistors is to construct it as a series of cascaded
>>attenuators. This allows the heat dissipation to be spread out over a
>>large number of resistors

> Ian White, G3SEK <G3SEK@ifwtech.com> replied:

> Unfortunately it doesn't spread the dissipation as well as you'd like,
> because most of the dissipation will always be in the earlier stages.
> For example, if you put 100W into three cascaded 3dB attenuators,
> followed by a dummy load, the dissipations will be:

> Stage 1 50W
> Stage 2 25W
> Stage 3 12.5W
> Load 12.5W

> The same applies to dummy loads made from very long lengths of lossy
> coax - they always melt at the input end.

I thought I made it clear that:

>> ... The power
>> dissipated in each attenuator section is equalized by
>> designing the first sections to have a small amount of
>> attenuation (say 0.1 dB) and then gradually increasing it
>> in the downstream sections. The downside of this is that
>> one has to manage a plethora of different-valued resistors
>> rather than a number of identical ones.

To be honest, I saw this successfully done in one of my
employers' labs quite a few years ago, noted it down as
a readily available alternative to a huge non-inductive
resistor and forgot about it until this question came up.

So I didn't crank out the design for myself and come up
with a scheme that would give each attenuator section
precisely 5 watts (or whatever) of dissipation. I'll
do that later if I have time and post the results.

--
Jim Bromley, K7JEB k7jeb@arrl.net
Glendale, Arizona

7338. FS: Sony/Tek Oscilloscope

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 16:50:01 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3C0272B9.6F5A1705@enteract.com>
Source record: 48433
Cross-posted to: chi.forsale,sci.electonics,rec.radio.amateur.homebrew

Sony/Tektronix 335 Oscilloscope

DC to 35MHz, dual-trace
vertical deflection: 1mV to 10V/division
sweep rates: 0.5 sec to 0.2 us/division, 10x magnifier (for 20ns/div)
sweep modes: automatic, normal, single-sweep
other features: variable hold-off, delayed sweep, x-y mode
portable, line-powered (115/230), or external supply (12/24)
photocopy of operator's manual
sturdy case with pouch, minus nose-piece, with one scope probe
Asking $190

Western suburb of Chicago.

--
Mike Hall
http://www.enteract.com/~mghall

7339. Re: Plate transformer current/power devining?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 19:47:24 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0111261147.3b32229b@posting.google.com>
Source record: 48436

Loading till the voltage drops by some amount is a reasonable start,
but how do you figure the current of each winding out of several?
Things can get rather complex. I like to measure the resistance of
each winding. The resistance and the voltage tells me something about
the wire gauge used for the winding, assuming I can't just measure the
gauge. Transformers have typically been designed with wire sized at
500 to 1000 circular mils per amp. Many wire tables list the circular
mils for each gauge. The core cross-sectional area will give you a
pretty good idea of the overall power rating...or more properly the
overall volt-ampere rating...of a transformer. (Realize, too, that
the power you can get from a transformer feeding a rectifier depends
on the filter following that rectifier...a large capacitor at the
filter input causes current spikes in the transformer that have
relatively large RMS to average ratio, and it's the RMS current that
is what you care about in the transformer, but it's the average
current that you get out of the DC side.)

Keep in mind that ultimately, it's internal temperature rise that
limits the power handling of a transformer. If you're up for some
somewhat tedious measurements, you can get a pretty good indication of
the actual operating temperature of each winding as follows. Measure
the room-temperature resistance of the winding accurately, then
operate the transformer (under some conservative test loading) for a
long time, till it reaches thermal equillibrium. Then disconnect the
power and quickly (before it cools) measure the winding resistances.
Use the (about 0.39%/degree C) temperature coefficient of resistance
of copper to figure the temperature rise. You may have to re-run the
'speriment with different loadings, till you're happy you've found a
rating you're comfortable with. What's safe? Depends on the
insulation in the transformer! I'd say a max 80C internal temperature
is fairly conservative, but the cooler the transformer (and the more
thermally-tolerant the insulations--which is really hard to know
unless you're given the specs, in which case you wouldn't be having to
measure it!), the longer it will live.

Cheers,
Tom

"Mike Camp" <mikerobin@home.com> wrote in message
news:<c70M7.45397$RG1.23266334@news1.rdc1.sfba.home.com>...
> Hello-
>
> I have several old unmarked tube era transformers. I can easily find out
> the voltages, unloaded, of the various windings.But, what is the technique
> to estimate the available current per winding, or the total power safely

> available from the transformer?
>
> Thanks!
> Mike Camp KI7FQ

7340. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 19:52:42 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <dcGBOaRK2pA8EAqy@ifwtech.com>
Source record: 48437

Jim Bromley, K7JEB wrote:
>I thought I made it clear that:
>
>>> ... The power
>>> dissipated in each attenuator section is equalized by
>>> designing the first sections to have a small amount of
>>> attenuation (say 0.1 dB) and then gradually increasing it
>>> in the downstream sections.

Apologies, Jim, I didn't read your original posting thoroughly enough.

--
73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

7341. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 20:12:31 UTC
From: la8ak.xnd@online.no
Message-ID: <3c029c34.6343050@news.online.no>
Source record: 48438

Have an old Rohde & Schwartz type RBD 60 ohm 20W 600MHz Dummy Load
/Attenuator, but since I didn't like 60hm, I had to open and modify it

It was a surprise to learn that they used relatively large resistors,
looks like 5W consumer types, and still it is claimed useful up to
600MHz! Have not measured it, it is heavy and little used, since
attenuation is not exact any more, and my own construction weights
only few percent of this boatanchor.

73
LA8AK

On Mon, 26 Nov 2001 16:49:12 GMT, "Jim Bromley, K7JEB"
<j.e.bromley@worldnet.att.net> wrote:

>
>>> I originally posted:
>
>>>One of the approaches to making a dummy load from low-power film or
>>>composition resistors is to construct it as a series of cascaded
>>>attenuators. This allows the heat dissipation to be spread out over a
>>>large number of resistors
>
>> Ian White, G3SEK <G3SEK@ifwtech.com> replied:
>
>> Unfortunately it doesn't spread the dissipation as well as you'd like,
>> because most of the dissipation will always be in the earlier stages.
>> For example, if you put 100W into three cascaded 3dB attenuators,
>> followed by a dummy load, the dissipations will be:
>
>> Stage 1 50W
>> Stage 2 25W
>> Stage 3 12.5W
>> Load 12.5W
>
>> The same applies to dummy loads made from very long lengths of lossy
>> coax - they always melt at the input end.
>
>I thought I made it clear that:
>
>>> ... The power
>>> dissipated in each attenuator section is equalized by
>>> designing the first sections to have a small amount of
>>> attenuation (say 0.1 dB) and then gradually increasing it
>>> in the downstream sections. The downside of this is that

>>> one has to manage a plethora of different-valued resistors
>>> rather than a number of identical ones.
>
>To be honest, I saw this successfully done in one of my
>employers' labs quite a few years ago, noted it down as
>a readily available alternative to a huge non-inductive
>resistor and forgot about it until this question came up.
>
>So I didn't crank out the design for myself and come up
>with a scheme that would give each attenuator section
>precisely 5 watts (or whatever) of dissipation. I'll
>do that later if I have time and post the results.
>
>
>--
>Jim Bromley, K7JEB k7jeb@arrl.net
>Glendale, Arizona
>
>
>
>
>
>

--
remove ,xnd to reply

7342. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 20:12:31 UTC
From: la8ak.xnd@online.no
Message-ID: <3c029885.5399807@news.online.no>
Source record: 48439

On Mon, 26 Nov 2001 10:21:59 GMT, Alan Yates <alany@ay.com.au> wrote:

>J M Noeding wrote:
>
>> the problem is you have more than 4 resistors mounted radially from
>> center pin of connector it is physicly impossible to get near the
>> center pin, then you still need some wire length - at least in one
>> end, but for 3-4 power resistors it might work
>
> It is mechanically challenging yes, but not impossible, 1 watt
>resistors fit quite nicely leg-less between the flange and the center
>conductor, staggering them up and down on the center pin helps pack them
>in, you end up with a large blob of solder in the middle linking the
>center pin and all the resistors, the result is probably more capacitive
>than inductive.

You are describing a construction which is very much similar to the
construction I've already described in another thread some days ago. I
am not sure how important it is to remove the wires completely when it
only reduce the resistor length by 5-10%, it may help in some critical
cases, but my construction was useful beyond 1200MHz
>
> You are correct though, 8 resistors is probably a practical limit with
>1 watters. The 1/4 watts are much easier to handle, but are obviously
>limited in power handling.
>
By the way, wonder what is a so-called non-inductive resistor? It may
be an expression for HF amateurs who have never experimented on UHF,
any wire length has some inductance. Have a feeling that many of the
views expressed here is what may be found in books, but who has any
practical experience? Who has got their construction measured
extensively?

73
LA8AK
--
remove ,xnd to reply

7343. Supplier

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 21:48:48 UTC
From: Bob Liesenfeld <wb0poq@visi.com>
Message-ID: <3C02B8C0.44DFBF77@visi.com>
Source record: 48440

Hi gang,
I have found a supplier for some of the old TDA ICs and wonder if
anyone has had dealings with them, and what kind of luck you had. The
vendor is:

http://members.aol.com/makelectronics/

Match A Knob
Jamaica NY

Thanks!
Bob WB0POQ

7344. FS: Device Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 22:22:18 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3C02C09A.E8FBF6BE@enteract.com>
Source record: 48441
Cross-posted to: chi.forsale,sci.electronics,rec.radio.amateur.homebrew

BK Precision Device Programmer, Model 846

equivalent to EEtool's MegaMax programmer
connects to PC parallel port
one 48 pin DIP ZIF socket
with original box, manual, floppy, cable, power supply
with original modules 01 and 02 (EPROM, EEPROM, serial EEPROM)
with extra modules 03 (PIC micros) and 11 (Zilog micros)
see www.bkprecision.com or www.eetools.com
Asking $285

Thanks!
--
Mike Hall
http://www.enteract.com/~mghall (see the 'GEAR.txt' file for more)

7345. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 23:26:47 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C02CFB7.963A6543@coqui.net>
Source record: 48442

Leon Heller wrote:
>
> "marvin rosen" <raghead@worldnet.att.net> wrote in message
> news:JebM7.197333$3d2.8253005@bgtnsc06-news.ops.worldnet.att.net...
> > where can i find instructions on how to build a ferrite rod antenna for
> the
> > am broadcast band?
> >
> >
>
> You can buy them ready made, with a long wave winding to boot.
>
> Leon
> --
> Leon Heller, G1HSM leon_heller@hotmail.con
> http://www.geocities.com/leon_heller
> Low-cost Altera Flex design kit: http://www.leonheller.com

Whats your source? I know a fella in Eire looking for one with LW.
Tnx,
Bill

7346. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 23:30:51 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C02D0AB.39A144A1@coqui.net>
Source record: 48443

J M Noeding wrote:

> >
> By the way, wonder what is a so-called non-inductive resistor? It may
> be an expression for HF amateurs who have never experimented on UHF,
> any wire length has some inductance. Have a feeling that many of the
> views expressed here is what may be found in books, but who has any
> practical experience? Who has got their construction measured
> extensively?
>
> 73
> LA8AK
> --
> remove ,xnd to reply

Generally assumed to be carbon comp. The newer carbon-film types are typically cut as a spiral resulting in a few small turns that I 'guess' would be something you don't want at VHF/UHF. -Bill

7347. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-26 23:47:52 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <txAM7.14962$fa1.2928906@news2-win.server.ntlworld.com>
Source record: 48444

> By the way, wonder what is a so-called non-inductive resistor? It may
> be an expression for HF amateurs who have never experimented on UHF,
> any wire length has some inductance. Have a feeling that many of the
> views expressed here is what may be found in books, but who has any
> practical experience? Who has got their construction measured
> extensively?
==========
In an earlier posting re this topic I referred to the use of Caddock MP 820
non-inductive power film resistors.
Attached to a photo copy of the spec sheet I have a test sheet (possibly
from DUBUS magazine ,since it is in German)
Test of a MP 820 , 50 Ohms , 1% done with a Rhode & Schwartz SCALAR
Network Analyser and a R & S SWEEP GENERATOR , 0.4 to 2500 MHz reveals the
following :
Freq Range Return Loss SWR

0.4 -100 MHz 52 dB 1.00
500 MHz 34dB 1.04
1000 MHz 16 dB 1.37

73 , Frank gm0csz.kn6wh@ntlworld.com

7348. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 00:26:14 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C02DDA6.BB7D9325@ay.com.au>
Source record: 48445

J M Noeding wrote:

> You are describing a construction which is very much similar to the
> construction I've already described in another thread some days ago. I
> am not sure how important it is to remove the wires completely when it
> only reduce the resistor length by 5-10%, it may help in some critical
> cases, but my construction was useful beyond 1200MHz

It helps for UHF, but for HF I wouldn't be bothered.

> By the way, wonder what is a so-called non-inductive resistor? It may
> be an expression for HF amateurs who have never experimented on UHF,
> any wire length has some inductance. Have a feeling that many of the
> views expressed here is what may be found in books, but who has any
> practical experience? Who has got their construction measured
> extensively?

No comment.

I don't have a network analizer or any such funky equipment, just some homebrew directional couplers, noise bridges, etc. That is pretty limited equipment for seeing how flat a dummy load is, all I can say is it looks pretty resistive in terms of its return loss at the frequencies I use it for.

I am not rich enough to have a TWA so I only have milliwatts above 23cm where chip resistors are fine and my measurements are rubbery anyway.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (85% of Full)

7349. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 00:33:52 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C02DF70.E4E6F16E@ay.com.au>
Source record: 48446

J M Noeding wrote:
>
> Have an old Rohde & Schwartz type RBD 60 ohm 20W 600MHz Dummy Load
> /Attenuator, but since I didn't like 60hm, I had to open and modify it
>
> It was a surprise to learn that they used relatively large resistors,
> looks like 5W consumer types, and still it is claimed useful up to
> 600MHz! Have not measured it, it is heavy and little used, since
> attenuation is not exact any more, and my own construction weights
> only few percent of this boatanchor.

I wonder if using carbon film resistors as a center conductor in a
piece of homebrew coaxial line could wash off the power slowly, like
lossy CRO probe coax designed to absorb reflections.

It would still get stinking hot at the front though, but you could
taper the values like the attenuator discussed above. I doubt the
construction effort would be worth the result though.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (85% of Full)

7350. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 01:14:06 UTC
From: ZZZjim_cronin@juno.comZZZ
Message-ID: <3bp50u4bqht8i956aip2q4paekp6rhnv01@4ax.com>
Source record: 48347

Do a search on "National Radio Club", an association
of MW (AM broadcase band) DXer's.

Although if you have the room, a 2-4 foot square tuned loop
works great and eliminates the need for ferrite rods.

73,
Jim
N2VNO

On Sun, 25 Nov 2001 19:02:01 GMT, "marvin rosen"
<raghead@worldnet.att.net> wrote:

>where can i find instructions on how to build a ferrite rod antenna for the
>am broadcast band?
>

7351. test2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 01:53:50 UTC
From: KB0P <kbop@home.com>
Message-ID: <OmCM7.182632$My2.107563959@news1.mntp1.il.home.com>
Source record: 48348

```
test
```

7352. iLink

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 02:37:57 UTC
From: KB0P <kbop@home.com>
Message-ID: <90DM7.182666$My2.107652476@news1.mntp1.il.home.com>
Source record: 48349

iLink

7353. MIKE SCHEMATIC/ADAPTER FOR ICOM 725 HF RIG

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 08:08:07 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <HRHM7.130779$WW.8273786@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48350

NEED DIAGRAM/SCHEMATIC TO CONNECT A COMPUTER HEADSET/ELECTRET MIKE TO MY IC-725

7354. ILINK BOARD FOR SALE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 12:16:54 UTC
From: KB0P <kbop@home.com>
Message-ID: <WuLM7.183674$My2.108487384@news1.mntp1.il.home.com>
Source record: 48351

I have an extra ILINK interface board. If anyone is interested in interfacing their repeater to the internet using ILINK, please contact me via email. The board is wired and tested and ready to go. Once this board is gone, it's gone. First come first serve.

Paul, kb0p
kbop@home.com (replace the oh with a zero)

7355. Re: Amp shielding

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 12:31:52 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <o310u9.vv2.ln@darkstar.localdomain>
Source record: 48355

JGBOYLES wrote:

>>Be careful! don't let the smoke out of those lovely fets.
>
> Ed., You may not believe this but I installed the fets backwards! I was
> convinced there was only one way they could be installed. Wrong. Anyway

I believe it. I've murdered a few transistors in my time.

Wrong way around would put +4V (approx.) on the drains and
+50V on the gates! I don't have the data-sheet for the MRF150
but I would expect them to survive 50V on the gate. I'm glad
you got away with it. It's ok to blow up 99c switching mosfets,
MRFxxx's are a bit too expensive to let the smoke out.

> Nice web site, visit often.
> 73 Gary N4AST

Thanks for your kind comments. I'm playing with a new PA using
a single MRF140. It gives about 40W out with a 13.8V supply,
150W+ with a 28V supply. I'll put the details on my web-page
soon.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.16-pre1

7356. FS: KENWOOD KPS-12 PWR SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 13:10:25 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <5hMM7.183699$My2.108548782@news1.mntp1.il.home.com>
Source record: 48352

THIS 13.8 VDC @ 12 AMP SUPPLY IS IN EXCELLANT CONDITION

$65.00 + SHIPPING

k9vdd@home.com

7357. FS: BENCHER BY-2 KEYER PADDLE

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 13:11:07 UTC
From: K9VDD <K9VDD@HOME.COM>
Message-ID: <LhMM7.183700$My2.108550005@news1.mntp1.il.home.com>
Source record: 48353

THIS BENCHER BY-2 KEYER PADDLE IS THE ALL CHROME MODEL AND IS LIKE NEW!!

$65.00 + SHIPPING

k9vdd@home.com

7358. Nice Realistic DX-200 on the bay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 15:41:40 UTC
From: Jack <jack@yahoo.com>
Message-ID: <UuOM7.9026$WC1.1171600@newsread2.prod.itd.earthlink.net>
Source record: 48354
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.cb

There is a very clean DX-200 receiver for sell at this location:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1302768151&r=0&t=0&showTutorial=0&ed=1007429285&indexURL=0&rd=1

Jack

7359. Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 20:30:37 UTC
From: Cathexis@yourhaterols.com
Message-ID: <3c03f533.98995829@news.erols.com>
Source record: 48356

Greetings,

I have two broken major appliances headed for the street;
A GE front-load washer and a GE toploading dryer. The tranny's
out in the dryer, don't recall what's broken with the washer. but
the repairman made it clear it'd cost more for old parts and labor
than it would to buy new units. Both maybe 10 years old.

My question is: Anything of * radio * homebrew potential
worth salvaging here? Not even sure what there could be, but
how often do I throw out major appliances? So thought I'd ask.
Interested in some simpler projects for the winter such as crystal
sets, a regenie radio perhaps, maybe some test equip. like a GDO,
although I already have 2. perhaps some tx. kit or some such.
Labor and time are not an issue, but I'm no expert . Hope you can
help.

73 de KG4JBM/ Andrew
Reticulum

Remove "your.hat" when replying via e-mail

7360. FS: EF 14 NOS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 22:40:34 UTC
From: arnoldg@c2i.net
Message-ID: <3c04155d.4726064@news1.c2i.net>
Source record: 48357
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hi,

I have 3 pcs of the very scarce EF 14 valves. They are Telefunken and
one of them have even a 'Wehrmacht' label and the datecoding 05 45
They are all unused and two have original boxes. The price is only NOK
929.- or about US$ 103.-
You can look at a picture of them at my web site - www.demostenes.no
Just search for EF 14 in the field down in the left corner of the
opening picture.
E-mail me if interested

Regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7361. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 22:47:54 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3C04181A.5000600@valley.net>
Source record: 48358

Hello--
While large appliances don't offer as many possibilities as electronic appliances,
you can generally scrounge some hookup wire, possibly a timer mechanism or electronic
timer, a microswitch or two, and Nichrome elements from the dryer (for dummy loads, plastics-bending
strip heaters, etc.).

Hardware (nuts, bolts, brackets, leveling feet) may be too rusted to bother saving.

Small timer motors may include removable magnet wire that will work for winding coils.

Oh, and don't forget the power cords<g>.

73--
Brad AA1IP

Reticulum wrote:

>Greetings,
>
> I have two broken major appliances headed for the street;
>A GE front-load washer and a GE toploading dryer. The tranny's
>out in the dryer, don't recall what's broken with the washer. but
>the repairman made it clear it'd cost more for old parts and labor
>than it would to buy new units. Both maybe 10 years old.
>
> My question is: Anything of * radio * homebrew potential
>worth salvaging here? Not even sure what there could be, but
>how often do I throw out major appliances? So thought I'd ask.
>Interested in some simpler projects for the winter such as crystal
>sets, a regenie radio perhaps, maybe some test equip. like a GDO,
>although I already have 2. perhaps some tx. kit or some such.
>Labor and time are not an issue, but I'm no expert . Hope you can
>help.
>
> 73 de KG4JBM/ Andrew
> Reticulum
>
>Remove "your.hat" when replying via e-mail
>

7362. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 23:26:14 UTC
From: la8ak.xnd@online.no
Message-ID: <3c03fc4f.96496157@news.online.no>
Source record: 48359

On Tue, 27 Nov 2001 00:26:14 GMT, Alan Yates <alany@ay.com.au> wrote:

> I am not rich enough to have a TWA so I only have milliwatts above 23cm
>where chip resistors are fine and my measurements are rubbery anyway.
>
seems to be difficult to use such components above 1000MHz, but a
dummy-load with N-connector marked 10GHz was found useful only up to
5.76GHz

I do not doubt whether you have practical experience, but have a
feeling that many of the other refers to book, another exception from
this is of course G3SEK

I am surprised to read about what is necessary or what is not, when my
practical experience and proven results from using measuring equipment
which a professional company are pleased to help us at rallies -
indicates something different.

A friend who is a wellknown German microwave amateur made extensive
experiments on 10GHz, he was so fed up of hearing important notes,
particularly how important to use silver, he tried to investigate the
sources from the bullshit, and everybody claimed they had read it, and
one author had read it in another book, and this have been going on
for many years, so he discovered that much of the so-called golden
rules are just bullshit.

Bt the way, I bought a direction coupler with SMA-connector from a
Dutch amateur for $20.- at a rallie, and he had many, so it is not
impossible to find cheap in Europe

73
LA8AK
--
remove ,xnd to reply

7363. Re: MIKE SCHEMATIC/ADAPTER FOR ICOM 725 HF RIG

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 23:26:14 UTC
From: la8ak.xnd@online.no
Message-ID: <3c03fd69.96778195@news.online.no>
Source record: 48360

On Tue, 27 Nov 2001 08:08:07 GMT, "marvin rosen"
<raghead@worldnet.att.net> wrote:

>NEED DIAGRAM/SCHEMATIC

>
>
tried http://krasnodar.online.ru/hamradio/sch_eng.html ?
--
remove ,xnd to reply

7364. Re: FS: RV12P2000

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-27 23:29:16 UTC
From: la8ak.xnd@online.no
Message-ID: <3c04219f.106049620@news.online.no>
Source record: 48361
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Have some original boxed RV12P2000, wonder what the value is?

73
LA8AK

On Tue, 27 Nov 2001 22:40:34 GMT, arnoldg@c2i.net (DEMOSTENES A.
Goks&#65533;yr) wrote:

>Hi,
>
>I have 3 pcs of the very scarce EF 14 valves. They are Telefunken and
>one of them have even a 'Wehrmacht' label and the datecoding 05 45
>They are all unused and two have original boxes. The price is only NOK
>929.- or about US$ 103.-
>You can look at a picture of them at my web site - www.demostenes.no
>Just search for EF 14 in the field down in the left corner of the
>opening picture.
>E-mail me if interested
>
>Regards,
>
>Arnold Goks&#65533;yr
>
>DEMOSTENES - N6899 Balestrand, Norway
>Tlf. +47 5769 1340 Fax +47 5769 1267
>http://www.demostenes.no
>
>Thousands of different valves in stock as well as
>sockets,transformers,books,caps,resistors and
>other components. Web site is updated every week.
>You can order on-line.
>

--
remove ,xnd to reply

7365. icom 725 mike conversion?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 00:30:31 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <HeWM7.238983$W8.8228068@bgtnsc04-news.ops.worldnet.att.net>
Source record: 48362

how do i convert a computer headset/ mike to work with my icom 725?

7366. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 03:35:25 UTC
From: Cathexis@yourhaterols.com
Message-ID: <3c045b1d.125089561@news.erols.com>
Source record: 48363

On Tue, 27 Nov 2001 17:47:54 -0500, Brad Thompson <brad.thompson@valley.net>
wrote:

>Hello--
>While large appliances don't offer as many possibilities as electronic
>appliances,
>you can generally scrounge some hookup wire, possibly a timer mechanism
>or electronic
>timer, a microswitch or two, and Nichrome elements from the dryer (for
>dummy loads, plastics-bending
>strip heaters, etc.).
>
>Hardware (nuts, bolts, brackets, leveling feet) may be too rusted to
>bother saving.
>
>Small timer motors may include removable magnet wire that will work for
>winding coils.
>
>Oh, and don't forget the power cords<g>.
>
>73--
>Brad AA1IP
>
Well, at least I got one thing right;
I thought about the power cords.
Don't know anything about Nichrome
however. Can certainly research, but where
would I find them (it, whatever). And thanks!

Andrew
Reticulum

Remove "your.hat" when replying via e-mail

7367. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 06:23:20 UTC
From: n7ws@arrl.yahoo
Message-ID: <3c047d75.37074095@news.triconet.org>
Source record: 48364

On Mon, 26 Nov 2001 23:47:52 -0000, "Frank Dinger"
<f.dinger@ntlword.com> wrote:

[snip]

>In an earlier posting re this topic I referred to the use of Caddock MP 820
>non-inductive power film resistors.
>Attached to a photo copy of the spec sheet I have a test sheet (possibly
>from DUBUS magazine ,since it is in German)
>Test of a MP 820 , 50 Ohms , 1% done with a Rhode & Schwartz SCALAR
>Network Analyser and a R & S SWEEP GENERATOR , 0.4 to 2500 MHz reveals the
>following :
>Freq Range Return Loss SWR
>
>0.4 -100 MHz 52 dB 1.00

I don't believe this for a minute. To my knowledge there isn't a
scalar network alive that has the ability to accurately measure 52 dB
return loss without heroic effort. You would need at least 60 dB
directivity and port match to do this accurately. A carefully
calibrated VECTOR analyzer with full error correction can do this, but
even then it is not routine.

Instrument makers work very hard to build short sections of precision
beadless air line standards that have 60 dB return loss and these must
be literally handled with gloves on to keep contamination from
degrading the performance.

A really good labortory grade sexless 7mm termination will typically
be rated no better than 40 dB RL.

A 52 dB return loss is a VSWR of 1.005. Assume a perfectly
non-reactive resistor that gives a 1.005 VSWR. It can be either
50/1.005 (~49.75 ohm) or 50*1.005 (~50.25 ohm). This 1% resistor has
to be within 1/2 % resistive and totally non-reactive (a good magic
trick for a resistor in a non-coaxial TO220 package) over temperature.
With a perfect 50 ohm, just 0.25 ohm reactance will give a 1.005 VSWR.

Sorry Frank, I'm not picking on you for posting this. I know you are
only the messenger, but sometimes these claims just have to be
challenged before they become "laws."

Wes Stewart N7WS

7368. AZden 2M Mobile

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 06:35:17 UTC
From: Stephen Gale <stephengale@sympatico.ca>
Message-ID: <dz%M7.10783$cC5.1758540@news20.bellglobal.com>
Source record: 48365
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

With Extension cable

7369. AZden 2M Mobile

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 06:35:37 UTC
From: Stephen Gale <stephengale@sympatico.ca>
Message-ID: <xz%M7.10785$cC5.1758577@news20.bellglobal.com>
Source record: 48366
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

With Extension cable

http://members.kingston.net/sgale/gold2/index.html

7370. AZden 2M Mobile

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 06:35:52 UTC
From: Stephen Gale <stephengale@sympatico.ca>
Message-ID: <Lz%M7.10786$cC5.1758631@news20.bellglobal.com>
Source record: 48367
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

With Extension cable

http://members.kingston.net/sgale/gold2/index.html

7371. FS: WWII Radio Fundamentals Book, $9

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 15:52:04 UTC
From: oldbooks78@aol.com
Message-ID: <20011128105204.04371.00003420@mb-fc.aol.com>
Source record: 48368

I currently have for sale a copy of "Radio Fundamentals" by Willis Ballou, published by the U.S. Naval Institute in 1942 Second edition. The 260 page hardbound book is in about very good condition. Several passages are underlined in pencil, and there is a previous owners name stamp inside the front cover. Otherwise nice. A WWII era text for Naval Academy cadets to learn the fundamentals of radio. Available for $9 plus $2 postage (book rate within the US, or $4 for Priority Mail). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks.

Dave

7372. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 17:53:57 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <TR9N7.2081$%q6.514955@news6-win.server.ntlworld.com>
Source record: 48369

"> >In an earlier posting re this topic I referred to the use of Caddock MP
820
> >non-inductive power film resistors.
> >Attached to a photo copy of the spec sheet I have a test sheet (possibly
> >from DUBUS magazine ,since it is in German)
> >Test of a MP 820 , 50 Ohms , 1% done with a Rhode & Schwartz SCALAR
> >Network Analyser and a R & S SWEEP GENERATOR , 0.4 to 2500 MHz reveals
the
> >following :
> >Freq Range Return Loss SWR
> >
> >0.4 -100 MHz 52 dB 1.00
>
> I don't believe this for a minute. To my knowledge there isn't a
> scalar network alive that has the ability to accurately measure 52 dB
> return loss without heroic effort. You would need at least 60 dB
> directivity and port match to do this accurately. A carefully
> calibrated VECTOR analyzer with full error correction can do this, but
> even then it is not routine.
>
> Instrument makers work very hard to build short sections of precision
> beadless air line standards that have 60 dB return loss and these must
> be literally handled with gloves on to keep contamination from
> degrading the performance.
>
> A really good labortory grade sexless 7mm termination will typically
> be rated no better than 40 dB RL.
>
> A 52 dB return loss is a VSWR of 1.005. Assume a perfectly
> non-reactive resistor that gives a 1.005 VSWR. It can be either
> 50/1.005 (~49.75 ohm) or 50*1.005 (~50.25 ohm). This 1% resistor has
> to be within 1/2 % resistive and totally non-reactive (a good magic
> trick for a resistor in a non-coaxial TO220 package) over temperature.
> With a perfect 50 ohm, just 0.25 ohm reactance will give a 1.005 VSWR.
>
> Sorry Frank, I'm not picking on you for posting this. I know you are
> only the messenger, but sometimes these claims just have to be
> challenged before they become "laws."
=====
Wes , Tnx for your response , your comments are important , since many on
this NG , like myself ,are amateurs (read : non -RF professionals)
Indeed, I was just echoing info given to me with a sample of the said
resistor ,during a 'UK QRP gathering' a few years ago.

Txn agn

Frank gm0csz.kn6wh@ntlworld.com

7373. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 18:11:22 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <TR9N7.2082$%q6.514452@news6-win.server.ntlworld.com>
Source record: 48370

You might also wish to retain one or more 'fixed setpoint' temperature switches and the adjustable water level switch (often with more than one setpoint adjustment) the latter item for potential use as an air pressure switch in a Valve RF Power Amp to protect the valve(s) against loss of air cooling due to blower failure.

Frank gm0csz.kn6wh@ntlworld.com

> While large appliances don't offer as many possibilities as electronic
> appliances,
> you can generally scrounge some hookup wire, possibly a timer mechanism
> or electronic
> timer, a microswitch or two, and Nichrome elements from the dryer (for
> dummy loads, plastics-bending
> strip heaters, etc.).
>
> Hardware (nuts, bolts, brackets, leveling feet) may be too rusted to
> bother saving.
>
> Small timer motors may include removable magnet wire that will work for
> winding coils.
>
> Oh, and don't forget the power cords<g>.

> >
> > I have two broken major appliances headed for the street;
> >A GE front-load washer and a GE toploading dryer. The tranny's
> >out in the dryer, don't recall what's broken with the washer. but
> >the repairman made it clear it'd cost more for old parts and labor
> >than it would to buy new units. Both maybe 10 years old.
> > >
> > > My question is: Anything of * radio * homebrew potential
> >worth salvaging here? Not even sure what there could be, but
> >how often do I throw out major appliances? So thought I'd ask.
> >Interested in some simpler projects for the winter such as crystal
> >sets, a regenie radio perhaps, maybe some test equip. like a GDO,
> >although I already have 2. perhaps some tx. kit or some such.
> >Labor and time are not an issue, but I'm no expert . Hope you can
> >help.

7374. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 18:25:44 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C052C28.5B7A6679@coqui.net>
Source record: 48371

You might also want to keep the nice steel cabinet. They don't make 'em
like that anymore :-)
-Bill

Frank Dinger wrote:
>
> You might also wish to retain one or more 'fixed setpoint' temperature
> switches and the adjustable water level switch (often with more than one
> setpoint adjustment) the latter item for potential use as an air pressure
> switch in a Valve RF Power Amp to protect the valve(s) against loss of air
> cooling due to blower failure.
>
> Frank gm0csz.kn6wh@ntlworld.com
>
> --------
> > While large appliances don't offer as many possibilities as electronic
> > appliances,
> > you can generally scrounge some hookup wire, possibly a timer mechanism
> > or electronic
> > timer, a microswitch or two, and Nichrome elements from the dryer (for
> > dummy loads, plastics-bending
> > strip heaters, etc.).
> >
> > Hardware (nuts, bolts, brackets, leveling feet) may be too rusted to
> > bother saving.
> >
> > Small timer motors may include removable magnet wire that will work for
> > winding coils.
> >
> > Oh, and don't forget the power cords<g>.
> ------------
> > >
> > > I have two broken major appliances headed for the street;
> > >A GE front-load washer and a GE toploading dryer. The tranny's
> > >out in the dryer, don't recall what's broken with the washer. but
> > >the repairman made it clear it'd cost more for old parts and labor
> > >than it would to buy new units. Both maybe 10 years old.
> > >
> > > My question is: Anything of * radio * homebrew potential
> > >worth salvaging here? Not even sure what there could be, but
> > >how often do I throw out major appliances? So thought I'd ask.
> > >Interested in some simpler projects for the winter such as crystal
> > >sets, a regenie radio perhaps, maybe some test equip. like a GDO,
> > >although I already have 2. perhaps some tx. kit or some such.

> > >Labor and time are not an issue, but I'm no expert . Hope you can
> > >help.

7375. Audio video switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-28 19:02:43 UTC
From: John B <robotwizard@nospamnospamworldnet.att.net>
Message-ID: <nxaN7.239693$W8.8317076@bgtnsc04-news.ops.worldnet.att.net>
Source record: 48372

Hi
I need to build an Audio/video switch that is capable of selecting between 4 inputs and 4 outputs. Does anyone have or know of a good design ?

thanx,
John KB9WTK

7376. Program DIPOLE2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 02:09:39 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9u45e4$77j$1@uranium.btinternet.com>
Source record: 48373

NOW AVAILABLE ** Program "DIPOLE2.exe

An update of programs Dipole1 and Varney.

DIPOLE2 analyses the performance of any HF dipole of any height and length, at any frequency, plus a balanced feedline of any impedance, length and attenuation, plus a balun of any impedance ratio, plus a coaxial line of any impedance, length and attenuation, plus a "tuner" with an L-matching network. (An L-match always has a lower loss than a T or Pi).

Computed results include R+jX input impedances of antenna, of balanced and of coaxial line. Antenna radiating efficiency. SWR and loss in balanced line, coax and tuner. Tuner L and C values to match system to 50 ohms are computed. And overall radiating efficiency.

If either coaxial or balanced line is not needed set the unwanted line length to zero.

The program tells the user immediately the consequences of changing something at one point in the system which affects something somewhere else. For example, if it is asked should a 450-ohm transmission line be increased or decreased in length to provide a more accurate 50-ohm transmitter load impedance, the program will tell you not only which way to go but the actual change in length which should be made. See Cecil's W6RC website for practical implementation. It will also advise whether a change in feedline Zo might be a better option.

Facilities are provided to search for resonant frequencies of an antenna plus feedline. It will be noticed they are not harmonically related. The effects on resonant frequencies of varying in small increments the lengths of dipole and feedlines can be investigated.

DIPOLE2 is about 70 kilobtyes. One file only. Download from website below in a few seconds. Not zipped up. Run immediately.

****
Regards, Reg, G4FGQ
Free radio design programs
http://www.g4fgq.com

****

7377. New old stock available (At the right price)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 11:10:25 UTC
From: "Thomas C. Sefranek" <tcs@cmcorp.com>
Message-ID: <3C061737.5000009@cmcorp.com>
Source record: 48374

I am ready to dump several thousand (new, never even used) old chips.

Mostly digital, some op-amps.

All in sleeves.

They are available free... BUT
I DON'T want to spend much time on this.
(The distance to the dumpster is short!)
You come pick them up or provide some wicked easy way to ship.

They are in Shirley, Massachusetts about 35 miles North West of Boston.

E-Mail if your interested.

--
*
| __O Thomas C. Sefranek tcs@cmcorp.com
|_-\<,_ Amateur Radio Operator: WA1RHP
(*)/ (*) Bicycle mobile on 145.41, 448.625 MHz

http://hamradio.cmcorp.com/inventory/Inventory.html
http://www.harvardrepeater.org

7378. L.O.S.A Contribution Form

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 17:02:43 UTC
From: cjX@hth.com
Message-ID: <3c05d752.32728348@news.sverige.net>
Source record: 48375
Cross-posted to: comp.robotics.misc,comp.home.automation,sci.electronics.misc,rec.radio.amateur.homebrew

```
List Of Stamp Applications (L.O.S.A for short)
==============================================

If you have done something (big or small) with the BASIC Stamp
that you are willing to tell others please use the form below and
write a short description, nothing fancy is needed just a simple
explanation. If you have source code to share that's even better
but not necessary.

Then e-mail the form to:

cj@hth.com

With the following as the subject:

L.O.S.A Contribution

Or you could point your Web-browser to the following URL and fill
in the L.O.S.A form on the Web-page...

http://www.hth.com/losa/

The latest version of L.O.S.A is always available at the above
URL as an ASCII file (or ZIP-file for easy download). An index
of L.O.S.A is posted to the following mailing lists and news
groups. It's updated it approx. once a month.

Mailing lists:

BASIC Stamp Mailing List

News groups:

comp.robotics.misc
comp.home.automation
sci.electronics
sci.electronics.misc
rec.radio.amateur.homebrew

FTP-site:

ftp://ftp.parallaxinc.com/pub/text/losa.txt

You can also find the latest version on the following URL...

http://www.hth.com/losa/

[--- cut ---]
```

```
=============================================================================
- L.O.S.A Contribution Form -
=============================================================================
New Contribution [ ] Update [ ]
-----------------------------------------------------------------------------

Title :
Author: Date:

E-mail: (optional)
-----------------------------------------------------------------------------

Stamp model : BS1-IC/BS2-IC/BS2E-IC/BS2SX-IC/BS2P24-IC/BS2P40-IC
Code available: YES/NO
Filename : (optional)
URL : (optional)
-----------------------------------------------------------------------------
Description : (5-50 rows describing your application)

=============================================================================

[--- cut ---]

Regards,

/Christer

[NOTE: Clear the "X" from my e-mail address if you want to e-mail me]

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
* High Tech Horizon - Christer Johansson - E-mail: cj@hth.com *
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
USB interfacing without need for asprins! For information about the
new USB EasyTap(tm) go to following URL http://www.hth.com/easytap/
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
```

7379. TS-1771A/U wattmeter/load diode info needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 21:25:00 UTC
From: user
Message-ID: <pl9d0ugosn8tqn8fm2ibroc62cltrq31r4@4ax.com>
Source record: 48376

I have a TS-1771A/U 150 watt wattmeter/load that does not have a
diode. Fits in a coaxial type holder with pin-ends. Would like to find
out correct replacement diode type. Thanks!
--
Eddie Seymour,WB4MLE
Delete the capital letters:
wb4mleAT@mindspringDOT.com

7380. HP AN 86 Using the vector impedance meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 22:16:17 UTC
From: Ib Holst Jorgensen <oz9dr@post1.tele.dk>
Message-ID: <gscd0us6jg9i1p7lmfqrloas4pile9lq4r@4ax.com>
Source record: 48377
Cross-posted to: sci.electronics.equipment,sci.electronics,rec.radio.amateur.homebrew

```
Searching application from HP:
AN 86 Using the Vector Impedance Meters
Original or Copy please info to
oz9dr@post1.tele.dk

Regards
Ib
```

7381. looking for cb modifiaction site for 10 meters use

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 23:45:32 UTC
From: gervais <gfillio1@globetrotter.net>
Message-ID: <wMzN7.427$R96.490543@carnaval.risq.qc.ca>
Source record: 48378

hi all,
i have a citizen mpl 11 40 channels
i would like to find out if there is a possibility too modify it for 10
meters use.
can anyone know a place on the web?

thanks for the help
gervais
ve2ckn@hotmail.com

7382. Re: Program DIPOLE2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-29 23:50:49 UTC
From: la8ak.xnd@online.no
Message-ID: <3c06c991.18837282@news.online.no>
Source record: 48379

what about endfed inverted L halfwave, my favourite after reading
G3LDO's notes in radcom some years ago...

73
Jan-Martin

On Thu, 29 Nov 2001 02:09:39 -0000, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>NOW AVAILABLE ** Program "DIPOLE2.exe
>
>An update of programs Dipole1 and Varney.
>
>DIPOLE2 analyses the performance of any HF dipole of any height and
>length, at any frequency, plus a balanced feedline of any
>impedance, length and attenuation, plus a balun of any impedance
>ratio, plus a coaxial line of any impedance, length and
>attenuation, plus a "tuner" with an L-matching network. (An L-match
>always has a lower loss than a T or Pi).
>
>Computed results include R+jX input impedances of antenna, of
>balanced and of coaxial line. Antenna radiating efficiency. SWR and
>loss in balanced line, coax and tuner. Tuner L and C values to
>match system to 50 ohms are computed. And overall
>radiating efficiency.
>
>If either coaxial or balanced line is not needed set the unwanted
>line length to zero.
>
>The program tells the user immediately the consequences of
>changing something at one point in the system which affects
>something somewhere else. For example, if it is asked should a
>450-ohm transmission line be increased or decreased in length to
>provide a more accurate 50-ohm transmitter load impedance, the
>program will tell you not only which way to go but the actual
>change in length which should be made. See Cecil's W6RC website for
>practical implementation. It will also advise whether a change in
>feedline Zo might be a better option.
>
>Facilities are provided to search for resonant frequencies of an
>antenna plus feedline. It will be noticed they are not harmonically
>related. The effects on resonant frequencies of varying in small
>increments the lengths of dipole and feedlines can be investigated.
>
>DIPOLE2 is about 70 kilobtyes. One file only. Download from website

>below in a few seconds. Not zipped up. Run immediately.
>----
>************************
>Regards, Reg, G4FGQ
>Free radio design programs
>http://www.g4fgq.com
>
>************************
>
>
>

--
remove ,xnd to reply

7383. Re: Audio video switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 03:54:13 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u0e0n8s6g8bkd3@corp.supernews.com>
Source record: 48380

"John B" wrote ...
> I need to build an Audio/video switch that is
> capable of selecting between 4 inputs and 4
> outputs. Does anyone have or know of a good
> design ?

MAX4359 Low-Cost 4x4 Video Crosspoint Switch
http://dbserv.maxim-ic.com/quick_view2.cfm?qv_pk=1931

7384. Re: New old stock available (At the right price)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 06:37:40 UTC
From: hexter@blazenet.net
Message-ID: <u0ea9klufedec@corp.supernews.com>
Source record: 48381

In article <3C061737.5000009@cmcorp.com>, tcs@cmcorp.com says...
>
>I am ready to dump several thousand (new, never even used) old chips.
>
>Mostly digital, some op-amps.
>
>All in sleeves.
>
>They are available free... BUT
>I DON'T want to spend much time on this.
>(The distance to the dumpster is short!)
>You come pick them up or provide some wicked easy way to ship.
>
>They are in Shirley, Massachusetts about 35 miles North West of
Boston.
>
>E-Mail if your interested.
>
>--
> *
> | __O Thomas C. Sefranek tcs@cmcorp.com
> |_-\<,_ Amateur Radio Operator: WA1RHP
> (*)/ (*) Bicycle mobile on 145.41, 448.625 MHz
>
>http://hamradio.cmcorp.com/inventory/Inventory.html
>http://www.harvardrepeater.org

Got any 74143's. I need about 20, and would even pay you for them.

7385. looking for decca marine radar unit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 06:45:01 UTC
From: hexter@blazenet.net
Message-ID: <u0eand9gsvpr76@corp.supernews.com>
Source record: 48382

I have a decca super 050 display head that I rebuilt just for the heck of it. It is in perfect working order. I would like to buy the 'scanner' (receiver/transmitter) portion now. Do you have a repairable junker, or even a complete working unit for sale. This is more of a learning project, and low budget at that.

What have you?

7386. "VARIABLE LOOPSTICKS"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 14:42:31 UTC
From: marvin rosen <raghead@worldnet.att.net>
Message-ID: <rVMN7.136921$WW.8654860@bgtnsc05-news.ops.worldnet.att.net>
Source record: 48383

where in the u.s. can i purchase variable loopsticks? these were used in making crystal radios some years ago

7387. Re: "VARIABLE LOOPSTICKS"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 15:14:15 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3C07A247.BE47D95E@amsat.org>
Source record: 48384

Marvin try -- URL: http://ac6v.com/antprojects.htm
Three ferrite loop stick links there under "F"
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========

marvin rosen wrote:

> where in the u.s. can i purchase variable loopsticks? these were used in
> making crystal radios some years ago

7388. Re: "VARIABLE LOOPSTICKS"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 15:23:57 UTC
From: troglodite@aol.com
Message-ID: <20011130102357.23067.00000016@mb-fo.aol.com>
Source record: 48385

>where in the u.s. can i purchase variable loopsticks? these were used in
>making crystal radios some years ago

To the best of my knowledge, there are no current manufacturers for this part. Non-adjustable ferrite loop antennas may be salvaged from old transistor radios. Your best bet for an adjustable one is an Amateur Radio swap meet, or Ebay.

Doug Moore

7389. I've got a big one, have you seen one bigger?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 17:39:41 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <xrPN7.5027$QV5.369471@news11-gui.server.ntli.net>
Source record: 48386

I bought this 1960 portable broadcast set (KB model QP21 "Gaity"). The set is quite small, but it has the biggest ferrit rod I've ever seen. It's 5/8 " by 8". Boy that's a big one for such a small set. Anyone seen one bigger in a standard commercial radio set? Be hard to beat I think.

7390. making 1st Dipole

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 20:52:13 UTC
From: Tazanator <Tazanator1@NOSPAM.home.com>
Message-ID: <1kSN7.62739$RI2.34948857@news2>
Source record: 48387

okay making a dipole for chicken band (11 meter) for a friend ... wire hooks to the so-239 in the center, do I need a bulan or can I run the coax stright back to the radio?

7391. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 21:02:01 UTC
From: mcalhoun@ksu.edu
Message-ID: <9u8s49$rl0@unix1.cc.ksu.edu>
Source record: 48389

Cathexis@yourhaterols.com (Reticulum) writes:
>>While large appliances don't offer as many possibilities as electronic
>>appliances,
>>you can generally scrounge some hookup wire, possibly a timer mechanism
>>or electronic
>>timer, a microswitch or two, and Nichrome elements from the dryer (for
>....[snip]....

Don't forget the high-temperature-insulation from wires in old kitchen
ranges (electric, of course!-) and small space heaters.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7392. Re: making 1st Dipole

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 21:03:51 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011130160351.17613.00000044@mb-mi.aol.com>
Source record: 48388

The wire hooks both to the center (one leg of the dipole) and to the outer shield/case of the SO-239 (the other side of the dipole). You do not need a store bought balun, just wind 10 or so turns of the coax into a 6" loop near the connector and tape it together. This will stop any RF from radiating off the shield of the coax.

A dipole isn't going to work all that well on CB as most CB is vertically polarized and a dipole is horizontal and bidirectional. Try sloping the dipole or make a vertical colinear antenna. It will give you a couple of dB gain and be polarized properly for the band.

7393. FS-- ILINK BOARDS

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 23:08:33 UTC
From: KB0P <kbop@home.com>
Message-ID: <RjUN7.199058$My2.115367261@news1.mntp1.il.home.com>
Source record: 48390

I have a couple ILINK boards left and I need to sell them to cover my loss.
I am willing to sell them for less than cost to get rid of them.
I need to pay off my VISA.
Please email me for the reduced price.

Paul, kb0p
kbop@arrl.net (replace to oh with a zero)

7394. Re: Reducing RFI from lamp dimmers, how I did it.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 23:12:51 UTC
From: Hagstar <yonny@att.net>
Message-ID: <3C0813D8.14894888@att.net>
Source record: 48391
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.shortwave

ehsjr@bellatlantic.net wrote:
>
> Alan Douglas wrote:
>
> >
> > No, I never heard of an X- or Y-rated capacitor shorting.
>
> An "X- or Y-rated" capacitor was not mentioned, by me,
> or Hagstar

No, we referred to them as "AC rated"- as I recall this was clearly spelled out my Robert C. in the (quoted) post. I follow your logic in all this, I'm not sure I understand how I you're suggesting we should modify all of the numerous radios that came with such bypass caps *from the factory*. Do you simply leave them out ?

John H.

7395. Re: I've got a big one, have you seen one bigger?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-11-30 23:33:25 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <mFUN7.3937$qN3.993678@news2-win.server.ntlworld.com>
Source record: 48392

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:xrPN7.5027$QV5.369471@news11-gui.server.ntli.net...
> I bought this 1960 portable broadcast set (KB model QP21 "Gaity"). The
> set is quite small, but it has the biggest ferrit rod I've ever seen. It's
> 5/8 " by 8". Boy that's a big one for such a small set. Anyone seen
> one bigger in a standard commercial radio set? Be hard to beat I think.

Size matters I suppose. I mean, I guess if you were to bundle lots of
ferrite rods together the signal would increase. I was looking at Amindon's
rods, 100 dollars for a rod appx, 3/4" by 7 1/2 ". That's a lot of money.
This rod I have probably cost 5 bob in 1960.

7396. FS: Nifty IF/detector block. Basically 45MHz FM receiver. lotsa potential...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 01:05:17 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9u9acd$h5m$1@iac5.navix.net>
Source record: 48393
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

I'll refer you to some I am selling via ebay for all the specs and stuff
but I'm selling straight out as well.

It's got 8 poles of filter.
If you look at the IC datasheet, it looks easy enough to
defeat the liimiter and use as a straight IF with
4 poles at 45MHz and 4 at 455.

Bandlimited output could be used with PeeCee sound card
for DSP IF.
Add some mixers in front and you've got a RX.

$10/each plus 80cents postage for one or two
$1.03 postage for 5

-bob
wb4mnf

OH, the ebay page
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1303100115

7397. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 01:10:26 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9u9am2$h7v$1@iac5.navix.net>
Source record: 48394

Sheet metal screws!
Wire.
Wash/dryertub for cavity.
Valves/hose for water cooled amp
Sheetmetal for cabinet
Plates from motor for transformer
Thermal sensors for big amp
relays and timer for big amp
drive belt from dryer for XYL to whip you for going overboard on scrounging

"Reticulum" <Cathexis@yourhaterols.com> wrote in message
news:3c03f533.98995829@news.erols.com...
> Greetings,
>
> I have two broken major appliances headed for the street;
> A GE front-load washer and a GE toploading dryer. The tranny's
> out in the dryer, don't recall what's broken with the washer. but
> the repairman made it clear it'd cost more for old parts and labor
> than it would to buy new units. Both maybe 10 years old.
>
> My question is: Anything of * radio * homebrew potential
> worth salvaging here? Not even sure what there could be, but
> how often do I throw out major appliances? So thought I'd ask.
> Interested in some simpler projects for the winter such as crystal
> sets, a regenie radio perhaps, maybe some test equip. like a GDO,
> although I already have 2. perhaps some tx. kit or some such.
> Labor and time are not an issue, but I'm no expert . Hope you can
> help.
>
> 73 de KG4JBM/ Andrew
> Reticulum
>
> Remove "your.hat" when replying via e-mail

7398. FS: Nifty IF/detector block. Basically 45MHz FM receiver. lotsa potential...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 01:17:02 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9u9b2ihfe1@iac5.navix.net>
Source record: 48395
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap

Posting again.
PeeCee knows date but mailer doesn't!
Will apreciate any tips on this...
73
-bob

"tongaloa" <tongaloa@alltel.net> wrote in message news:...
> I'll refer you to some I am selling via ebay for all the specs and stuff
> but I'm selling straight out as well.
>
> It's got 8 poles of filter.
> If you look at the IC datasheet, it looks easy enough to
> defeat the liimiter and use as a straight IF with
> 4 poles at 45MHz and 4 at 455.
>
> Bandlimited output could be used with PeeCee sound card
> for DSP IF.
> Add some mixers in front and you've got a RX.
>
> $10/each plus 80cents postage for one or two
> $1.03 postage for 5
>
> -bob
> wb4mnf
>
> OH, the ebay page
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1303100115
>

7399. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 03:00:37 UTC
From: Brad Thompson <brad.thompson@valley.net>
Message-ID: <3C0847D5.1050909@valley.net>
Source record: 48396

Hello--
Nichrome is probably a trademarked name for a nickel-chromium alloy
that's used for fabricating heating elements. It will withstand very
high temperatures and is frequently
used for all kinds of electrical heating elements. There should be a t
least one and possibly two heating
elements located somewhere within the clothes dryer's air path.

Try a google search on the word "nichrome" and I'll bet you get lots of
hits, most of which will
be irrelevant<g>.
73--
Brad AA1IP

Reticulum wrote:

>On Tue, 27 Nov 2001 17:47:54 -0500, Brad Thompson <brad.thompson@valley.net>
>wrote:
>
>>Hello--
>>While large appliances don't offer as many possibilities as electronic
>>appliances,
>>you can generally scrounge some hookup wire, possibly a timer mechanism
>>or electronic
>>timer, a microswitch or two, and Nichrome elements from the dryer (for
>>dummy loads, plastics-bending
>>strip heaters, etc.).
>>
>>Hardware (nuts, bolts, brackets, leveling feet) may be too rusted to
>>bother saving.
>>
>>Small timer motors may include removable magnet wire that will work for
>>winding coils.
>>
>>Oh, and don't forget the power cords<g>.
>>
>>73--
>>Brad AA1IP
>>
>Well, at least I got one thing right;
>I thought about the power cords.
>Don't know anything about Nichrome
>however. Can certainly research, but where
>would I find them (it, whatever). And thanks!
>

> Andrew
> Reticulum
>
>Remove "your.hat" when replying via e-mail
>

7400. Re: icom 725 mike conversion?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 04:46:44 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0111302046.3c13a022@posting.google.com>
Source record: 48297

"marvin rosen" <raghead@worldnet.att.net> wrote in message
news:<HeWM7.238983$W8.8228068@bgtnsc04-news.ops.worldnet.att.net>...
> how do i convert a computer headset/ mike to work with my icom 725?

You will likely need a preamp. I assume the headphone mike is an
electret condensor element. What you will want to do is duplicate the
circuit of one of their desk mikes. You don't need any extra power as
it's supplied by the hot mike line. "about 8 volts or so". You will
need to make a copy of a icom or whatever preamp. It's real simple.
There may be a circuit description of a icom desk mike in your manual.
You could use that or any other suitable preamp. I think heil makes
one for their desk mikes to run on icoms. I had to do this on the 730,
and I still have to run a preamp on my desk mike for the 706. It only
does about 1/2 power with the element direct. So I use the same 730
preamp on the 706. I use an audio technica dynamic mike as a desk
mike. MK

7401. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 06:04:34 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u0gsnjeclu2m05@corp.supernews.com>
Source record: 48298

Andrew wrote...
> >Don't know anything about Nichrome
> >however. Can certainly research, but where
> >would I find them (it, whatever). And thanks!

Nichrome is a registered trademark for a nickel, chromium and iron alloy mostly used to make electric heating elemens. http://tess.uspto.gov

You can find it in virtually all electrical heating applicances. You can see it at work by peering into your toaster. You can buy it in any appliance repair parts place and most good hardware stores.

Go to www.howstufworks.com and enter "nichrome" in the search box.

RC

7402. Molded Mica Cap Markings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 07:57:06 UTC
From: mjsilva697@earthlink.net
Message-ID: <27085883.0111302357.6ac2691@posting.google.com>
Source record: 48299
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Can somebody steer me to an explanation of e.g. the following code on a molded mica cap: CM35E 103 JO3. I know the 103 part is the capacitance; mostly I want to know the voltage rating. I have this vague idea it's the 'E' part... Anyway, I had a printout of this stuff once but can't find it, so any help greatly appreciated. Thanks.

73,
Mike, KK6GM

7403. Re: making 1st Dipole

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 13:39:52 UTC
From: Bryan Byers <bcbyers@netusa1.net>
Message-ID: <3C08DDA7.C85E84F9@netusa1.net>
Source record: 48300

As long as it is cut to the right frequency,run it straight back to the radio...the only thing is that it will be horizontal polarity using the dipole.

Tazanator wrote:

> okay making a dipole for chicken band (11 meter) for a friend ... wire hooks
> to the so-239 in the center, do I need a bulan or can I run the coax stright
> back to the radio?

7404. Re: I've got a big one, have you seen one bigger?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 13:41:56 UTC
From: Gary Brown <gbrown@mint.net>
Message-ID: <E65O7.256$351.138218@news1.news.adelphia.net>
Source record: 48301

I found one and its on the shelf. Have no idea what it goes to. Its 10" long
about 1-3/4" dia. with three sets of windings on it. green, blue and brown
winding's. Anyone know what this mite of been attached to?
Regards,
Gary

PS; the brown winding is partly wound over the green winding.
--
http://tubes_tubes_tubes.tripod.com/tubestubestubes/
"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:mFUN7.3937$qN3.993678@news2-win.server.ntlworld.com...
>
> "Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
> news:xrPN7.5027$QV5.369471@news11-gui.server.ntli.net...
> > I bought this 1960 portable broadcast set (KB model QP21 "Gaity"). The
> > set is quite small, but it has the biggest ferrit rod I've ever seen.
It's
> > 5/8 " by 8". Boy that's a big one for such a small set. Anyone seen
> > one bigger in a standard commercial radio set? Be hard to beat I think.
>
> Size matters I suppose. I mean, I guess if you were to bundle lots of
> ferrite rods together the signal would increase. I was looking at
Amindon's
> rods, 100 dollars for a rod appx, 3/4" by 7 1/2 ". That's a lot of money.
> This rod I have probably cost 5 bob in 1960.
>

7405. Re: I've got a big one, have you seen one bigger?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 14:17:12 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <Wz5O7.968$003.249876@news11-gui.server.ntli.net>
Source record: 48303

"Gary Brown" <gbrown@mint.net> wrote in message
news:E65O7.256$351.138218@news1.news.adelphia.net...
> I found one and its on the shelf. Have no idea what it goes to. Its 10"
long
> about 1-3/4" dia. with three sets of windings on it. green, blue and brown
> winding's. Anyone know what this mite of been attached to?
> Regards,
> Gary
>
> PS; the brown winding is partly wound over the green winding.

Hi. Well that beats mine by a mile. Probably does not come from a regular
domestic set, but you never know. You are sitting on a gold mine I think.
:c)

7406. Re: Molded Mica Cap Markings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 14:17:32 UTC
From: "Kenneth D. Grimm, K4XL" <kgrimm@adelphia.invalid>
Message-ID: <9ioh0uo531cto9ei5jcrq41oebbilvolam@4ax.com>
Source record: 48302
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

On 30 Nov 2001 23:57:06 -0800, mjsilva697@earthlink.net (Mike Silva)
wrote:

>Can somebody steer me to an explanation of e.g. the following code on
>a molded mica cap: CM35E 103 JO3. I know the 103 part is the
>capacitance; mostly I want to know the voltage rating. I have this
>vague idea it's the 'E' part... Anyway, I had a printout of this
>stuff once but can't find it, so any help greatly appreciated.
>Thanks.
>
>73,
>Mike, KK6GM

According to my old Allied Electronics Data Handbook you have
CM35 - lead mounting, molded case, mica dielectric
E - Temp. coefficient parts/million/Celsius = -20 to +100 with
capacitance drift of +/- (0.1% +0.1 pf)
103 - value = 10000pf
J - capacitance tolerance = +/- 5%
O - Operating temperature range = -55C to +150C
3 - Vibration grade = 10 to 2,000 cps

There is a note in the chart indicating that the voltage rating was
not indicated on earlier production caps. If it had been present it
would have appeared as another cap letter after the E.

I'm reasonably confident in this info, but I have seen other charts
that have differed in some cases. This is the best that I can do.

FWIW, I would toss the cap in favor of something less likely to cause
problems. Mica caps of that era DO go bad.
Ken K4XL - Replace "invalid" with "net" to reply.
*** BoatAnchor Manual Archive ***
On the web at http://bama.sbc.edu or
FTP site info: bama.sbc.edu login: anonymous p/w: youremailadr

7407. Re: Kinda odd question on parts recycling

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 14:39:03 UTC
From: Cathexis@yourhaterols.com
Message-ID: <3c08eb43.424181187@news.erols.com>
Source record: 48304

>drive belt from dryer for XYL to whip you for going overboard on scrounging
>
so true, so true. Thx. to all who replied.
Reticulum

Remove "your.hat" when replying via e-mail

7408. convert 8950 amp to use EL509/519 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 15:55:08 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C08FD5C.2070409@charter.net>
Source record: 48305

Hi
anybody done this conversion convert 8950 amp to use EL509/519?
If so what is involved?
thanks chris ni4l

7409. Re: "VARIABLE LOOPSTICKS"

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 17:06:56 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <Q68O7.86513$Y6.9409113@news1.rdc1.ct.home.com>
Source record: 48306

I think he is looking for the variable loop sticks, as was used
in the early Rocket crystal ships, etc. Unfortunately, Miller did
make them at one time, and I haven't seen them offered new in
years.

Pete

"AC6V" <ac6v@amsat.org> wrote in message news:3C07A247.BE47D95E@amsat.org...
> Marvin try -- URL: http://ac6v.com/antprojects.htm
> Three ferrite loop stick links there under "F"
> --
> 73 From AC6V, Rod In Oceanside, CA
> I doubt, therefore I might be!
> http://ac6v.com
> ==============================
>
> marvin rosen wrote:
>
> > where in the u.s. can i purchase variable loopsticks? these were used in
> > making crystal radios some years ago
>
>
>
>
>

7410. Wanted: PacComm Add-on Packet TNC for PacTor Controller

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 17:09:03 UTC
From: Mike Pupeza <mpupeza@sympatico.ca>
Message-ID: <B82E78DE.10059%mpupeza@sympatico.ca>
Source record: 48307
Cross-posted to: alt.ham-radio.packet,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Hi All;
I am looking for the add-on TNC kit for the PacComm Pactor Controller.
This unit was made in the early 90's and added packet capability to the HF
Pactor Controller which already worked for Amtor and RTTY!
Does anyone have one of these units sitting around?
My Controller already has the faceplate and switch for this mod.
PacComm, apparently, no longer support ANY of their Pactor products!
TIA
73
Mike VE3EQP.....>

7411. Re: Molded Mica Cap Markings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 18:34:09 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112011034.3b7819e4@posting.google.com>
Source record: 48308
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Try this web site:
http://zeus.cedcc.psu.edu/caps/mica_eia.html
It suggests that particular one is 300V: the J is 5% and the 03
should be voltage rating. (Google searches are wonderful...found that
one in just a few seconds. I used to have a cheat-sheet on them
too... ;-))

Cheers,
Tom

mjsilva697@earthlink.net (Mike Silva) wrote in message
news:<27085883.0111302357.6ac2691@posting.google.com>...
> Can somebody steer me to an explanation of e.g. the following code on
> a molded mica cap: CM35E 103 JO3. I know the 103 part is the
> capacitance; mostly I want to know the voltage rating. I have this
> vague idea it's the 'E' part... Anyway, I had a printout of this
> stuff once but can't find it, so any help greatly appreciated.
> Thanks.
>
> 73,
> Mike, KK6GM

7412. Re: Molded Mica Cap Markings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 19:07:10 UTC
From: mjsilva697@earthlink.net
Message-ID: <27085883.0112011107.1087e44a@posting.google.com>
Source record: 48309
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"Kenneth D. Grimm, K4XL" <kgrimm@adelphia.invalid> wrote in message
news:<9ioh0uo531cto9ei5jcrq41oebbilvolam@4ax.com>...
> On 30 Nov 2001 23:57:06 -0800, mjsilva697@earthlink.net (Mike Silva)
> wrote:
>
> >Can somebody steer me to an explanation of e.g. the following code on
> >a molded mica cap: CM35E 103 JO3. I know the 103 part is the
> >capacitance; mostly I want to know the voltage rating. I have this
> >vague idea it's the 'E' part... Anyway, I had a printout of this
> >stuff once but can't find it, so any help greatly appreciated.
> >Thanks.
> >
> >73,
> >Mike, KK6GM
>
> According to my old Allied Electronics Data Handbook you have
> CM35 - lead mounting, molded case, mica dielectric
> E - Temp. coefficient parts/million/Celsius = -20 to +100 with
> capacitance drift of +/- (0.1% +0.1 pf)
> 103 - value = 10000pf
> J - capacitance tolerance = +/- 5%
> O - Operating temperature range = -55C to +150C
> 3 - Vibration grade = 10 to 2,000 cps
>
> There is a note in the chart indicating that the voltage rating was
> not indicated on earlier production caps. If it had been present it
> would have appeared as another cap letter after the E.
>
> I'm reasonably confident in this info, but I have seen other charts
> that have differed in some cases. This is the best that I can do.
>
> FWIW, I would toss the cap in favor of something less likely to cause
> problems. Mica caps of that era DO go bad.

Thanks for the info, Ken. I've heard that these caps can get flakey,
but these are clean NOS and I'd like to use some for their period
look. Does anybody have any experience regarding how troublesome
they're likely to be?

73,
Mike, KK6GM

7413. Re: Program DIPOLE2

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 19:30:52 UTC
From: la8ak.xnd@online.no
Message-ID: <3c092db3.175566372@news.online.no>
Source record: 48310

On Thu, 29 Nov 2001 02:09:39 -0000, "Reg Edwards"
<g4fgq.regp@btinternet.com> wrote:

>NOW AVAILABLE ** Program "DIPOLE2.exe
>
ufb programs, but obviously a good idea to give an explantion in
English about how to print the results by somebody who knows the
language better than I do(?), like (as shown for ENFEED.exe:

H. Height, metres .. 8.0 N. Number of buried radial wires .
3
L. Length, metres .. 7.0 R. Length of radials, metres .....
10.0
W. Wire dia, mm .... 7.00 D. Diameter of radial wires, mm ..
2.0
F. Frequency Kilo-Hz 10300 S. Strap length to radials, metres
0.5
G. Ground characteristics:- Poor soil: R = 300, K = 12
H+L+S = 0.532 wavelengths.
R ohms jX ohms Tune out jX
with
FEEDPOINT INPUT IMPEDANCE: 1111.7 -345.9 5.3
micro-Henrys

<-- Transcvr Shunt L Antenna
-->
T-NETWORK L & C values: 27 pF 7.5 uH 7 pF

<-- Transcvr Series X Antenna
-->
L-NETWORK L & C values: 3.7 uH 57 pF
Alternative L & C values: 64 pF 3.7 uH

LOSS in T-match coil 0.6 % of Tx Pwr GROUND ELECTRODE
SYSTEM, INPUT Z
in antenna conductor 0.2 % .. .. .. DC Resistance
23.8 ohms
in soil in vicinity 4.8 % .. .. .. RF Resistance
40.2 ..
in system of radials 3.6 % .. .. .. RF Reactance
-6.4 ..

Overall power radiating efficiency .. 90.82 percent
Overall loss relative to ideal system 0.4 decibels or 0.1
'S-points'

Select H,L,W,F,N,R,D,S,G to change data, B(egin again) or Q(uit
program)

using alt/print screen and alt.tab commands

73
Jan-Martin
LA8AK
--
remove ,xnd to reply

7414. Re: HP AN 86 Using the vector impedance meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 21:02:59 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C094583.DDD75CBC@ieee.org>
Source record: 48311

Would you settle for AN1287-1 Understanding the Fundamental Principals
of Vector Network Analysis?

Clyde

Ib Holst Jorgensen wrote:

> Searching application from HP:
> AN 86 Using the Vector Impedance Meters
> Original or Copy please info to
> oz9dr@post1.tele.dk
>
> Regards
> Ib

7415. Free: Plate Transformer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 23:33:54 UTC
From: larryc <larryc@northwest.com>
Message-ID: <3C0969A9.807C415E@northwest.com>
Source record: 48312
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Chicago # 52C-219

Dual Primaries, 0-117-141

Secondary 5760 CT at 320ma, or 4800VCT at 475ma

Secondary taps on ceramic standoffs

Local pickup only. Portland Oregon.

replies to larryc@northwest.com

7416. Re: convert 8950 amp to use EL509/519 ?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 23:38:48 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <8mpbu9.733.ln@darkstar.localdomain>
Source record: 48314

ni4l wrote:

> Hi
> anybody done this conversion convert 8950 amp to use EL509/519?
> If so what is involved?
> thanks chris ni4l

Yes. I built an amp with a pair of 8950's in GG. When the
8950's died from years of abuse, I replaced them with PL519's.

It's a few years ago and I have forgotten most of the details.
The 509/519 has a different heater voltage and IIRC a different
base.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.16

7417. GOTH TURNS COUNTER / VAC VAR CAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-01 23:40:11 UTC
From: eimacman@aol.com
Message-ID: <20011201184011.19851.00000303@mb-ct.aol.com>
Source record: 48313

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1302032025

GOTH TURNS COUNTER AND 20 TO 2000PF VAC VAR CAP
CAP COMES WITH MOUNTING BRACKETS 1/4 SHAFT
BOTH IN GREAT COND AT LAST LOOK WAS $100
NO RES PRICE

7418. Audio transformer needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 02:05:46 UTC
From: Tim <N6DRA@nc.rr.comnospam>
Message-ID: <_%fO7.124928$HA6.17761173@typhoon.southeast.rr.com>
Source record: 48315

Part number is Stancor A-3311 or Triad HSM-81. This is usually used with
P-P 6V6 or similar.

Thanks!

Tim N6DRA

7419. fa: 2 ERIE HV TRANSMITTING CAP 500pf x 30KV, Last Call!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 03:58:06 UTC
From: rlucch2098@aol.com
Message-ID: <20011201225806.20826.00000190@mb-ba.aol.com>
Source record: 48317

Only at $11, see pics>>
http://cgi.ebay.aol.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1301103552

7420. WTB 2KW AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 04:12:06 UTC
From: gary weber <weberone@swbell.net>
Message-ID: <qShO7.966$GV3.734162060@newssvr11.news.prodigy.com>
Source record: 48318

Hi--I would like to buy a homebrew 2kW plus amp--preferably with2 8877's or similar tube. Please email me at k7qbm@mindspring send photo and specs if possible

7421. SN76514 Equiv?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 06:23:58 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <u0j751t8lg8df1@corp.supernews.com>
Source record: 48316

Are there any sources of SN76514 IC's out there? Maybe an
NTE or something like that? I have an old radio that has
two of them and I would like to bring it back to life..

Doug N4IJ

7422. Re: HP AN 86 Using the vector impedance meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 07:29:15 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <bhlj0ugfuv44jp8m0enbc6b5dbpn7ou7ij@4ax.com>
Source record: 48319

There is also AN 77-3 "Measurement of Complex Impedance." It is from mid 60s and focus is on using the 8405A Vector Voltmeter. I have a copy of a copy but its too much to scan and send. It may be something that you might want to look for too, though.

-Rex, KK6MK
(use: rexa (at) dnai (dot) com -- to reply directly)

On Thu, 29 Nov 2001 23:16:17 +0100, Ib Holst Jorgensen <oz9dr@post1.tele.dk> wrote:

>Searching application from HP:
> AN 86 Using the Vector Impedance Meters
>Original or Copy please info to
>oz9dr@post1.tele.dk
>
>Regards
>Ib

7423. micro 80 circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 15:33:32 UTC
From: pearlanddavid <pearlanddavid@ic24.net>
Message-ID: <u0ki16fcfitd3e@corp.supernews.com>
Source record: 48320

I am building the micro 80 tranceiver circuit designed by oleg borodin rv3gm. The diagram I have has no information on the number of turns on the coil L1,or where to put the tap.

Does anybody know how many turns it would be for 80m and where to put the tap?
thanks

DAVID
M0DAD

7424. Re: SN76514 Equiv?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 15:34:33 UTC
From: la8ak.xnd@online.no
Message-ID: <3c09ef3c.225119147@news.online.no>
Source record: 48321

On Sat, 1 Dec 2001 22:23:58 -0800, "Douglas Snowden"
<snowden@peoplepc.com> wrote:

>Are there any sources of SN76514 IC's out there? Maybe an
>NTE or something like that? I have an old radio that has
>two of them and I would like to bring it back to life..
>
>Doug N4IJ
>
>
believe it's TL442(?)

73
LA8AK

--
remove ,xnd to reply

7425. Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 21:20:12 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0a99d0.268793295@news.online.no>
Source record: 48322

Just worked a cw contest. Several stations seems to have a problem
tuning to correct frequency, so I wondered if it is a stroboscope type
tuning indicator available to aid this. I was thinking of the type
used to indicate mains frequency, but operated around 700Hz.
The principle of mechanical stroboscope used for 50Hz will give good
indication for varying amplitudes, but a more modern version is more
interesting than converting the old system

any suggestions?

73
Jan-Martin
LA8AK
--
remove ,xnd to reply

7426. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 21:29:22 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C0A9D32.74E83C1C@coqui.net>
Source record: 48323

J M Noeding wrote:
>
> Just worked a cw contest. Several stations seems to have a problem
> tuning to correct frequency, so I wondered if it is a stroboscope type
> tuning indicator available to aid this. I was thinking of the type
> used to indicate mains frequency, but operated around 700Hz.
> The principle of mechanical stroboscope used for 50Hz will give good
> indication for varying amplitudes, but a more modern version is more
> interesting than converting the old system
>
> any suggestions?
>
> 73
> Jan-Martin
> LA8AK
> --
> remove ,xnd to reply

Hi, J-M,
What do you mean by "tuning to the right frequency"? Most CW ops,
especially the transceiver crippled, tune for the note that pleases them
- or provides results. The fact that you heard them bears out this
theory.
-Bill WX4A

7427. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 22:19:40 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.16.19.38.743623.1222@nothing.tome>
Source record: 48324

FYI after the ban on PCB oils that was the mainstay of xfmr oils, many electronic oil baths were converted to peanut oil. Now days I would go with the drugstore mineral oil.Doesn't get ransid.

Get realistic thermal transfer efficiency of the oil is not you limiting factor in a cantenna, its the limited surface area of the paint can and the can to air junction resistance. The resistor-to-oil and oil-to-can thermal resistances are still lower no matter what oil you use.

Put 12 ohm resistors in series with a 100 ohm. Whats your current? Chamge the oil from 80% to 95% transfer and you get maybe 10ohms + 10 ohms + 100 ohms. What's your current now? Not significantly different.

Most of the increase in test time comes from the thermal storage capacity of the oil, not its heat transfer characteristics.

Save your money and pour in the baby oil. Tell em you run a daycare.:)

On Tue, 20 Nov 2001 20:54:37 -0600, Russell C. Nixon wrote:

> Ok, I was just given a genuine Heath "Cantenna" and now I need
> transformer oil. Any ideas out there as to where I can buy or scrounge
> a gallon.
>
> Russ
>

7428. Re: LEDs in pulse service

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 22:48:35 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.16.48.33.691675.1222@nothing.tome>
Source record: 48325

Not sure what your trying to accomplish with pulse driving LEDs,
If your trying to just mux LEDs, the duty cycle has to be adjusted such
that the current averages out to the typical 20ma forward current limit.
At the same time you can not exceed the peak forward current and
duration and repition rate as given in the data sheets,

If however, you are trying to use IR LEDS for fiber optic or remote
cotrol application where the instaneous intensity is more important
than the average intensity, you might want to select LEDs designed for
those applications. The pulse characteristics are better defined,

As with all diodes the major limiting factor will be the juction
capacitance. The capacitance limits the rate at which you can turn the
LED off. As a result your current flow may be longer than expected and
you made one fast firecracker.One solution to this is to reverse bias
the LED to literally suck the charge out of the junction. The problem
is LEDs tend to have poor reverse breakdown voltages (typically make
pretty decent inaccurate 6 volt zeners).

The generic LED is basicly a very poor substitute for a fast switching
diode. Electrically, that's what you need, but LEDs are designed for
light output characteristics.

On Mon, 19 Nov 2001 14:46:38 -0600, Tom Bruhns wrote:

> Hi Cliff,
>
> A lot of your answers will be found in Agilent AN-1005, which you should
> be able to get in .pdf format here:
> http://literature.agilent.com/litweb/pdf/5091-9704E.pdf If that doesn't
> work, go to www.agilent.com, and you should be able to navigate to LEDs
> under components and find the ap notes section. You can also get some
> specific LED data sheets.
>
> Generally the light output follows the current very closely, and if
> you're just muxing the LEDs, you're unlikely to be pushing the envelope.
> If your pulses are in the 1usec or shorter range, then it's fair to
> start asking about reverse recovery times and so forth.
>
> There will normally be a "peak repetitive current" rating that you
> shouldn't exceed...it's unlikely to be 20A for a common LED! But
> optical efficiency is not a strong function of peak current...10% duty
> cycle at 300mA peak is just about the same integrated optical output as
> 30mA continuous. See the ap note.
>
> Hope this helps some.

>
> Cheers,
> Tom
>
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
> news:<3BF49F3A.292A4701@clifto.com>...
>> Anyone have any data on how much LEDs can be overdriven in pulse
>> service? Obviously I'm talking sub-second pulses. I'm sure it varies
>> with duty cycle, but I'll bet there are other limits involved. I just
>> can't picture driving a 20mA unit at 20A for one millisecond every
>> second without something bad happening.
>>
>> Also, what are rise times and fall times like, for both current and
>> light output?
>>
>> I'm already sure light output doesn't double when current does, just
>> not sure what the curves look like.

7429. Do you need HV transformers or filter chokes?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 23:00:41 UTC
From: arnoldg@c2i.net
Message-ID: <3c0ab2b1.11185769@news1.c2i.net>
Source record: 48326

Hello,

We have now in stock an extensive range of high voltage transformers
for valve amplifiers and other valve equipment. 230V primary and
secondaries for both anode and heater circuits.
Also filter chokes of 10H 50mA, 100mA etc. up to 10H 400mA.

Pictures, technical data and price can be found at my web site -
www.demostenes.no
(click on the English flag on the left side of the opening picture to
get English text).

Best regards,

Arnold Goks&#65533;yr
DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7430. Re: Using 3 phase transformer on single phase power?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 23:09:21 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.17.09.18.417118.1222@nothing.tome>
Source record: 48327

I hate to be the pervayer of doom, but it might be cheaper in the long run to build a whole new supply. As you already know you will have to rework the LC filters for the 60Hz ripple vs 180Hz. As someone else indicated you can use one section of the transformer as a single phase transformer. Your KVA rating will be 1/3 of the 3 phase rating. The voltages will be less. The Scott T circuit will not give you what you want either with the same stansformer.

Ja, you could buy a rotary converter to generate 3 phase from single phase. We used to use one for 400Hz power for aircraft instrumentation. They are expensive even on surplus. They are noise and waste a lot of power.

Your best solution would be to find a surplus single phase supply and use the three phase as a boat anchor.

On Thu, 15 Nov 2001 19:32:32 -0600, Henry Kolesnik wrote:

> the dc filtering circuits will require more capacitance and or
> inductance as 3 phase ripple is effectively 180 or 360 Hz and your b
> plus will be much lower...
> rotary converters as used by machinists to ge 3 phase for their lathes
> that have industrial 3 phase motors is probably a better idea.. "Lew"
> <lewis-jean@mediaone.net> wrote in message
> news:cjzI7.1285$gr6.567686@typhoon.jacksonville.mediaone.net...
>> Good Electrical handbooks show how to make a Scott-T transformer
>> set-up. With the Scott T you feed it with 240vac (2 120vac & Netural)
>> and get a 3 phase output
>> the output voltage will depend on the Transformers
>>
>> Lew
>> "spike" <mike@nospam.spikey-mike.freeserve.co.uk> wrote in message
>> news:ol95vts7h29t9dk3ptoem3gqtlukefcar9@spikey-mike.home...
>> > On Tue, 13 Nov 2001 21:40:50 GMT, jflanders2@home.com (Jerry
>> > Flanders) wrote:
>> >
>> > >Can I get any practical use from a 3-phase transformer with
>> > >single-phase power? I hope I can use this power supply at near
>> > >original design ratings. Please read on:
>> > >
>> > >I am trying to breathe life into an old HF power amp. It used 220 3
>> > >phase power originally and I am wondering what use I can get from
>> > >it's combined screen grid and bias power supply transformer. The
>> > >transformer primaries are for 220/440, and are currently wired up
>> > >for 220 use. The primaries are all isolated from each other, can be

>> > >rewired for 440 (i.e., I have 6 individual 220 windings), or
>> > >isolated and fed separately as I did in a test below. Primaries are
>> > >delta, and both secondaries are Y - one marked 800V and one marked
>> > >450V. Fortunately, complete wiring diagram and voltages are printed
>> > >on the transformer. Filters appear to be choke input.
>> > >
>> > >As a test, I isolated one of the delta primary legs and fed it
>> > >110VAC while monitoring the DC on the filter caps and looking for
>> > >smoke. No smoke and I get about 450VDC (unloaded) on one filter cap
>> > >and about 225VDC on the other. Looks pretty encouraging to me -
>> > >maybe when I apply full 220VAC I will get roughly normal voltage
>> > >from this thing.
>> > >
>> > >Anybody have any advice on what I might run into in trying to use
>> > >this supply on single phase under load? I realize DC filtering would
>> > >not be up to original performance as-is, and I assume that the
>> > >single leg primary might even be overloaded if I draw full current
>> > >from it, but it was originally rated for 24/7 mil-spec CCS, so it
>> > >might survive OK as is. If not, is it possible to apply power to
>> > >another of the delta primaries with my single phase power in some
>> > >way to spread out the load?
>> > >
>> > >Fortunately the blower and filament transformer are single-phase, so
>> > >this is the only part of the old amp that is in question.
>> > >
>> > >Ideas?
>> > >
>> > >Jerry W4UK
>> > You will only be able to use one of the three phase windings on
>> > single phase, because the magnetic circuit is a three phase system as
>> > well.
>> >
>> > There will be no problem in just using one of the primary/secondary
>> > assemlies though and isolating the others. You will of course get
>> > high volts from the other (unused) primaries and secondaries which
>> > you will have to safely isolate. You might get away with using two of
>> > the assemlies and wiring them out of phase. You could then double the
>> > output volts or current by suitable wiring of the secondaries,
>> > assuming the magnetic's don't saturate.
>> >
>> > There are schemes to get 3 phase motors to run on single phase, but
>> > these rely on the motor turning and contributing to the rotating
>> > field. If you really need a 3 phase supply, you could use a large 3
>> > phase motor and get it running using a capacitor. The three phase
>> > supply is then taken from the three motor windings. I've only ever
>> > seen this scheme work when trying to drive large 3 phase motors, and
>> > don't know if it will work with a transformer, but I don't see why
>> > not.
>> >
>> >

>> > All the best...Mike.
>>
>>
>>
>>

7431. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-02 23:52:11 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.17.52.09.942544.1222@nothing.tome>
Source record: 48328

Personally, I use Schema a dos app from a company called Omation.
Omation has been sucked up by somebody and they were sucked up too,

I paid probably $3500 for that and the then version of PADS-PCB. None of the drawing programs quite as productive as comercial schematic capture packages. If I were to by the software today it would cost like $10K.

A few years ago when I got tired of Windblows 98 being worse than 95, I converted to Linux. I do mostly web programming for a living and Linux is the OS of choice for web servers.Our Linux servers were not rebooted for 9 months until they were relocated to a new facility.

What I am getting at, if someone is considering kde apps like Koffice, consider putting up Linux on a partition. Lilo (linux loader) allows you to selectively load Linux or Windows on the same machine. I have this setup on one of my machines, although Linux runs 99.99% of the time You can also boot Linux out of a Windows folder although this isn't as nice as a seperate partition.

I haven't used Schema in a while, but when I do it will probably be with dosemu over Linux.The 14 year old 486 dos box is getting pretty tired.

Everything I use on a daily basis is open source and only cost me the download and install time. There are a number of excellent amateur radio applications available for Linux too.

This was not intended to start any flames here, I'm just trying to suggest alternatives.

7432. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 00:09:17 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C0AC2AD.19BA52E7@nf.sympatico.ca>
Source record: 48330

Frank Dinger wrote:

> Indeed ,keeping the battery all the time on 13.8 V float does not need any
> switching over.

IIRC 13.8 i.e. 2.3 volts per cell is more a 'charging' voltage than a 'float' voltage?
Recommended 'float' voltage for lead acid cells, once they are fully charged, is I believe 2.15 to 2.17 volts per cell. This floating voltage is almost exactly 13 volts for a six cell 'string'.

The float voltage is designed to prevent deterioration of the cells due to 'local chemical action' while they are being neither charged or discharged! Long periods at full charge voltage could, as I understand it, cause the batteries to overcharge, possibly sulphate and to 'gas' excessively. I have seen batteries, in an extreme case, 'boiled dry' by over charging in excess of need!

When lead acid battery cells go on discharge the voltage per cell falls quickly to 2.0 volts per cell and stays almost at that figure until shortly before the cells are exhausted and on their last few per cent of discharge. That is why monitoring only battery voltage is a dicey business; 12 volts across a discharging battery could mean anywhere from fully charged to ten percent left in the batteries!

It is true that battery voltage is monitored by certain types of equipment (particularly solid state equipment) where the relative voltages are important. When it DOES fall below a certain threshold that equipment is designed to cut out/shutoff in order to protect itself.

Whereas more old fashioned equipment, for example the older style electromechanical telephone switching gear, may just keep staggering along until it just can't move. I vividly recall some dial office telephone switches that were supposed to work in the range 52 to 46 volts. During a prolonged power failure many switches continued to work, sort of, down to around 42 volts! We were amazed!

By the same token a remote solid state switching office isolated for days by severe snow storms worked fine ' until .... 'kaput' gone! As it was designed to do.

So; as I understand it, don't over volt batteries continuously; you aren't doing them any favours. Terry.

7433. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 00:09:45 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.18.09.42.991683.1222@nothing.tome>
Source record: 48329

How about corogated tubing used for sump pumps. The normal size
is 1-1/2" which may be small, but I believe there is a 2 inch size
as well. Alternatively go larger 3" corrogated drainage tile.
Any home improvemnt center carries thsee.

.
On Tue, 06 Nov 2001 22:34:52 -0600, Douglas Snowden wrote:

> I am looking to put a blower for a linear amplifier in a separate room
> probably 15 ft away and have my amp. blower hosr connected to it. I need
> something about 2 1/4 inch I.D. Is there a place that sells something
> like that? I'm sure there is, I just can't find it. Is there a truch
> radiator hose that might work? Surely many people have done this
> before.
>
> Doug N4IJ
>
>
>
>

7434. Re: Transformer Oil

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 00:14:48 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C0AC3F8.9A207D43@nf.sympatico.ca>
Source record: 48331

Jim Lacko wrote:
>
> Hi Russ:
>
> When I purchased my Cantenna from Heathkit in the 1970s I was told, and have
> since used, pure mineral oil.
> It's available in a 1 gal bottle/jug from any local drug store; expect a
> curious inquiry as to what you're going to do with it.
>

I guess you're a REGULAR guy?

7435. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 00:49:43 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u0lj1nfiv9h872@corp.supernews.com>
Source record: 48332

> IIRC 13.8 i.e. 2.3 volts per cell is more a 'charging' voltage than
a
> 'float' voltage?

The 12 volt lead-acid and sealed lead-acid batteries I've dealt with are indeed specified to "float" at 13.8 volts. You can safely leave them across a 13.8 volt source indefinitely. 13.8 volts can also be used to charge the battery if it is low so you also need to provide some type of current limiter to protect the charger and/or battery if there is a chance that the battery could be in a low charge state when first connected to the supply. If the battery is low, it will attempt to draw considerable current from the supply (thus the need for a current limiter). If the battery is fully charged, it will quickly rise to 13.8 volts and draw very little current from the supply - taking only what is needed to keep it "topped off".

7436. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 00:52:22 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u0lj6n4h2nb1c9@corp.supernews.com>
Source record: 48333

What I've found lacking in most of the shareware, free, or inexpensive schematic programs is an extensive component library.

7437. Re: Need info on artificial center tap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 01:00:02 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C0ACE92.F54B64F4@nf.sympatico.ca>
Source record: 48335

Jim DiMauro wrote:
>
> I have a power supply with a damaged xfmr: the center tap seems no longer to
> be connected internally due to overheating. Otherwise, the HV winding is
> OK. I have a construction article where the author needed a center-tapped
> filament winding for his project, but the particulat xfmr he had wasn't
> center-tapped. He made an artificial center tap by putting a resistor to
> ground from each side of the winding (in this case he used 33 ohm, 1 watt
> resistors on a 6.3 volt 8 amp winding). I'd like to do the same for my
> damaged xfmr, but I don't know how to calculate the value of the resistors.
> Can anyone out there help?

Is it the transformer HV winding or a heater winding that has lost it's
centre tap?
If a centre tapped heater winding (let's say it's for a 5 volt rectifier
for example) and the voltage to chassis is not too high you could
parallel another heater transformer, secondary only, across the faulty
winding and use it's centre tap instead of the original one? The
paralleled transformer secondary winding would only serve to split the
'series' current equally. The heater load itself would continue to be
provided by the original winding. An idea?
The additional transformer may/will be at high voltage though? so it
must withstand that voltage to chassis; or however you mount it? However
if the heater winding is for a transmitting power amp. it's voltage to
chassis will be much lower possibly at cathode voltage. OK?
I hope otherwise your main transformer is OK?

7438. Re: BLEEDER RESISTOR

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 01:00:53 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.19.00.52.141182.1222@nothing.tome>
Source record: 48334

Most failures to power devices are the result of inrush current or thermal cycling.

Resistors also have voltage and peak current ratings that are not as obvious power rating. Catalogs rarely publish these ratings. Instead you must consult a data sheet.

When power off your supply, you're dumping the energy of the magnetic field of the transformer.Instantaneously, the voltage across the bleeders is doubled.

Power line transients can ride through a transformer. More often the transients are spikes which can raise the secondary voltage by 25% or more.

In high voltage supplies you could be exceeding the voltage rating on a transiet and/or power off. The resistor may be flashing over internally which effectively raises the current. As a result the resistor may fail from excessive instantaneous current. Repeated power cycling can cause the insulation value of a resistor to be damaged and eventually self destruct on a flash over.

As someone suggested if you parallel resistors you get redundancy. You may also consider a series combination to increase the voltage rating.

In the circuit of this thread, the nominal bleeder voltage is 350 or 400VDC if that is doubled on power off this will exceed the typical 500VDC or 750VDC rating of most power reistors. Since parts are secified on a worst case basis, you probably can get away with it for a while. Eventually, the resistor gets tired of the abuse and dies.

On Sun, 18 Nov 2001 02:33:06 -0600, ehsjr wrote:

> I'd use 2 100K 10W resistors in parallel across each cap. I would
> also time the discharge of the whole string with everything assembled,
> and post a note on the front panel below the plate voltage meter. Every
> so often, I'd check the time to see if it had changed. I've seen too
> many power resistors open up over time to trust the damn things. I've
> just finished working on a boat anchor signal generator that has an open
> 20 W 10K resistor, even though the thing dissipates only 3.8 watts. I
> like resistors to run at 1/4 of their wattage or less - but even that
> doesn't guarantee it won't open, as the signal generator problem
> demonstrates. I don't know why these things fail - I just know they do.
>
> BUBBA SMITH wrote:
>

>> Which bleeder resistors should I use on a 5000 volt power supply? It is
>> used on a 4-1000 amp. The capacitor bank I have constructed is made up
>> of 15 computer grade capacitors with a value of 450 volt / 470uf. for a
>> total of 6750 volts and 31uf for filtering. I have heard that wirewound
>> resistors are not a good first choice because they can open up (burn
>> up) and leave the cap bank charged. What should I use as far as ohm
>> rating and wattage for these resistors?Thank you in advance. 73 de
>> N8SGA
>> Jim Mohney
>

7439. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 01:19:02 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C0AD306.AB41FB2A@eznec.com>
Source record: 48336

The problem is more likely due to poor transmitter design or adjustment
than to operator error. CW operation seems to be an afterthought with
modern commercial rigs, so it's often poorly implemented. I'd be willing
to bet that if all CW operators tuned the incoming signal to make a
precisely 700 Hz tone, there'd still be a lot of them off frequency
simply because the tx shift isn't properly designed or adjusted.

Roy Lewallen, W7EL

J M Noeding wrote:
>
> Just worked a cw contest. Several stations seems to have a problem
> tuning to correct frequency, so I wondered if it is a stroboscope type
> tuning indicator available to aid this. I was thinking of the type
> used to indicate mains frequency, but operated around 700Hz.
> The principle of mechanical stroboscope used for 50Hz will give good
> indication for varying amplitudes, but a more modern version is more
> interesting than converting the old system
>
> any suggestions?
>
> 73
> Jan-Martin
> LA8AK
> --
> remove ,xnd to reply

7440. Re: Newbie needs help:

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 01:24:58 UTC
From: mwp <email@nothing.tome>
Message-ID: <pan.2001.12.02.19.24.56.429559.1222@nothing.tome>
Source record: 48337

Hmm, lets review for our exams again

Question T7B11 in the eleemnt 2 question pool
"What would you use to connect a dual band antenna to a mobil
transceiver that has separate VHF and UHF outputs?"
Correct answer is D Duplexer,

What you want is a a diplexer.
ses this web page for exactly the circuit you want;
http://www.frontiernet.net/~gmills/diplexer_in_a_can.htm

On Sat, 03 Nov 2001 22:37:01 -0600, Gary Glaenzer wrote:

> no, its an antenna coupler
>
> probably consisting of two band-pass filters to a common connector
>
> a 'duplexer' permits simultaneous transmit and receive on one antenna
>
> a 'diplexer' combines two transmitters into a common antenna
>
> whereas you simply want to couple two antennas into one HT, but will be
> using only one frequency (or one band, anyway) at a time
>
>
> "burnt-kat" <burnt-katNOT@home.com> wrote in message
> news:8r3F7.155151$Pr1.41544744@news1.rdc1.tn.home.com...
>> I want to build a device that will enable me to combine inputs from a
>> 2m
> and
>> a 70cm antenna into the one BNC connection on my HT. I believe this
>> would
> be
>> a duplexer?
>>
>>
>>
>>
>>
>>

7441. 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 02:26:05 UTC
From: 2w8ji@contesting.com
Message-ID: <3c0adeda.56813098@news.akorn.net>
Source record: 48338

Help please! I can't find any detailed information on a 3SK74L on the web. I need a data sheet for the 3SK74L!!

I wonder if anyone has looked at the IF section of a FT1000?

FT1000's have a big hiss when using narrow filters. In my FT1000D, the hiss comes from the 3SK74L 455kHz AGC controlled IF amplifier following the last narrow filter. That FET is just before a 3SK74L mixer that converts the 455 to 100kHz.

The 100kHz is used for a conventional bridged T notch filter, and then on through more gain to the detector.

The problem is the 100kHz IF section has virtually no selectivity and very high gain, and the first 3SK74L in the chain is noisy enough that when the narrowest filters are used the hiss from the first 3SK74L almost overwhelms the noise from the antenna (even on 160 meters) when the band is really quiet. I can barely hear the front end noise change if I listen carefully on a dummy load with a narrow filter, because of that broadband hiss.

Installing a 0.5dB NF GASFET in place of the 3SK74L helped the noise several dB, but I'd like to get a data sheet and see how bad the 3SK74L really is. The same type of FET is a major contributor to broadband noise from the FT1000 transmitter, they use one in an ALC controlled stage after the SSB filter in the transmitter, and that is the major source of TX broadband noise.

Either those are poor FET's, or they are doing something wrong!

Thanks for any suggestions or help.
Tom W8JI

7442. Re: micro 80 circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 03:36:29 UTC
From: TC <cadigant2@uofs.edu>
Message-ID: <3C0AF33D.DB82F81E@uofs.edu>
Source record: 48339

David,

I looked up a reprint of Oleg's circuit that appeared on the web and in a qrp journal. There is the tapped coil you mention in Oleg's Micro 80, but no mention of winding data or coil tap placement. There are several versions of the circuit out there, Pixie, Pixie II...

In two versions, "A Swedish Pixie" and "The Pixie II", both have the same keyed emitter- to- ground final. The drain of the transistor connect to 12V through a 10 to 22uH choke. Where the choke connects to the drain of the final transistor there is a 10nF cap feeding a simple "pi" network.

I hope this helps. If I have not been clear, send me your address and I'll copy the small collection of Pixie - Micro 80 circuits I have.

good luck,
Tim (wc1f)

7443. FA: NEW rack mount project case- Big!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 04:03:06 UTC
From: jimmoci@aol.com
Message-ID: <20011202230306.10441.00000295@mb-co.aol.com>
Source record: 48340

See it @

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1305481998

Tnx for looking!

7444. AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 05:01:45 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C0B0739.7020300@charter.net>
Source record: 48341

Hi everyone.
Have T4XB replaced 2 filter caps 150uf@450v in power supply. also put in new 6jb6a and 12by7a
After i put the caps and tubes in it decreased the hum by 50%. But it is still there even with no mic in the tune mode. Anyone gone thru this problem any help would be greatly appreciated.
chris ni4l

7445. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 05:06:12 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <70ul0u0p5dfqg0vfnrhcnjb5b02pvj5q2e@4ax.com>
Source record: 48342

On Tue, 20 Nov 2001 18:41:29 GMT, "Peter J. Bertini"
<commquart@home.com> wrote:

>It may not need be that complicated, depending on the power supply you are
>using. I have several switching supplies on remotely located base stations
>that simply have the battery paralleled across the supply output. The
>supply voltages are set to the battery manufacturer's float charge voltage.
>When the AC fails, the load is placed on the batteries. The trick here
>lies in IF you can backfeed voltage to your particular supply without
>damaging it.

Looking at some application notes for the 78xx series voltage
regulators for using with a detachable battery to feed the regulator
and having a large capacitance on the load side. When the main battery
is detached, the capacitance (or small backup battery on the load
side) will backfeed the regulator for a while.

The recommendation was to put a normally reverse biased diode between
input and output. When the main battery was detached, the diode would
conduct and keep the input at about 0.7 V below the output, thus
preventing damage.

This could be applied to a normal NPN series pass power supply by
connecting a reverse bias diode from the main filter capacitor to
output, thus keeping the reverse bias voltage across the series pass
transistor below 0.7 V when the mains is down.

The drawback is that an idle current is consumed by the power supply.
Thus, even if the load has some kind of low voltage cut-off, this idle
current would load the empty battery.

One other approach of float charging a battery would be to use a cheap
car battery charger (with a quite high internal resistance :-) and use
a shunt regulator across the output, consisting of an NPN power
transistor from output to ground and a zener from output to base and
possibly a resistor from base to ground to sink any colector-base and
zener leakage. The internal resistance in such car battery chargers is
so high that no extra series resistors are usually needed. When on
battery power, the shunt regulator draws very little current.

Paul OH3LWR

7446. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 05:42:13 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C0B10B5.8020102@charter.net>
Source record: 48343

THE HUM IS IN THE TRANSMIT AUDIO.

ni4l wrote:

> Hi everyone.
> Have T4XB replaced 2 filter caps 150uf@450v in power supply. also put in
> new 6jb6a and 12by7a
> After i put the caps and tubes in it decreased the hum by 50%. But it is
> still there even with no mic in the tune mode. Anyone gone thru this
> problem any help would be greatly appreciated.
> chris ni4l
>

7447. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 05:56:09 UTC
From: John Buck <kh7t@arrl.net>
Message-ID: <3C0B1434.3030705@arrl.net>
Source record: 48344

Possibly the mic shield or return.
Try removing the mic and transmitting.

Aloha,
John KH7T

7448. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 07:16:32 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C0B26D0.1070306@charter.net>
Source record: 48345

It does it in all modes even with the mic removed in the tune mode.
chris ni4l

John Buck wrote:

> Possibly the mic shield or return.
> Try removing the mic and transmitting.
>
> Aloha,
> John KH7T
>

7449. preselector for a sw receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 09:00:47 UTC
From: Muuga <tidalforce@hotmail.com>
Message-ID: <Y9HO7.52975$S93.1500822@e3500-atl2.usenetserver.com>
Source record: 48346

I've seen many designs of preselectors I want some advice on a design.

design 1
uses a varicap and 5 fixed inductors(molded chokes with a 5 position switch.
in a metal box

design 2 uses a varicap and a continuous air wound inductor with 5 taps with
a 5 position switch in a plastic box.

Is one better than the other ?
I also had thought of using homemade torroid inductors

thanks

7450. Re: SN76514 Equiv?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 10:15:52 UTC
From: Joe McElvenney <ximac@btinternet.com>
Message-ID: <VA.00000007.0005a9b3@btinternet.com>
Source record: 48247

In article <u0j751t8lg8df1@corp.supernews.com>, Douglas Snowden wrote:

> Are there any sources of SN76514 IC's out there? Maybe an
> NTE or something like that? I have an old radio that has
> two of them and I would like to bring it back to life..
>
> Doug N4IJ
>

Hi,

One book I have suggests the balanced mixer MC1496 as a possible
replacement.

Joe G3LLV

7451. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 11:19:50 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3C0B5FA7.4944BEFE@earthlink.net>
Source record: 48248

Folks---

> How about corogated tubing used for sump pumps. The normal size
> is 1-1/2" which may be small, but I believe there is a 2 inch size
> as well. Alternatively go larger 3" corrogated drainage tile.
> Any home improvemnt center carries thsee.

The problem with that, as stated before, is the corrugated hose will restrict airflow. You want to use as large a hose as possible with as little flow restriction as you can get away with. Automotive or aviation air/radiator hoses should do the trick.

Henry C. Gernhardt, III
KE4PIB

7452. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 12:59:31 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u0mtq9qtjfrq5e@corp.supernews.com>
Source record: 48249

It's possible that a tube in an earlier stage has developed a short
between the filiment and the cathode.

7453. KENWOOD KPS 12 PWR SUPPLY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 14:30:06 UTC
From: K9VDD <k9vdd@charter.net>
Message-ID: <u0n32g4jgif4e3@corp.supernews.com>
Source record: 48250

FOR SALE: KENWOOK KPS 12 POWER SUPPLY 13.8 VDC AT 12 AMPS $65
SHIPPED

k9vdd@charter.net

7454. FS: 1937 "Radio Engineering" by Terman, $8

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 14:47:19 UTC
From: oldbooks78@aol.com
Message-ID: <20011203094719.18446.00000899@mb-cg.aol.com>
Source record: 48251

I currently have for sale a nice copy of "Radio Engineering" by Frederick Emmons Terman, published by McGraw-Hill in 1937. Second edition. The 813 page hardbound book is in about very good condition. Pages are clean with no page tears or pen marks except for a previous owners name inside the front cover, and a "Property of U.S. Navy" stamp lined out. A comprehensive engineering treatment of radio technology from back in the 1930's. Available for $8 plus $2 postage (Media Mail rate within the US, at cost elsewhere). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks.

Dave

7455. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 15:40:35 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0b7628.325210084@news.online.no>
Source record: 48252

On Sun, 02 Dec 2001 17:19:02 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>The problem is more likely due to poor transmitter design or adjustment
>than to operator error. CW operation seems to be an afterthought with
>modern commercial rigs, so it's often poorly implemented. I'd be willing
>to bet that if all CW operators tuned the incoming signal to make a
>precisely 700 Hz tone, there'd still be a lot of them off frequency
>simply because the tx shift isn't properly designed or adjusted.
>
>Roy Lewallen, W7EL
>
it seems to work for my FT-902, but I didn't know exactly the proper
tuning before studying the instruction book thoroughly. It seems also
a very bad problem that manufacturers are not qualified to write
proper manuals. They can't explain it so engineers understand what is
important, and they cannot explain for amateurs, but you pressumeably
need to be engineer to see the proper facts.

I made thorough tests and it seems that even when using DSP-9 with
100Hz bandwidth it is no problem with offset, but I really never use
the RIT (clarifier) during HF CW contests, it shouldn't have more
tuning range than +/.0.5kHz for contests and 1.5kHz for normal QSO,
this is complicated to implement, some degree of operators don't hit
my frequency and it is just to forget about them

But for my own use I still would be interested to see a stroboscope,
another possibility is the XY-scope with one tuned circuit.

73
Jan-Martin
LA8AK
QRV: 80-40-30-2m-70-23.13cm cw/ssb only
--
remove ,xnd to reply

7456. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 18:04:46 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrna0ngud.5fq.w9wi@linux1.localdomain>
Source record: 48253

On Mon, 26 Nov 2001 20:14:06 -0500, ZZZjim_cronin@juno.comZZZ
<ZZZjim_cronin@juno.comZZZ> wrote:

>Do a search on "National Radio Club", an association
>of MW (AM broadcase band) DXer's.

You'll find the NRC's website on http://www.nrcdxas.org .

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

7457. Re: preselector for a sw receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 18:11:30 UTC
From: no-spam@nospam.com
Message-ID: <3C0BC052.E47872EB@nospam.com>
Source record: 48255

Muuga wrote:
>
> I've seen many designs of preselectors I want some advice on a design.
>
> design 1
> uses a varicap and 5 fixed inductors(molded chokes with a 5 position switch.
> in a metal box
>
> design 2 uses a varicap and a continuous air wound inductor with 5 taps with
> a 5 position switch in a plastic box.
>
> Is one better than the other ?
> I also had thought of using homemade torroid inductors
>
> thanks
****

A general answer is that it would depend on the respective
Q's of the inductors, and the "loaded" Q of the tuned circuit
they are forming.

For instance, inductor Q's of 200 are not uncommon in air wound
units. Inductor Q's of 50 are not uncommon in molded chokes.

If the tuned circuit which is being formed has a loaded Q of
10 or 20, there will be very little difference in performance.
(The circuit using the higher unloaded Q's will have less loss,
but with high unloaded-to-loaded ratios, there won't be much
practical difference)

The molded chokes are easier to use. If they have high enough
Q's, I would use them.......

But, in this case, "better" is very subjective ----- i.e. smaller,
cheaper, less loss, easier to replace, easier to document, etc......
----- just depends........

If you are designing your preselector primarily for GAIN, the front end
can be wide (lower loaded Q) without much loss. If you are designing it
for SELECTIVITY, you need to use the highest Q components you can
find to maximize your unloaded/loaded Q ratio ......

So,,,, it's a tradeoff...... Either goal is valid...

Good luck.

Andy in Dallas W4OAH

7458. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 18:14:34 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrna0ng8h.jik.QSB@animas.frontier.net>
Source record: 48254

On Mon, 03 Dec 2001 11:19:50 GMT, Henry Gernhardt/Andrea Winship scribbled:
> Folks---
>
>> How about corogated tubing used for sump pumps. The normal size
>> is 1-1/2" which may be small, but I believe there is a 2 inch size
>> as well. Alternatively go larger 3" corrogated drainage tile.
>> Any home improvemnt center carries thsee.
>
> The problem with that, as stated before, is the corrugated hose will
> restrict airflow. You want to use as large a hose as possible with as
> little flow restriction as you can get away with. Automotive or
> aviation air/radiator hoses should do the trick.
>
> Henry C. Gernhardt, III
> KE4PIB

An idea: Check with the folks that install
'Whole House Vacuum Cleaner' systems. They
use stuff that fits inside stud walls: 3 1/2".

Just an idea....

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

7459. Re: DC-DC Transfer Switch

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 18:38:31 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C0BC6A7.173B57FF@nf.sympatico.ca>
Source record: 48256

"Bob Lewis (AA4PB)" wrote:
>
> > IIRC 13.8 i.e. 2.3 volts per cell is more a 'charging' voltage than
> a
> > 'float' voltage?
>
> The 12 volt lead-acid and sealed lead-acid batteries I've dealt with
> are indeed specified to "float" at 13.8 volts. You can safely leave
> them across a 13.8 volt source indefinitely. 13.8 volts can also be
> used to charge the battery if it is low so you also need to provide
> some type of current limiter to protect the charger and/or battery if
> there is a chance that the battery could be in a low charge state when
> first connected to the supply. If the battery is low, it will attempt
> to draw considerable current from the supply (thus the need for a
> current limiter). If the battery is fully charged, it will quickly
> rise to 13.8 volts and draw very little current from the supply -
> taking only what is needed to keep it "topped off".

OK Bob: I will defer to your knowledge of the type of batteries
concerned. I was talking last night to someone who also mentioned the
13.8 as the normal voltage for 'car type' lead acid batteries. I think
the output voltage of the alternator on my vehicle is 13.8? Must check
it again sometime.

I guess this WAS more of an automotive type situation than 24 cell
telecommunications batteries of my experience; which typically were a
nominal 48 volts (2.0 volts per cell) floated continuously at 2.17 volts
in North American (ATT) practice etc. and typically at at 2.15 for
British systems.

Thus:
24 cells @ 2.17 = 52.08 volts.
24 cells @ 2.15 = 51.60 volts.
24 cells @ 2.30 = 55.20 volts.
This last figure was considered a charging voltage and only employed if
the batteries had been subjected to discharge, due say to a power
outage. The specific gravity, of several, or at least one 'pilot' cell.
was monitored on a regular routine.
If and when the batteries were 'on charge' measures were taken,
depending on the type of power system, to either disconnect the load or
to insert a device to oppose the extra approx. 3 volts between the
batteries and the load, so that it did not affect the operation of the
equipment.

On the discharge side, the equipment, generally, would operate down to 46 volts or even below.
This range of 46 volts to 52 volts was reasonably standard in the telecommunications industry: After all it was a difference of six volts which at around the nominal 48 volts was a variation of more than 12%!

The other factor was battery life; for well maintained batteries 12 to 15 years was on the low side. Twenty was good and we had several strings that were 26 years and older. Never felt that the technicians who maintained these batteries ever got sufficient credit for those installations which achieved long lives; they were obviously doing something right.

By the same token we had one installation where the float voltage was too high. Consequently the overall equipment voltage was too high! Although it would fall immediately to 48 volts (2.0 volts per cell) if discharge was necessary! When management insisted that it be reduced to the specified level (2.17 volts per cell) the foreman was against it! Turned out ALL the equipment in that location had over a period of some ten years gradually been adjusted for the overall higher voltage and he was concerned that it would fail more often and spoil his 'Trouble Index"! That battery was gassing more than others and distilled water had to be added more often. Sure enough that battery installation, even though the location also had a backup diesel/electric generator, so that it had rarely been actually discharged, was one of the earlier ones to require replacement!

Thanks for all the comments. Terry.

7460. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 19:48:21 UTC
From: 2w8ji@contesting.com
Message-ID: <3c0bd627.34904974@news.akorn.net>
Source record: 48257

On Mon, 03 Dec 2001 02:16:32 -0500, ni4l <ni4l@charter.net> wrote:

>It does it in all modes even with the mic removed in the tune mode.
>chris ni4l
>
>John Buck wrote:
>

Check the bias supply and its filter capacitors. That is a major
source of problems. Jump the electrolytics in the TX chassis, not just
the external PS.

Also, the suggestion about a shorted tube (H-K short) is a good one.

73 Tom

7461. FS: variable capacitors and other HF-components

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 20:50:57 UTC
From: arnoldg@c2i.net
Message-ID: <3c0be53a.19043869@news1.c2i.net>
Source record: 48258

Hi,

I have some variable capacitors and other RF components in stock.
Stock is always changing, but you might find just what you are looking
for. Find descriptions and pictures at my web site - www.demostenes.no
Click on the English flag on the left side of the opening picture and
on 'odds and ends' in the menue.

Best regards,

Arnold Goks

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7462. Re: WTB 2KW AMP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 21:51:04 UTC
From: Harry Hakaloogi <joseph.c.dickinson@boeing.com>
Message-ID: <3C0BF3C8.245A3B4F@boeing.com>
Source record: 48259

How about an NCL-2000 with fresh tubes. better than home made.

gary weber wrote:
>
> Hi--I would like to buy a homebrew 2kW plus amp--preferably with2 8877's or
> similar tube. Please email me at k7qbm@mindspring send photo and specs if
> possible

7463. Re: preselector for a sw receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-03 23:18:41 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9uh4dc$rn4$1@plutonium.btinternet.com>
Source record: 48260

> If you are designing it
> for SELECTIVITY, you need to use
> the highest Q components you can
> find to maximize your unloaded/loaded Q ratio ......
>
==========

Sorry can't agree. If you are designing for greatest selectivity
what is needed is a HIGH LOADED Q. With good desgn this can be a
large proportion of the unloaded coil Q. It can never exceed it
of course.

Download program SELECT1 from website below to model the most
simple but effective form of receiver pre-selector.

****
Regards, Reg, G4FGQ
Obtain Free Radio Design
Software from -
http://www.g4fgq.com

****

7464. Re: SN76514 Equiv?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 00:34:05 UTC
From: Michael Black <blackm00@cam.org>
Message-ID: <Pine.LNX.4.20.0112031920470.662-100000@darkstar.example.net>
Source record: 48261

On Mon, 3 Dec 2001, Joe McElvenney wrote:

> In article <u0j751t8lg8df1@corp.supernews.com>, Douglas Snowden wrote:
>
> > Are there any sources of SN76514 IC's out there? Maybe an
> > NTE or something like that? I have an old radio that has
> > two of them and I would like to bring it back to life..
> >
> > Doug N4IJ
> >
>
> Hi,
>
> One book I have suggests the balanced mixer MC1496 as a possible
> replacement.
>
>
> Joe G3LLV
>
>
>
That's the sort of thing I'd suggest. This question has come up
plenty of times before, and I and others have posted comments
previously; a check http://www.groups.google.com with "SN76514"
as the keyword will save some reposting.

The last time I posted some suggestions, Peter Bertini suggested/stated
that the 76514 may have better dynamic range than the MC1496. I've
never seen the data sheet for the TI device, and the only times I've
seen it in the ham literature, it's been promoted as an easier
to use device rather than having special specs. The SN76514, like
the MC1496 and the NE602 (and other devices) use the "Gilbert Cell"
scheme. How they are biased would be the difference between the
signal handling of each of these. The MC1496 requires a lot of
external resistors for biasing; the SN76514 puts it all inside
the package. Simpler, though the input and output impedances are
then preset.

TI changed the number of the device at one point, I can't remember
which came first. The other number for the SN7651 is the TL442.
I never saw anything to indicate that the specs changed.

The last time this came up, I suggested that the MC1496 might be
a functional equivalent (you'd have to build a module with
external resistors). Or build one up with discrete transistors.

I don't know if you could get the transistors matched sufficiently.
But you could get transistor arrays, maybe they are no longer available?,
and build up a "Gilbert Cell mixer". Such a scheme did show up in
QST a couple of times years ago.

The real question here would be the application (making up a sub
would be fussier as the application became more stringent) and
whether this is to replace a faulty IC (where some consideration
would be required), or if someone needs to build a mixer or
balanced modulator, and decided the SN76514 would be the thing
to use. If the latter, an MC1496 would most likely be fine.

Michael VE2BVW

7465. Re: SN76514 Equiv?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 02:41:19 UTC
From: John Miles <jmiles@pop.removethistomailme.net>
Message-ID: <3C0C37A9.2E1C@pop.removethistomailme.net>
Source record: 48262

Douglas Snowden wrote:
>
> Are there any sources of SN76514 IC's out there? Maybe an
> NTE or something like that? I have an old radio that has
> two of them and I would like to bring it back to life..
>
> Doug N4IJ

http://www.findchips.com (why isn't this on everybody's desktop?) says
that Rochester Electronics has 2658 of 'em in stock at $8.42 each in
single quantities.

-- jm

---

http://www.qsl.net/ke5fx
Note: My E-mail address has been altered to avoid spam

7466. Re: preselector for a sw receiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 03:08:39 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <b2XO7.131810$e5.53862@newsfeeds.bigpond.com>
Source record: 48263

See Single Sideband Principles and Practice, it has a complete treatise on preselector/postselector design. ARRL sell the latest release from Mcgraw Hill.

Q plays a very large roll in the performance of a preselector. Likwise dont overlook the IMD performance of all the components, especially the inductors if you plan to use ferrite. Most of the advanced military designs are designed for transmitters and receivers at about the 100 milliwatt level. In most cases the components are over size, because the preselector has to cope with second harmonic energy of nearby transmitters. You may try and find a copy of the Harris or Collins HF 80 service manuals. Likwise MFJ is now making preselectors for transceivers and receivers. The best unit is a unit made by Braun in Germany, i am not sure if it is still made. Preselectors make the noise figure of the receiver worst.

Willy
"Muuga" <tidalforce@hotmail.com> wrote in message
news:Y9HO7.52975$S93.1500822@e3500-atl2.usenetserver.com...
> I've seen many designs of preselectors I want some advice on a design.
>
> design 1
> uses a varicap and 5 fixed inductors(molded chokes with a 5 position
switch.
> in a metal box
>
> design 2 uses a varicap and a continuous air wound inductor with 5 taps
with
> a 5 position switch in a plastic box.
>
> Is one better than the other ?
> I also had thought of using homemade torroid inductors
>
> thanks
>
>
>
>

7467. LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 04:17:58 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3C0C4E76.79D5CB97@bloomer.net>
Source record: 48264

I just bought some LED displays from Jameco and need some info on
pinouts (has 10 pins - 5 across on the top and 5 across on the bottom).
These are 2.24" 7-segment displays with right hand decimal point.
Jameco part number is 97199. They have a number printed on them, I
suspect a manufacturers part number of
LSD23265-10. It is the common anode version. Any help greatly
appreciated.

--
Scott N0EDV
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

7468. Re: LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 04:43:08 UTC
From: hexter@blazenet.net
Message-ID: <u0ol2sho386sc5@corp.supernews.com>
Source record: 48265

In article <3C0C4E76.79D5CB97@bloomer.net>, acepilot@bloomer.net says...
>
>I just bought some LED displays from Jameco and need some info on
>pinouts (has 10 pins - 5 across on the top and 5 across on the bottom).
>These are 2.24" 7-segment displays with right hand decimal point.
>Jameco part number is 97199. They have a number printed on them, I
>suspect a manufacturers part number of
>LSD23265-10. It is the common anode version. Any help greatly
>appreciated.
>
>--
>Scott N0EDV
>http://corbenflyer.tripod.com/
>Building RV-4
>Gotta Fly or Gonna Die!
Grab yourself 6 volts D.C. and a 330 ohm resistor and play a bit.
You wont hurt anything, and will learn the pinout for yourself.

If you can't figure this easy task, what will you actually be
doing with them?

7469. freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 05:00:11 UTC
From: hexter@blazenet.net
Message-ID: <u0om2r1ie4l927@corp.supernews.com>
Source record: 48266

A strange beast indeed. Was for connecting across a 208 WYE circuit
and provided 230v output. The output is NOT center tapped I am sorry
to say. It is a 4 wire transformer, 2 in 2 out, and is in like new
condition. The best use I can think of would be to unwind the secondary
down to 110v, or better yet, remove all of the secondary (looks like
#12 enameled copper) and rewind it with welder cable to make a killer
battery charging transformer, or monster 13volt supply for the shack.
The end plates come off of this transformer with 8/32 screws, and the
secondary is so accessable it isn't even funny. It could be unwound
in about 1 hour. It is yours for free if you pick it up in York, Pa.
I am guessing it weighs about 30 lbs. I am not really willing to ship
it unless you can give me a good reason why not to.

reply to onehest@blazenet.net and to get the real reply to address
you must substitute 1 for one. de-spaminator thing, you know.

7470. Re: LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 06:33:36 UTC
From: Michael Black <blackm00@cam.org>
Message-ID: <Pine.LNX.4.20.0112040129590.962-100000@darkstar.example.net>
Source record: 48267

On Tue, 4 Dec 2001, gudmundur wrote:

> In article <3C0C4E76.79D5CB97@bloomer.net>, acepilot@bloomer.net says...
> >
> >I just bought some LED displays from Jameco and need some info on
> >pinouts (has 10 pins - 5 across on the top and 5 across on the bottom).
> >These are 2.24" 7-segment displays with right hand decimal point.
> >Jameco part number is 97199. They have a number printed on them, I
> >suspect a manufacturers part number of
> >LSD23265-10. It is the common anode version. Any help greatly
> >appreciated.
> >
> >--
> >Scott N0EDV
> >http://corbenflyer.tripod.com/
> >Building RV-4
> >Gotta Fly or Gonna Die!
> Grab yourself 6 volts D.C. and a 330 ohm resistor and play a bit.
> You wont hurt anything, and will learn the pinout for yourself.
>
> If you can't figure this easy task, what will you actually be
> doing with them?
>
>
That's exactly how I do it. I actually have a 9volt batter
with about a 1K resistor and some leads soldered to it, so I can do
this sort of thing, along with testing single LEDs.

Interestingly, I've discovered that there often is a standardization
to LED readouts. So if there's a number, I'll see if there's
a match in my ECG replacement guide; if not, I just look at
similar pinouts. It can save a bit of time if you assume it's
got a standard pinout, and then set out to prove the assumption.

Michael VE2BVW

7471. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 06:42:33 UTC
From: Olaf <olaf@mail.powermax-lcd.com>
Message-ID: <j83o0u8k6fl8fhf7i3836j6iu96phddeqk@4ax.com>
Source record: 48268

On Sun, 2 Dec 2001 19:52:22 -0500, "Bob Lewis \(AA4PB\)"
<rlewis@staffnet.com> wrote:

>What I've found lacking in most of the shareware, free, or inexpensive
>schematic programs is an extensive component library.
>
But while commercial programs (Orcad, Protel,...) may have extensive
libraries, as soon as you are going into analog or mixed signal
circuits and you are not using opa, ttl or cmos logic, you still need
to create a lot of schematic templates or pcb footprints by yourself.
And sometimes (Protel) the libraries look ok at the first glance, but
then you find that for instance the templates for transistors do not
match any of the transistor footprints because they used completely
different names for the pins...
If you need to create your parts anyway, you can do it with a
free/shareware program too...

73! de Olaf

7472. Re: Wanted CA3189 source?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 06:58:41 UTC
From: aajham@yahoo.com
Message-ID: <3C0C768E.8CA42B39@yahoo.com>
Source record: 48269

Thanks for the help found some 3089's at Newark and Alltronics. cul
Art.

aajham@yahoo.com wrote:

> Hi, Im looking for a source for 3189 or 3089 chip. It is an FM IF
> system it was produced by national semi and RCA. Im looking for 5.
> Thanks, Art KF7GD@arrl.net

7473. Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 07:01:20 UTC
From: aajham@yahoo.com
Message-ID: <3C0C772D.164433DE@yahoo.com>
Source record: 48270

Im looking for a datasheet for a TA7302 chip. Any info is welcome. I could not find anything at the Toshiba site.

Thanks, Art.

7474. Re: freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 12:36:24 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C0CC348.BEA1F22@nf.sympatico.ca>
Source record: 48271

gudmundur wrote:
>
> A strange beast indeed. Was for connecting across a 208 WYE circuit
> and provided 230v output. The output is NOT center tapped I am sorry
> to say. It is a 4 wire transformer, 2 in 2 out, and is in like new
> condition. The best use I can think of would be to unwind the secondary
> down to 110v, or better yet, remove all of the secondary (looks like
> #12 enameled copper) and rewind it with welder cable to make a killer
> battery charging transformer, or monster 13volt supply for the shack.
> The end plates come off of this transformer with 8/32 screws, and the
> secondary is so accessable it isn't even funny. It could be unwound
> in about 1 hour. It is yours for free if you pick it up in York, Pa.
> I am guessing it weighs about 30 lbs. I am not really willing to ship
> it unless you can give me a good reason why not to.
>
> reply to onehest@blazenet.net and to get the real reply to address
> you must substitute 1 for one. de-spaminator thing, you know.

Sounds like it is from the era when various systems were changing from
230 delta to 208 wye (star)? So that trans. may very well have been to
step voltage back up to 230, when 208 3 phase was introduced?
In the 1950s we had a whole building that was fed with three phase delta
and ONE of the phases was centre tapped to get a neutral for two
supplies of 115 volts, both from that one phase. So we had 4 wires
coming in that 'looked' normal! But;
If you inadvertently used that centre tap neutral and the 'hot' of the
wrong phase you got 'funny' voltages!
I agree it is odd, in a way, that transformer doesn't have a centre tap
on its 230 volt side.
Yours might have been one of a trio used to interface 3 phase 208/230
volt systems.
Interesting discussion. As you say it sounds like it could be used for a
variety of purposes. For example you could unwind half the secondary and
rewind it in parallel with the other half so as make a 230 to 110 volt
isolation transformer spreading the load over both 115 volts legs of a
normal North American 115/230 supply?

7475. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 14:58:26 UTC
From: Adam Weber <adam@home.email.ne.jp>
Message-ID: <3c0ce6a6$0$242$44c9b20d@news3.asahi-net.or.jp>
Source record: 48272

Hi
You are probably already aware that this part can be replaced by ECG1474 / NTE1474. I've been trying, unsuccessfully, to connect to this site: http://sr10.xoom.com/semicross/

It's "that time of night" here...I've been getting a lot of "Server too busy..." messages this evening. You might have better luck than me! HTH...

<aajham@yahoo.com> wrote in message news:3C0C772D.164433DE@yahoo.com...
> Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
> could not find anything at the Toshiba site.
>
> Thanks, Art.
>

7476. Re: freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 16:15:20 UTC
From: jflanders2@home.com
Message-ID: <3c0cf463.331080705@NEWS>
Source record: 48273

Even with no modificaions, it could be used as an isolation
transformer for either 240 or 120. Also usable in a power supply
(voltage doubler circuits, etc, supplied from either 120 or 240.

Just because it has enough turns to be usable on 240 with the core
doesn't mean it can't be used at half the voltage input.

The slight voltage step up would be insignificant in most isolation
applications.

I am surprised it is rated at 3KVA if it only weighs 30 lbs.

Jerry W4UK

On Tue, 04 Dec 2001 05:00:11 -0000, hexter@blazenet.net (gudmundur)
wrote:

> A strange beast indeed. Was for connecting across a 208 WYE circuit
>and provided 230v output. The output is NOT center tapped I am sorry
>to say. It is a 4 wire transformer, 2 in 2 out, and is in like new
>condition. The best use I can think of would be to unwind the secondary
>down to 110v, or better yet, remove all of the secondary (looks like
>#12 enameled copper) and rewind it with welder cable to make a killer
>battery charging transformer, or monster 13volt supply for the shack.
>The end plates come off of this transformer with 8/32 screws, and the
>secondary is so accessable it isn't even funny. It could be unwound
>in about 1 hour. It is yours for free if you pick it up in York, Pa.
> I am guessing it weighs about 30 lbs. I am not really willing to ship
>it unless you can give me a good reason why not to.
>
>reply to onehest@blazenet.net and to get the real reply to address
>you must substitute 1 for one. de-spaminator thing, you know.
>

7477. Re: 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 17:11:39 UTC
From: Me <me@nym.alias.net>
Message-ID: <uovp0u0jqi41r2r55b3bg50d3jpm0niul2@4ax.com>
Source record: 48274

On Mon, 03 Dec 2001 02:26:05 GMT, 2w8ji@contesting.com (Tom W8JI)
wrote:

>Help please! I can't find any detailed information on a 3SK74L on the
>web. I need a data sheet for the 3SK74L!!
>
>I wonder if anyone has looked at the IF section of a FT1000?
>
>FT1000's have a big hiss when using narrow filters. In my FT1000D, the
>hiss comes from the 3SK74L 455kHz AGC controlled IF amplifier
>following the last narrow filter. That FET is just before a 3SK74L
>mixer that converts the 455 to 100kHz.
>
>The 100kHz is used for a conventional bridged T notch filter, and then
>on through more gain to the detector.
>
>The problem is the 100kHz IF section has virtually no selectivity and
>very high gain, and the first 3SK74L in the chain is noisy enough that
>when the narrowest filters are used the hiss from the first 3SK74L
>almost overwhelms the noise from the antenna (even on 160 meters) when
>the band is really quiet. I can barely hear the front end noise change
>if I listen carefully on a dummy load with a narrow filter, because of
>that broadband hiss.
>
>Installing a 0.5dB NF GASFET in place of the 3SK74L helped the noise
>several dB, but I'd like to get a data sheet and see how bad the
>3SK74L really is. The same type of FET is a major contributor to
>broadband noise from the FT1000 transmitter, they use one in an ALC
>controlled stage after the SSB filter in the transmitter, and that is
>the major source of TX broadband noise.
>
>Either those are poor FET's, or they are doing something wrong!
>
>Thanks for any suggestions or help.
>Tom W8JI

Hi Tom,
According to the ECG manual, here are the specs...

Trans-conductance gfs typ umhos = 22,000

Gate to source cutoff voltage Vgs (off) Max V = G1=2 G2=0.7

Zero-Gate Voltage Drain Current Idss mA Min - Max = 0.5 - 8
(Vg2s=4V)

Gate to Source Breakdown Voltage BVgss Min V = 20 (Bv DSX)

Input Cap Ciss Max pf = 3.5

Transfer Cap CrssMax pf = 0.03

Device Diss. Pd Max mW = 200

Case Type = RF-15A

ECG Part Number = ECG455

Case Pinout = Placing the long pin at 12 o'clock, this is the Drain.. going clockwise, at three o'clock is the Source. Going clockwise again, at six o'clock is Gate 1. Going clockwise again, at 9 o'clock is Gate 2..

I have used ECG parts many times, (I prefer factory originals though, if available) and some parts are not an exact match, but close enough to work. Anyway, the info they provide is usually pretty accurate.. Anyway, I hope this helps.. Tony, WB8MLA

7478. ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 18:49:37 UTC
From: Brian Hill <jonnysocko@jps.net>
Message-ID: <0Q8P7.469$%R3.7228@nntp3.onemain.com>
Source record: 48275

Hi all. I was digging around and found some very small variable capacitors. They are about a 1/4" wide and 1 1/4" long and like a ferrite rod tuned type but the rod on these is brass and the rod slides inside a small clear glass tube. They look from the 30s or earlier? They were made by JFD Mfg. in Brooklyn, N.Y. Anyone seen these before. Very neat! You can see em at this URL:

http://home.jps.net/~jonnysocko/IMG_0294.jpg

73s Brian

7479. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 20:12:50 UTC
From: dunnt@its.caltech.edu
Message-ID: <dunnt-0412011213040001@dhcp-40-152.caltech.edu>
Source record: 48276

In article <0Q8P7.469$%R3.7228@nntp3.onemain.com>, "Brian Hill"
<jonnysocko@jps.net> wrote:

>Hi all. I was digging around and found some very small variable capacitors.
>They are about a 1/4" wide and 1 1/4" long and like a ferrite rod tuned type
>but the rod on these is brass and the rod slides inside a small clear glass
>tube. They look from the 30s or earlier? They were made by JFD Mfg. in
>Brooklyn, N.Y. Anyone seen these before. Very neat! You can see em at this
>URL:
>
>http://home.jps.net/~jonnysocko/IMG_0294.jpg
>
>73s Brian

Very common part used in 1960s,70s,80s,. I have JFD catalog from 1981 and
they are listed. I wouldn't be too surprised if they don't still make
them. Good stable caps.

Tom WB6IQD

7480. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 21:37:06 UTC
From: Brian Hill <jonnysocko@jps.net>
Message-ID: <0hbP7.630$%R3.10922@nntp3.onemain.com>
Source record: 48277

Hey Guys. Thanks. learn something new every day.

73s Brian

7481. CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 22:45:11 UTC
From: Rob <crandall@ee.net>
Message-ID: <XIcP7.144$i57.2209@news>
Source record: 48278
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I just came across a 4o channel cb and remember seeing somewhere that you could convert it to a 6 meter rig.This is a handheld and I hope someone can help me.It is a Radio Shack TRC-217. Any help would be appreciated.
Thanks
Rob

--
"I am a bomb technician. If you see
me running, try to keep up. "

7482. Re: LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-04 23:45:19 UTC
From: Rob <crandall@ee.net>
Message-ID: <jedP7.148$i57.2035@news>
Source record: 48279

Ok don't crucify me for my dumb question now.Is it possible to add a display to say a cb radio to display the freqs?I'm not a homebrewer but I want to learn.
Thanks and 73
Rob
"Scott" <acepilot@bloomer.net> wrote in message news:3C0C4E76.79D5CB97@bloomer.net...
> I just bought some LED displays from Jameco and need some info on
> pinouts (has 10 pins - 5 across on the top and 5 across on the bottom).
> These are 2.24" 7-segment displays with right hand decimal point.
> Jameco part number is 97199. They have a number printed on them, I
> suspect a manufacturers part number of
> LSD23265-10. It is the common anode version. Any help greatly
> appreciated.
>
> --
> Scott N0EDV
> http://corbenflyer.tripod.com/
> Building RV-4
> Gotta Fly or Gonna Die!

7483. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 00:00:54 UTC
From: Robert Mozeleski <moz@ncx.com>
Message-ID: <u0qs2hhrf80472@corp.supernews.com>
Source record: 48281

Go here and register, lots of datasheets there.
http://www.freetradezone.com/index.html

<aajham@yahoo.com> wrote in message news:3C0C772D.164433DE@yahoo.com...
> Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
> could not find anything at the Toshiba site.
>
> Thanks, Art.
>

7484. Re: 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 00:37:13 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0d578f.448468340@news.online.no>
Source record: 48280

On Tue, 04 Dec 2001 12:11:39 -0500, Me <me@nym.alias.net> wrote:

>On Mon, 03 Dec 2001 02:26:05 GMT, 2w8ji@contesting.com (Tom W8JI)
>wrote:
>

>>I wonder if anyone has looked at the IF section of a FT1000?
>>
>>FT1000's have a big hiss when using narrow filters. In my FT1000D, the
>>hiss comes from the 3SK74L 455kHz AGC controlled IF amplifier
>>following the last narrow filter. That FET is just before a 3SK74L
>>mixer that converts the 455 to 100kHz.
>>...
>>The problem is the 100kHz IF section has virtually no selectivity and
>>very high gain, and the first 3SK74L in the chain is noisy enough that
>>when the narrowest filters are used the hiss from the first 3SK74L
>>almost overwhelms the noise from the antenna (even on 160 meters) when
>>the band is really quiet. I can barely hear the front end noise change
>>if I listen carefully on a dummy load with a narrow filter, because of
>>that broadband hiss.
>>
>>Installing a 0.5dB NF GASFET in place of the 3SK74L helped the noise
>>several dB,
>>The same type of FET is a major contributor to
>>broadband noise from the FT1000 transmitter, they use one in an ALC
>>controlled stage after the SSB filter in the transmitter, and that is
>>the major source of TX broadband noise.
>>
>Trans-conductance gfs typ umhos = 22,000
>

Tom

have you made any thoughts about gain distribution? Perhaps too much
gain after the device, or too little signal level input? It is a
reason for using such high conductance fets, and gasfets have usually
worse intermodulation, so I wouldn't go for your solution

73, Jan-Martin LA8AK
--
remove ,xnd to reply

7485. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 02:49:46 UTC
From: Edward A Slimak <sparksw4eas@mindspring.com>
Message-ID: <3C0D8B4A.3F12@mindspring.com>
Source record: 48282

Very common... On up through the 80's... Used in VHF/UHF equipment.
Still used in some u-Wave stuff but now SM... 73 Sparks W4EAS

7486. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 03:24:39 UTC
From: Eddie Haskell <Wiseguy@Cleaver.com>
Message-ID: <XrgP7.9624$WK1.655106@typhoon.we.rr.com>
Source record: 48283
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Not really worth the trouble. First off you would have to rebuild it and the final stages might not make it to 52Mhz. Second..you will have to "FM" it RX and TX. Next you would have to install some kind of offset osc or switching to get the 500/600Khz offset for RPTR use...and after all this you have a 4 watt rig. Do yourself a favor..just buy the Alinco 20 watt 6 meter rig..it's a bargain for the money...Eddie

"Rob" <crandall@ee.net> wrote in message news:XlcP7.144$i57.2209@news...
> I just came across a 4o channel cb and remember seeing somewhere that you
> could convert it to a 6 meter rig.This is a handheld and I hope someone
can
> help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> Thanks
> Rob
>
> --
> "I am a bomb technician. If you see
> me running, try to keep up. "
>
>
>

7487. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 03:27:59 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3C0D942A.67EF598F@tampabay.rr.com>
Source record: 48284
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

hey rob
i wouldnt waste the money on converting it that HT is only an AM transserver
and there just isnt much 6 meter AM stuff
those articale you seen where to convert a SSB rig to 6 meters
and with the price of the MFJ 9406 under $300 new and under $100 used its hard
to justify spending the money to convert an old CB radio
also if you have an HF rig already tentec sells a transvert for around $150 i
think it is you can find those used as well for under $95
good luck

Rob wrote:

> I just came across a 4o channel cb and remember seeing somewhere that you
> could convert it to a 6 meter rig.This is a handheld and I hope someone can
> help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> Thanks
> Rob
>
> --
> "I am a bomb technician. If you see
> me running, try to keep up. "

7488. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 03:53:21 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3c0d9864_2@newsa.ev1.net>
Source record: 48285

Commonly called "piston caps", used in the VHF/UHF areas.
I have a couple in my junk box too.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Brian Hill" <jonnysocko@jps.net> wrote in message
news:0Q8P7.469$%R3.7228@nntp3.onemain.com...
> Hi all. I was digging around and found some very small variable
capacitors.
> They are about a 1/4" wide and 1 1/4" long and like a ferrite rod tuned
type
> but the rod on these is brass and the rod slides inside a small clear
glass
> tube. They look from the 30s or earlier? They were made by JFD Mfg. in
> Brooklyn, N.Y. Anyone seen these before. Very neat! You can see em at this
> URL:
>
> http://home.jps.net/~jonnysocko/IMG_0294.jpg
>
> 73s Brian
>
>

7489. Re: LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 04:01:34 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <3C0D9C1E.3BA33E13@bloomer.net>
Source record: 48287

Actually, it's not tied to the radio at all. It is a stand alone box
that has 6 thumbwheel switches that I manually set to display the
frequency I am on in the mobile. It has the switch box on the dashboard
and the LED display in the back window of the van...conected by
multi-conductor cable with DB-25 connectors on each end.

Scott
N0EDV

Rob wrote:
>
> Ok don't crucify me for my dumb question now.Is it possible to add a display
> to say a cb radio to display the freqs?I'm not a homebrewer but I want to
> learn.
> Thanks and 73
> Rob
> "Scott" <acepilot@bloomer.net> wrote in message
> news:3C0C4E76.79D5CB97@bloomer.net...
> > I just bought some LED displays from Jameco and need some info on
> > pinouts (has 10 pins - 5 across on the top and 5 across on the bottom).
> > These are 2.24" 7-segment displays with right hand decimal point.
> > Jameco part number is 97199. They have a number printed on them, I
> > suspect a manufacturers part number of
> > LSD23265-10. It is the common anode version. Any help greatly
> > appreciated.
> >
> > --
> > Scott N0EDV
> > http://corbenflyer.tripod.com/
> > Building RV-4
> > Gotta Fly or Gonna Die!

--
Scott
http://corbenflyer.tripod.com/
Building RV-4
Gotta Fly or Gonna Die!

7490. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 04:04:48 UTC
From: BD <bodu@pobox.com>
Message-ID: <%9hP7.2733$hB1.28746@newsfeed.slurp.net>
Source record: 48288
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Why are you looking for a 6meter rig?...
Unless there's more activity on the band than there is around here, well...
Zzz...

"Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> Thanks for the advise. I had no idea it was that hard.If you all see a 6M
> rig for cheap let me know.All Ihave right now is a 2M HT

7491. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 04:34:32 UTC
From: Rob <crandall@ee.net>
Message-ID: <sthP7.158$i57.2411@news>
Source record: 48286
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Thanks for the advise. I had no idea it was that hard.If you all see a 6M
rig for cheap let me know.All Ihave right now is a 2M HT
Thanks
73
Rob
still waitng on a call sign
"Dennis Kaylor" <k4oxg@tampabay.rr.com> wrote in message
news:3C0D942A.67EF598F@tampabay.rr.com...
> hey rob
> i wouldnt waste the money on converting it that HT is only an AM
transserver
> and there just isnt much 6 meter AM stuff
> those articale you seen where to convert a SSB rig to 6 meters
> and with the price of the MFJ 9406 under $300 new and under $100 used its
hard
> to justify spending the money to convert an old CB radio
> also if you have an HF rig already tentec sells a transvert for around
$150 i
> think it is you can find those used as well for under $95
> good luck
>
> Rob wrote:
>
> > I just came across a 4o channel cb and remember seeing somewhere that
you
> > could convert it to a 6 meter rig.This is a handheld and I hope someone
can
> > help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> > Thanks
> > Rob
> >
> > --
> > "I am a bomb technician. If you see
> > me running, try to keep up. "
>

7492. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 05:02:21 UTC
From: Rob <crandall@ee.net>
Message-ID: <xThP7.161$i57.2538@news>
Source record: 48289
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Cause I want to explore. Sell me yours for $25 then?haha
"BD" <bodu@pobox.com> wrote in message
news:%9hP7.2733$hB1.28746@newsfeed.slurp.net...
> Why are you looking for a 6meter rig?...
> Unless there's more activity on the band than there is around here,
well...
> Zzz...
>
> "Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> > Thanks for the advise. I had no idea it was that hard.If you all see a
6M
> > rig for cheap let me know.All Ihave right now is a 2M HT
>
>
>

7493. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 05:06:44 UTC
From: Dave Edwards <kd2e@home.com>
Message-ID: <EXhP7.228149$ez.32795574@news1.rdc1.nj.home.com>
Source record: 48290
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

6 has been hopping lately...many countries, many states!!
...Dave
BD <bodu@pobox.com> wrote in message
news:%9hP7.2733$hB1.28746@newsfeed.slurp.net...
> Why are you looking for a 6meter rig?...
> Unless there's more activity on the band than there is around here,
well...
> Zzz...
>
> "Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> > Thanks for the advise. I had no idea it was that hard.If you all see a
6M
> > rig for cheap let me know.All Ihave right now is a 2M HT
>
>
>

7494. Re: 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 07:41:25 UTC
From: Charles Hutton <chutton1@qwest.net>
Message-ID: <BckP7.998$PM.375086@news.uswest.net>
Source record: 48291

I think you are on the right track. The 3SK74 is used in the ring mixer of a fairly well known radio which escapes me at the moment. As they are hard to find, there have been a few attempts to substitute other FET's. As I recall, the universal conclusion was that the NF of the '74's was very high. I don't trust my memory (and the first poster didn't give the all important NF), but 3.5 dB sticks in my mind.

Sorry to not have all the details, but it wasn't my fight to fight at the time.

Chuck

Tom W8JI <2w8ji@contesting.com> wrote in message
news:3c0adeda.56813098@news.akorn.net...
> Help please! I can't find any detailed information on a 3SK74L on the
> web. I need a data sheet for the 3SK74L!!
>
> I wonder if anyone has looked at the IF section of a FT1000?
>
> FT1000's have a big hiss when using narrow filters. In my FT1000D, the
> hiss comes from the 3SK74L 455kHz AGC controlled IF amplifier
> following the last narrow filter. That FET is just before a 3SK74L
> mixer that converts the 455 to 100kHz.
>
> The 100kHz is used for a conventional bridged T notch filter, and then
> on through more gain to the detector.
>
> The problem is the 100kHz IF section has virtually no selectivity and
> very high gain, and the first 3SK74L in the chain is noisy enough that
> when the narrowest filters are used the hiss from the first 3SK74L
> almost overwhelms the noise from the antenna (even on 160 meters) when
> the band is really quiet. I can barely hear the front end noise change
> if I listen carefully on a dummy load with a narrow filter, because of
> that broadband hiss.
>
> Installing a 0.5dB NF GASFET in place of the 3SK74L helped the noise
> several dB, but I'd like to get a data sheet and see how bad the
> 3SK74L really is. The same type of FET is a major contributor to
> broadband noise from the FT1000 transmitter, they use one in an ALC
> controlled stage after the SSB filter in the transmitter, and that is
> the major source of TX broadband noise.
>
> Either those are poor FET's, or they are doing something wrong!
>
> Thanks for any suggestions or help.

> Tom W8JI

7495. GaAsFET Pre-amp using Mitsubishi MGF1402

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 11:10:29 UTC
From: Peter Miles <petermiles@optushome.com.au>
Message-ID: <3c0e00b5$0$21613$afc38c87@news.optusnet.com.au>
Source record: 48292
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

I'm about to build a low noise pre-amp for 70cm and have been looking at the one in the ARRL hand book 1990, Chapter 32-3. That is the GaAsFET Pre-amp using Mitsubishi MGF1402. Where can I get PCBs ready made for projects in ARRL Hand Book and similar.

7496. Wanted : 2m halo or beeg wheel info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 12:28:39 UTC
From: f4ckv <f4ckv@radioamateur.org>
Message-ID: <2001125-132839-666494@foorum.com>
Source record: 48295

Hi from france,

I'm located in central france and I'm looking for all info about Halo or Big wheel for 2 m., experience, plan ,...

I would like to put 2 or 4 phased Halo or 2 phased big wheel.

Thanks a lot in advance.

73 from f4ckv Pierre.

--
Use our news server 'news.foorum.com' from anywhere.
More details at: http://nnrpinfo.go.foorum.com/

7497. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 13:28:19 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3C0E20DF.4287D814@tampabay.rr.com>
Source record: 48294
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

well you must not be listening much
there has been some wonderful openings on 6 this summer/fall
granted its not like 20 meters but thats the appeal its a great challenge to
work as mant counties as possible

BD wrote:

> Why are you looking for a 6meter rig?...
> Unless there's more activity on the band than there is around here, well...
> Zzz...
>
> "Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> > Thanks for the advise. I had no idea it was that hard.If you all see a 6M
> > rig for cheap let me know.All Ihave right now is a 2M HT

7498. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 13:38:45 UTC
From: Keith Beckmann <Kbeckmann.spankme@wi.rr.com>
Message-ID: <FrpP7.15728$t%4.2159317@typhoon.kc.rr.com>
Source record: 48293
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

There were FM Walkie Talkies that were considered CB's that operated on 49 MHz, which people have converted to 6 Meter use. This is what you have probably heard of.

It's not practical to convert an AM 40 channel CB HT to 6 Meter use.

Are you an amateur? Assuming your a tech, you might want to explore the 70CM (440 MHz) band. There may be some repeaters in your area, and will have more activity then 6M. 6M is one of those bands where you have to wait a month for 15 minutes of use, but those 15 minutes are fun. Another choice might be the 220 MHz band, as its starting to get some activity.

As for equipment, there are some nice dual band (2M/70CM) radios that you can get for under $200, like the Icom W32:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1305333657

or Tri banders (6M/2M/70CM) like the yaesu VX-5R:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1304754723

If you plan on getting you General ticket, and want a nice rig that has 6M on it, look at the Alinco DX-70TH. It's a 100 W, 160M thru 6M mobile rig that typically sells for under $400 used:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1305466082

The DX-70T is the same rig, but only has 10 watts on 6M.

"Rob" <crandall@ee.net> wrote in message news:XlcP7.144$i57.2209@news...
> I just came across a 4o channel cb and remember seeing somewhere that you
> could convert it to a 6 meter rig.This is a handheld and I hope someone
can
> help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> Thanks
> Rob
>
> --
> "I am a bomb technician. If you see
> me running, try to keep up. "
>
>
>

7499. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 14:55:33 UTC
From: Randy Evans <evansr@hcsmail.com>
Message-ID: <3c0e34db@news.hcs.net>
Source record: 48197
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hello Rob,

There are some really nice rigs out there now that cover six meters. Some inexpensive, some not so inexpensive. There's a new single band six meter mobile by Ranger Communications. It's a model RCI-5054DX. It runs a good $300 brand new though, but I'm not sure what your looking to spend. There are other multi-band radio's nowadays, but they run much more in cost. There are also many used single band six meter radio's on the market too, so you'll have to keep your eyes open for what you want. An example would be the Yaesu FT-100D or the Icom IC-706MKIIG. They both incorporate 160 meters all the way through 70 centimeters. The nice thing is they have plenty of power on each band and they operate in all modes. The downside is they cost plenty too. But when you think about all your getting they really are a good deal. You get an HF, 6 meter, 2 meter & 70cm radio all in one! But again, only you can determine what you can spend. That's where most people opt to go for a cheaper setup. But you'll have to decide. Good luck to ya!!

Randy Evans
KE4RWS

"Rob" <crandall@ee.net> wrote in message news:XlcP7.144$i57.2209@news...
> I just came across a 4o channel cb and remember seeing somewhere that you
> could convert it to a 6 meter rig.This is a handheld and I hope someone
can
> help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> Thanks
> Rob

7500. Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 15:00:57 UTC
From: "Kevin St.Laurent - AB8IU" <newsreply@durosupply.com>
Message-ID: <JEqP7.5464$lY5.3977442@newssvr28.news.prodigy.com>
Source record: 48296

I have an Icom 706 and would like to use a multiband vertical to run as many bands from it as possible. I would like to build one, and or purchase one to place atop my 40ft tower.
My question boils down to, can anyone offer a design or a product they really love?
Thanks
Kevin AB8IU
--

7501. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 16:23:51 UTC
From: David Little <dalite01@sprynet.com>
Message-ID: <9ule69maa1@slb7.atl.mindspring.net>
Source record: 48198
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

The most popular conversion I have seen is for a Cybernet chassis conversion
to 6m. However, it is fairly complex conversion. For $300.00 you can buy
the new RCI 5054DX and get a compact all mode rig that will do everything
you could ask for, except cost the same as an Icom, Kenwood or Yaesu......

David
KD4NUE

"Rob" <crandall@ee.net> wrote in message news:XlcP7.144$i57.2209@news...
> I just came across a 4o channel cb and remember seeing somewhere that you
> could convert it to a 6 meter rig.This is a handheld and I hope someone
can
> help me.It is a Radio Shack TRC-217. Any help would be appreciated.
> Thanks
> Rob
>
> --
> "I am a bomb technician. If you see
> me running, try to keep up. "
>
>
>

7502. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 16:25:40 UTC
From: David Little <dalite01@sprynet.com>
Message-ID: <9ule9m$a5h$1@slb7.atl.mindspring.net>
Source record: 48199
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Some folks like a challenge, and keeping Ham radio alive. Anyone can shoot fish in a barrel (or operate HF).

David
KD4NUE

"BD" <bodu@pobox.com> wrote in message news:%9hP7.2733$hB1.28746@newsfeed.slurp.net...
> Why are you looking for a 6meter rig?...
> Unless there's more activity on the band than there is around here, well...
> Zzz...
>
> "Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> > Thanks for the advise. I had no idea it was that hard.If you all see a 6M
> > rig for cheap let me know.All Ihave right now is a 2M HT
>
>
>

7503. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 16:27:47 UTC
From: BD <bodu@pobox.com>
Message-ID: <E2sP7.2819$RM1.48253@newsfeed.slurp.net>
Source record: 48200
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Actually.. I remember it being a somewhat popular topic back in the 70's....
Not that I know of anyone who actually did it, but I do still have a mag
around here somewhere with "ideas' for such a project..

"Keith Beckmann" <Kbeckmann.spankme@wi.rr.com> wrote in message
news:FrpP7.15728$t%4.2159317@typhoon.kc.rr.com...
> There were FM Walkie Talkies that were considered CB's that operated on 49
> MHz, which people have converted to 6 Meter use. This is what you have
> probably heard of.
>
> It's not practical to convert an AM 40 channel CB HT to 6 Meter use.

7504. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 16:47:02 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <acsP7.151846$8q.16170312@bin2.nnrp.aus1.giganews.com>
Source record: 48201
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

CB's are easily convertable to 10 meter rigs but 6 meters is a big stretch.
If you want something to convert to 6, I suggest you look for an older low
bad business radio. There are still some around. This will be much easier
to convert and give you FM capabilities.

Scott M. KA1MRO

"BD" <bodu@pobox.com> wrote in message
news:E2sP7.2819$RM1.48253@newsfeed.slurp.net...
> Actually.. I remember it being a somewhat popular topic back in the
70's....
> Not that I know of anyone who actually did it, but I do still have a mag
> around here somewhere with "ideas' for such a project..
>
> "Keith Beckmann" <Kbeckmann.spankme@wi.rr.com> wrote in message
> news:FrpP7.15728$t%4.2159317@typhoon.kc.rr.com...
> > There were FM Walkie Talkies that were considered CB's that operated on
49
> > MHz, which people have converted to 6 Meter use. This is what you have
> > probably heard of.
> >
> > It's not practical to convert an AM 40 channel CB HT to 6 Meter use.
>
>
>
>

7505. Re: Wanted : 2m halo or beeg wheel info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 16:47:45 UTC
From: poissondanlo@aol.com
Message-ID: <20011205114745.11289.00000863@mb-cv.aol.com>
Source record: 48202

coucou , il est passï¿½ par lï¿½ .....

7506. Re: LED Display Pinout?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 17:19:38 UTC
From: K7MEM@myrealbox.com
Message-ID: <eed95b3d.0112050919.1aea4eed@posting.google.com>
Source record: 48203

"Rob" <crandall@ee.net> wrote in message news:<jedP7.148$i57.2035@news>...
> Ok don't crucify me for my dumb question now.Is it possible to add a display
> to say a cb radio to display the freqs?I'm not a homebrewer but I want to
> learn.
> Thanks and 73
> Rob

Adding a frequency readout to a CB radio is possible, but it isn't a good project for an inexperienced homebrewer. And, in the end, would be pretty pointless. You only have 40 channels on a CB. It would be easier to just look up the channel number on a chart to find out what frequency you are on.

However, adding a display to a older short wave receiver might be useful. Take a look at the digital displays on "http://www.aade.com/". The displays handle many different brands and are pretty easy to hook up. I have one at home.

If you want to do some homebrewing, however, think up a project that will add some utility to you equipment. Then, fire up a search engine and hunt around the internet. There are dozens of sites with schematics and instructions for many projects. A good start would be:

Harry's Homebrew at "http://hem.passagen.se/sm0vpo/"

--
Martin E. Meserve, K7MEM

I respond to news groups and E-Mail on my own time and therefore my responses may not be as timely as you, or I, would like them to be. If I seem to be ignoring you, send me another E-Mail to jog my memory. Opinions are my own and do not reflect the opinions of my employer.

7507. Re: Wanted : 2m halo or beeg wheel info

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 17:59:23 UTC
From: la8ak.xnd@online.no
Message-ID: <3c0e527f.512717912@news.online.no>
Source record: 48204

On 05 Dec 2001 12:28:39 GMT, f4ckv <f4ckv@radioamateur.org> wrote:

>
>Hi from france,
>
> I'm located in central france and I'm looking for all info about Halo or Big
>wheel for 2 m., experience, plan ,...
>
> I would like to put 2 or 4 phased Halo or 2 phased big wheel.
>
>Thanks a lot in advance.
>
>73 from F4ckv Pierre.
>
Information for Halo may be found in old antenna book or VHF manual,
but I would rather use a Big-wheel. The advantage with halo is only
that it has lower windload when used on the car, and I learn that halo
has some new users today for this reason. I've mounted the big wheel
on the car, but it was much windload, particularly on the German
Autobahn, so I had to return to my old J-Beam Halo

Problem with halo is low gain, but when the car is moving it may be
even lower. For use at home it seems no good reason to use such
low-gain antenna, bow-horn antenna is better and nearly
omni-directional. Wisi had one for sale 30 years ago, and we copied
it, but I can't find the drawing today.

Some of my friends with space limits at home find the DL7KM biquad
very useful, but it seems not to have 10dB gain as somebody claims

Another antenna to be considered for horizontal polarization is
Abe-Lincoln aerial

73
Jan-Martin
LA8AK

--
remove ,xnd to reply

7508. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 18:17:13 UTC
From: Daniel Hicks <w8mmq-nospam@email.com>
Message-ID: <3c0e649f$0$37097$272ea4a1@news.execpc.com>
Source record: 48205
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Regarding six meter activity --

There is plenty of six meter activity. The past three or four weekends the band has opened up very nicely, from Michigan here to Alaska, Hawaii, and even into Europe. A friend of mine worked a number of stations in Europe over the past two weeks. That's all on SSB.

On FM, there are a number of places to find activity, such as 52.525 simplex. I monitor this frequency all the time, and over the course of the last couple of years have worked 20 or more states right there. There are also repeaters on six meters around the United States.

For me, six meters is my favorite band. I enjoy all modes, mostly AM and SSB, as I have a number of vintage rigs I like to get on the air. They call it the "magic" band, and over the 8 or 9 years I have been using it, I can certainly agree with that.

Try these excellent links for six meter information:

OZ6OM Six Meter DX Bulletin
http://www.qsl.net/oz6om/

Six Meter International Radio Klub
http://www.smirk.org/

Six Meters World Wide
http://www.6mt.com/

UK Six Meter Group
http://www.uksmg.org/

VK4CP Six Meter Page
http://www.qsl.net/vk4cp/

73 de,
Dan W8MMQ

"BD" <bodu@pobox.com> wrote in message
news:%9hP7.2733$hB1.28746@newsfeed.slurp.net...
> Why are you looking for a 6meter rig?...
> Unless there's more activity on the band than there is around here,
well...
> Zzz...
>
> "Rob" <crandall@ee.net> wrote in message news:sthP7.158$i57.2411@news...
> > Thanks for the advise. I had no idea it was that hard.If you all see a
6M

> > rig for cheap let me know.All Ihave right now is a 2M HT
>
>
>

7509. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 18:47:35 UTC
From: BD <bodu@pobox.com>
Message-ID: <O5uP7.10$yd2.3473@newsfeed.slurp.net>
Source record: 48206
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Maybe I need to clarify myself... ;)
I know lots of people who enjoy working 6meters...
I was mostly wondering why a beginner's wanting to 'go there right off the bat' before even getting a license..... It's a fun band for some, sure..
But if it's challenging for old-timers, well....
Sort of like going down the "killer-slope" before even trying the bunny-hill..

"Daniel Hicks" <w8mmq-nospam@email.com> wrote in message news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
>
> Regarding six meter activity --
>
> There is plenty of six meter activity. The past three or four weekends the
> band has opened up very nicely, from Michigan here to Alaska, Hawaii, and
> even into Europe. A friend of mine worked a number of stations in Europe
> over the past two weeks. That's all on SSB.
>
> On FM, there are a number of places to find activity, such as 52.525
> simplex. I monitor this frequency all the time, and over the course of the
> last couple of years have worked 20 or more states right there. There are
> also repeaters on six meters around the United States.
>
> For me, six meters is my favorite band. I enjoy all modes, mostly AM and
> SSB, as I have a number of vintage rigs I like to get on the air. They call
> it the "magic" band, and over the 8 or 9 years I have been using it, I can
> certainly agree with that.

7510. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 18:50:39 UTC
From: BD <bodu@pobox.com>
Message-ID: <B8uP7.11$yd2.3458@newsfeed.slurp.net>
Source record: 48207
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"duh..." ;)
Yep, you're right.. Wrong band.

"SAM" <scottm@netcommander.com> wrote in message
news:acsP7.151846$8q.16170312@bin2.nnrp.aus1.giganews.com...
> CB's are easily convertable to 10 meter rigs but 6 meters is a big
stretch.
> If you want something to convert to 6, I suggest you look for an older low
> bad business radio. There are still some around. This will be much easier
> to convert and give you FM capabilities.
>
> > Actually.. I remember it being a somewhat popular topic back in the
> 70's....
> > Not that I know of anyone who actually did it, but I do still have a mag
> > around here somewhere with "ideas' for such a project..

7511. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 18:52:38 UTC
From: BD <bodu@pobox.com>
Message-ID: <vauP7.15$yd2.3842@newsfeed.slurp.net>
Source record: 48208
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Maybe I need to clarify myself... ;)
I know lots of people who enjoy working 6meters...
I was mostly wondering why a beginner's wanting to 'go there right off the bat' before even getting a license..... It's a fun band for some, sure..
But if it's challenging for old-timers, well....
Sort of like going down the "killer-slope" before even trying the bunny-hill..

"Daniel Hicks" <w8mmq-nospam@email.com> wrote in message news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
>
> Regarding six meter activity --
>
> There is plenty of six meter activity. The past three or four weekends the
> band has opened up very nicely, from Michigan here to Alaska, Hawaii, and
> even into Europe. A friend of mine worked a number of stations in Europe
> over the past two weeks. That's all on SSB.
>
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> simplex. I monitor this frequency all the time, and over the course of the
> last couple of years have worked 20 or more states right there. There are
> also repeaters on six meters around the United States.
>
> For me, six meters is my favorite band. I enjoy all modes, mostly AM and
> SSB, as I have a number of vintage rigs I like to get on the air. They call
> it the "magic" band, and over the 8 or 9 years I have been using it, I can
> certainly agree with that.
>

7512. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 19:34:33 UTC
From: David Little <dalite01@sprynet.com>
Message-ID: <9ulssrrbe1@slb1.atl.mindspring.net>
Source record: 48209
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I started in Oscar Satellites with an automated Station consisting of a FT-736R, Kansas City Tracker/Tuner computer interface, KLM Twist Oscar antennas with polarity switchers, and a 6m module added to the FT-736R. By coincidence, I decided to try 6m one day during an opening and contest, occurring simultaneously. At the onset, I didn't even know what a grid was. I knew my Lat/Lon, and soon discovered it was a rare grid due to over 75% being in the ocean. Add that to the fact that it hadn't been represented by any active hams in quite some years. Over 2 hours later and 150 contacts, I managed to clear the first pile-up. Considering how nearly impossible it would be to experience the same "popularity" on HF within the CONUS, I can only say that 6m is the magic band and one that helped me "cut my teeth". I soon found that Satellites were more boring than HF, although more dependable for keeping skeds. I then moved onto weak signal terrestrial work on SSB and digital formats. It is hard work, requiring an understanding of propagation, weather fronts, proper antenna installation and orientation, coax loss at higher frequencies, proper grounding and RF shielding and demands courteous operation at all times. I soon found that the "Cream" did surely "Float to the top", as the best operators were above 50 MHz. However, your mileage may vary; you may be content to only work HF due to the minimal amount of effort necessary in setting up a station and the fact that you will make more contacts by mistake that you would make on purpose above 50 MHz. There is a lot of this going around, and it's affect on the hobby is becoming more increasingly noticeable......

In other words, Shoot High, accept nothing less and help preserve the future of Ham Radio by keeping abreast of technology and finding new ways of communicating effectively. BTW, you won't find this on HF, and it is unlikely you will make a big difference by relying on the repeaters.

If you are serious on converting CB to 6m, I have a few mods here on file that are quite complex, but are supposed to yield satisfactory results. If you feel that you will enjoy 6m AM operation, I would recommend the RCI 5054DX, due to it's design incorporating High Level AM Modulation, and the ability to have the dual output section operate in a true linear fashion by modulating only the Driver on AM. SSB reverts back to AB1 and the AM Audio quality should be heads and shoulders above the regular approach to AM by the other manufacturers.

You can also look for HF offerings to be appearing soon in the American market, based on "Export" chassis 10/11m rigs with either one more or one less stage of up-conversion to put them in the Ham bands. I know Maycom has a 40m rig out slated for sale under $300.00 and it incorporates the same design as the RCI 6m rig does. This is one of the benefits of the efforts spent to police 11m with valuable Ham Radio assets; the influx of affordable

gear into the Ham market by manufactures who had too much invested in their production process to shut down due to outside pressure. I couldn't say if these will be as "tight" as a Kenwood/Icom/Yaesu; but at 1/4 to 1/3 the price.....

David
KD4NUE

"BD" <bodu@pobox.com> wrote in message
news:vauP7.15$yd2.3842@newsfeed.slurp.net...
> Maybe I need to clarify myself... ;)
> I know lots of people who enjoy working 6meters...
> I was mostly wondering why a beginner's wanting to 'go there right off
the
> bat' before even getting a license..... It's a fun band for some, sure..
> But if it's challenging for old-timers, well....
> Sort of like going down the "killer-slope" before even trying the
> bunny-hill..
>
> "Daniel Hicks" <w8mmq-nospam@email.com> wrote in message
> news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
> >
> > Regarding six meter activity --
> >
> > There is plenty of six meter activity. The past three or four weekends
> the
> > band has opened up very nicely, from Michigan here to Alaska, Hawaii,
and
> > even into Europe. A friend of mine worked a number of stations in
Europe
> > over the past two weeks. That's all on SSB.
> >
> > On FM, there are a number of places to find activity, such as 52.525
> > simplex. I monitor this frequency all the time, and over the course of
> the
> > last couple of years have worked 20 or more states right there. There
are
> > also repeaters on six meters around the United States.
> >
> > For me, six meters is my favorite band. I enjoy all modes, mostly AM
and
> > SSB, as I have a number of vintage rigs I like to get on the air. They
> call
> > it the "magic" band, and over the 8 or 9 years I have been using it, I
can
> > certainly agree with that.
> >
>
>
>

7513. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 20:37:35 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <jAvP7.93446$Y6.10105916@news1.rdc1.ct.home.com>
Source record: 48210

probably 1940s vintage glass piston caps. They have been largely
supplanted by cocentric ring piston trimmers that offer larger
capacitances with less stray inductances.

Peter

"Brian Hill" <jonnysocko@jps.net> wrote in message
news:0Q8P7.469$%R3.7228@nntp3.onemain.com...
> Hi all. I was digging around and found some very small variable
capacitors.
> They are about a 1/4" wide and 1 1/4" long and like a ferrite rod tuned
type
> but the rod on these is brass and the rod slides inside a small clear
glass
> tube. They look from the 30s or earlier? They were made by JFD Mfg. in
> Brooklyn, N.Y. Anyone seen these before. Very neat! You can see em at this
> URL:
>
> http://home.jps.net/~jonnysocko/IMG_0294.jpg
>
> 73s Brian
>
>

7514. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 21:22:56 UTC
From: Gomes <ct1hix@netc.pt>
Message-ID: <3c0e8db9@212.18.160.197>
Source record: 48211

GAP TITAN work HF and 2 meters !!!
Kevin St.Laurent - AB8IU <newsreply@durosupply.com> escreveu na mensagem
news:JEqP7.5464$lY5.3977442@newssvr28.news.prodigy.com...
> I have an Icom 706 and would like to use a multiband vertical to run as
many
> bands from it as possible. I would like to build one, and or purchase one
> to place atop my 40ft tower.
> My question boils down to, can anyone offer a design or a product they
> really love?
> Thanks
> Kevin AB8IU
> --
>
>
>

7515. Re: ? Very small glass cased Variable caps.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 21:36:04 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112051336.32096abe@posting.google.com>
Source record: 48212

As others noted, they are piston caps. They for sure are still made
and used. Voltronics (www.voltronicscorp.com) is one manufacturer,
for example. They are kind of a "little brother" to vacuum variable
caps...some piston trimmers actually have nesting multiple concentric
cups like the vacuum variables. The modern ones have high Q, low
parasitic inductance, good stability, and (because of a nearly linear
C versus turns and several turns) good settability. A very simple
form used to be used in television tuners: a ceramic cylinder with
threads inside and a plated outside. There was a screw that went
through a spring-nut on the opposite side of the metal chassis they
mounted on, and the screw position tuned the cap: cheap ceramic
cylinder, common 6-32 screw, spring-nut and a double-flatted hole
punched in the metal was all that it took.

Cheers,
Tom

"Brian Hill" <jonnysocko@jps.net> wrote in message
news:<0Q8P7.469$%R3.7228@nntp3.onemain.com>...
> Hi all. I was digging around and found some very small variable capacitors.
> They are about a 1/4" wide and 1 1/4" long and like a ferrite rod tuned type
> but the rod on these is brass and the rod slides inside a small clear glass
> tube. They look from the 30s or earlier? They were made by JFD Mfg. in
> Brooklyn, N.Y. Anyone seen these before. Very neat! You can see em at this
> URL:
>
> http://home.jps.net/~jonnysocko/IMG_0294.jpg
>
> 73s Brian

7516. Re: freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 21:40:11 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112051340.451798a9@posting.google.com>
Source record: 48213

jflanders2@home.com (Jerry Flanders) wrote in message news:<3c0cf463.331080705@NEWS>...
...
> I am surprised it is rated at 3KVA if it only weighs 30 lbs.

Me too! I have a transformer rated at only 600VA that weighs a bit
more than 30. I know HP used conservative ratings, but not THAT
conservative. (And my 5kVA isolation transformer is well over
100lbs...)

Cheers,
Tom

7517. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-05 22:04:49 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3c0e9a02$0$37107$2c3e98f8@news.voyager.net>
Source record: 48214

hi kevin well if radials are not a problem the hustler hf6v is what i would use. its built well enough to with stand high winds. although the gap is a popular antenna i would stay away from it, i have had two different models here and without guying after the first wind storm they tend to develop quite a lean to them, i also had much better dx performance with hf6v.
73 ken w8ob

"Kevin St.Laurent - AB8IU" wrote:
>
> I have an Icom 706 and would like to use a multiband vertical to run as many
> bands from it as possible. I would like to build one, and or purchase one
> to place atop my 40ft tower.
> My question boils down to, can anyone offer a design or a product they
> really love?
> Thanks
> Kevin AB8IU
> --

7518. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 00:18:15 UTC
From: Rob <crandall@ee.net>
Message-ID: <bPyP7.198$i57.3003@news>
Source record: 48215
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

BD
I have been listening to 2M for a long time. I am waiting on my call now.I
just like to start learning about my other choices so that I can give it a
whirl WHEN I'm ready. I like to know enough so that I don't get bored on 2M
and lose interest all together.As a tech 6 is the most exciting to me right
now because of being able to work distance..You obviously know about it so
you have worked it,wouldn't you want to try it if you were a tech?
Rob
"BD" <bodu@pobox.com> wrote in message
news:vauP7.15$yd2.3842@newsfeed.slurp.net...
> Maybe I need to clarify myself... ;)
> I know lots of people who enjoy working 6meters...
> I was mostly wondering why a beginner's wanting to 'go there right off
the
> bat' before even getting a license..... It's a fun band for some, sure..
> But if it's challenging for old-timers, well....
> Sort of like going down the "killer-slope" before even trying the
> bunny-hill..
>
> "Daniel Hicks" <w8mmq-nospam@email.com> wrote in message
> news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
> >
> > Regarding six meter activity --
> >
> > There is plenty of six meter activity. The past three or four weekends
> the
> > band has opened up very nicely, from Michigan here to Alaska, Hawaii,
and
> > even into Europe. A friend of mine worked a number of stations in
Europe
> > over the past two weeks. That's all on SSB.
> >
> > On FM, there are a number of places to find activity, such as 52.525
> > simplex. I monitor this frequency all the time, and over the course of
> the
> > last couple of years have worked 20 or more states right there. There
are
> > also repeaters on six meters around the United States.
> >
> > For me, six meters is my favorite band. I enjoy all modes, mostly AM
and
> > SSB, as I have a number of vintage rigs I like to get on the air. They
> call

> > it the "magic" band, and over the 8 or 9 years I have been using it, I
can
> > certainly agree with that.
> >
>
>
>

7519. Re: Audio transformer needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 00:47:54 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <_ezP7.93896$Y6.10131039@news1.rdc1.ct.home.com>
Source record: 48216

Antique Electronic Supply in Tempe, AZ has replacements that should work.

Pete

"Tim" <N6DRA@nc.rr.comnospam> wrote in message
news:_%fO7.124928$HA6.17761173@typhoon.southeast.rr.com...
> Part number is Stancor A-3311 or Triad HSM-81. This is usually used with
> P-P 6V6 or similar.
>
> Thanks!
>
> Tim N6DRA
>
>

7520. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 01:34:30 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <GWzP7.72168$tf5.3787845@bin5.nnrp.aus1.giganews.com>
Source record: 48217

A 'good vertical' is, in my opinion, an oxymoron. I've tried verticals and none of them comes close to even a wire dipole in performance. All the big signals from DX stations come from horizontal antennas.

Yes you can work DX with a vertical. But it's a struggle, and lots of wasted calling.

Just the opinion of an old timer who has been there.

73, Bob

7521. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 02:45:30 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <3C0EDBC9.4A9D2E43@cableone.net>
Source record: 48218

The vertical has a lower take off angle Bob, therefore it is better for DX..
That first skip is a long one.

Butch Magee KF5DE

Bob wrote:

> A 'good vertical' is, in my opinion, an oxymoron. I've tried verticals and
> none of them comes close to even a wire dipole in performance. All the big
> signals from DX stations come from horizontal antennas.
>
> Yes you can work DX with a vertical. But it's a struggle, and lots of
> wasted calling.
>
> Just the opinion of an old timer who has been there.
>
> 73, Bob

7522. Re: freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 05:23:22 UTC
From: hexter@blazenet.net
Message-ID: <u0u06anm6oe101@corp.supernews.com>
Source record: 48219

In article <3832adca.0112051340.451798a9@posting.google.com>,
tom_bruhns@agilent.com says...
>
>jflanders2@home.com (Jerry Flanders) wrote in message
news:<3c0cf463.331080705@NEWS>...
>...
>> I am surprised it is rated at 3KVA if it only weighs 30 lbs.
>
>Me too! I have a transformer rated at only 600VA that weighs a bit
>more than 30. I know HP used conservative ratings, but not THAT
>conservative. (And my 5kVA isolation transformer is well over
>100lbs...)
>
>Cheers,
>Tom

O.K. I weighed it. It weighs 54 lbs. I have gotten strong as an
ox now that I drive 18 wheeler, and make about 20% more money than
I did as a professional broadcast engineer.

The unit BTW is made by AJAX transformer of Hackensack New Jersey,
and is an 'industrial control transformer' and is rated 3KVA CCS.

I just wish it had more useful voltages for the things I want to do,
and I wish someone would come get the thing. It is taking up space
here, and being that it is in 'as new' condition, I don't want to just
throw it in the dumpster.

7523. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 10:59:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C0F4F81.74146B4@eznec.com>
Source record: 48220

I always shudder when I hear antennas compared solely on the basis of "takeoff angle", as though all the antenna's radiation happens at just one angle, and the gain and patterns of all antennas are the same except for "takeoff angle". It doesn't work that way at all. And just because an antenna has a lower "takeoff angle" doesn't even mean it's stronger at its best angle. Take for example a quarter wave vertical with a *perfect ground system* compared to a half wave dipole up 30 feet, both at 14 MHz, over average ground. The "takeoff angle" of the vertical is 27 degrees, the dipole 33 degrees. Which is better?

Well, for starters, the field strength from the vertical, its best angle of 27 degrees, is +0.2 dBi. The field strength from the dipole at the same angle is +5.8 dBi. That gain difference is as much as you'll get from some 3 element beams, and more than you'll get from any 2 element beam (manufacturers' claims notwithstanding). And the dipole is better despite the lower "takeoff angle" of the vertical.

Take a look at the field strengths at other elevation angles, and you'll see that the dipole wins at all useful angles --

ELEV ANG DEG DIPOLE ADVANTAGE DB
5 1.5
10 3.1
15 4.3
20 5.2
25 5.8
30 6.3

Now, does this mean that a dipole is better than a vertical? No! It means that of the two antennas and conditions I'm comparing, and for communicating in a direction broadside to the dipole, the dipole beats the pants off the vertical. At different ground conditions and frequencies, the advantage can well go to the vertical, especially at some elevation angles. And even under the narrow set of conditions I set up, the vertical beats the dipole by 10 dB at some elevation angles off the dipole's ends. While you can fairly compare a rotatable horizontal beam with a rotatable dipole with a single gain number, there's no way you can describe the differences in the three dimensional radiation patterns of two very different kinds of antennas with a number or two -- unless you're only interested in one direction -- azimuth and elevation -- and for a specific frequency and set of ground conditions. You'll be like the statistician who drowned while crossing a creek whose average depth was only three feet. People feel a strong need to simplify complicated concepts. And all too often, the simplification leads to wrong conclusions.

If you want to learn more about what antenna patterns really look like,
and why "takeoff angle" can be so misleading, download the free EZNEC
demo program from http://eznec.com. I guarantee you'll learn from it.

Roy Lewallen, W7EL

Butch Magee wrote:
>
> The vertical has a lower take off angle Bob, therefore it is better for DX..
> That first skip is a long one.
>
> Butch Magee KF5DE
>
> Bob wrote:
>
> > A 'good vertical' is, in my opinion, an oxymoron. I've tried verticals and
> > none of them comes close to even a wire dipole in performance. All the big
> > signals from DX stations come from horizontal antennas.
> >
> > Yes you can work DX with a vertical. But it's a struggle, and lots of
> > wasted calling.
> >
> > Just the opinion of an old timer who has been there.
> >
> > 73, Bob

7524. Re: GaAsFET Pre-amp using Mitsubishi MGF1402

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 12:21:10 UTC
From: andrewd@ozemail.com.au
Message-ID: <3c0f6251.2816016@news.netspeed.com.au>
Source record: 48236
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Wed, 5 Dec 2001 22:10:29 +1100, "Peter Miles"
<petermiles@optushome.com.au> wrote:

>I'm about to build a low noise pre-amp for 70cm and have been looking at the
>one in the ARRL hand book 1990, Chapter 32-3. That is the GaAsFET Pre-amp
>using Mitsubishi MGF1402. Where can I get PCBs ready made for projects in
>ARRL Hand Book and similar.
>
Try RCS Radio in Sydney and ask them for a price on a custom job.

http://www.cia.com.au/rcsradio/index3.htm

Andrew Davis --- IT and payroll systems consultant
Canberra, Australia

7525. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 14:33:23 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <TkLP7.149174$uB.19262551@bin3.nnrp.aus1.giganews.com>
Source record: 48221
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Rob,

You are exqactly right, so don't let other's comments get to you. 6 is a great band. Good DX possibilities, virtually all modes, small antennas, and available radios for modifications and home brew projects. The only thing you have to watch out for is TVI. Its right beneath channel 2 and you can easily cause problems with neighbors or your own TV.

Have fun with it. That's what this hobby is all about.

Scott M. KA1MRO
"Rob" <crandall@ee.net> wrote in message news:bPyP7.198$i57.3003@news...
> BD
> I have been listening to 2M for a long time. I am waiting on my call now.I
> just like to start learning about my other choices so that I can give it a
> whirl WHEN I'm ready. I like to know enough so that I don't get bored on 2M
> and lose interest all together.As a tech 6 is the most exciting to me right
> now because of being able to work distance..You obviously know about it so
> you have worked it,wouldn't you want to try it if you were a tech?
> Rob
> "BD" <bodu@pobox.com> wrote in message
> news:vauP7.15$yd2.3842@newsfeed.slurp.net...
> > Maybe I need to clarify myself... ;)
> > I know lots of people who enjoy working 6meters...
> > I was mostly wondering why a beginner's wanting to 'go there right off
> the
> > bat' before even getting a license..... It's a fun band for some, sure..
> > But if it's challenging for old-timers, well....
> > Sort of like going down the "killer-slope" before even trying the
> > bunny-hill..
> >
> > "Daniel Hicks" <w8mmq-nospam@email.com> wrote in message
> > news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
> > >
> > > Regarding six meter activity --
> > >
> > > There is plenty of six meter activity. The past three or four weekends
> > the
> > > band has opened up very nicely, from Michigan here to Alaska, Hawaii,

> and
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They
> > call
> > > it the "magic" band, and over the 8 or 9 years I have been using it, I
> can
> > > certainly agree with that.
> > >
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>

7526. Re: Schematics Programs/Templates

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 14:49:55 UTC
From: no.spam.lasse.moell@no.spam.swipnet.se
Message-ID: <3c0f841f.23936346@news.lin.foa.se>
Source record: 48222

Wow!
someone else using Schema by Omation.... I used it for quite some time
and found it matured into a pretty neat proggie. Especially when they
started to support post-script output. What really forced me to choose
another package was that the computers tended to be "too fast" making
screen scrolling a pain, jumping from one side to another.

So, what to choose today?? Well it depends, if your need is to use the
schematic as an input to a PCB-program, use a package i.e. PADS or
Orcad or what ever. If you are only interested in drawing neat
schematics use something simpler i.e. Visio or Corel Draw.

Cheers
/Lasse SM5GLC

On Sun, 02 Dec 2001 17:52:11 -0600, mwp <email@nothing.tome> wrote:

>Personally, I use Schema a dos app from a company called Omation.
>Omation has been sucked up by somebody and they were sucked up too,
>
>I paid probably $3500 for that and the then version of PADS-PCB. None of
>the drawing programs quite as productive as comercial schematic capture
>packages. If I were to by the software today it would cost like $10K.
>
>A few years ago when I got tired of Windblows 98 being worse than 95,
>I converted to Linux. I do mostly web programming for a living and Linux
>is the OS of choice for web servers.Our Linux servers were not rebooted
>for 9 months until they were relocated to a new facility.
>
>What I am getting at, if someone is considering kde apps like Koffice,
>consider putting up Linux on a partition. Lilo (linux loader) allows
>you to selectively load Linux or Windows on the same machine. I have
>this setup on one of my machines, although Linux runs 99.99% of the
>time You can also boot Linux out of a Windows folder although this isn't
>as nice as a seperate partition.
>
>I haven't used Schema in a while, but when I do it will probably be
>with dosemu over Linux.The 14 year old 486 dos box is getting pretty
>tired.
>
>Everything I use on a daily basis is open source and only cost me the
>download and install time. There are a number of excellent amateur radio
>applications available for Linux too.
>
>This was not intended to start any flames here, I'm just trying to

>suggest alternatives.

7527. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 15:37:03 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <36DF50BA0D1C1796.52C9EA849397185C.DC5EA927E6F38BEB@lp.airnews.net>
Source record: 48223
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 06 Dec 2001 14:33:23 GMT, "SAM" <scottm@netcommander.com>
wrote:

> The only thing
>you have to watch out for is TVI. Its right beneath channel 2 and you can
>easily cause problems with neighbors or your own TV.

Shouldn't be a problem around here; KDTN ch 2 is educational
programming, and you couldn't force most Dallasites to do anything
that might improve their minds.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7528. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 15:41:10 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <qkMP7.160586$8q.17020561@bin2.nnrp.aus1.giganews.com>
Source record: 48224
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Been there! I think its funny that the biggest station in DFW has call
letters that imply kicks ass. (KXAS)

"Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net> wrote in message
news:36DF50BA0D1C1796.52C9EA849397185C.DC5EA927E6F38BEB@lp.airnews.net...
> On Thu, 06 Dec 2001 14:33:23 GMT, "SAM" <scottm@netcommander.com>
> wrote:
>
> > The only thing
> >you have to watch out for is TVI. Its right beneath channel 2 and you
can
> >easily cause problems with neighbors or your own TV.
>
> Shouldn't be a problem around here; KDTN ch 2 is educational
> programming, and you couldn't force most Dallasites to do anything
> that might improve their minds.
>
>
>
> Joe Bramblett, KD5NRH
> kd5nrh@kd5nrh.net
>

7529. Re: freebie 3KVA transformer 208in 230out

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 20:12:24 UTC
From: Sylvan Butler <Znospam+noZs_0112@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrna0vkb0.h2.Znospam+noZs_0112@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 48226

On Thu, 06 Dec 2001 05:23:22 -0000, gudmundur <hexter@blazenet.net> wrote:
> O.K. I weighed it. It weighs 54 lbs. I have gotten strong as an
> ox now that I drive 18 wheeler, and make about 20% more money than
> I did as a professional broadcast engineer.

:)

> I just wish it had more useful voltages for the things I want to do,
> and I wish someone would come get the thing. It is taking up space

Hey, next time your driving your truck cross-country, throw that
thing into the cab with you. If you make to clear to Idaho, I'll
put it to use! :)

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Fight terrorism, arm the population!

7530. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 21:19:11 UTC
From: wieland@copland.udel.edu
Message-ID: <9uoncf$d8m$1@copland.udel.edu>
Source record: 48225

Try the hoses & tubings sold for venting clothes dryers.

7531. DC-DC converter or regulator?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 21:44:37 UTC
From: weingart@cs.ualberta.ca
Message-ID: <slrna0vpm5.r52.weingart@irricana.cs.ualberta.ca>
Source record: 48227

I'm looking at putting a computer into my car (embedded pc type), and was looking at how I'm going to power this thing. The board needs a minimum of 5.6A at +5V, and with a couple of extras, I'll likely be pushing close to 7.6A in the end. There will be times when the computer will be sleeping, and pulling less than 500mA worth of power at these times.

Anyways, one of the things I was looking at are DC-DC converters with a nice wide range input (9-18V), and a fixed 5V output. However, most of these don't go up to the 8A range, and according to the people that make them, using 2 of them to divide the power through them is not really possible. Also, these things tend to be EXPENSIVE, I was hoping for something a little more palatable...

Along came the suggestion of using an LM1084. This looks attractive, but I'm unsure if this will still give out 5V, even if the input is less than 5V. (For 5V this will not be too much of a problem, as a car with a supply voltage of less than 9V is pretty much dead anyhow, but I may need a 12V supply in the future as well, and there are very good chances that the 12V supply voltage would go lower than 12V during starting, etc.)

Also, the LM1084 only does 5A as well, I'm not sure if I could gang 2 of them in parallel to get roughly 10A (maybe slightly less due to uneven current distribution?) through them?

Anybody have any ideas?

--Toby.
[100~Plax]sb16i0A2172656B6361682063642072656874 6F6E61207473754A[dZ1!=b]salax

7532. FS: Nifty IF block for weather satellite or other winter receiver projects

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 21:51:03 UTC
From: tongaloa <tongaloa@alltel.net>
Message-ID: <9uop8i$j3h$1@iac5.navix.net>
Source record: 48228
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

45MHz in, 2 x 2pole xtal filters, conversion to 455kHz, 2 x 2 pole ceramic
filters, discriminator, and FM audio out. Also received signal strength out.
It appears as if the limiter may be defeated by adding resistor to lower
gain of limiter stage into linear region.
30kHz nominal BW and approx -110dbm sensitivity.

http://199.184.215.33/catalog/view_item.php?id=256

for details

$10/each plus small postage

7533. Re: DC-DC converter or regulator?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 22:34:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C0FF282.EADE113D@eznec.com>
Source record: 48231

DC-to-AC inverters are now readily available and getting pretty cheap, and the surplus dealers can't seem to give away 5VDC power supplies. So you might consider using this combination. It would make it easy to add a 12V supply in the future, too, by just plugging in another surplus supply. This wouldn't be very compact or portable, but it would be really quick to get going, and not very expensive.

Automobile ignition systems can have some really hair-raising spikes from time to time, and temperatures inside a car can be extreme. Homebrewing a regulator to handle this environment reliably isn't a trivial task.

Roy Lewallen, W7EL

Tobias Weingartner wrote:
> I'm looking at putting a computer into my car (embedded pc type), and
> was looking at how I'm going to power this thing. The board needs a
> minimum of 5.6A at +5V, and with a couple of extras, I'll likely be
> pushing close to 7.6A in the end. There will be times when the computer
> will be sleeping, and pulling less than 500mA worth of power at these
> times.
>
> Anyways, one of the things I was looking at are DC-DC converters with a
> nice wide range input (9-18V), and a fixed 5V output. However, most of
> these don't go up to the 8A range, and according to the people that make
> them, using 2 of them to divide the power through them is not really
> possible. Also, these things tend to be EXPENSIVE, I was hoping for
> something a little more palatable...
>
> Along came the suggestion of using an LM1084. This looks attractive, but
> I'm unsure if this will still give out 5V, even if the input is less than
> 5V. (For 5V this will not be too much of a problem, as a car with a supply
> voltage of less than 9V is pretty much dead anyhow, but I may need a 12V
> supply in the future as well, and there are very good chances that the 12V
> supply voltage would go lower than 12V during starting, etc.)
>
> Also, the LM1084 only does 5A as well, I'm not sure if I could gang 2 of
> them in parallel to get roughly 10A (maybe slightly less due to uneven
> current distribution?) through them?
>
> Anybody have any ideas?
>
> --Toby.
> [100~Plax]sb16i0A2172656B6361682063642072656874 6F6E61207473754A[dZ1!=b]salax

7534. help B&W LAP1 AMP.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-06 23:07:35 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C0FFA37.6050609@charter.net>
Source record: 48232

B & w LAP1 AMP W/PR 813 W/PS
anybody know anything about this amp? a pic or something?
thanks chris
NI4L

7535. Re: SN76514N Availability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 01:04:19 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <nAUP7.96762$Y6.10224096@news1.rdc1.ct.home.com>
Source record: 48233

I could use one or two for spares for my JRC NRD515 receiver, which uses
one. Are we talking a lot money? I would think we could get
a few others to join in as well.

Peter

"Douglas Snowden" <snowden@peoplepc.com> wrote in message
news:u0vrs8etas0nf7@corp.supernews.com...
> There is a source of SN76514N IC's. They have a $50.00 minimum
> order. If one or more people want to go together and buy I would
> be willing to do the purchase. I could use a few - a couple for spares
> and one or two for experimenting.
>
> Doug N4IJ
>
>
>
>
>

7536. SN76514N Availability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 01:31:31 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <u0vrs8etas0nf7@corp.supernews.com>
Source record: 48230

There is a source of SN76514N IC's. They have a $50.00 minimum
order. If one or more people want to go together and buy I would
be willing to do the purchase. I could use a few - a couple for spares
and one or two for experimenting.

Doug N4IJ

7537. WTB: 2SC2097 or MRF-247

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 02:13:48 UTC
From: Argus <argus2400@hotmail.com>
Message-ID: <wBVP7.8287$714.780854@newsread1.prod.itd.earthlink.net>
Source record: 48234

Please advise if you have for sale or know where I can purchase a matched pair of 2SC2097 or MRF-247 RF power transistors.

Thanks

7538. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 02:16:31 UTC
From: mzenier@eskimo.com
Message-ID: <9ur3f0ndb1@eskinews.eskimo.com>
Source record: 48242

In article <u0qs2hhrf80472@corp.supernews.com>,
Robert Mozeleski <moz@ncx.com> wrote:
>
><aajham@yahoo.com> wrote in message news:3C0C772D.164433DE@yahoo.com...
>> Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
>> could not find anything at the Toshiba site.
>
>Go here and register, lots of datasheets there.
>http://www.freetradezone.com/index.html

No anymore. Unless you want to subscribe at about $300 a month.
Only stuff in current production is free.

Mark Zenier mzenier@eskimo.com Washington State resident

7539. Re: WTB: 2SC2097 or MRF-247

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 03:09:31 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C1032EB.6A9457EE@coqui.net>
Source record: 48235

Argus wrote:
>
> Please advise if you have for sale or know where I can purchase a matched
> pair of 2SC2097 or MRF-247 RF power transistors.
>
> Thanks

See here:
http://www.rfparts.com/mototran.html

7540. SDU5500/Ten Tec 340

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 10:31:22 UTC
From: Terry <g8zqcNOSPAM@btinternet.com>
Message-ID: <9uq5pf$jt4$1@plutonium.btinternet.com>
Source record: 48237

Can anyone tell me if the SDU5500pan display will work in conjunction with the Ten Tec 340. I don't mean control the 340 but just show me a section of the selected frequency. The Ten Tec340 has an IF out, Mixer 1 out, Mixer 2 out and signal monitor socket. or must I buy a Spectrum Analyser. The total cost would then be prohibitive. I would welcome any suggestions...
Terry (G8ZQC)

7541. Re: BREAKING NEWS! PAYPAL SCAMS THOUSANDS OUT OF FUNDS! 8538

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 14:30:08 UTC
From: "Al Link (K4ICL)" <K4ICL@parismtnsignco.com>
Message-ID: <Nn4Q7.88710$S93.4726531@e3500-atl2.usenetserver.com>
Source record: 48238
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

All:

This is a mass robot mailed self serving ploy to get you to sign up to
C2it.com. See the ALTERNATIVE to PAYPAL hyperlink on
http://www.paypalwarning.com/Default.htm THIS is the real scam!

K4ICL

<fhendc@westoleyourmoney.com> wrote in message
news:lz2Q7.9461$wL4.8182@rwcrnsc51...
> BREAKING NEWS ABOUT PAYPAL SCAM! IF YOU HAVE AN ACCOUNT WITH PAYPAL YOU
MAY WANT TO READ THIS BREAKING NEWS FROM.....ZDNET, CNN AND THE NEWYORK
TIMES.
>
>
> CLICK ON THE LINK
> http://www.paypalwarning.com/Default.htm
>
> dgqmgefcbj
>

7542. Spice simulation of a varactor frequency multiplier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 14:34:43 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <9uqjie$vl1$1@news.bignet.net>
Source record: 48239

Has anybody done a Spice simulation of a varactor frequency multiplier that works? I'm interested in a 70cm to 23cm, or a 70cm to 13cm, frequency multiplier simulation. If anyone has a circuit file for Microcap 5, or Circuitmaker Pro V6.2c they can send me that would be even better.

73's de,

Leland C. Scott
KC8LDO
E-mail through address listed on QRZ

7543. Re: BREAKING NEWS! PAYPAL SCAMS THOUSANDS Their EMail to respond.....

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 15:13:16 UTC
From: Kent <kwinrich@wi.rr.com>
Message-ID: <g05Q7.13090$RP1.2527674@typhoon.kc.rr.com>
Source record: 48240
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Here is their email if you would like to let them know how you feel about
this SPAM! feedback@paypalwarning.com

"Al Link (K4ICL)" <K4ICL@parismtnsignco.com> wrote in message
news:Nn4Q7.88710$S93.4726531@e3500-atl2.usenetserver.com...
> All:
>
> This is a mass robot mailed self serving ploy to get you to sign up to
> C2it.com. See the ALTERNATIVE to PAYPAL hyperlink on
> http://www.paypalwarning.com/Default.htm THIS is the real scam!
>
> K4ICL
>
> <fhendc@westoleyourmoney.com> wrote in message
> news:lz2Q7.9461$wL4.8182@rwcrnsc51...
> > BREAKING NEWS ABOUT PAYPAL SCAM! IF YOU HAVE AN ACCOUNT WITH PAYPAL YOU
> MAY WANT TO READ THIS BREAKING NEWS FROM.....ZDNET, CNN AND THE NEWYORK
> TIMES.
> >
> >
> > CLICK ON THE LINK
> > http://www.paypalwarning.com/Default.htm
> >
> > dgqmgefcbj
> >
>
>
>

7544. SPAM-SPAM-SPAM-SPAM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 15:54:16 UTC
From: twiddle twat <capfoghuskyo@aol.com>
Message-ID: <IC5Q7.9861$714.1020958@newsread1.prod.itd.earthlink.net>
Source record: 48241
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

ORIGINAL ANTI-PAYPAL POST IS BULL---T

it's a spammer'S link to a pyramid scheme!

SPAM - SPAM - SPAM - SPAM

7545. New satellite site, NOAA, METEOR, Aust, NZ

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 16:52:58 UTC
From: Kevin W Forbes <vk3ukf@bigpond.com>
Message-ID: <jJRP7.176219$e5.88424@newsfeeds.bigpond.com>
Source record: 48229

G'day folks.
I have just put a site up where you will find some of my images received here at VK3UKF Castlemaine central Victoria, Australia, also find my software written for windows and amateurs. only two programs there at moment working on posting the rest, like Satalarm, which is a DDE program working in conjuction with WinOrbit
it sets off alarms when your sat is at a particular degree above or below horizon, just so you dont miss your favourite bird when you have friends over for a cuppa
Kevin Forbes VK3UKF
http://members.fortunecity.co.uk/vk3ukf/
P.S. if you download the CoFAW software, remember me and how much I would love some feedback, Ta.

7546. FS: special valves and CRT's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 20:48:20 UTC
From: arnoldg@c2i.net
Message-ID: <3c112b41.15921637@news1.c2i.net>
Source record: 48243

Special valves for sale:

The following valves are for sale. They are unused unless otherwise specified, and mostly in original boxes. They are all in stock and can be shipped immediately to anywhere in the world.

2 pcs 3069M Large, round CRT in super heavy duty packing material each in a wooden barrel. One in

completely ew, obviously never unpacked (only

by me for inspection), the other one seems also to be new and unused but it has been opened by someone. Price: US$ 150.- each

8 pcs F16-10LD CRT by GEC (some boxes says 'Haltron' on the outside. I have not opened to verify). They are obviously all unused.
Price: US$ 100.- each

1 pcs F16-10LD CRT as above, but made by Mullard.

Price: US$ 100.-

1 pcs F16-10LD CRT as above, but this one is used. It has a little spot on the screen. Price: US$ 50.-

4 pcs 7BP7 CRT. The boxes says 'Haltron' I have not looked inside. Unused and unopened.
Price: US$ 100.- each

5 pcs 5FP7 CRT. The boxes says 'Haltron'. Some are opened and some are sealed. All the valves are

obviously unused Price: US$ 50.- each

6 pcs P535/1E STC pulse modulator valve. Also coded CV 427. It is similar to 715C. All unused.
Price: US$ 50.- each

1 pcs P535/1E Same as above, but this one seems to be used.
Price: US$ 30.-

6 pcs C1148 EEV pulse modulator valve. Unused and in original boxes Price: US$ 50.- each

12 pcs C1150/1 EEV pulse modulator valve. Unused and in original boxes Price: US$ 50.- each

3 pcs C1166 EEV pulse modulator valve. Unused and in original
boxes. Price: US$ 50.- each

1 pcs QF 451 Ferranti. Looks like a radar TR switch and unused.
Price: US$ 20.-

1 pcs KS 9-40D Mullard klystron. Unused in sealed box Price: US$ 20.-

4 pcs M509 EEV magnetron. Also coded CV 3982. Unused in
sealed box Price: US$ 50.- each

2 pcs M599 EEV magnetron. Unused in sealed box
Price: US$ 50.- each

1 pcs JP 9-75 Mullard magnetron. Unused in sealed box
Price: US$ 50.-

7 pcs 24B1 STC trigatron valve. Unused in original box (Strange
looking valvel) Price: US$ 30.- each

11 pcs 725A Western Electric magnetron. Unused in sealed boxes.
Price: US$ 30.- each

E-mail me if interested. Offers are also welcome.

Best regards,

Arnold Goks&#65533;yr
- manager -

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

7547. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-07 22:53:36 UTC
From: Me <me@nym.alias.net>
Message-ID: <joh21u8nnaipgg1joujvtjfj3rrlmp6ass@4ax.com>
Source record: 48244

On Tue, 04 Dec 2001 07:01:20 GMT, aajham@yahoo.com wrote:

>Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
>could not find anything at the Toshiba site.
>
>Thanks, Art.

Hi Art,
Heres the data from the ECG Replacement Guide

Part Number : ECG1474

IC-FM Amp, Vcc = 12 V Typ, Vg = 34 dB

CASE - 7 Pin SIP

Pin 1 - HI INPUT

Pin 2 - LO INPUT

Pin 3 - BYPASS

Pin 4 - GROUND

Pin 5 - NC

Pin 6 - OUTPUT

Pin 7 - Vcc

Usually, the ECG spec info is pretty accurate, however, I perfer
original parts when i can get them.. Hope this helps.. Best luck
then..Tony WB8MLA..

7548. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 02:06:15 UTC
From: aajham@yahoo.com
Message-ID: <3C117801.D0D3F324@yahoo.com>
Source record: 48245

Thanks Tony, Im trying to modify my TM-201 for T hunting, this gives me a start. Im trying to reduce the gain of the reciever.

Hopefully reducing Vcc will do the job. I suspected pin 7 from the service manual.

Is there a place on the web with this info? Someone sent me a web address but I can't ever seem to get through.

cul Art.

former Washington resident, hopefully soon to be one again.

Me wrote:

> On Tue, 04 Dec 2001 07:01:20 GMT, aajham@yahoo.com wrote:
>
> >Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
> >could not find anything at the Toshiba site.
> >
> >Thanks, Art.
>
> Hi Art,
> Heres the data from the ECG Replacement Guide
>
> Part Number : ECG1474
>
> IC-FM Amp, Vcc = 12 V Typ, Vg = 34 dB
>
> CASE - 7 Pin SIP
>
> Pin 1 - HI INPUT
>
> Pin 2 - LO INPUT
>
> Pin 3 - BYPASS
>
> Pin 4 - GROUND
>
> Pin 5 - NC
>
> Pin 6 - OUTPUT
>
> Pin 7 - Vcc
>
> Usually, the ECG spec info is pretty accurate, however, I perfer

> original parts when i can get them.. Hope this helps.. Best luck
> then..Tony WB8MLA..

7549. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 02:53:31 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9urv5q$i2j$1@uranium.btinternet.com>
Source record: 48246

Obtain a ferrite rod from a scrap MF radio receiver. Unwind the turns from the coil, counting as you go. Wind the same number of turns back on the rod.

Don't throw away the receiver's tuning capacitor. It migh be useful.

Reg

7550. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 11:21:25 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3c11f760.1189635@news.freeserve.net>
Source record: 48147

On Sat, 8 Dec 2001 02:53:31 -0000, "Reg Edwards"
<G4fgq.Regp@btinternet.com> wrote:

>Obtain a ferrite rod from a scrap MF radio receiver. Unwind the turns
>from the coil, counting as you go. Wind the same number of turns back
>on the rod.
>
>Don't throw away the receiver's tuning capacitor. It migh be useful.
>---
>Reg
>
Reg, I'm confused by your posting.. why unwind the coil only to
re-wind it?. am I missing something here.
Mike W

7551. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 13:08:10 UTC
From: dbagley@mindspring.com
Message-ID: <9ut723$hg3$1@slb4.atl.mindspring.net>
Source record: 48148

Go th the auto parts store and look at defroster duct hose which comes in
various diameters
ans sometimes on rolls so the legnth can be cut ,thew last time i bought it
for the old jeep it came in a box with 12 feet inside all compressed and
cost 5.00$

"mwp" <email@nothing.tome> wrote in message
news:pan.2001.12.02.18.09.42.991683.1222@nothing.tome...
> How about corogated tubing used for sump pumps. The normal size
> is 1-1/2" which may be small, but I believe there is a 2 inch size
> as well. Alternatively go larger 3" corrogated drainage tile.
> Any home improvemnt center carries thsee.
>
> .
> On Tue, 06 Nov 2001 22:34:52 -0600, Douglas Snowden wrote:
>
> > I am looking to put a blower for a linear amplifier in a separate room
> > probably 15 ft away and have my amp. blower hosr connected to it. I need
> > something about 2 1/4 inch I.D. Is there a place that sells something
> > like that? I'm sure there is, I just can't find it. Is there a truch
> > radiator hose that might work? Surely many people have done this
> > before.
> >
> > Doug N4IJ
> >
> >
> >
> >

7552. Re: DC-DC converter or regulator?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 13:32:09 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <DfpQ7.15117$ez6.2484724@news2-win.server.ntlworld.com>
Source record: 48149

>
> Automobile ignition systems can have some really hair-raising spikes
> from time to time, and temperatures inside a car can be extreme.
> Homebrewing a regulator to handle this environment reliably isn't a
> trivial task.
> Roy Lewallen, W7EL
======
Indeed ,whatever system you use in a car whether DC to AC to DC or DC to DC conversion ,ensure that upon starting the engine the power supply for the computer from the engine battery is switched off (perhaps through a time-delay switch). If it is necessary to keep the computer switched on ,then you could use another battery which is diconnected from the main system upon starting the engine.

The same applies to mobile phone chargers inside a car , these should be switched off (unplugged) when starting the engine ,or at least the mobile phone should be disconnected.

Frank gm0csz.kn6wh@ntlworld.com

7553. Re: Blower Hose, Where to find?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 14:36:41 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <LApQ7.15315$ez6.2506842@news2-win.server.ntlworld.com>
Source record: 48150

> Go th the auto parts store and look at defroster duct hose which comes in
> various diameters
> ans sometimes on rolls so the legnth can be cut ,thew last time i bought
it
> for the old jeep it came in a box with 12 feet inside all compressed and
> cost 5.00$
>
> "mwp" <email@nothing.tome> wrote in message
> news:pan.2001.12.02.18.09.42.991683.1222@nothing.tome...
> > How about corogated tubing used for sump pumps. The normal size
> > is 1-1/2" which may be small, but I believe there is a 2 inch size
> > as well. Alternatively go larger 3" corrogated drainage tile.
> > Any home improvemnt center carries thsee.
========
In the UK a good solution for this application is 100 mm (4 inch) diameter
plastic sheet (spiral steel wire supported) hose used with bath room and
kitchen
extraction fans ,available from most D.I.Y. (Do it Youreself) stores and
kitchen
centres.

Frank gm0csz.kn6wh@ntlworld.com

7554. Info on Finding MN6147 PLL

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 14:54:08 UTC
From: John <hydro@fx2.com>
Message-ID: <YPpQ7.83$lz2.44918@newsfeed.slurp.net>
Source record: 48151

Hi
I am looking for a source for the MN6147 or MN6147C PLL chip. This pll
is made by Matsushita (Panasonic), Used in Kenwood radio's & some stereo
tuners .....

Thanks john

7555. Ten-Tec RX-350

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 16:00:44 UTC
From: Terry <g8zqcNOSPAM@btinternet.com>
Message-ID: <9utdf2$3u1$1@neptunium.btinternet.com>
Source record: 48152

Has Anyone any information or opinions on this RX. I would welcome them...
Thanks.

7556. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 17:24:21 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0112080924.210da07@posting.google.com>
Source record: 48153

"Bob" <balbert@cnmnetwork.com> wrote in message
news:<GWzP7.72168$tf5.3787845@bin5.nnrp.aus1.giganews.com>...
> A 'good vertical' is, in my opinion, an oxymoron. I've tried verticals and
> none of them comes close to even a wire dipole in performance. All the big
> signals from DX stations come from horizontal antennas.

What band ? 20m? I can believe it there. I bet that doesn't work out
the same on the low bands. Most of the big dogs on 160 and 80 run big
tall verticals for transmitting. The bigger of the dogs phase more
than one. Even on 40m, my best dx antenna by far was a vertical. But I
can't put a dipole more than about 40 ft up.
>
> Yes you can work DX with a vertical. But it's a struggle, and lots of
> wasted calling.

What do you consider a "good" vertical? Judging from your description
of their merits, it doesn't sound like you've ever used one. What you
say may apply more to the high bands, 20-10 more than anything. Sure,
most have big yagi's that maul verticals. But on the low bands,
usually the vertical is king unless you have the means for large
arrays. Also depends on how high you can get the dipoles. Here, I
can't go much over 40 ft. On 40m, my vertical ate my dipole for lunch
on long haul stuff at those heights. But my vertical was a full sized
1/4 wave ground plane 36 ft at the base with sloping radials. Not one
of those lossy commercial jobs. Makes a big difference. When I had
both and working dx, the struggle was when I was using the dipole. To
VK, I came up about 3-4 s units when I switched to the vertical. Every
single night. The only time the dipole was best was on short to medium
haul stuff.
>
> Just the opinion of an old timer who has been there.

Well, I was there too, but my results didn't seem to match yours.
Verticals get a bad name because many people use lousy verticals with
lousy radial systems. I recommend using both dipoles and verticals and
being able to switch. But you have to use a realï¿½ vertical, not a
sears vertical. Mine wasn't quite optimum, but at it's height "36 ft
with 4 radials" it was about equal to a ground mount 1/4 wave with 60
full size radials as far as ground losses. I would have needed 8-10
radials to equal the classic 120 on the ground scenario. That GP I
used would make the average GAP vertical look like a grossly
overpriced dummy load. But at nearly 70 ft tall counting the mast, I
guess not for the faint of heart...MK

7557. RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 18:05:35 UTC
From: tj <tj559@hotmail.com>
Message-ID: <9utl3c$4b2$1@slb3.atl.mindspring.net>
Source record: 48154

How do *most* car RF keyless entry systems work? My 93 T-bird for example. I'm not out to boost someone's car, I'm sure the low tech approach of using a slim jim or breaking a window would be more status quo anyway.

Is it just a low power carrier, if so that would be supper cheesy. I would hope that theses more to it than a freq counter could crack.

tj

7558. Re: SPAM-SPAM-SPAM-SPAM

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 19:25:40 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u14q9gfi5ic56@corp.supernews.com>
Source record: 48155
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"twiddle twat" <capfoghuskyo@aol.com> wrote ...
> ORIGINAL ANTI-PAYPAL POST IS BULL---T
> it's a spammer'S link to a pyramid scheme!
> SPAM - SPAM - SPAM - SPAM

The one I clicked on was real and backed up the allegations with links to legitimate news sources such as the Wall St Journal and the Better Business Bureau.

Are there two of them out there?

7559. re verticals

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 20:07:51 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3c127315$0$37105$2c3e98f8@news.voyager.net>
Source record: 48156

yes by all means tell me what freq you are referring to. i use both a inverted vee and phased verticals on 40m results no dx on the vee but tons of it even generating small pile ups on me with the verticals.
ken w8ob

7560. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 20:44:50 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <3_uQ7.18084$ez6.2868072@news2-win.server.ntlworld.com>
Source record: 48157

> How do *most* car RF keyless entry systems work? My 93 T-bird for example.
> I'm not out to boost someone's car, I'm sure the low tech approach of
using
> a slim jim or breaking a window would be more status quo anyway.
>
> Is it just a low power carrier, if so that would be supper cheesy. I would
> hope that theses more to it than a freq counter could crack.
==========
I have checked my car key fob . It complies to UK 'MT 1340 WT Licence
Exempt ' and operates on 433.96 MHz (so right in the 70cms Ham band)

The spec MT 1340 (applicable to the UK) says that comms distances of up to
50 metres are permitted.
The sig of my key fob is pretty weak . My handheld radio (HT) can hardly
detect the (probably pulse modulated)sig at a few metres distance . Also I
have to get near the car in order to operate the door locks.
Previous systems incorporated Surface Acoustic Wave (SAW) technology ,
perhaps this model still does.
If I hold the fob approx 1 metre away from the HT's 'rubber ducky' I can
only hear the sig ,between 433.945 and 433.970 MHz
I have not checked the width of the rx (inside the car) with my HT.
But I do know that in Germany and the Netherlands ,people have been
prevented from entering their car due to amateur radio operations in the
70cms band. However it is possible that these (older?) systems only involved
a carrier.
The newer systems clearly involve some form of (pulse ?) modulation , as
used for telemetry applications.

In the UK some other (licence exempt) freqs used for remote control purposes
are 40.685 , 418 and 863-865 MHz

My Logitech wireless keyboard and mouse seem to operated in the 863 -865 MHz
band. If possible at all I'll try to establish the actual freq(s) . used
I also have a remote headphone set which operates on 863.500 - 863.750MHz
(adjustable)

The above just for info

Frank gm0csz.kn6wh@ntlworld.com

7561. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 20:50:47 UTC
From: Me <me@nym.alias.net>
Message-ID: <m1u41ucne3sn3v54k1fssjoi6qg0g7vvc6@4ax.com>
Source record: 48158

On Sat, 08 Dec 2001 02:06:15 GMT, aajham@yahoo.com wrote:

>Thanks Tony, Im trying to modify my TM-201 for T hunting, this gives me a
>start. Im trying to reduce the gain of the reciever.
>
>Hopefully reducing Vcc will do the job. I suspected pin 7 from the service
>manual.
>
>Is there a place on the web with this info? Someone sent me a web address
>but I can't ever seem to get through.
>
>cul Art.
>
>former Washington resident, hopefully soon to be one again.
>
>Me wrote:
>
>> On Tue, 04 Dec 2001 07:01:20 GMT, aajham@yahoo.com wrote:
>>
>> >Im looking for a datasheet for a TA7302 chip. Any info is welcome. I
>> >could not find anything at the Toshiba site.
>> >
>> >Thanks, Art.
>>
>> Hi Art,
>> Heres the data from the ECG Replacement Guide
>>
>> Part Number : ECG1474
>>
>> IC-FM Amp, Vcc = 12 V Typ, Vg = 34 dB
>>
>> CASE - 7 Pin SIP
>>
>> Pin 1 - HI INPUT
>>
>> Pin 2 - LO INPUT
>>
>> Pin 3 - BYPASS
>>
>> Pin 4 - GROUND
>>
>> Pin 5 - NC
>>
>> Pin 6 - OUTPUT

>>
>> Pin 7 - Vcc
>>
>> Usually, the ECG spec info is pretty accurate, however, I perfer
>> original parts when i can get them.. Hope this helps.. Best luck
>> then..Tony WB8MLA..

Hi Art,
If there is a place on the net for this info, I sure don't know about it.. I have heard that (for a price) you can sign up for this info and tech sheets online in .PDF format, however, I don't know where the site is, but I have heard it is quite expensive for the member fee... Anyway, what I do is just buy the actual ECG Semiconductors Master Replacement Guide (where I got the info for you) which is a softbound book about the size of a phone book, but only about an inch and a half wide.. However, it contains all of the neat stuff.. Cross refrences, pictures, pinouts, descriptions, values, etc. Actually, I'm ready to buy another one myself, because this one is four years old now.. Cost is $5.95 US, and just the pinout info has saved me many times.. Anyway, you could write ECG to buy the book, heres the addy>> Phillips ECG 1025 Westminster Dr. PO Box 3277 Williamsport, PA. 17701 This may be a hassle tho.. Anyway, the place I buy all of my hard to get parts here in northern Ohio is Euclid Radio Parts, and the Phone number is 440-585-5115 They always have these softbound ECG books in stock, and they ship worldwide, UPS, Fed Ex, your choice.. I also know they have have similar software stuff for computers, Motorola cross refrence, (which I bought) Its OK, just info, no pics.. But, I still perfer a book I can look at, instead of the puter screen.. Good luck then!! Tony, WB8MLA..

7562. FA: Nice, big, RACK MOUNT PROJECT CASE- new!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 21:38:08 UTC
From: jimmoci@aol.com
Message-ID: <20011208163808.05034.00001476@mb-ms.aol.com>
Source record: 48159

Check it out @

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1305481998

Tnx for looking!

7563. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 22:57:31 UTC
From: jeff <wd4nmq@earthlink.net>
Message-ID: <3C129B15.16AFE6EE@earthlink.net>
Source record: 48160

I'm no expert on this, just what I've read hear and there, but is'nt what your describing Doppler shift radar?. Like what is used in speed radar guns I am looking at a Ramsey catalog and there is a $99 dollar radar gun htey have had out for awhile.
Doesn't Doppler work by measuring the frequency difference between the sent and returned signal. I forget but so many Hz = 1 mph. Ofcourse, this wouldn't do any ranging. I guess you have to measure return time for that.

Also, there is a real good book I got from the library called "The Invention That Changed the World", a history of radar development. No indepth technical stuff, but very interesting reading into the different people/organizations involved in it.

Bill Janssen wrote:
>
> I have also thought about the idea (below). Also, since pulse is not
> permitted at 10 GHz you could use a CW signal and FM modulate it.
> Then do an FFT on the return to get range.
>
> Unfortunately I am not that good a programmer.
>
> Bill K7NOM
>
> Laura Halliday wrote:
>
> > I've had notions from time to time about playing with
> > synthetic aperture radar. Why should NASA have all the fun?
> >
> > You need some compute power to make it work, but that's
> > a minor consideration nowadays. There's lots of published
> > information.
> >
> > Laura Halliday VE7LDH "Que les nuages soient notre
> > Grid: CN89lg pied a terre..."
> > ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

--
jeff, wd4nmq
wd4nmq@earthlink.net
http://home.earthlink.net/~wd4nmq

7564. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 23:33:58 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <k2851uonh1b5u1ovg68urfgi4i7efd5h9b@4ax.com>
Source record: 48161

On Sat, 08 Dec 2001 22:57:31 GMT, jeff <wd4nmq@earthlink.net> wrote:

>Doesn't Doppler work by measuring the frequency difference between the
>sent and returned signal.

Yes.

>I forget but so many Hz = 1 mph. Ofcourse,
>this wouldn't do any ranging. I guess you have to measure return time
>for that.

Or scan the transmission frequency at a very high speed and measure
the frequency difference between the transmitted and received
frequency. This can be used to get the distance (+/-speed) between the
transmitter and the object. By scanning both upwards and downwards,
both the distance and speed can be determined.

Paul OH3LWR

7565. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-08 23:35:27 UTC
From: "Sverre Holm (LA3ZA)" <la3za@qsl.net>
Message-ID: <5sxQ7.10674$yB2.171287@news1.oke.nextra.no>
Source record: 48162

The 433 MHz is the ISM (Industrial, Scientific and Medical) band.

Some standard chips can be found at www.nvlsi.no, go to Wireless Communication to see some standard components, such as one-chip tranceivers. They seem to support up to 20000 bps FSK modulation at a maximum output level of 10 mW.

Sverre, LA3ZA
---
www.qsl.net/la3za

"Frank Dinger" <f.dinger@ntlword.com> wrote in message news:3_uQ7.18084$ez6.2868072@news2-win.server.ntlworld.com...
> ==========
> I have checked my car key fob . It complies to UK 'MT 1340 WT Licence
> Exempt ' and operates on 433.96 MHz (so right in the 70cms Ham band)
>
> The spec MT 1340 (applicable to the UK) says that comms distances of up to
> 50 metres are permitted.

7566. Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 04:53:11 UTC
From: Bill <billyandtracy@nf.sympatico.ca>
Message-ID: <n2CQ7.30881$BS1.4000384@news20.bellglobal.com>
Source record: 48163

I am looking for an EPROM Programmer.

7567. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 06:00:57 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c12fdcf.1826841@news.cantech.net.au>
Source record: 48164

On Sun, 9 Dec 2001 00:35:27 +0100, "Sverre Holm \(LA3ZA\)"
<la3za@qsl.net> wrote:

>The 433 MHz is the ISM (Industrial, Scientific and Medical) band.
>
>Some standard chips can be found at www.nvlsi.no, go to Wireless
>Communication to see some standard components, such as one-chip
>tranceivers. They seem to support up to 20000 bps FSK modulation at a
>maximum output level of 10 mW.

Also some types here in Aust use Holtek trinary encoders.

Often the signal bandwidth is significant. Some only switch the
carrier. There appears to be quite a range of RF/modulation
approaches.

7568. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 06:02:10 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c12fe53.1959076@news.cantech.net.au>
Source record: 48165

On Sun, 9 Dec 2001 01:23:11 -0330, "Bill"
<billyandtracy@nf.sympatico.ca> wrote:

>I am looking for an EPROM Programmer.

www.futurlec.com?

7569. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 08:33:11 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <l6861ukd4jq0snmlal7vb85aj5i9u3onqk@4ax.com>
Source record: 48166

On Sun, 9 Dec 2001 01:23:11 -0330, "Bill"
<billyandtracy@nf.sympatico.ca> wrote:

>I am looking for an EPROM Programmer.
>

Me too and I know that sumbatch is around here somewhere. If I find
it will I be able to find an ISA socket to plug it into and the
software to run it? Maybe I should just buy one that I can loose
again later.

7570. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 14:36:39 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <XFKQ7.249504$ez.34805368@news1.rdc1.nj.home.com>
Source record: 48167

take a look at www.microchip.com for interesting locking systems.

btw -- the first of the new TBirds have been seen in our part of NJ.

"tj" <tj559@hotmail.com> wrote in message
news:9utl3c$4b2$1@slb3.atl.mindspring.net...
> How do *most* car RF keyless entry systems work? My 93 T-bird for example.
> I'm not out to boost someone's car, I'm sure the low tech approach of
using
> a slim jim or breaking a window would be more status quo anyway.
>
> Is it just a low power carrier, if so that would be supper cheesy. I would
> hope that theses more to it than a freq counter could crack.
>
> tj
>
>

7571. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 16:29:32 UTC
From: Mike Hall <mghall@enteract.com>
Message-ID: <3C13916C.4E8AF1FB@enteract.com>
Source record: 48168

Rex Allers wrote:

> On Sun, 9 Dec 2001 01:23:11 -0330, "Bill"
> <billyandtracy@nf.sympatico.ca> wrote:

> >I am looking for an EPROM Programmer.

> Me too and I know that sumbatch is around here somewhere. If I find
> it will I be able to find an ISA socket to plug it into and the
> software to run it? Maybe I should just buy one that I can loose
> again later.

I've got one I'm not using anymore, BK Precision's 846.
See the "GEAR" entry on my web page.
Parallel port connection, DOS interface.

--
Mike Hall
http://www.enteract.com/~mghall
AB9CO EN51VT

7572. FS: 1942 "Basic Radio, The Essentials of Electron Tubes..." by Hoag

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 17:08:57 UTC
From: oldbooks78@aol.com
Message-ID: <20011209120857.20799.00001515@mb-ba.aol.com>
Source record: 48169

I currently have for sale a nice copy of "Basic Radio, The Essentials of Electron Tubes and Their Circuits" by J. Barton Hoag, published by Van Nostrand in 1942. The 379 page hardbound book is in very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover. A nice early radio text. Available for $9 plus $2 postage (book rate within the US, or $4 Priority Mail; at cost elsewhere). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks.

Dave

7573. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 19:24:44 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.167d5a5951d4aa41989734@localhost>
Source record: 48170

In article <n2CQ7.30881$BS1.4000384@news20.bellglobal.com>,
billyandtracy@nf.sympatico.ca says...

> I am looking for an EPROM Programmer.

For...?

WARNING: SHAMELESS PLUG ALERT.

If you just need a couple of devices programmed, and you have the
image file that needs to go into them, I can probably do it for a small
fee. My price list is at this link.

http://www.bluefeathertech.com/devices.html

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

7574. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 19:29:28 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3c13b992_2@newsa.ev1.net>
Source record: 48171

www.jameco.com

Has a good variety of them.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Bill" <billyandtracy@nf.sympatico.ca> wrote in message
news:n2CQ7.30881$BS1.4000384@news20.bellglobal.com...
> I am looking for an EPROM Programmer.
>
>

7575. Re: Datasheet for TA7302?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 21:21:24 UTC
From: knox_k@nemaine.com
Message-ID: <3c13d5c1.1061629@news.nemaine.com>
Source record: 48172

On Sat, 08 Dec 2001 02:06:15 GMT, aajham@yahoo.com wrote:

>Thanks Tony, Im trying to modify my TM-201 for T hunting, this gives me a
>start. Im trying to reduce the gain of the reciever.
>
>Hopefully reducing Vcc will do the job. I suspected pin 7 from the service
>manual.
>
>Is there a place on the web with this info? Someone sent me a web address
>but I can't ever seem to get through.
>
>

Try:

http://www.ecgproducts.com/search.html

7576. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 21:33:04 UTC
From: "Jay A. Thompson" <w7cxa@charter.net>
Message-ID: <3C13D890.E5505220@charter.net>
Source record: 48173

We old broadcast engineers used to use oven heating elements as dummy loads. Amazing how close to 50 ohms they were, and talk about power! We also used to use heating elements from hot water heaters. They are good for whatever power they are rated at, and are also close to 50 ohms. for higher power, series and parallel them.

Andy

J. Andy Thompson
Yakima, Washington
w7cxa@charter.net

7577. Need info on Murata SAF10.7M C filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 23:15:51 UTC
From: "Bob G. Mahrenholz" <bobm@edge.net>
Message-ID: <3C13F077.34A7D30E@edge.net>
Source record: 48174

Hi:
Anyone know any details on the Murata SAF10.7M (C) SAW filter such as bandwidth, input and output impedances, loss, phase linearity, recommended driving, circuit, etc. I know they are for use in standard FM broadcast receivers.
Thanks,
Bob
K4QQK
bobm@edge.net

7578. Re: Need info on Murata SAF10.7M C filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 23:53:37 UTC
From: W3JDR <j.r@usa.com>
Message-ID: <5QSQ7.1311$zz2.181795@nwrddc01.gnilink.net>
Source record: 48175

Just working from memory:

Model #: "SFA10.7M", not "SAF10.7M" (I think)
Bandwidth: Approx. 280 KHz @ 6 dB rolloff
Impedance: Approx 300 ohm
Loss: Approx. 4-6 dB
Phase linearity: ??; not sure it's specified
Driving circuit: Most FM radio chips are designed for this kind of part.
Pinout: Center pin is common (ground); other 2 pins are interchangeable

Joe
W3JDR

"Bob G. Mahrenholz" <bobm@edge.net> wrote in message
news:3C13F077.34A7D30E@edge.net...
> Hi:
> Anyone know any details on the Murata SAF10.7M (C) SAW filter such as
> bandwidth, input and output impedances, loss, phase linearity,
> recommended driving, circuit, etc. I know they are for use in standard
> FM broadcast receivers.
> Thanks,
> Bob
> K4QQK
> bobm@edge.net
>

7579. Re: dummy antenna plans?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-09 23:59:02 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u17un4ovn3hd4a@corp.supernews.com>
Source record: 48176

> We old broadcast engineers used to use oven heating elements as
dummy
> loads.

They're probably pretty inductive. While they may work in the
broadcast band, I doubt that they'd present a resistive load at the
higher frequencies.

7580. Re: Need info on Murata SAF10.7M C filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 01:38:54 UTC
From: crabtreejr@aol.com
Message-ID: <20011209203854.00193.00001118@mb-mt.aol.com>
Source record: 48177

Bob G. Mahrenholz, K4QQK, bobm@edge.net on 12/9/01 wrote:

>Hi:
>Anyone know any details on the Murata SAF10.7M (C) SAW filter
>such as bandwidth, input and output impedances, loss, phase
>linearity, recommended driving, circuit, etc. I know they are for
>use in standard FM broadcast receivers.

The part number is correct. Here are the details which I have for the
SAF10.7MC-Z:

Centre frequency:
10.7 +/- 0.03 MHz (red dot)
10.64 +/- 0.03 MHz (black)
10.67 +/- 0.03 MHz (blue)
10.73 +/- 0.03 MHz (orange)
10.76 +/- 0.03 MHz (white)

3db Bandwidth 190 +/ 30 kHz

20dB Bandwidth 500 kHz maximum

Insertion loss 22 dB max (this is correct)

Spurious responses -33dB max

GDT 0.5 mirosecond bandwidth 300kHz minimum

Sorry, no impedance data or driving circuit. Perhaps someone else can help..

73 John KC0GGH
crabtreejr@aol.com-

7581. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 03:30:44 UTC
From: bgrly <bgrly@no.spam.ala.net>
Message-ID: <%ZVQ7.99109$lV4.13554066@e420r-atl1.usenetserver.com>
Source record: 48178

'93 corvette key fob each has individual code.
computer in car adjusts to the code.

"tj" <tj559@hotmail.com> wrote in message
news:9utl3c$4b2$1@slb3.atl.mindspring.net...
> How do *most* car RF keyless entry systems work? My 93 T-bird for example.
> I'm not out to boost someone's car, I'm sure the low tech approach of
using
> a slim jim or breaking a window would be more status quo anyway.
>
> Is it just a low power carrier, if so that would be supper cheesy. I would
> hope that theses more to it than a freq counter could crack.
>
> tj
>
>

7582. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 03:31:29 UTC
From: Bill <billyandtracy@nf.sympatico.ca>
Message-ID: <M0WQ7.3981$DO.474244@news20.bellglobal.com>
Source record: 48179

I am just looking for a simple programmer to program 27XXX's for a few radios. Even if I had a diagram on how to build one would help. I have seen them in the past but can not find them now. Thanks for all the help.

Bill

"Mike Hall" <mghall@enteract.com> wrote in message news:3C13916C.4E8AF1FB@enteract.com...
> Rex Allers wrote:
>
> > On Sun, 9 Dec 2001 01:23:11 -0330, "Bill"
> > <billyandtracy@nf.sympatico.ca> wrote:
>
> > >I am looking for an EPROM Programmer.
>
> > Me too and I know that sumbatch is around here somewhere. If I find
> > it will I be able to find an ISA socket to plug it into and the
> > software to run it? Maybe I should just buy one that I can loose
> > again later.
>
> I've got one I'm not using anymore, BK Precision's 846.
> See the "GEAR" entry on my web page.
> Parallel port connection, DOS interface.
>
> --
> Mike Hall
> http://www.enteract.com/~mghall
> AB9CO EN51VT

7583. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 04:30:42 UTC
From: Henry Knoll <knoll003@tc.umn.edu>
Message-ID: <3C143A72.55B9@tc.umn.edu>
Source record: 48180

Bill wrote:
>
> I am just looking for a simple programmer to program 27XXX's for a few
> radios. Even if I had a diagram on how to build one would help. I have
> seen them in the past but can not find them now. Thanks for all the help.
>
> Bill
>
A few years ago, there was one that you programed manually using
switches and a power supply. I'd like to get the schematic for that. I
think one of the manufacturers during the early days of EPROM's had an
application note on it. I can't find it. If anyone has info on it I'd
appreciate it also.

73

Henry

7584. Re: CB convert to 6meter?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 05:18:59 UTC
From: Ed Cregger <ecregger@axs.net>
Message-ID: <3c14491b@diablo1.axs.net>
Source record: 48181
Cross-posted to: alt.ham-radio.vhf-uhf,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

With nearly all of the HF rigs coming with six meters today,
six meters is nowhere as lonely as it used to be.

Small antennas with unexpected band openings, good local
propagation and even repeaters give the band a "flavor" of
its own. It's not HF with all of the power freaks and it's
not two meters with the handi-talkie only crowd either. I've
always preferred six meters over the other bands. Then
again, no one has ever called me "normal" either...<G>

Ed Cregger
nm2k@arrl.net

"BD" <bodu@pobox.com> wrote in message
news:O5uP7.10$yd2.3473@newsfeed.slurp.net...
> Maybe I need to clarify myself... ;)
> I know lots of people who enjoy working 6meters...
> I was mostly wondering why a beginner's wanting to 'go
there right off the
> bat' before even getting a license..... It's a fun band
for some, sure..
> But if it's challenging for old-timers, well....
> Sort of like going down the "killer-slope" before even
trying the
> bunny-hill..
>
> "Daniel Hicks" <w8mmq-nospam@email.com> wrote in message
> news:3c0e649f$0$37097$272ea4a1@news.execpc.com...
> >
> > Regarding six meter activity --
> >
> > There is plenty of six meter activity. The past three
or four weekends
> the
> > band has opened up very nicely, from Michigan here to
Alaska, Hawaii, and
> > even into Europe. A friend of mine worked a number of
stations in Europe
> > over the past two weeks. That's all on SSB.
> >
> > On FM, there are a number of places to find activity,
such as 52.525
> > simplex. I monitor this frequency all the time, and
over the course of

> the
> > last couple of years have worked 20 or more states right
there. There are
> > also repeaters on six meters around the United States.
> >
> > For me, six meters is my favorite band. I enjoy all
modes, mostly AM and
> > SSB, as I have a number of vintage rigs I like to get on
the air. They
> call
> > it the "magic" band, and over the 8 or 9 years I have
been using it, I can
> > certainly agree with that.
>
>
>

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7585. Re: Spice simulation of a varactor frequency multiplier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 05:50:44 UTC
From: Rick Karlquist <richard@karlquist.removethis.com>
Message-ID: <U2YQ7.27976$Yy.332122@rwcrnsc53>
Source record: 48182

You need a sophisticated tool like Agilent ADS that uses
harmonic balance techniques. Brute force SPICE won't
work because the problem is too large for it. I have
used both Microcap and ADS.

Rick Karlquist N6RK

"Leland C. Scott" <no-spam@junk-mail.net> wrote in message
news:9uqjie$vl1$1@news.bignet.net...
> Has anybody done a Spice simulation of a varactor frequency multiplier
that
> works? I'm interested in a 70cm to 23cm, or a 70cm to 13cm, frequency
> multiplier simulation. If anyone has a circuit file for Microcap 5, or
> Circuitmaker Pro V6.2c they can send me that would be even better.
>
> 73's de,
>
> Leland C. Scott
> KC8LDO
> E-mail through address listed on QRZ
>
>

7586. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 06:02:11 UTC
From: Rick Karlquist <richard@karlquist.removethis.com>
Message-ID: <DdYQ7.23194$wL4.60554@rwcrnsc51>
Source record: 48183

I spent several months A/B'ing a 90 ft high inverted vee
against a ground mounted vertical on 40 meters. On hundreds
of off the air signals, they were almost always of equal
gain. This gain was at whatever angles of arrival the
typical signals come it at (which are the only angles that
matter). Apparently, NEC is pessimistic in terms of modeling
verticals and the effect of ground, because it would predict
that the inverted vee would beat the vertical.

Rick Karlquist N6RK

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0112080924.210da07@posting.google.com...
> "Bob" <balbert@cnmnetwork.com> wrote in message
news:<GWzP7.72168$tf5.3787845@bin5.nnrp.aus1.giganews.com>...
> > A 'good vertical' is, in my opinion, an oxymoron. I've tried verticals
and
> > none of them comes close to even a wire dipole in performance. All the
big
> > signals from DX stations come from horizontal antennas.
>
> What band ? 20m? I can believe it there. I bet that doesn't work out
> the same on the low bands. Most of the big dogs on 160 and 80 run big
> tall verticals for transmitting. The bigger of the dogs phase more
> than one. Even on 40m, my best dx antenna by far was a vertical. But I
> can't put a dipole more than about 40 ft up.
> >
> > Yes you can work DX with a vertical. But it's a struggle, and lots of
> > wasted calling.
>
> What do you consider a "good" vertical? Judging from your description
> of their merits, it doesn't sound like you've ever used one. What you
> say may apply more to the high bands, 20-10 more than anything. Sure,
> most have big yagi's that maul verticals. But on the low bands,
> usually the vertical is king unless you have the means for large
> arrays. Also depends on how high you can get the dipoles. Here, I
> can't go much over 40 ft. On 40m, my vertical ate my dipole for lunch
> on long haul stuff at those heights. But my vertical was a full sized
> 1/4 wave ground plane 36 ft at the base with sloping radials. Not one
> of those lossy commercial jobs. Makes a big difference. When I had
> both and working dx, the struggle was when I was using the dipole. To
> VK, I came up about 3-4 s units when I switched to the vertical. Every
> single night. The only time the dipole was best was on short to medium
> haul stuff.

> >
> > Just the opinion of an old timer who has been there.
>
> Well, I was there too, but my results didn't seem to match yours.
> Verticals get a bad name because many people use lousy verticals with
> lousy radial systems. I recommend using both dipoles and verticals and
> being able to switch. But you have to use a real vertical, not a
> sears vertical. Mine wasn't quite optimum, but at it's height "36 ft
> with 4 radials" it was about equal to a ground mount 1/4 wave with 60
> full size radials as far as ground losses. I would have needed 8-10
> radials to equal the classic 120 on the ground scenario. That GP I
> used would make the average GAP vertical look like a grossly
> overpriced dummy load. But at nearly 70 ft tall counting the mast, I
> guess not for the faint of heart...MK

7587. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 09:10:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C147C01.BD58739A@eznec.com>
Source record: 48184

Were the antennas far enough apart that they don't couple significantly?
People with two close spaced antennas don't really have two antennas --
they have one antenna with two feedpoints.

Roy Lewallen, W7EL

Rick Karlquist wrote:
>
> I spent several months A/B'ing a 90 ft high inverted vee
> against a ground mounted vertical on 40 meters. On hundreds
> of off the air signals, they were almost always of equal
> gain. This gain was at whatever angles of arrival the
> typical signals come it at (which are the only angles that
> matter). Apparently, NEC is pessimistic in terms of modeling
> verticals and the effect of ground, because it would predict
> that the inverted vee would beat the vertical.
>
> Rick Karlquist N6RK

7588. DXERS UNLIMITED WEEKEND EDITION -- CO2KK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 10:37:50 UTC
From: Radio Havana Cuba <radiohc@radiohc.org>
Message-ID: <9v22qt$9em$1@nytr.blythe.org>
Source record: 48185
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

RADIO HABANA CUBA
DXERS UNLIMITED

WEEKEND EDITION
SATURDAY, DECEMBER 8, 2001

By Arnie Coro CO2KK

Send your comments, questions and ideas to: arnie@radiohc.org

Hi amigos, welcome to the weekend edition of your favorite radio hobby program, our special for radioaficionados around the world! I am Arnie Coro, radio amateur CO2KK now ready to share with you today about seventeen of air time....

AND here is Item one: Another meteor shower just around the corner....remember that the very late evening and early morning hours of your local time are the best to benefit from meteor scatter propagation... Radio meteors should provide an excellent opportunity for TV and FM band Dxers to add many more stations to their logs, while amateur radio operators on the 10, 6, and 2 meter bands will enjoy yet another opportunity to work this unsual mode....

Item two: Solar activity still high enough that the ionosphere is still supporting very high daytime maximum useable frequencies, so expect more 6 meter band F2 openings during the next two to three days... So far this fall season has proven to be the best for 50 megahertz ionospheric propagation of the whole cycle 23.

Item three: Many e-mail messages received here dealing with homebrew radios, a topic that has brought a lot of attention from both regular and new Dxers Unlimited's listeners... Today, I'll continue telling you more about homebrew radio designs, and why your home built radio designed for experimenting, may outperform even very expensive commercially built receivers....

And as always at the end of the show, our HF plus 6 meters propagation update and forecast will be reaching you to help plan your operating schedule amigos!!! Margarita Delgado is my sound engineer and producer, I'll be back with you all in a few seconds...

This is the weekend edition of Dxers Unlimited reaching you during a very special weekend HF propagation, as a matter of fact, conditions are as good as any long-time short wave listener can remember amigos!!! TV DX enthusiasts should keep their VCR's rolling to pick up those very rare,

but possible, F2 layer refracted signals that are only seen during the peak of the solar cycle... YES, if you have the appropriate type of receiver, capable of receiving different TV broadcast transmission standards, it is possible to pick up TV DX that reaches your set not via the typical sporadic E mode, but via the much longer range F2 single or multiple hop modes. Imagine watching Australian low band TV in the Caribbean, or picking up a New Zealand TV station in Buenos Aires, well all this is possible when the F2 MUF goes above 45 megaHertz and higher!!!

Don't forget to keep a log of your TV DX and make at least one copy of those unique VCR tapes whenever you happen to be lucky enough to pick up one of those elusive F2 TV DX openings. And, please do share your experiences with the worldwide audience of Dxers Unlimited by sending your comments about the F2 TV DX openings e-mail to arnie@radiohc.org or via FAX to the following number 53-7-705810....

Now here is item three of today's edition of Dxers Unlimited... more about homebrew radios: Well, amigos, it's nice to see that this topic has generated such a great interest and also to realize how creative our listeners are.... I want to say again that I have received several very interesting e-mail messages about the power supply and the front end of the SUPER REGENERODYNE homebrew radio, and some of them are really funny... like the listener who said, "Arnie why attempt to build a NEW receiver using vacuum tubes for the front end?" so I decided to answer both, directly to him via e-mail and now on the air...

Amigo, if you happen to live in a part of the world where thunderstorms are frequent, as we do here in the Caribbean, then you will know why many radio amateurs have lost not one, but two or three or more times their front end amplifier devices... MOSFET's are particularly delicate electronic components, no matter how you try to provide protection for them... And there are two radio frequency amplifier circuits that perform at least as well as the best MOSFET in the frequency range from the Low Frequency bands all the way up to the 50 megaHertz, amigos. One is the standard classic pentode RF amplifier stage, and the other one, that I like best, is the cascode, using dual triodes or a pair of individual triodes.

Well, again, I want to tell you that there was another e-mail that came in from a Dxers Unlimited's fan that told me that he had already built a better supply than the one I described, because his supply uses a fully electronically variable and regulated high voltage power unit, using a technology that was very popular during the nineteen-fifties at the microwave radio relay systems sites... To all of you interested in homebrewing your own radio gear I just want to say something... there is nothing like operating a radio set that you have built yourself, no matter if it is a single transistor crystal set plus audio amplifier, or a sophisticated dual or triple conversion receiver!!!

Now, let's move ahead with today's description of the DREAM RADIO's detector stages, that are capable of receiving AM, CW,SSB and Narrow Band FM signals... After testing many different regenerative detector circuits,

I decided to settle with the very easy to design, assemble and operate Hartley type classic triode detector, which uses a cathode tap to the grid coil in order to provide the required feedback to make the detector operate. My other choice is the use of a small tetrode or pentode vacuum tube that provides the advantage of easily controlling the gain of the detector stage by changing the tube's screen voltage...

The DREAM radio has the possibility of choosing from up to four different detectors, a standard AM envelope detector using a vacuum tube diode, a detector using a triode connected as an infinite impedance configuration, a regenerative detector and, last but not least, a classic discriminator type FM detector...

Yes, I agree that this adds one more switch control to play with, but please realize that this is an experimental receiver, a radio that provides a lot of enjoyment to the operator by playing around with the careful adjustment of its operating parameters!!!

The Hartley regenerative detector has an amazing sensitivity and stability, and it operates even with extremely low plate and screen voltages. By the way, both plate and screen voltages are regulated, adding to the stability of the circuit, that can be taken very, very near to the point of oscillation, where the Q of the tuned circuit is extremely high, and kept there to provide razor-sharp selectivity when receiving CW Morse Code Signals. As regulated voltage is available, the infinite impedance triode detector is also fed from the regulator, but of course the diode detectors do not require plate voltage to operate!!!

More about the DREAM RADIO's different detectors after this short musical interval... Amigos you are listening to the weekend edition of Dxers Unlimited, you can send your signal reports an comments via e-mail to arnie@radiohc.org and Via AIR MAIL, a postcard will be fine, to Arnie Coro, RADIO HAVANA CUBA, HAVANA, CUBA.

Now, more about the detector stages used in my DREAM RADIO EXPERIMENTAL MODULAR RECEIVER!!! The detector stages are all fully enclosed in a shielded compartment, with the plug in coils properly spaced away from the walls of the compartment so that the Q or factor of merit of the coils won't be degraded by the proximity of the metal shield... The coils were designed for the highest possible Q, and I have wound them in both very high quality ceramic coil forms and easy to work with PVC drain pipe coil forms, without really noticing any difference in operation between the two types of coil forms, at least in the range from 500 kiloHertz all the way up to 10 megaHertz...

Anyway, as you have heard or read, the SUPER REGENERODYNE'S detector stage normally operates in the range from 2 to 4 megaHertz or near to this frequency range... The idea of covering just 2 megaHertz per band is to provide a very good calibration that holds for each of the bands, as the crystal-controlled front end simply mixes the incoming signals from the antenna down to the 2 to 4 megaHertz range... In other words, your regenerative detector is always tuned from 2 to 4 megaHertz.... In my

DREAM RADIO, I do not use a crystal-controlled front end all the time; that is, I can change from the crystal-controlled oscillator to a variable frequency oscillator, something that must be done so that FM reception is possible... In other words, the FM discriminator type detector operates at a fixed frequency of 4.5 megaHertz that was chosen because of the easy availability of 4.5 megaHertz TV sound intermediate frequency amplifier transformers, so you do need to do the tuning by changing the frequency of the front end's local oscillator.

As I have said here at Dxers Unlimited many times, regenerative receivers are ideal for homebrewing and their tolerance for parts values is outstanding.., but combining conventional super-heterodyne technology with a regenerative detector stage is a really nice approach to homebrewing a sensitive and low-cost radio. But the DREAM RADIO was not thought as a low-cost project, as anyone attempting to build his or her own version of the DREAM RADIO will be willing to spend quite some time and shopping around for the specialized components required for the project.

Next Tuesday and Wednesday UTC days, during our regular mid-week edition of this show, I will continue describing my DREAM RADIO -- another hybrid receiver that uses both solid state and vacuum tube components to achieve outstanding performance while keeping things rather simple and easy to assemble, even for old timers who have a hard time working with miniature electronic devices!!! Because in these designs absolutely no attempt was made to miniaturize the receiver and modular construction was used, so that a lot of experimenting can be done without spoiling already fully operational, well-tried and proven modules...those that you want to keep intact after all the experiments.

Well amigos, I hope you are enjoying this step-by-step description of my latest radio receiver project, one that has drawn from the experience of many enthusiastic radio experimenters around the world who have made the wonderful gesture of sharing with all of us the results of hundreds of hours of hard work.... And as a local radio amateur here in Havana told me a few days ago, one can start building a simple power supply and a regenerative receiver for the 80 and 40 meter bands, that is also capable of tuning the very popular 6 megaHertz international short wave broadcast band, using recycled components to keep the cost of the project pretty low... Also, these radios are ideal for showing at the radio club's meetings and keeping one right next to your store-bought, professionally built receiver will not only help you realize the amazing sensitivity that they have and their razor-sharp selectivity when properly adjusted, but also will provide that additional radio that is so nice to have when chasing for DX without losing the broadcast time of your favorite radio hobby program!!! Without forgetting the fact that the basic receiver will work nicely as the TAIL END of a nice front end converter!!!

And now amigos, as always at the end of the show here is Arnie Coro's Dxers Unlimited's HF plus 6 meters propagation update and forecast... Solar activity will probably go below the 200 solar flux units mark very shortly, but the ionosphere is in such a healthy state that very high

daytime maximum useable frequencies are going to continue happening during the next several days....

Ten meters was open Friday from shortly before sunrise here in Havana to hours after sunset. Now scientists are talking about a second peak of cycle 23, something will equate this cycle with cycle 21 for its level of activity... Expect very nice propagation conditions on an almost round the clock basis this week, and don't forget to at least monitor an empty FM broadcast band channel during the upcoming Meteor Shower. You can leave the tape recorder rolling and then come back from your visual observations of the shooting stars... The same holds for an empty VHF low band TV channel if you are fortunate to have one in your locality, just leave the VCR running.

Attention 6 meter band operators, this is a special advisory for YOU!!! Chances of worldwide 6 meter openings are very good both on Sunday December 9th and Monday December 10th, so be on the alert looking for those nice DX stations that are populating 6 meters nowadays!!!

And don't forget to send me your signal reports, radio hobby related questions and comments about the show to arnie@radiohc.org or VIA AIR MAIL, a postcard will be OK, to Arnie Coro, Radio Havana Cuba Havana, Cuba.

Arnie Coro CO2KK
Havana, Cuba
December 8, 2001

Postal address:
Arnie Coro, "Dxers Unlimited"
Radio Havana Cuba, Havana, CUBA
e-mail: arnie@radiohc.org

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http://www.radiohc.org

7589. Re: Spice simulation of a varactor frequency multiplier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 12:40:16 UTC
From: n7ws@yahoo.com
Message-ID: <3c14aa77.25970218@news.triconet.org>
Source record: 48186

On Mon, 10 Dec 2001 05:50:44 GMT, "Rick Karlquist"
<richard@karlquist.removethis.com> wrote:

|You need a sophisticated tool like Agilent ADS that uses
|harmonic balance techniques. Brute force SPICE won't
|work because the problem is too large for it. I have
|used both Microcap and ADS.
|
|Rick Karlquist N6RK

You might look at SerenadeSV. I haven't used it enough to know whether it can
do what you want but it's worth a look. Heck it's worth having even if it can't
do varactors...it's free.

http://www.ansoft.com/about/academics/sersv/index.cfm

Wes N7WS

|
|"Leland C. Scott" <no-spam@junk-mail.net> wrote in message
|news:9uqjie$vl1$1@news.bignet.net...
|> Has anybody done a Spice simulation of a varactor frequency multiplier
|that
|> works? I'm interested in a 70cm to 23cm, or a 70cm to 13cm, frequency
|> multiplier simulation. If anyone has a circuit file for Microcap 5, or
|> Circuitmaker Pro V6.2c they can send me that would be even better.
|>
|> 73's de,
|>
|> Leland C. Scott
|> KC8LDO
|> E-mail through address listed on QRZ
|>
|>
|
|

7590. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 13:08:35 UTC
From: nm5k@wt.net
Message-ID: <25eb70d7.0112100508.4f12d9a3@posting.google.com>
Source record: 48187

"Rick Karlquist" <richard@karlquist.removethis.com> wrote in message
news:<DdYQ7.23194$wL4.60554@rwcrnsc51>...
> I spent several months A/B'ing a 90 ft high inverted vee
> against a ground mounted vertical on 40 meters. On hundreds
> of off the air signals, they were almost always of equal
> gain. This gain was at whatever angles of arrival the
> typical signals come it at (which are the only angles that
> matter). Apparently, NEC is pessimistic in terms of modeling
> verticals and the effect of ground, because it would predict
> that the inverted vee would beat the vertical.
>
> Rick Karlquist N6RK

I'm curious, what type antenna and number of radials? Also how much of
that was long haul dx? I always had fairly medeocre results with
ground mounted verticals because I never could lay out enough radials.
I had up to about 30 at one point, and even then it was only about
equal to my 36 ft dipole at 2000 miles. Only after I elevated the
antenna did it really come to life. Was like day and night.
Thats why I'm wondering how many radials you had. Being I had such a
large difference between grounded and elevated, that leads me to
suspect a large number of radials is really needed on a ground mount
to really live up to it's expectations. Also my ground conductivity in
this area, "Houston" is very good in general, so other areas should be
even more critical. It sounds like it was doing fairly well if it was
keeping up with a 90 ft high dipole, but actually I'm kind of
surprised the vertical wasn't the better of the two on very long
paths. For some reason, assuming all heights, gains ,etc, being
equal, I think vertical polarazation is superior to horizontal on low
band long haul stuff. IE: If you had a dipole at 90 ft, and a 1/4
ground plane at 90 ft or whatever height to have the antenna currents
on both at the same appx height, I'd have to bet my money on the GP
winning the race. I also notice the same thing about the modeling. I
have to set the ground at VG to get close to what happens here in the
real world. If it's set at the default "avg", I come up short from
what I've seen using them here. I'm serious as heck about the
comparison of my 36 ft dipole and the 36 ft GP to dx. The GP tore the
dipole a new one every night without fail. Even just halfway across
the country to CA was a solid 2 s units on the average rigs meter.
Only to medium distances such as here to Ohio or something like that,
were they close to being equal. O f course , in the daytime, the
dipole was the winner to short haul 95% of the time. Next time I throw
that thing up, I'll try to do more detailed gain comparisons that mean
something..I don't have it up right now. MK

7591. ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 13:57:17 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0112100557.46ec653d@posting.google.com>
Source record: 48188

This show you how much I pay attention to such things....

I was going to ask Santa Claus for a copy of the ARRL radio designer, and started looking through back issues of QST and QEX. No luck, so I looked at the ARRL web site only to find that it was discontinued in 2000!

Is there anything that has replaced it at a reasonable price? What's everyone using now?

Jim
N8EE

7592. Re: ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 14:30:34 UTC
From: n7ws@yahoo.com
Message-ID: <3c14c5f0.32996423@news.triconet.org>
Source record: 48189

On 10 Dec 2001 05:57:17 -0800, jim.bolinger@lintek.aeroflex.com (JLB) wrote:

|This show you how much I pay attention to such things....
|
|I was going to ask Santa Claus for a copy of the ARRL radio designer,
|and started looking through back issues of QST and QEX. No luck, so I
|looked at the ARRL web site only to find that it was discontinued in
|2000!
|
|Is there anything that has replaced it at a reasonable price? What's
|everyone using now?

A steeper learning curve but SerenadeSV is what you want. It's actually more powerful and developed by the same folks (Ulrich Rohde and friends) that did ARD.

Best of all, the price is a lot lower; $150 lower actually, which means it's free!

http://www.ansoft.com/about/academics/sersv/index.cfm

When I initially tried to download it I couldn't complete the download. I contacted ansoft and they sent it to me on cd. Is that reasonable or what?

Merry Christmas.

Wes N7WS

|
|Jim
|N8EE

7593. iLINK pc Boards + Kits Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 15:01:32 UTC
From: Radiohead <hduff@ica.net>
Message-ID: <3C14CE4C.66ECD974@ica.net>
Source record: 48190
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

```
Bare pc boards, kits and built link interfaces for iLINK.
Please visit www.iLINKca.com
```

7594. Re: ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 15:45:23 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <xsFKy6CTiNF8EAE+@ifwtech.com>
Source record: 48191

JLB wrote:
>This show you how much I pay attention to such things....
>
>I was going to ask Santa Claus for a copy of the ARRL radio designer,
>and started looking through back issues of QST and QEX. No luck, so I
>looked at the ARRL web site only to find that it was discontinued in
>2000!
>
>Is there anything that has replaced it at a reasonable price? What's
>everyone using now?
>
ARRL Radio Designer was a cut-down version of the Harmonica software, which later evolved into the Ansoft product Serenade. When Ansoft released the free Student Version (SV) of Serenade, there was no more need for ARRL RD.

The ARRL website now recommends you download the free SerenadeSV software which N7WS mentions in another thread:
http://www.ansoft.com/about/academics/sersv/index.cfm

Serenade has a steeper learning curve than ARRL RD, but also a much more powerful program. Advantages include schematic capture (create a model by drawing its schematic), device data from external files, and non-linear analysis to predict harmonic and IMD levels (but that needs non-linear device data, which are only publicly available for a relatively small range of devices). Online help is massive (read: s l o w).

Serenade SV will run existing ARRL RD netlists, but will not display schematics.

--
73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

7595. Re: Spice simulation of a varactor frequency multiplier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 15:59:28 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-1012011101370001@169.254.248.157>
Source record: 48192

Leland,

Good luck even using Harmonic Balance. Your main problem will be getting
a good, reliable model especially for a power (>10 dbm) device. You may
be better off doing it the old fashioned way of build with tune-all networks
and tweek to max. Doesn't sound too eloquent does it? Welcome to RF. :-)

Peace, Love, Dope,

Steve
WB4CZR ex Moto engineer
Plantation, FL

In article <U2YQ7.27976$Yy.332122@rwcrnsc53>, "Rick Karlquist"
<richard@karlquist.removethis.com> wrote:

> You need a sophisticated tool like Agilent ADS that uses
> harmonic balance techniques. Brute force SPICE won't
> work because the problem is too large for it. I have
> used both Microcap and ADS.
>
> Rick Karlquist N6RK
>
> "Leland C. Scott" <no-spam@junk-mail.net> wrote in message
> news:9uqjie$vl1$1@news.bignet.net...
> > Has anybody done a Spice simulation of a varactor frequency multiplier
> that
> > works? I'm interested in a 70cm to 23cm, or a 70cm to 13cm, frequency
> > multiplier simulation. If anyone has a circuit file for Microcap 5, or
> > Circuitmaker Pro V6.2c they can send me that would be even better.
> >
> > 73's de,
> >
> > Leland C. Scott
> > KC8LDO
> > E-mail through address listed on QRZ
> >
> >

7596. Re: ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 18:58:58 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0112101058.34aeab3e@posting.google.com>
Source record: 48193

n7ws@yahoo.com (Wes Stewart) wrote in message
news:<3c14c5f0.32996423@news.triconet.org>...
> On 10 Dec 2001 05:57:17 -0800, jim.bolinger@lintek.aeroflex.com (JLB) wrote:
>
> |This show you how much I pay attention to such things....
> |
> |I was going to ask Santa Claus for a copy of the ARRL radio designer,
> |and started looking through back issues of QST and QEX. No luck, so I
> |looked at the ARRL web site only to find that it was discontinued in
> |2000!
> |
> |Is there anything that has replaced it at a reasonable price? What's
> |everyone using now?
>
> A steeper learning curve but SerenadeSV is what you want. It's actually more
> powerful and developed by the same folks (Ulrich Rohde and friends) that did
> ARD.
>
> Best of all, the price is a lot lower; $150 lower actually, which means it's
> free!
>
> http://www.ansoft.com/about/academics/sersv/index.cfm
>
> When I initially tried to download it I couldn't complete the download. I
> contacted ansoft and they sent it to me on cd. Is that reasonable or what?
>
> Merry Christmas.
>
> Wes N7WS
>
>
> |
> |Jim
> |N8EE

Thanks, Wes.

I was looking at Serenade SV, but was concerned about its
capabilities. So, I guess it does more than Radio Designer did?

I am concerned about the limited number of devices you can have. Is
that a limitation? Another question....Can you add your own devices
(even if they are not nonlinear)?

Jim
N8EE

7597. Re: ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 19:34:41 UTC
From: J Yazel <jyazel@nls.net>
Message-ID: <sg3a1u01cgklk1hb5c7t3km32fr1sl4r6i@4ax.com>
Source record: 48194

>A steeper learning curve but SerenadeSV is what you want. It's actually more
>powerful and developed by the same folks (Ulrich Rohde and friends) that did
>ARD.
>
>Best of all, the price is a lot lower; $150 lower actually, which means it's
>free!
>
>http://www.ansoft.com/about/academics/sersv/index.cfm
>

Be careful. That URL requires you to turn on JAVA.

Jack

7598. Re: RF keyless entry

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 20:54:54 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrna1a896.8ub.QSB@animas.frontier.net>
Source record: 48195

> "tj" <tj559@hotmail.com> wrote in message
> news:9utl3c$4b2$1@slb3.atl.mindspring.net...
>> How do *most* car RF keyless entry systems work? My 93 T-bird for example.
>> I'm not out to boost someone's car, I'm sure the low tech approach of
>> using a slim jim or breaking a window would be more status quo anyway.
>>
>> Is it just a low power carrier, if so that would be supper cheesy. I would
>> hope that theses more to it than a freq counter could crack.

Check it out here:

http://www.microchip.com/1000/pline/security/index.htm

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

7599. Re: Do you have a good Multi-band Vertical?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 21:59:28 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <XhaR7.35527$ez6.5054767@news2-win.server.ntlworld.com>
Source record: 48098

"Mark Keith" <nm5k@wt.net> wrote in message
news:25eb70d7.0112100508.4f12d9a3@posting.google.com> I'm curious, what type antenna and number of radials? Also how much of
> that was long haul dx? I always had fairly medeocre results with
> ground mounted verticals because I never could lay out enough radials.
> I had up to about 30 at one point, and even then it was only about
> equal to my 36 ft dipole at 2000 miles. Only after I elevated the
> antenna did it really come to life. Was like day and night.
> Thats why I'm wondering how many radials you had. Being I had such a
> large difference between grounded and elevated, that leads me to
> suspect a large number of radials is really needed on a ground mount
> to really live up to it's expectations. Also my ground conductivity in
> this area, "Houston" is very good in general, so other areas should be
> even more critical. It sounds like it was doing fairly well if it was
> keeping up with a 90 ft high dipole, but actually I'm kind of
> surprised the vertical wasn't .....etc
==========
Following this topic with interest .....about 12 yrs ago I had some experience with a multiband Butternut (I know ,perhaps not one of the better verticals) at a fellow amateur's place ,sitting in the middle of a small back garden lawn. Initially it had no radials just a copper spike as earth. The results were interesting but not very exciting . However after covering the lawn with galvanised chicken wire mesh (area approx 70 sq metres = about 750 sq ft) ,results improved dramatically on some bands some 2 S- points. , @14 MHz and up . I don't have any info on ground conductivity at that location.

After 3 months the mesh was overgrown and when the lawn was mown over the wire mesh was hardly visible .
The year thereafter it was no longer visible at all.

Just for info.

Frank gm0csz.kn6wh@ntlworld.com

7600. Re: Spice simulation of a varactor frequency multiplier?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 22:04:06 UTC
From: "Leland C. Scott" <no-spam@junk-mail.net>
Message-ID: <9v3b05$264$1@news.bignet.net>
Source record: 48196

I was hoping not to have to build anything. That was the goal behind doing the simulation. I have a book on tunnel and varactor diodes with a section on frequency multiplication using varactor diodes. The calculation procedure used is a harmonic balance type, i.e. you keep looping through the solution until the calculated solution matches the assumed solution for the harmonic content of the diode current waveform. Oh well looks like it might be time to get out the solder iron.

.
--
Leland C. Scott
KC8LD0

Saw this on a Tee-shirt:

"I am a bomb technician. If you see
me running, try to keep up. "

"carltons" <motsteve@mediaone.net> wrote in message
news:motsteve-1012011101370001@169.254.248.157...
> Leland,
>
>
> Good luck even using Harmonic Balance. Your main problem will be getting
> a good, reliable model especially for a power (>10 dbm) device. You may
> be better off doing it the old fashioned way of build with tune-all
networks
> and tweek to max. Doesn't sound too eloquent does it? Welcome to RF. :-)
>
> Peace, Love, Dope,
>
> Steve
> WB4CZR ex Moto engineer
> Plantation, FL
>
>
>
>
>
> In article <U2YQ7.27976$Yy.332122@rwcrnsc53>, "Rick Karlquist"
> <richard@karlquist.removethis.com> wrote:
>
> > You need a sophisticated tool like Agilent ADS that uses
> > harmonic balance techniques. Brute force SPICE won't
> > work because the problem is too large for it. I have

> > used both Microcap and ADS.
> >
> > Rick Karlquist N6RK
> >
> > "Leland C. Scott" <no-spam@junk-mail.net> wrote in message
> > news:9uqjie$vl1$1@news.bignet.net...
> > > Has anybody done a Spice simulation of a varactor frequency multiplier
> > that
> > > works? I'm interested in a 70cm to 23cm, or a 70cm to 13cm, frequency
> > > multiplier simulation. If anyone has a circuit file for Microcap 5, or
> > > Circuitmaker Pro V6.2c they can send me that would be even better.
> > >
> > > 73's de,
> > >
> > > Leland C. Scott
> > > KC8LDO
> > > E-mail through address listed on QRZ
> > >
> > >

7601. looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-10 22:05:27 UTC
From: Matt's email <matthieub@tareum.freeserve.co.uk>
Message-ID: <9v3bht$6op$1@news6.svr.pol.co.uk>
Source record: 48097

Hello,

I am looking for a HV transfor with a secondary of at least 1200V or higher.
Secondary current should be in the order of 300mA. Let me know where can I
found a such transfo.

Southern UK is preferred.

Regards,

Matthieu - G/F1ILU

7602. sub LM359 for LM358?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 01:46:42 UTC
From: Paul Zerkel <pzerkel@nospam.home.com>
Message-ID: <6AdR7.5704$Z03.3352526@news1.rdc1.mi.home.com>
Source record: 48100

I have a shematic for a simple receiver that calls for a LM358 dual-op amp. I do not have one of those here, but do have a couple LM359's. Could this make an acceptable substitute, and if so could I go about programming the LM359 to "emulate" a LM358?

7603. Re: DXERS UNLIMITED WEEKEND EDITION -- CO2KK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 02:30:10 UTC
From: Ross Archer <dogbert@mindless.com>
Message-ID: <3C156FB2.CDF7D0EB@mindless.com>
Source record: 48102
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

Arnie,

Fascinating stuff, especially on the homebrew "regenerodyne" receiver and the TV DX F2 possibilities. I know from watching this newsgroup (rec.radio.shortwave) you have a lot of fans who enjoy your show. As far as I know, your show is unique among major SWL broadcasters by going into a level of technical detail and into ham topics that other shows shy away from. Rest assured there's a contingent of fans here who really enjoy your show's approach.

As I've remarked in the past, a lot of us think you could put together a working radio from a cardboard box, some wet twine, a razor blade, and candle wax. :)
It's refreshing in this day of "plug and play black boxes" that some still understand that part of the fun of radio is building your own, and understanding how it all works.

Speaking of static and lightning resistance of tubes, I would imagine Cuba has quite loud thunderstorm static during the summer months. Have you done any experiments with tuned loop antennas for HF receiving, especially in the higher HF range which is traditionally not thought of as a good place to use loop antennas? It would seem such a design would provide some protection against static and could perhaps null out some local lightning noise, giving a signal-to-noise ratio advantage?

73, and thanks for posting!

-- Ross

Radio Havana Cuba wrote:arnie@radiohc.org or VIA AIR

> MAIL, a postcard will be OK, to Arnie Coro, Radio Havana Cuba Havana,
> Cuba.
>
> Arnie Coro CO2KK
> Havana, Cuba
> December 8, 2001
>
> Postal address:
> Arnie Coro, "Dxers Unlimited"
> Radio Havana Cuba, Havana, CUBA
> e-mail: arnie@radiohc.org
>
> --

>
> http://www.radiohc.org

7604. My 10kW visual spectrum transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 02:30:55 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <zdeR7.253737$ez.35525433@news1.rdc1.nj.home.com>
Source record: 48101
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes

It took my son 3 weeks to put this together:

www.tech-diy.com/10kw_visual_spectrum_transmitter.htm

7605. Correction - 'Transverter'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 02:37:37 UTC
From: Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
Message-ID: <3C157171.FFBDCA14@elecraft.com>
Source record: 48104
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

I mistyped the subject of my last posting and created a new product, a 'transcerter.' The correct spelling is 'transverter'...

Sorry about that!

73, Eric WA6HHQ

7606. Re: My 10kW visual spectrum transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 02:44:04 UTC
From: Skrewy <ptaylor@qwest.net>
Message-ID: <3C1572F4.D185078@qwest.net>
Source record: 48103
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes

Wow. Thats impressive!

schatzie wrote:

> It took my son 3 weeks to put this together:
>
> www.tech-diy.com/10kw_visual_spectrum_transmitter.htm

7607. New Article on Transverter Interfacing to HF rigs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 02:44:11 UTC
From: Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
Message-ID: <3C1572FB.444835E2@elecraft.com>
Source record: 48105

I've just added a new article to our Tech Notes page at
http://www.elecraft.com

It is titled "Transverter Application Notes" and was written by Dave Olean, K1WHS, and Jay Rutherford, K1UC. It covers in detail the interfacing of transverters to the K2 or just about any other HF radio.

Thanks again to Dave and Jay for writing this!

73, Eric WA6HHQ

7608. Re: iLINK pc Boards + Kits Available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 03:03:31 UTC
From: Olaf <olaf@mail.powermax-lcd.com>
Message-ID: <vpta1ukn76bj7o55l5njluivitpfqo9vjb@4ax.com>
Source record: 48106
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew

On Mon, 10 Dec 2001 10:01:32 -0500, Radiohead <hduff@ica.net> wrote:

>Bare pc boards, kits and built link interfaces for iLINK.
>Please visit www.iLINKca.com
I would be careful with the usage of this name. It happens to be the
same as the Sony brand name for IEEE1394...

73! de Olaf

7609. Re: SN76514N Availability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 03:48:08 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <u1alc4e6135c88@corp.supernews.com>
Source record: 48099

So far I have one or two interested in a purchase to combine for the $50.00
min
order. The SN76514 are $8.42 each according to the quote I got. Please
reply to me if you are interested in one or more so I can go ahead and
purchase.

Doug N4IJ

Peter J. Bertini <commquart@home.com> wrote in message
news:nAUP7.96762$Y6.10224096@news1.rdc1.ct.home.com...
> I could use one or two for spares for my JRC NRD515 receiver, which uses
> one. Are we talking a lot money? I would think we could get
> a few others to join in as well.
>
> Peter
>
> "Douglas Snowden" <snowden@peoplepc.com> wrote in message
> news:u0vrs8etas0nf7@corp.supernews.com...
> > There is a source of SN76514N IC's. They have a $50.00 minimum
> > order. If one or more people want to go together and buy I would
> > be willing to do the purchase. I could use a few - a couple for spares
> > and one or two for experimenting.
> >
> > Doug N4IJ
> >
> >
> >
> >
> >
>
>

7610. Re: sub LM359 for LM358?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 04:06:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C158652.D635C62E@eznec.com>
Source record: 48107

Sorry, the LM359 is a different sort of critter. It has a very low impedance input, while the LM358 has very high impedance inputs. It would be possible to redesign some circuits to use one in the place of the other, but there are a lot of applications where this wouldn't be practical. I suggest finding an LM358 to use. They're readily available.

Roy Lewallen, W7EL

Paul Zerkel wrote:
>
> I have a shematic for a simple receiver that calls for a LM358 dual-op amp.
> I do not have one of those here, but do have a couple LM359's. Could this
> make an acceptable substitute, and if so could I go about programming the
> LM359 to "emulate" a LM358?

7611. Re: My 10kW visual spectrum transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 04:53:49 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9v43n0$1lp$1@slb5.atl.mindspring.net>
Source record: 48108
Cross-posted to: rec.radio.amateur.homebrew,rec.audio.tubes

schatzie wrote:

> It took my son 3 weeks to put this together:
>
> www.tech-diy.com/10kw_visual_spectrum_transmitter.htm

What I like is that, true to any 10KW rig, when it is turned on all of the local power transformers start smoking....

==========

Well done, and it shows an impressive amount of dedication to take the time to build that properly.

Jim

7612. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 05:15:44 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9v44ks$841$1@neptunium.btinternet.com>
Source record: 48109

Mike, you must be joking !

I think he said he wanted to know how to make his own.

==========
> I am cofused by your posting.. why unwind the coil only to
> re-wind it?. am I missing something here.
> Mike W

7613. Re: looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 07:20:10 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0112102320.5d259e17@posting.google.com>
Source record: 48110

"Matt's email" <matthieub@tareum.freeserve.co.uk> wrote in message
news:<9v3bht$6op$1@news6.svr.pol.co.uk>...
> Hello,
>
> I am looking for a HV transfor with a secondary of at least 1200V or higher.
> Secondary current should be in the order of 300mA. Let me know where can I
> found a such transfo.
>
> Southern UK is preferred.
>
> Regards,
>
> Matthieu - G/F1ILU

Hello,
transformers from microwave ovens often have similar parameters. Did
you try this source ?

73 de Ivan

7614. Re: GaAsFET Pre-amp using Mitsubishi MGF1402

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 07:53:08 UTC
From: Peter <peterlmiles@hotmail.com>
Message-ID: <3c15bb76$0$9870$afc38c87@news.optusnet.com.au>
Source record: 48111
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

Andrew

Thanks for the info.

"Andrew Davis" <andrewd@ozemail.com.au> wrote in message
news:3c0f6251.2816016@news.netspeed.com.au...
> On Wed, 5 Dec 2001 22:10:29 +1100, "Peter Miles"
> <petermiles@optushome.com.au> wrote:
>
> >I'm about to build a low noise pre-amp for 70cm and have been looking at
the
> >one in the ARRL hand book 1990, Chapter 32-3. That is the GaAsFET Pre-amp
> >using Mitsubishi MGF1402. Where can I get PCBs ready made for projects in
> >ARRL Hand Book and similar.
> >
> Try RCS Radio in Sydney and ask them for a price on a custom job.
>
> http://www.cia.com.au/rcsradio/index3.htm
>
>
> Andrew Davis --- IT and payroll systems consultant
> Canberra, Australia

7615. Re: FERRITE ROD ANTENNA

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 08:11:46 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3c15bfa1.723281@news.freeserve.net>
Source record: 48112

Ahh, yes I see it all now ;=)
Nice one Reg.

On Tue, 11 Dec 2001 05:15:44 -0000, "Reg Edwards"
<G4fgq.Regp@btinternet.com> wrote:

>Mike, you must be joking !
>
>I think he said he wanted to know how to make his own.
>
>========================
>> I am cofused by your posting.. why unwind the coil only to
>> re-wind it?. am I missing something here.
>> Mike W
>
>

7616. modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 08:46:14 UTC
From: Joshua <deusx9@yahoo.com>
Message-ID: <qJjR7.27081$fo5.4631413@typhoon.we.rr.com>
Source record: 48113

I was wondering if it was possible to up the output on a cobra 225 frs 2way from .5watts to at least 1 watt

7617. Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 12:03:28 UTC
From: Peter <peterlmiles@hotmail.com>
Message-ID: <3c15f622$0$9870$afc38c87@news.optusnet.com.au>
Source record: 48114
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,tnn.radio.amateur,uk.radio.amateur

Where can I get PCBs ready made or made to order for projects in the ARRL
Hand Book and similar.
I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in the
ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
--
Peter Miles

VK3YSF

petermiles@optushome.com.au

7618. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 13:15:45 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u1c1p236arbu82@corp.supernews.com>
Source record: 48115
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,tnn.radio.amateur,uk.radio.amateur

> Where can I get PCBs ready made or made to order for projects in the
ARRL
> Hand Book and similar.

Check FAR Circuits http://169.207.3.68/~farcir/index.htm#index

7619. Re: looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 13:43:21 UTC
From: Matt's email <matthieub@tareum.freeserve.co.uk>
Message-ID: <9v52ha$i9b$1@newsg2.svr.pol.co.uk>
Source record: 48116

Well, I should have mentioned also the current capability required for the secondary.

do you know what is the current rating for the secondary of those kind of transformer?

Thanks

Matthieu

"Ivan" <ok1sip@atlas.cz> wrote in message news:8f3e93b5.0112102320.5d259e17@posting.google.com...
> "Matt's email" <matthieub@tareum.freeserve.co.uk> wrote in message news:<9v3bht$6op$1@news6.svr.pol.co.uk>...
> > Hello,
> >
> > I am looking for a HV transfor with a secondary of at least 1200V or higher.
> > Secondary current should be in the order of 300mA. Let me know where can I
> > found a such transfo.
> >
> > Southern UK is preferred.
> >
> > Regards,
> >
> > Matthieu - G/F1ILU
>
> Hello,
> transformers from microwave ovens often have similar parameters. Did
> you try this source ?
>
> 73 de Ivan

7620. Re: ARRL Radio Designer Replacement?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 14:31:23 UTC
From: K7MEM@myrealbox.com
Message-ID: <eed95b3d.0112110631.1d97a177@posting.google.com>
Source record: 48117

J Yazel <jyazel@nls.net> wrote in message
news:<sg3a1u01cgklk1hb5c7t3km32fr1sl4r6i@4ax.com>...
> >A steeper learning curve but SerenadeSV is what you want. It's actually more
> >powerful and developed by the same folks (Ulrich Rohde and friends) that did
> >ARD.
> >
> >Best of all, the price is a lot lower; $150 lower actually, which means it's
> >free!
> >
> >http://www.ansoft.com/about/academics/sersv/index.cfm
> >
>
> Be careful. That URL requires you to turn on JAVA.
>
> Jack

I just tried it and it only requires JavaScript, not Java to be enabled.
Netscape allows you to enable them separately. Other browsers may not.

I agree that you need to be careful and I feel that no one should surf
the web with Java or JavaScript enabled, although, for the most part
JavaScript is pretty safe.

When I surf, I only enable JavaScript when necessary and, if a site
requires Java, I leave. It's not important enough to me to open my
machine to some web site.

You also need to be aware that a download of Harmonica and Symphony is
about 50 MBytes. Not a big deal if you have a high speed connection, but
if you don't, the download will take a while.

--
Martin E. Meserve, K7MEM

I respond to news groups and E-Mail on my own time and therefore
my responses may not be as timely as you, or I, would like them to
be. If I seem to be ignoring you, send me another E-Mail to jog my
memory. Opinions are my own and do not reflect the opinions of my
employer.

7621. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 15:39:53 UTC
From: AC6V <ac6v@amsat.org>
Message-ID: <3C1628C8.68FF84C5@amsat.org>
Source record: 48118

Golly Josh -- it is illegal, see URL:
http://ac6v.com/rstore.htm#FRS

Max allowable power is 0.5 watts

BTW an increase of 2X power is 3 dB which is about a half an S-Unit -- not
worth the effort.

Get a Ham License and operate 2 Meters -- you won't have that problem. See URL
http://www.arrl.org/toc.html
--
73 From AC6V, Rod In Oceanside, CA
I doubt, therefore I might be!
http://ac6v.com
==========
Joshua wrote:

> I was wondering if it was possible to up the output on a cobra 225 frs 2way
> from .5watts to at least 1 watt

7622. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 17:48:52 UTC
From: Jim Weir <jim@rst-engr.com>
Message-ID: <hihc1ucsj4d3bhr47rmif2345t7q6ebdqc@4ax.com>
Source record: 48119

"Peter" <peterlmiles@hotmail.com>
shared these priceless pearls of wisdom:

->
->Where can I get PCBs ready made or made to order for projects in the ARRL
->Hand Book and similar.
->I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in the
->ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.

Do a websearch for "olimex". They are in Bulgaria, and they turn out the best and most inexpensive onesie-twosie boards I've ever used. They do, however, require gerber plots, so unless you are willing to lay out the pcb in a pcb drawing program, they won't do you much good.

Was it REALLY necessary to spam 7 newsgroups to get answers?

Jim

Jim Weir, VP Eng. RST Eng. WX6RST
A&P, CFI, and other good alphabet soup

7623. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 18:28:35 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrna1ck2j.g6.QSB@animas.frontier.net>
Source record: 48120

On Tue, 11 Dec 2001 07:39:53 -0800, AC6V scribbled:
>
> Get a Ham License and operate 2 Meters -- you won't have that problem. See URL
> http://www.arrl.org/toc.html

Better yet: Get a ham license and stay the hell away from 2M.
(Well, 2M FM anyway...)

73
Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

7624. Links for learning how to solder.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 18:53:39 UTC
From: "Jim E." <james787@globalserve.net>
Message-ID: <TCsR7.45603$Mv5.68769901@news.tor.primus.ca>
Source record: 48121
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.homebrew,rec.radio.scanner

Here are a few links for anyone wanting to learn how to solder or someone
who wants to brush up on their soldering skills.

http://ourworld.compuserve.com/homepages/g_knott/elect3.htm

http://atschool.eduweb.co.uk/trinity/elec2.html

http://www.colomar.com/Shavano/soldering.html

Jim
VE3JGE

7625. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 20:25:54 UTC
From: phineas@engineer.com
Message-ID: <3c166a75.964537571@goliath.newsfeeds.com>
Source record: 48122

Better yet, get a GMRS license for your home. That way you can go up
to 50 watts. GMRS radios can also talk to FRS radios. That way your
whole family will be able to work under 1 license. If you go HAM,
everyone in the house will have to have their own license. Plus, GMRS
has repeaters. You can talk all over town depending on the
availability in your area. Your only other alternative is to get a
mobile unit. RadioShack sells them for 50 dollars. It uses a full
Quarter wave whip, and has twice the range of the hand helds.

Phineas
KC0LSC/AG

On 11 Dec 2001 18:28:35 GMT, Allodoxaphobia <QSB@QRM-QRN.net> wrote:

>On Tue, 11 Dec 2001 07:39:53 -0800, AC6V scribbled:
>>
>> Get a Ham License and operate 2 Meters -- you won't have that problem. See URL
>> http://www.arrl.org/toc.html
>
>Better yet: Get a ham license and stay the hell away from 2M.
>(Well, 2M FM anyway...)
>
>73
>Jonesy
>--
> | Marvin L Jones | jonz | W3DHJ | OS/2
> | Gunnison, Colorado | @ | Jonesy | linux __
> | 7,703' -- 2,345m | frontier.net | DM68mn SK

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http://www.newsfeeds.com - The #1 Newsgroup Service in the World!
Check out our new Unlimited Server. No Download or Time Limits!
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7626. Re: 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-11 23:51:50 UTC
From: 2w8ji@contesting.com
Message-ID: <3c169b4c.49196069@news.akorn.net>
Source record: 48123

On Wed, 05 Dec 2001 00:37:13 GMT, la8ak.xnd@online.no (J M Noeding) wrote:

>have you made any thoughts about gain distribution? Perhaps too much
>gain after the device, or too little signal level input? It is a
>reason for using such high conductance fets, and gasfets have usually
>worse intermodulation, so I wouldn't go for your solution
>
>73, Jan-Martin LA8AK

Since my change was all after the narrow filters, and since it lowered noise floor while gain remained the same, how can my solution be bad?

How can you have IMD or overload when any signal reaching that point is filtered, and also dorectly will control AGC?

Seriously, it actually improved BDR and IMDR because it reduced noise floor without disturbing anything ahead of the narrow filters.

73 Tom

7627. Re: 3SK74L FET and Yaesu's

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 00:02:24 UTC
From: 2w8ji@contesting.com
Message-ID: <3c169c08.49383993@news.akorn.net>
Source record: 48124

Thanks for all the answers. NF was what concerned me, and if Chuck's memory is correct then that explains some of the problem. (of course I'd still like to find a data sheet for the 3SK74L).

There was one definite problem I saw with the 3SK74L FET. That problem was to reduce gain Yaesu reduced the voltage on the gate of the FET by tapping it way down on the IF transformer.

Since the crystal filter driving the FET can be all over the place in impedance, that will leave the gate terminated in all sorts of wild impedances depending on frequency. It runs the FET wide open, and simply feeds it with less signal voltage and probaly a pretty wild impedance change with frequency.

What I did was use a lower transconductance FET (thanks Tony for the info) reducing gain, which allowed me to move the gate up on the transformer. The FET was also much quieter, and moving the gate up on the transformer helped even more!

Anyway, the rig is MUCH better at digging weak signals out of noise now, and I can actually remove some front end gain now for the same S/N at the output. The annoying hissing is greatly reduced, so I don't have to override it with gain ahead of the filters.

Of course I'd still like t find a data sheet for the 3SK74L...hi hi.

73 Tom

7628. Re: Correction - 'Transverter'

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 02:09:30 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C16BC5A.3A348D59@clifto.com>
Source record: 48125

Eric Swartz WA6HHQ - Elecraft wrote:
> I mistyped the subject of my last posting and created a new product, a
> 'transcerter.'

What does it do? Where can I find schematics? :-)

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7629. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 03:08:28 UTC
From: jeff <wd4nmq@earthlink.net>
Message-ID: <3C16CA7B.D582A635@earthlink.net>
Source record: 48126

Paul,

At first I didn't understand about "scanning" to get the range. But,
then I thought it might have to do with drastically changing the
frequency and timing the time it takes to see that new frequency
reflection's on the receiver?
Is that thought in the right ballpark?

Paul Keinanen wrote:
>
> On Sat, 08 Dec 2001 22:57:31 GMT, jeff <wd4nmq@earthlink.net> wrote:
>
> >Doesn't Doppler work by measuring the frequency difference between the
> >sent and returned signal.
>
> Yes.
>
> >I forget but so many Hz = 1 mph. Ofcourse,
> >this wouldn't do any ranging. I guess you have to measure return time
> >for that.
>
> Or scan the transmission frequency at a very high speed and measure
> the frequency difference between the transmitted and received
> frequency. This can be used to get the distance (+/-speed) between the
> transmitter and the object. By scanning both upwards and downwards,
> both the distance and speed can be determined.
>
> Paul OH3LWR

--
jeff, wd4nmq
wd4nmq@earthlink.net
http://home.earthlink.net/~wd4nmq

7630. Paypal is great and I use it all the time.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 03:16:47 UTC
From: mhzman <mhzman@bellsouth.net>
Message-ID: <WSPR7.135233$S93.6487194@e3500-atl2.usenetserver.com>
Source record: 48136
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Paypal is not causing me any issues at all. It is one of the best things to happen to Ebay and other online auctions. I have used it over 90 times with no issue.

Keep up the good work PayPal. We are not falling for this SPAM.

"Al Link (K4ICL)" <K4ICL@parismtnsignco.com> wrote in message news:Nn4Q7.88710$S93.4726531@e3500-atl2.usenetserver.com...
> All:
>
> This is a mass robot mailed self serving ploy to get you to sign up to
> C2it.com. See the ALTERNATIVE to PAYPAL hyperlink on
> http://www.paypalwarning.com/Default.htm THIS is the real scam!
>
> K4ICL
>
> <fhendc@westoleyourmoney.com> wrote in message
> news:lz2Q7.9461$wL4.8182@rwcrnsc51...
> > BREAKING NEWS ABOUT PAYPAL SCAM! IF YOU HAVE AN ACCOUNT WITH PAYPAL YOU
> MAY WANT TO READ THIS BREAKING NEWS FROM.....ZDNET, CNN AND THE NEWYORK
> TIMES.
> >
> >
> > CLICK ON THE LINK
> > http://www.paypalwarning.com/Default.htm
> >
> > dgqmgefcbj
> >
>
>
>

7631. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 03:31:37 UTC
From: jeff <wd4nmq@earthlink.net>
Message-ID: <3C16CFE6.58FED7B3@earthlink.net>
Source record: 48127

I am looking at an article from the Febuary 1985 issue of Byte magazine
of a simple eprom programmer that uses about 8 chips a crystal a few
other discrete components. It had a 24 pin socket and you made jumper
blocks for each eprom type.

I know it works because I built one back then. It works off of the
serial port and the source code for DOS basic is in the article too.

Ch
Bill wrote:
>
> I am just looking for a simple programmer to program 27XXX's for a few
> radios. Even if I had a diagram on how to build one would help. I have
> seen them in the past but can not find them now. Thanks for all the help.
>
> Bill
>

--
jeff, wd4nmq
wd4nmq@earthlink.net
http://home.earthlink.net/~wd4nmq

7632. Re: Looking for EPROM Programmer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 04:42:42 UTC
From: Michael Black <blackm00@cam.org>
Message-ID: <Pine.LNX.4.20.0112112325340.232-100000@darkstar.example.net>
Source record: 48128

On Wed, 12 Dec 2001, jeff wrote:

> I am looking at an article from the Febuary 1985 issue of Byte magazine
> of a simple eprom programmer that uses about 8 chips a crystal a few
> other discrete components. It had a 24 pin socket and you made jumper
> blocks for each eprom type.
>
> I know it works because I built one back then. It works off of the
> serial port and the source code for DOS basic is in the article too.
>
> Ch
If that's the one that does the work with logic rather than a cpu,
it can be simplified if you have a parallel port in your computer
to connect to the programmer. The one I'm thinking of has a UART
(which is what the crystal is connected to) for converting serial
to parallel, and then the rest of the unit in fact uses parallel
data.

The one I'm picturing, I'm too lazy to look for that issue of
Byte, was in Steve Ciarcia's monthly column. He covered
the matter of eprom programming a number of times, as eproms
and technology improved. Since many/most of his columns in
Byte, for some years at least, were republished in a number of
books, perhaps one could be lucky and find it at the library.
I think books may be likely to hang around longer than old
magazines.

There isn't anything particularly difficult about an eprom
programmer. You have to set up the address where you want
to program next, have the byte you want to put there ready,
and then send a pulse to the programming pin. The pulse on
the programming pin, and the length of the pulse, varies
depending on the device being programmed. The address can
be anything from a bunch of switches (which would be really
slow and tedious) to a set of counters that advance on a pulse
(which is probably what the circuit you are pointing to does),
to a parallel port of enough bits in a computer. Likewise,
the data byte can come from a set of 8 switches (tedious), or
a parallel port on a computer.

The complexity of the hardware depends on how much you want
to do in software. If you have enough parallel port bits
in your computer, you can basically do it all in software.
The "programmer" would merely be a socket for the eprom,
and a bit of circuitry to pulse the programming pin, and a

power supply. The computer would keep track of the address
data, send a byte of data to the eprom, pulse the programming
pin, and then wait the required time, and then send out the
next address, and continue.

Shift some of the software to hardware, and you get like that
circuit, where there is a string of counters to address the eprom's
address lines. The computer doesn't have to output the address
data, just sending a pulse to advance that hardware counter.

The ultimate programmer would be a standalone computer (Steve
Ciarcia did one of those), where you send the data you want
programmed, and it does all the work.

Or you can go for simple hardware, and no software. Just switches
and not much else but the pulse circuitry and power supply. But you
have to keep setting up switches, for both the address and the data,
and after a few hundred bytes, you're bound to make mistakes.

The software is really more important than the hardware. Look
in old computer magazines, and there will be plenty.

Michael VE2BVW

> Bill wrote:
> >
> > I am just looking for a simple programmer to program 27XXX's for a few
> > radios. Even if I had a diagram on how to build one would help. I have
> > seen them in the past but can not find them now. Thanks for all the help.
> >
> > Bill
> >
>
> --
> jeff, wd4nmq
> wd4nmq@earthlink.net
> http://home.earthlink.net/~wd4nmq
>

7633. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 13:09:16 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <3nle1ug4000dt5t7680474kuc0iei1c4ra@4ax.com>
Source record: 48129

On Sun, 02 Dec 2001 21:20:12 GMT, la8ak.xnd@online.no (J M Noeding) wrote:

>Just worked a cw contest. Several stations seems to have a problem
>tuning to correct frequency, so I wondered if it is a stroboscope type
>tuning indicator available to aid this. I was thinking of the type
>used to indicate mains frequency, but operated around 700Hz.
>The principle of mechanical stroboscope used for 50Hz will give good
>indication for varying amplitudes, but a more modern version is more
>interesting than converting the old system
>
>any suggestions?
>
>73
>Jan-Martin
>LA8AK
f

7634. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 13:12:14 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <0sle1u4p3v5v4r54lmqg289um8lvri5sgo@4ax.com>
Source record: 48130

On Mon, 03 Dec 2001 00:01:45 -0500, ni4l <ni4l@charter.net> wrote:

>Hi everyone.
>Have T4XB replaced 2 filter caps 150uf@450v in power supply. also put in
>new 6jb6a and 12by7a
>After i put the caps and tubes in it decreased the hum by 50%. But it is
>still there even with no mic in the tune mode. Anyone gone thru this
>problem any help would be greatly appreciated.
>chris ni4l

Chris,

Had one of these long ago with the same problem. It was an open HV
diode.

73,

Tom AB9B

7635. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 14:14:03 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0112120614.68204b8f@posting.google.com>
Source record: 48131

jeff <wd4nmq@earthlink.net> wrote in message news:<3C16CA7B.D582A635@earthlink.net>...
> Paul,
>
> At first I didn't understand about "scanning" to get the range. But,
> then I thought it might have to do with drastically changing the
> frequency and timing the time it takes to see that new frequency
> reflection's on the receiver?
> Is that thought in the right ballpark?
>

The way to do this is to FM modulate the transmitter, with a sawtooth waveform. Frequency mix the transmit signal with the receive signal and do an FFT of the result. There will be a spike corresponding to the distance of each target. (Of course, there are a lot of details I left out.)

I think my company makes (or will make) such a thing (it is in a different department).

Jim N8EE

7636. Re: looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 17:04:04 UTC
From: ok1sip@atlas.cz
Message-ID: <8f3e93b5.0112120904.9c42237@posting.google.com>
Source record: 48132

"Matt's email" <matthieub@tareum.freeserve.co.uk> wrote in message
news:<9v52ha$i9b$1@newsg2.svr.pol.co.uk>...
>
> do you know what is the current rating for the secondary of those kind of
> transformer?

Hi Matt,
microwave ovens usually have power ratings 600 watts or more. The
transformer must carry that energy plus magnetron losses when the oven
is on, i.e. for tens of minutes continuously if the oven is set to
maximum power.
So you can expect power rating of the transformer 600 - 1200 watts
continuously. The secondary voltage is usually 2 - 4 kilovolts
(WARNING - ABSOLUTELY LETHAL !!), the secondary amperage you get by
simple division and should be somewhere about 600 / 2000 = 0,3 amp. No
current limiting is involved in the transformer.

BR from Ivan

7637. linear amp for 2m band (20-30W)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 19:14:03 UTC
From: Michael Maier <exec@dlc.fi>
Message-ID: <9v8ais$f07$1@tron.sci.fi>
Source record: 48133

I would like to build a linear amp for 2m amateur band. Rig has output power 0.5 - 2.5W (allmode), it's yaesu ft290.. Have anyone got tips or schematics.. and better, has someone built such a thing ;)

Michael

7638. Re: crystal filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 19:43:16 UTC
From: Al Lorona <al_lorona@agilent.com>
Message-ID: <3C17B354.474D0B88@agilent.com>
Source record: 48057

"William E. Sabin" wrote:
>
> Does anyone have, or know the whereabouts of, a
> Heath crystal filter (in good condition) that was
> used in the Heathkit SB300 receiver:
>
> 3395.4 kHz center frequency, 400 Hz bandwidth.
>
> Bill W0IYH

Hi, Bill,

I read your message as wanting to get a hold of an *original* Heath filter. Your guess is as good as mine there, but if an aftermarket exact replacement is suitable then check out International Radio in Oregon. They have one that fits in the SB-300.

http://www.qth.com/inrad/

Al W6LX

7639. Ross Archer On Air QSL! (Was Re: DXERS UNLIMITED WEEKEND EDITION -- CO2KK)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 19:44:05 UTC
From: "A. Christian Smith" <chevyorange2@yahoo.com>
Message-ID: <B83CF383.26E3%chevyorange2@yahoo.com>
Source record: 48134
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

On 12/10/2001 6:30 PM, in article 3C156FB2.CDF7D0EB@mindless.com, "Ross Archer" <dogbert@mindless.com> came hurtling through the ether with:

> Arnie,
>
> Fascinating stuff, especially on the homebrew "regenerodyne" receiver and the

<snip>

> -- Ross

Ross, Arnie Coro sent out an on air QSL to you last night on Dxers unlimited, in case you missed it!

Very cool!

acs

Washington State SWL ⋆ Powered by Macintosh OS X
Twirling The Dial Since '92 - Modified DX-398 - 100' Random
Some of my SW recordings: http://briefcase.yahoo.com/chevyorange2
http://homepage.mac.com/chevyorange/

7640. Re: AC HUM.....T4XB HELP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 21:17:09 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C17C955.8040203@charter.net>
Source record: 48135

hi tom
yea thats what it was its working great now
chris ni4l

Tom2000 wrote:

> On Mon, 03 Dec 2001 00:01:45 -0500, ni4l <ni4l@charter.net> wrote:
>
>
>>Hi everyone.
>>Have T4XB replaced 2 filter caps 150uf@450v in power supply. also put in
>>new 6jb6a and 12by7a
>>After i put the caps and tubes in it decreased the hum by 50%. But it is
>>still there even with no mic in the tune mode. Anyone gone thru this
>>problem any help would be greatly appreciated.
>>chris ni4l
>>
>
> Chris,
>
> Had one of these long ago with the same problem. It was an open HV
> diode.
>
> 73,
>
> Tom AB9B
>
>
>

7641. Re: Ross Archer On Air QSL! (Was Re: DXERS UNLIMITED WEEKEND EDITION -- CO2KK)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 21:58:52 UTC
From: bpnjensen@yahoo.com
Message-ID: <37af7e1c.0112121358.2708f076@posting.google.com>
Source record: 48137
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

"A. Christian Smith" <chevyorange2@yahoo.com> wrote in message
news:<B83CF383.26E3%chevyorange2@yahoo.com>...

> Ross, Arnie Coro sent out an on air QSL to you last night on Dxers
> unlimited, in case you missed it!
>
> Very cool!

Wow! Between NHK and RHC, you guys are both A-Listers now!

Now that you're a world-famous SWL, what will you do next?

Bruce Jensen

7642. General Radio Pins

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 22:29:32 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C17DA4C.56458F62@ieee.org>
Source record: 48138

Does anyone here know where I can get pins for GR Plugs that are
threaded on one end 6-32?

I saw some at a flea market but unfortunately they are threaded 8-32.

I need about 50.

Thanks,

Clyde

7643. Re: linear amp for 2m band (20-30W)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 23:18:02 UTC
From: Michael Maier <exec@dlc.fi>
Message-ID: <9v8opm$7n0$1@tron.sci.fi>
Source record: 48139

"Michael Maier" <exec@dlc.fi> wrote in message
news:9v8ais$f07$1@tron.sci.fi...
> I would like to build a linear amp for 2m amateur band. Rig has output
power
> 0.5 - 2.5W (allmode), it's yaesu ft290.. Have anyone got tips or
> schematics.. and better, has someone built such a thing ;)
>
> Michael
>

Well actually the amp could be ~100W or so (specially in ssb mode) ;-)
2.5W -> 100W

Michael

7644. Re: Ross Archer On Air QSL! (Was Re: DXERS UNLIMITED WEEKEND EDITION -- CO2KK)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 23:24:18 UTC
From: Ross Archer <dogbert@mindless.com>
Message-ID: <3C17E722.66214BF9@mindless.com>
Source record: 48140
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

"A. Christian Smith" wrote:

> On 12/10/2001 6:30 PM, in article 3C156FB2.CDF7D0EB@mindless.com, "Ross
> Archer" <dogbert@mindless.com> came hurtling through the ether with:
>
> > Arnie,
> >
> > Fascinating stuff, especially on the homebrew "regenerodyne" receiver and the
>
> <snip>
>
> > -- Ross
>
> Ross, Arnie Coro sent out an on air QSL to you last night on Dxers
> unlimited, in case you missed it!

Cool, and shucks!

Saw his reply to me saying to listen to the show *after*
the show was already over. :(I should check my personal e-mail more often!

I do make an effort to catch his show, because it is one of the few
homebrew-oriented shows left on the whole planet. (If not the only one!)

Arnie Coro's absolutely a first-class guy, and you can enjoy his show regardless of
your politics. If you're into learning about how things work, I strongly recommend

a listen, exactly like I didn't do this Tuesday. (It's on Tuesdays and Saturdays.)

Thanks a lot for the heads-up!

So, did he answer my loop antenna question, comment on Caribbean static levels,
read the note, or what, do you recall?

-- Ross

>
>
> Very cool!
>
> acs
>
> ----------------
>
> Washington State SWL * Powered by Macintosh OS X

> Twirling The Dial Since '92 - Modified DX-398 - 100' Random
> Some of my SW recordings: http://briefcase.yahoo.com/chevyorange2
> http://homepage.mac.com/chevyorange/

7645. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-12 23:33:48 UTC
From: mcalhoun@ksu.edu
Message-ID: <9v8pgs$cpt@unix1.cc.ksu.edu>
Source record: 48141

Tom2000 <tom2000@mindspring.com> writes:
>>Just worked a cw contest. Several stations seems to have a problem
>>tuning to correct frequency, so I wondered if it is a stroboscope type
>....[snip]....

If what you mean by "correct frequency" is "the frequency YOUR radio
automagically listens to when you quit transmitting", it may not be
that THEY are tuning incorrectly but that THEIR radio automagically
transmits on a slightly different frequency than YOUR radio expects.

A few (well, maybe 20-30?-) years ago, there was NO automagic transmit
offset; the USER at each end simply knew how to tune his/her receiver-
-and especially how to use the equivalent of what we now call RIT.
"Correct frequency" depended on how the RECEIVING ham adjusted his/her
(my FIRST contact was with a "her"!) own receiver.

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7646. Re: linear amp for 2m band (20-30W)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 00:31:54 UTC
From: marsgal42@hotmail.com
Message-ID: <d42b5a72.0112121631.2587ec26@posting.google.com>
Source record: 48142

"Michael Maier" <exec@dlc.fi> wrote in message news:<9v8ais$f07$1@tron.sci.fi>...

> I would like to build a linear amp for 2m amateur band. Rig has output power

> 0.5 - 2.5W (allmode), it's yaesu ft290.. Have anyone got tips or

> schematics.. and better, has someone built such a thing ;)

>

> Michael

Use a brick. All the usual references...

Laura Halliday VE7LDH "Que les nuages soient notre
Grid: CN89lg pied a terre..."
ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte

7647. Re: Need info on Murata SAF10.7M C filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 01:40:55 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3C180727.5040309@mwci.net>
Source record: 48143

Bob G. Mahrenholz wrote:

> Hi:
> Anyone know any details on the Murata SAF10.7M (C) SAW filter such as
> bandwidth, input and output impedances, loss, phase linearity,
> recommended driving, circuit, etc. I know they are for use in standard
> FM broadcast receivers.
> Thanks,
> Bob
> K4QQK
> bobm@edge.net
>
>

test

7648. crystal filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 01:43:11 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3C1807AF.2060004@mwci.net>
Source record: 48144

Does anyone have, or know the whereabouts of, a
Heath crystal filter (in good condition) that was
used in the Heathkit SB300 receiver:

3395.4 kHz center frequency, 400 Hz bandwidth.

Bill W0IYH

7649. WTB: talking frequency counter or digital readout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 02:00:54 UTC
From: k9sqg@aol.com
Message-ID: <20011212210054.16619.00001643@mb-bj.aol.com>
Source record: 48145

A blind ham is looking for a talking frequency meter or digital readout. He prefers one with a "voice" rather than CW. If you have a lead on one, kindly call Jim at 573-431-5112 or, check his call KF0NW on the QRZ database for email address. Thanks for reading this posting. Let's see if we can help him out.

73s,

Evan

7650. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 02:23:55 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C18113B.3C7D2F8A@ieee.org>
Source record: 48146

Is it really a SPAM to post on 7 newsgroups?

I think it may be excessive, but it is not SPAM.

I get spam sometimes that hits all addresses that have my name in a distribution list. Hundreds of Clydes, or variants.

Cut the guy a break. I would have done 2 or 3, but some folk are less experienced.

Clyde

KA1CRV

Jim Weir wrote:

> "Peter" <peterlmiles@hotmail.com>
> shared these priceless pearls of wisdom:
>
> ->
> ->Where can I get PCBs ready made or made to order for projects in the ARRL
> ->Hand Book and similar.
> ->I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in the
> ->ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
>
> Do a websearch for "olimex". They are in Bulgaria, and they turn out the best
> and most inexpensive onesie-twosie boards I've ever used. They do, however,
> require gerber plots, so unless you are willing to lay out the pcb in a pcb
> drawing program, they won't do you much good.
>
> Was it REALLY necessary to spam 7 newsgroups to get answers?
>
> Jim
>
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

7651. Re: WTB: talking frequency counter or digital readout

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 02:26:03 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1811BB.AC51FFBC@ieee.org>
Source record: 48047

I have a digital display from Almost All Digital Products and it outputs to an LCD.

Maybe Neil, the designer would consider this as a project.

Clyde

K9SQG wrote:

> A blind ham is looking for a talking frequency meter or digital readout. He
> prefers one with a "voice" rather than CW. If you have a lead on one, kindly
> call Jim at 573-431-5112 or, check his call KF0NW on the QRZ database for email
> address. Thanks for reading this posting. Let's see if we can help him out.
>
> 73s,
>
> Evan

7652. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 02:42:06 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C18157E.2A4D365F@coqui.net>
Source record: 48048
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.homebrew,uk.radio.amateur

Peter wrote:
>
> Where can I get PCBs ready made or made to order for projects in the ARRL
> Hand Book and similar.
> I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in the
> ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
> --
> Peter Miles
>
> VK3YSF
>
> petermiles@optushome.com.au

See if you can find on Eamon Skelton's (EI9GQ) website his technique for
using iron-on transfers. Sri but I don't have the URL bookmarked...he
is usually here (r.r.a.h.) lurking somewhere.
-Bill

7653. Re: Ross Archer On Air QSL! (Was Re: DXERS UNLIMITED WEEKEND EDITION -- CO2KK)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 03:09:36 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <QZUR7.103535$Y6.10290024@news1.rdc1.ct.home.com>
Source record: 48049
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

Ross

It will be on the website next week in text form.

Peter

http://www.radiohc.org/Distributions/arnie.html

"Ross Archer" <dogbert@mindless.com> wrote in message
news:3C17E722.66214BF9@mindless.com...
>
>
> "A. Christian Smith" wrote:
>
> > On 12/10/2001 6:30 PM, in article 3C156FB2.CDF7D0EB@mindless.com, "Ross
> > Archer" <dogbert@mindless.com> came hurtling through the ether with:
> >
> > > Arnie,
> > >
> > > Fascinating stuff, especially on the homebrew "regenerodyne" receiver
and the
> >
> > <snip>
> >
> > > -- Ross
> >
> > Ross, Arnie Coro sent out an on air QSL to you last night on Dxers
> > unlimited, in case you missed it!
>
> Cool, and shucks!
>
> Saw his reply to me saying to listen to the show *after*
> the show was already over. :(I should check my personal e-mail more
often!
>
> I do make an effort to catch his show, because it is one of the few
> homebrew-oriented shows left on the whole planet. (If not the only one!)
>
> Arnie Coro's absolutely a first-class guy, and you can enjoy his show
regardless of
> your politics. If you're into learning about how things work, I strongly
recommend
>

> a listen, exactly like I didn't do this Tuesday. (It's on Tuesdays and
Saturdays.)
>
> Thanks a lot for the heads-up!
>
> So, did he answer my loop antenna question, comment on Caribbean static
levels,
> read the note, or what, do you recall?
>
> -- Ross
>
>
>
>
>
>
>
>
>
>
> >
> >
> > Very cool!
> >
> > acs
> >
> > ----------------
> >
> > Washington State SWL * Powered by Macintosh OS X
> > Twirling The Dial Since '92 - Modified DX-398 - 100' Random
> > Some of my SW recordings: http://briefcase.yahoo.com/chevyorange2
> > http://homepage.mac.com/chevyorange/
>

7654. FS: 1951 "Understanding Radio" book, $9

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 03:25:45 UTC
From: oldbooks78@aol.com
Message-ID: <20011212222545.08937.00002407@mb-cr.aol.com>
Source record: 48050

I currently have for sale a copy of "Understanding Radio, A Guide to Practical Operation and Theory" by Herbert Watson, Herbert Welch, and George Eby, published by McGraw-Hill in 1951, second edition. The 716 page hardbound book is in about very good condition, clean with no page tears or pen marks except for a previous owners name inside the front cover. A comprehensive treatment of the radio. Available for $9 plus $3 postage (Media Mail within the US, at cost elsewhere). If interested, please email to "Oldbooks78@aol.com" to reserve. Thanks.

Dave

7655. Re: Paypal is great and I use it all the time.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 04:57:37 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u1gd9shbafmid0@corp.supernews.com>
Source record: 48051
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"mhzman" wrote ...
> Paypal is not causing me any issues at all.
> It is one of the best things to happen to Ebay
> and other online auctions. I have used it over
> 90 times with no issue.

So you think that the people who got screwed by Pay Pal started using it
because they hated it?
Haw Haw. Think about it. Ask the Better Business Bureau.

7656. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 05:04:45 UTC
From: Cathexis@yourhaterols.com
Message-ID: <3c183295.43384669@news.erols.com>
Source record: 48052

Agree with the illegality of course.
And yet I understand. If you ever used one in any major public area you sure want an edge. These things, which are scorned by "Real Hams", are everywhere one of the new toys. I just came back from WD World in Orlando. (I'm the only Ham in my family). The kids brought their FRS's and sure enough, everytime they turned them on the resulting QRM and splatter made CB/11M sound like 160M with a 200ft. tower and 120 buried radials. Worst of all are those damn pager signals which blat and beep constantly from all the thousand other kids trying to "call Daddy".

When I was a kid my borther and I had a cheap pair of Lafayette Walkie-Talkies and they were tons of fun for the 2 weeks it took to break them. Were I a kid today I would figure that Ham Radio is the LAST thing I'd wanta do as all the crap on FRS is so annoying and confusing if you don't have the base knowledge to figure out what's going on. Truely a pain to hear.
Reticulum

Remove "your.hat" when replying via e-mail

7657. Re: Paypal is great and I use it all the time.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 05:05:57 UTC
From: Cathexis@yourhaterols.com
Message-ID: <3c183702.44517199@news.erols.com>
Source record: 48053
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Tue, 11 Dec 2001 22:16:47 -0500, "mhzman" <mhzman@bellsouth.net> wrote:

>Paypal is not causing me any issues at all. It is one of the best things to
>happen to Ebay and other online auctions. I have used it over 90 times with
>no issue.

That slam to PayPal was truely a monster spam. Has anybody tracked it
down yet ??

Reticulum

Remove "your.hat" when replying via e-mail

7658. Re: Paypal is great and I use it all the time.

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 05:32:12 UTC
From: "R. Makul K1XV" <k1xv@arrl.net>
Message-ID: <17fg1uck32j99sp5f43rdoi121h3k4phoi@4ax.com>
Source record: 48054
Cross-posted to: rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On Thu, 13 Dec 2001 05:05:57 GMT, Cathexis@yourhaterols.com
(Reticulum) wrote:

> That slam to PayPal was truely a monster spam. Has anybody tracked it
>down yet ??
>
> Reticulum
>

No, but because it was so extensive, the web site it linked to was so
inflammatory, and the intended beneficiary Citibank, I decided to
retire my Citibank credit card.

Ray K1XV

7659. Re: SN76514N Availability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 08:50:10 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <u1gfqhj7ajv4ca@corp.supernews.com>
Source record: 48055

Since I have not received any definite commitments for these IC's I'll be
ordering what I need for myself.

Doug N4IJ

Douglas Snowden <snowden@peoplepc.com> wrote in message
news:u1alc4e6135c88@corp.supernews.com...
> So far I have one or two interested in a purchase to combine for the
$50.00
> min
> order. The SN76514 are $8.42 each according to the quote I got. Please
> reply to me if you are interested in one or more so I can go ahead and
> purchase.
>
> Doug N4IJ
>
>
> Peter J. Bertini <commquart@home.com> wrote in message
> news:nAUP7.96762$Y6.10224096@news1.rdc1.ct.home.com...
> > I could use one or two for spares for my JRC NRD515 receiver, which uses
> > one. Are we talking a lot money? I would think we could get
> > a few others to join in as well.
> >
> > Peter
> >
> > "Douglas Snowden" <snowden@peoplepc.com> wrote in message
> > news:u0vrs8etas0nf7@corp.supernews.com...
> > > There is a source of SN76514N IC's. They have a $50.00 minimum
> > > order. If one or more people want to go together and buy I would
> > > be willing to do the purchase. I could use a few - a couple for
spares
> > > and one or two for experimenting.
> > >
> > > Doug N4IJ
> > >
> > >
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>

7660. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 10:17:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C188041.BCFEE9A5@eznec.com>
Source record: 48058

And the obvious solution is for everybody to increase power, preferably with kludged up homebrew circuits. Worked for CB, I'm sure it'll do the same for FRS.

Roy Lewallen, W7EL

Reticulum wrote:
>
> Agree with the illegality of course.
> And yet I understand. If you ever used one in any major
> public area you sure want an edge. These things, which
> are scorned by "Real Hams", are everywhere one of the
> new toys. I just came back from WD World in Orlando.
> (I'm the only Ham in my family). The kids brought their
> FRS's and sure enough, everytime they turned them on
> the resulting QRM and splatter made CB/11M sound like
> 160M with a 200ft. tower and 120 buried radials. Worst
> of all are those damn pager signals which blat and beep
> constantly from all the thousand other kids trying to "call
> Daddy".
>
> When I was a kid my borther and I had a cheap pair
> of Lafayette Walkie-Talkies and they were tons of fun for
> the 2 weeks it took to break them. Were I a kid today I
> would figure that Ham Radio is the LAST thing I'd wanta
> do as all the crap on FRS is so annoying and confusing
> if you don't have the base knowledge to figure out what's
> going on. Truely a pain to hear.
> Reticulum
>
> Remove "your.hat" when replying via e-mail

7661. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 11:11:06 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <2A10F43BEF51E13F.7BFBBD4967BBD537.609489DD4986E1A2@lp.airnews.net>
Source record: 48059

On Thu, 13 Dec 2001 02:17:37 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>And the obvious solution is for everybody to increase power, preferably
>with kludged up homebrew circuits. Worked for CB, I'm sure it'll do the
>same for FRS.

How long do you think it'll take before 70cm amps have the same
restrictions as HF amps?

Then they'll try it with MURS, and 2m amps will get the restrictions.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7662. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 15:37:18 UTC
From: GB <gregory.beat@attbi.com>
Message-ID: <OW3S7.47411$Yy.532503@rwcrnsc53>
Source record: 48060

Contact Fred at FAR circuits. He may already have the board in his catalog.
If not, if the artwork is available from ARRL or author, he will usually
produce board .. if demand is present.

Greg
w9gb

"Jim Weir" <jim@rst-engr.com> wrote in message
news:hihc1ucsj4d3bhr47rmif2345t7q6ebdqc@4ax.com...
> "Peter" <peterlmiles@hotmail.com>
> shared these priceless pearls of wisdom:
>
> ->
> ->Where can I get PCBs ready made or made to order for projects in the
ARRL
> ->Hand Book and similar.
> ->I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in
the
> ->ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
>
> Do a websearch for "olimex". They are in Bulgaria, and they turn out the
best
> and most inexpensive onesie-twosie boards I've ever used. They do,
however,
> require gerber plots, so unless you are willing to lay out the pcb in a
pcb
> drawing program, they won't do you much good.
>
> Was it REALLY necessary to spam 7 newsgroups to get answers?
>
> Jim
>
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

7663. Re: crystal filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 17:34:53 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9vaort$6qs$2@woodrow.ucdavis.edu>
Source record: 48061

Hi Bill (and Al the follow up poster)...

You guys need to get on Ebay and have a look around. There are much parts units around of the Heathkit series and crystal filters are often sold there. The cost of a new filter might be a little more than you want to pay.

cheers
skipp
http://sonic.ucdavis.edu

: William E. Sabin <sabinw@mwci.net> wrote:
: Does anyone have, or know the whereabouts of, a
: Heath crystal filter (in good condition) that was
: used in the Heathkit SB300 receiver:

: 3395.4 kHz center frequency, 400 Hz bandwidth.

: Bill W0IYH

7664. Need Cushman CE-4 Manual Page copied

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 20:13:04 UTC
From: "Donald E. Smith" <desmith@innercite.com>
Message-ID: <3C190BD0.BEA78029@innercite.com>
Source record: 48063
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Happy Holidays all. I am working on a Cushman CE-4 and need to know if anyone might have a manual that can email or snailmail me a copy of one or two pages. I have found out that there is a problem with a board on the bottom of the unit. The 0710-7001 board had two transistors that went up in smoke. I cannot find my manual for this model and the CE-6 seems to have different boards. It is the fourth board on the bottom front row, counting from the bottom

as the unit is on the bench facing you. It has three pots and a horizontal potted coil, and two IC's on it. There are a bunch of transistors located near the edge connector, toward the right side of the board. I need to know the numbers of the transistors and some of the values of the parts. Thanks Don KB6GQA

7665. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 21:04:48 UTC
From: la8ak.xnd@online.no
Message-ID: <3c17ec18.196693475@news.online.no>
Source record: 48065

On Thu, 22 Nov 2001 19:48:11 GMT, Bill Janssen <billj@ieee.org> wrote:

>I have also thought about the idea (below). Also, since pulse is not
>permitted at 10 GHz you could use a CW signal and FM modulate it.
>Then do an FFT on the return to get range.
>
>Unfortunately I am not that good a programmer.
>
>Bill K7NOM
>
>Laura Halliday wrote:
>
>> I've had notions from time to time about playing with
>> synthetic aperture radar. Why should NASA have all the fun?
>>
>> You need some compute power to make it work, but that's
>> a minor consideration nowadays. There's lots of published
>> information.
>>
>> Laura Halliday VE7LDH "Que les nuages soient notre
>> Grid: CN89lg pied a terre..."
>> ICBM: 49 16.57 N 123 0.24 W - Hospital/Shafte
>

believe you may find some useful info about FFT type radar on SM5BSZ's
site, he use his rig as a radar for aurora reflection

--
remove ,xnd to reply

7666. RADIO HABANA CUBA DXERS UNLIMITED MID-WEEK EDITION -- CO2KK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 21:06:18 UTC
From: Radio Havana Cuba <radiohc@radiohc.org>
Message-ID: <9vb4p1$a7t$1@nytr.blythe.org>
Source record: 48064
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

RADIO HABANA CUBA
DXERS UNLIMITED

MID-WEEK EDITION
TUESDAY, DECEMBER 11, 2001

By Arnie Coro CO2KK

Send your comments, questions and ideas to: arnie@radiohc.org

HI, amigos radioaficionados around the world!!! Welcome to the mid week edition of your favorite, listener oriented radio hobby program. I am Arnie Coro, radio amateur CO2KK, your friend in Havana, and host of this twice weekly show devoted to the promotion and development of our wonderful hobby... RADIO!!!

Item one: Excellent propagation conditions continue, with the solar flux still nicely above the 200 units mark, and Tuesday the A index was at the very quiet level of just 4 units!!! Propagation of DX signals in the range from 20 to 60 megaHertz via the F2 layer continues to amaze long time radio enthusiasts, that are now seeing what looks like solar cycle's 23 second peak!!!

Item two: The Geminids meteor shower is coming, and this is going to be the most active one until next year's Perseids... Learn more about the Geminid meteor shower right here on this same frequency a little later as Dxers Unlimited's mid week edition continues, and don't forget that the Canadian special SPARK transmission to celebrate Marconi's achievement in 1901 of crossing the Atlantic with a radio signal will be on the air Wednesday UTC day. This is the data about the spark transmission that is going to take place on the 80 meter band. The frequency of the spark signal's center will be 3550 kHz and the time 9pm EST or 02 hours UTC December 12...

So only those listeners who will pick up our broadcasts to Europe and the Caribbean or our first run to North America will be able to be there on time!!! Because Dxers Unlimited's first broadcast to North America is at just after 0130 UTC, so you can switch fast after listening to the show, tune 3550 kiloHertz using the AM mode, and try to pick up this special spark transmission that will celebrate Marconi's achievement 100 years ago!!!

David Wilson VE3BBN in St David's Ontario, near Niagara Falls, obtained approval from Industry Canada for a special event transmission using a

home made spark transmitter. Again the event will take place on December 12 2001, at 9 pm local eastern time, (0200 UTC), to celebrate the 100th anniversary of Marconi's historic transatlantic transmission of the letter "S" from Poldhu Cornwall to St John's, Newfoundland in 1901. The center frequency of the spark transmissions from VE3BBN will be on 3550 kHz and the time 0200 UTC Wednesday, that is again 9 pm eastern or 8 pm central Tuesday Margarita Delgado is my sound engineer and producer, and my e-mail address is very easy to remember... arnie@radiohc.org I'll be back in a few seconds...

The Geminid meteor shower will peak Thursday night/Friday morning December 13/14 offering meteor observers, and radio hobbysts a last chance to see impressive activity until next summer's Perseids. Circumstances are excellent this year for visual observations of the meteors as the new moon occurs the same day as maximum activity. The Geminids can produce more than 100 meteors per hour if seen from rural areas, and at that rate FM band and TV signals bouncing back to Earth will keep This is one of the few showers that is visible during the evening hours as the radiant rises near 1800 (6pm) local time for observers located in the mid northern latitudes. It rises earlier the further one moves north and just the opposite as one moves south.

This shower is observable from the Southern Hemisphere but at much reduced rates. On the night of maximum activity the radiant is located close to the bright star Castor, which marks the head of the western twin. Low rates may be seen as soon as it becomes totally dark. These early meteors will be earthgrazers as the travel the sky many tens of degrees lasting several seconds.

As the night progresses the meteors will become shorter but more numerous. The strongest rates will occur between 0100 and 0200 local time when the radiant lies highest in the sky. That's the time window to have all your radio and TV gear working to pick up DX via the meteor trails. The Geminids strike the earth in a perpendicular angle which produces meteors of medium velocity. Of course this depends on where you are facing and where the meteors occur. Those that occur near the radiant or near the horizon will appear slower than those appearing high in the sky and far from the radiant. The Geminids are the only major annual shower produced by an asteroid. Studies have shown that Geminid meteors are indeed more dense than other showers produced by comets, see that's why the VHF signals bounced from those meteor trails are so strong and seem to provide longer burns.....

QSL on the air, and a very special one to listener Ross Archer, who sent an e-mail that I would like to share with all of you, Ross says:

Arnie, Fascinating stuff, especially on the homebrew "regenerodyne" receiver and the TV DX F2 possibilities. I know from watching this newsgroup (rec.radio.shortwave) you have a lot of fans who enjoy your show. As far as I know, your show is unique among major SWL broadcasters by going into a level of technical detail and into ham topics that other shows shy away from. Rest assured there's a contingent of fans here who

really enjoy your show's approach.

As I've remarked in the past, a lot of us think you could put together a working radio from a cardboard box, some wet twine, a razor blade, and candle wax :)

Well amigo Ross, not exactly, but yes, recycled parts from many sources do provide enough components to build some nice gear!!! Then Ross Archer adds in his e-mail this flattering comment!!

It's refreshing in this day of "plug and play black boxes" that some still understand that part of the fun of radio is building your own, and understanding how it all works.

Ross Archer's e-mail continues by bringing in this interesting topic:

Speaking of static and lightning resistance of tubes, I would imagine Cuba has quite loud thunderstorm static during the summer months. Have you done any experiments with tuned loop antennas for HF receiving, especially in the higher HF range which is traditionally not thought of as a good place to use loop antennas? It would seem such a design would provide some protection against static and could perhaps null out some local lightning noise, giving a signal-to-noise ratio advantage?

Well amigo Ross, SURE, the magnetic loop antennas are excellent "filters" against heavy static,and you can install them at low height in order to provide a certain degree of protection against lightnning, as compared with what may happen when you are using a tall mast or tower...

And yes, amigo Ross, you are right, the directional properties of the magnetic loop, does help to null static crashes from thunderstorms, especially those that are reaching you via ground wave propagation!! Well, amigo Ross, keep listening and also reading the scripts of the show that are made available via the INTERNET and on our Dxers Unlimited website at http://www.radiohc.org/dxers/ as yet another service to the worldwide community of radio hobby enthusiasts.

One hundred years ago Italian inventor Marconi was able to pick up a signal sent across the Atlantic for the first time ever!!

In 1895 Italian inventor Guglielmo Marconi built the equipment and transmitted electrical signals through the air from one end of his house to the other, and then from the house to the garden. These experiments were, in effect, the dawn of practical wireless telegraphy or radio. Marconi was born in Bologna, Italy. His father was Italian, his mother, Irish. He was educated first in Bologna and later in Florence. Then he went to the technical school in Leghorn, where he studied physics. Following the successes of his experiments at home, Marconi became obsessed with the idea of sending messages across the Atlantic. He built a transmitter, 100 times more powerful than any previous station, at Poldhu, on the southwest tip of England, and in November 1901 installed a receiving station at St. John's, Newfoundland. On December 12, 1901, he received signals from across the ocean. News of this achievement spread

around the world, and he was acclaimed by outstanding scientists, including Thomas A. Edison. Marconi received many honors including the Nobel Prize for Physics in 1909.

And now, amigos, as always, at the end of the show, here is Arnie Coro's HF plus 6 meters propagation update and forecast:

Solar flux very near 220 and moving UP now... and a major flare was detected at 0808 December 11th, something that could have an impact later on our magnetosphere. Solar activity is expected to be from moderate to high, and the daytime maximum useable frequencies should exceed 50 megaHertz on many propagation paths.

Medium wave band Dxers should be on the alert for possible signals coming from your South, if your QTH is located at latitudes higher than about 40 degrees North.

A special advisory to 6 meter band operators... there are good chances for really long range DX on that band, and this will probably continue for the next three to five days...

Don't forget to send your signal reports, comments about the show and radio hobby related questions via e-mail to arnie@radiohc.org and VIA AIR MAIL to Arnie Coro, Radio Havana Cuba, Havana, Cuba!

Current Solar Indicies from WWV, 11-Dec-2001 at 1202 UTC
SFI = 219 A = 3 K = 1

Conditions during the last 24 hours:

Solar activity was high. The geomagnetic field was quiet. A major flare occurred at 0808 on 11 Dec.

Forecast for the next 24 hours:

Solar activity will be moderate. The geomagnetic field will be quiet to unsettled.

Solar Wind Data:

Provides solar wind velocity and energetic particle intensity. Updated at: 1421Z on December 11, 2001

Velocity (km/s): 334.0
Density (protons/cm3): 2.7

Penticton Observatory SFI Measurement:

WWV only updates its SFI reading once a day at 2100Z The Penticton solar observatory takes measurements at 1800Z, 2000Z, and 2200Z
(WWV uses the 2000Z Penticton measurement)

The Penticton Observatory SFI value on 10-Dec-2001 at 2200Z was: 223

Three Day SFI and A-index Forecast (updated daily after 2200Z): This report issued on Dec 10, 2001 at 2200Z

Date SFI A-index
10 Dec 215 8
11 Dec 215 8
12 Dec 210 8

Solar Activity Forecast:

Solar activity is expected to be mostly moderate for the next three days. There is a small chance, however, for a major flare or a proton producing flare from Region 9727, especially if magnetic flux continues to emerge.

Geophysical Activity Forecast:

The geomagnetic field is expected to be quiet to unsettled during the next three days.

Recent Major Solar Flare Activity:
(usually reported within 30 minutes of event peak)

Date Time Magnitude
08-Dec-2001 0634Z M3.4

NOAA (American) Sunspot Number:

This number is reported daily around 0225Z and reports the number of sunspots observed in the previous 24 hour period.

The NOAA Sunspot number for 10-Dec-2001 was: 224 Most recent five days (oldest first): 260 226 200 218 225

GOES-8 Background X-ray Flux:

This value is reported daily around 0225Z and reports the average background x-ray flux level as measured by the GOES-8 satellite.

The GOES-8 Background X-ray Flux level on 10-Dec-2001 was: C1

Most recent five days (oldest first): C1 C1 C1 C1 C1

Arnie Coro CO2KK
Havana, Cuba
December 11, 2001

Postal address:
Arnie Coro, "Dxers Unlimited"
Radio Havana Cuba, Havana, CUBA
e-mail: arnie@radiohc.org

--
http://www.radiohc.org

7667. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 22:14:44 UTC
From: la8ak.xnd@online.no
Message-ID: <3c191f2a.2249995@news.online.no>
Source record: 48062

On 12 Dec 2001 17:33:48 -0600, mcalhoun@ksu.edu (Myron A Calhoun)
wrote:

>Tom2000 <tom2000@mindspring.com> writes:
>>>Just worked a cw contest. Several stations seems to have a problem
>>>tuning to correct frequency, so I wondered if it is a stroboscope type
>>....[snip]....
>
>If what you mean by "correct frequency" is "the frequency YOUR radio
>automagically listens to when you quit transmitting", it may not be
>that THEY are tuning incorrectly but that THEIR radio automagically
>transmits on a slightly different frequency than YOUR radio expects.
>
my radio EXPECTS what it must. This means that if you tune zero beat
to my signal your signal will pass through my filters.

Which way you choose is only interesting for yourself. I made some
extensive tests to check that when I tune a signal through my cw
filter + DSP-9 it is exactly zero beat for the opposite station

Using a separate receiver (Drake 2-B) it is an easy check

73
LA8AK
--
remove ,xnd to reply

7668. Re: linear amp for 2m band (20-30W)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-13 23:49:37 UTC
From: la8ak.xnd@online.no
Message-ID: <3c192d98.5944903@news.online.no>
Source record: 48066

On Thu, 13 Dec 2001 01:18:02 +0200, "Michael Maier" <exec@dlc.fi>
wrote:

>> I would like to build a linear amp for 2m amateur band. Rig has output
>power
>> 0.5 - 2.5W (allmode), it's yaesu ft290.. Have anyone got tips or
>> schematics.. and better, has someone built such a thing ;)
>
>Well actually the amp could be ~100W or so (specially in ssb mode) ;-)
>2.5W -> 100W
>
>
Have good experience with MRF240, but it really depends on your
friends (neighbour countries). SM6ESG/M Morgan visited me an evening
some years ago, and he insisted that 2.5W from his IC202 to a halo was
sufficient.
But one doesn't have to agree with Swedes, so I got 3-4 hours to build
an amplifier. The drive wasn't more than 1.5W and MRF240 provided 30W,
it will work with almost any simple circuit with some optimization but
not as complicated as shown in Motorola RF Device Data, using readily
available trimmer capacitors - not the impossible values shown in the
handbook - ceramic on input side and compression mica on output side,
with sufficient drive the maximum power is in excess of 40W

73
LA8AK
--
remove ,xnd to reply

7669. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 00:37:27 UTC
From: GB <gregory.beat@attbi.com>
Message-ID: <bRbS7.21012$7y.232750@rwcrnsc54>
Source record: 48067

Here is the web page link:

http://www.cl.ais.net/farcir/preamp1.htm

w9gb

"Jim Weir" <jim@rst-engr.com> wrote in message
news:hihc1ucsj4d3bhr47rmif2345t7q6ebdqc@4ax.com...
> "Peter" <peterlmiles@hotmail.com>
> shared these priceless pearls of wisdom:
>
> ->
> ->Where can I get PCBs ready made or made to order for projects in the
ARRL
> ->Hand Book and similar.
> ->I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in
the
> ->ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
>
> Do a websearch for "olimex". They are in Bulgaria, and they turn out the
best
> and most inexpensive onesie-twosie boards I've ever used. They do,
however,
> require gerber plots, so unless you are willing to lay out the pcb in a
pcb
> drawing program, they won't do you much good.
>
> Was it REALLY necessary to spam 7 newsgroups to get answers?
>
> Jim
>
> Jim Weir, VP Eng. RST Eng. WX6RST
> A&P, CFI, and other good alphabet soup

7670. Free Amateur Software and Sat Pics

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 01:11:36 UTC
From: Kevin W Forbes <vk3ukf@bigpond.com>
Message-ID: <CAXR7.261242$e5.154242@newsfeeds.bigpond.com>
Source record: 48056

G'day all,
I'm just looking for some feedback on my site content
http://members.fortunecity.co.uk/vk3ukf/
Thanks, Kevin, VK3UKF

7671. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 01:29:48 UTC
From: clive2e0avt@hotmail.com
Message-ID: <3c195562.2706749@news.btinternet.com>
Source record: 48068
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.homebrew,uk.radio.amateur

On Wed, 12 Dec 2001 22:42:06 -0400, Your Friend Bill <"Remove The NO
In The Reply Address"@coqui.net> wrote:

>Peter wrote:
>>
>> Where can I get PCBs ready made or made to order for projects in the ARRL
>> Hand Book and similar.
>> I'm particularly interested in the low noise GaAsFET pre-amp for 70cm in the
>> ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
>> --
>> Peter Miles
>>
>> VK3YSF
>>
>> petermiles@optushome.com.au
>
>See if you can find on Eamon Skelton's (EI9GQ) website his technique for
>using iron-on transfers. Sri but I don't have the URL bookmarked...he
>is usually here (r.r.a.h.) lurking somewhere.
>-Bill
>
if you can mail me a pcb lay out i will etch one for you if you like
need pcb diamentions clive2e0avt@hotmail.com

7672. WANTED: SK-510 SOCKET

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 02:06:09 UTC
From: Dennis Griffin <w4dg@arrl.net>
Message-ID: <l8dS7.94694$Ga5.14165788@typhoon.tampabay.rr.com>
Source record: 48069
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

WANTED TO BUY:

Eimac SK-510 tube socket. State condition and price via return e-mail to
w4dg@arrl.net .

TNX & 73......Dennis W4DG
--
Home Page: http://home.tampabay.rr.com/dgriffi9

GOD BLESS AMERICA!

7673. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 02:54:36 UTC
From: whagen6@cs.com
Message-ID: <20011213215436.14096.00000151@mb-cn.news.cs.com>
Source record: 48070

changing from half watt to 1 watt wont make any difference in distance, the thing is line of sight, which isnt very far at eyelevel. The power increase at the same distance wont even be noticable, 3 db, less than half and s unit, etc. The only thing that will happen is the circuitry will burn up.

7674. Need Thoradson Transformer specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 03:31:47 UTC
From: Mark Martindale <markmart@jas.net>
Message-ID: <DoeS7.290$YE4.95707@newshog.newsread.com>
Source record: 48071
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

I am posting for a friend who does not have internet access. He has a Thoradson transformer with the numbers 64M-24 on it and would like to know what the specs are.

I sure would appreciate it if anyone with an old catalog could help him out.
If you reply to me please remove "nospam" to reply.

Thanks,
Mark Martindale
N5KJ

7675. FS: RCA 7094 RF OUTPUT TUBE, Hard to find!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 04:19:50 UTC
From: rlucch2098@aol.com
Message-ID: <20011213231950.11558.00000114@mb-cm.aol.com>
Source record: 48072

Hi Guys;
I have found another nice 7094 RCA tube in the carton for sale, $85ppd. Tested for filiments only, no amp to test it in.
Pic>>
http://www.baltimorepress.com/~wa2rqy/rca7094.jpg
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7676. FS: Many Small & useful Items! Miller coils/Books/Tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 04:22:43 UTC
From: rlucch2098@aol.com
Message-ID: <20011213232243.11558.00000119@mb-cm.aol.com>
Source record: 48073

Hi Guys;
I got a bunch-o-stuff to sell.
I have added jpg pictures for your viewing pleasure :-)

1-8 Miller coils, etc. NOS w/papers. $23.50ppd>>

http://www.baltimorepress.com/~wa2rqy/8millers1.jpg

http://www.baltimorepress.com/~wa2rqy/8millers2.jpg

2- 6 Miller coils, NOS, most have hardware & papers, $18.00ppd>>

http://www.baltimorepress.com/~wa2rqy/6millercoils.jpg

3- P & B relay & 2 AMPERITE delay tubes, NOS, $18.00ppd>>

http://www.baltimorepress.com/~wa2rqy/pbrelay-tubes.jpg

4- 12 Brand new, popular tubes, $25.00ppd, less then $2 each>>

http://www.baltimorepress.com/~wa2rqy/12nostubes.jpg

5- Five(5) ARRL Publications.
Learning Radio Telegraph Code, 13th ed., 1970, 48pgs
SSB for the Radio Amateur, 5th ed., 1970, 253pgs
SSB for the Radio Amateur, 2nd. ed., 1958, 210pgs.
Mobile Manual, 3rd ed., 1962, 270pgs.
VHF manual, 3rd ed., 1972, 252 pgs.
All books in excellent condition, many contruction articles & info.
Price is $23.00ppd>>

http://www.baltimorepress.com/~wa2rqy/5bookset1.jpg

http://www.baltimorepress.com/~wa2rqy/5bookset2.jpg
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7677. ARNewsline 1269 - Dec 7 2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 10:45:06 UTC
From: radionews@aol.com
Message-ID: <20011214054506.07244.00000344@mb-dh.aol.com>
Source record: 48074

AMATEUR RADIO NEWSLINE(tm) REPORT #1269 - DEC 7, 2001

Amateur Radio Newsline report number 1269 with a release date of Friday, December 7, 2001 to follow in 5-4-3-2-1.

The following is a Q-S-T.

The FCC says no to a Winter Olympics special call sign and a new Extra class exam starts next summer. Learn what's in it on Amateur Radio Newsline report number 1269 coming your way right now.

(Billboard Cart Here)

**

THE 2002 WINTER OLYMPICS: FCC SAYS NO TO SPECIAL CALL SIGN

An idea for a special events call sign to celebrate the 2002 Winter Olympics has drawn a negative response from the FCC. Tom Schaefer, NY4I, of Sandy, Utah, had requested that the agency allow amateurs Utah hams to substitute the number 2002 or 02 for the 7 in their callsign. This, for the time period preceding and up to though the 2002 Winter Olympics in Salt Lake City. But after mulling it over for a few months the Schaefer says the agency responded with a definite no:

--
Schaefer Here:
In-Q: I wrote a letter...
Out-Q:...as a different prefix.

The letter to Schaefer was signed by D'wana R. Terry. Terry is Chief of the Public Safety and Private Wireless Division of the Wireless Telecommunications Bureau. Among the reasons Terry stated in refusing the special call sign request was that the block of special event callsigns requested did not fall into the commission's special event callsign format. Also, that the request was inconsistent with International Radio Regulations. Schaefer says that he is disappointed at the FCC decision to deny, and also a bit surprised:

--
Schaefer Here
In-Q: The letter I...
Out-Q:...unable to do that.

Does this mean that there will be no ham radio involvement in the 2002 Winter Olympic Games? Not by a long shot. According to Schaefer members of the local ARES groups will be assisting in providing communications for the event. And

there’s a good chance that someone will pick up the ball and get some sort of special call sign using the established call sign administrator program.

By the way, you can hear more with Tom Schaefer NY4I about ham radio at the Winter Olympics on this weeks RAIN Report. Its on the web in Real Audio and Windows Media at www.rainreport.com and by telephone at 847-827-7246. That’s 847-827-RAIN. (ARNewsline(tm))

**

THE ARCTIC WINTER GAMES

Another event called the Arctic Winter Games are also in their planning stages. In this case, ham radio is an important part of the event. Q-New Graham Kemp, VK4BB, tells us the who, the what and the where:

--
Greenland and the call-sign OX1AWG is on the air from Nuuk Greenland as a participant of the Arctic Winter Games going to be held in Iqaluit Nunavit and Nuuk Greenland 17th - 23rd of March 2002.

OX3HX, Rene tells us any Hams bringing a valid License original will be welcome to use the local club station OX3NUK for a small fee. If you would like to have your own OX3-call, ship a copy of the license but they need to have the papers 3 weeks in advance. Hams who like to operate OX/Home call or OX1AWG are welcome too, and have only to show up with original valid license.

For the Amateur Radio Newsline, Im Graham Kemp, VK4BB, of Q-News Australia.
--

For those planning to visit Greenland for the games, Rene Witkowsky, OX3HX will be available at one of the many Help Booths around the city. (Q-News)

**

DX RECORD: 73 KHZ DISTANCE RECORD INCREASED

Yet another new low frequency record has been achieved on the 73 kHz band. Jeramy Boot, G4NJH, has more:

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“On the 21st of November, just before midnight UTC, W1TAG received extremely slow CW from G3AQC. This was the first time that a complete callsign had been copied, though partial calls were identified the previous night.

The opening lasted around two hours and was the culmination of several weeks of testing. At a distance of 5291 kilometers, G3AQC smashed his own record of 4408 kilometers when his 73kHz transmissions were received by VE1ZJ last June. He was running 200 milliwatts ERP.

The transmission was in Differential Frequency CW, where the dots and dashes are the same length but on slightly different frequencies, and with no space between them.

Jeramy Boot, G4NJH”
--

The Differential Frequency C-W communications system used for this contact holds the promise of extending this record even further. (GB2RS)

**

BREAK 1

This is ham radio news coming to you from the United States of America. We are the Amateur Radio Newsline, heard on great bulletin stations around the world this week honoring the Antelope Valley Amateur Radio Club Wednesday Night Net serving Lancaster California.

(5 sec pause here)

**

HAM RADIO IN SPACE: EXPEDITION 4 HEADS TO THE ISS

Amateur Radio is keeping an eye one space this week. On the International Space Station to be more exact, as we witness a changing if the guard. The third group of Astronauts and Cosmonauts headed by Frank Culbertson, is getting ready to come home. They’ll be back on Earth December 16th, after being in orbit since last August.

Expedition 4, Yuri Orufrienko, Dan Bursch and Carl Walz will take over and be up there until next May. Onufrienko once operated from the Mir Space Station; Bursch is KD5PNU and Walz is KC5TIE. So hams can look forward to contacts with them.

Amateur Radio on the International Space Station; ARISS; will continue on the air with two meter voice and packet. Voice contacts with schools all over the world have been well served and those exciting contacts will continue at a rate of one or two a week once the new crew settles in.

In addition to operating ham gear, the new crew has also carried new Amateur Radio antennas to the station. They were designed and built in Italy to Russian specifications, then space-qualified and shipped to the United States.

The Astronauts plan at least eight space walks, two of which will be used to install those antennas outside the crew quarters. They should provide a wide range of frequencies and vastly improved coverage of the ham bands for the ARISS station.

The space station call, while flying over the United States is NA1SS. The 2 meter downlink frequency is 145.80 MHz. Look for the new crew on the air from orbit in the near future. ARNewsline(tm))

**

HAM RADIO TESTING IN THE USA: NEW EXTRA CLASS EXAM QUESTION POOL RELEASED

If you are planning to upgrade to Extra class, now might be the time to do it. This is because a new and somewhat more difficult Extra Class exam will go into

effect next summer. Amateur Radio Newsline’s Norm Seeley, KI7UP, has the details:

--
The National Conference of Volunteer Examiner Coordinators Question Pool Committee has released a revised and expanded set of Element 4 Amateur Extra questions. Use of these questions begins next summer and replace the current Extra class question pool released back on April 15, 2000. That’s the day Amateur Radio ''restructuring'' became effective.

The new Element 4 pool expands the number of questions by more than 20 percent. The new test pool has 806 questions as opposed to 665 in the current Extra class pool. It also contains more technical material. In fact, more than half of the questions cover electrical principles, circuits, signals and emissions.

The 50 questions in an Extra class examination are drawn from the question pool. FCC rules say that an applicant must correctly answer at least 37 questions of the 50 to receive a passing grade.

The new Extra class question pool becomes effective July 1, 2002, and must be used to generate all Extra class written examinations administered on or after that date. The questions are available on the ARRL Web site and will remain valid through June 30, 2005.

For the Amateur Radio Newsline, I’m Norm Seeley, KI7UP.
--

The Question Pool Committee now will turn its attention to developing an outline for the Technician class Element 2 question pool. A draft version is scheduled for public release and
comment next spring. The ARRL website address is http://www.arrl.org/arrlvec/pools.html to find the Question Pool. (ARRL Bulletin, NCVEC)

**

HAM RADIO TESTING IN THE U-K: UPGRADING MORSE TESTS UNDERWAY

Meantime overseas, the United Kingdom is in the process of administering a lot of slow speed Morse code exams. This, following the an announcement by that nations telecommunications agency that U-K Full and Intermediate Class B license-holders can operate on the High Frequency bands under the new Foundation license by simply passing a code test.

Called a Morse Assessment exam, the Radio Society of Great Britain is arranging for sessions to be held nation-wide. The RSGB hopes that at least two sessions per region will take place between now and the end of December.

The RSGB says that these tests are open to both members and non-members of the society. So far twelve sites have been approved for training and testing of the new U-K Foundation License. (GB2RS)

**

ENFORCEMENT: AMATEUR RADIO ROAD RAGE MUST STOP

The FCC's chief ham radio rules enforcer has told those attending the Ft. Wayne Indiana Hamfest that the time for on the air arguments has come to an end. Riley Hollingsworth, the FCC's Special Counsel for Amateur Radio enforcement told the forum that Amateur Radio road rage must stop now and that the bickering on our frequencies can do nothing but hurt Amateur Radio in the long run.

Hollingsworth also says its time for more hams to get involved in public service. Jack Parker, W8ISH, of Amateur News Weekly, has that part of the story:

--
"Hollingsworth says that it is now time for hams to use frequencies responsibly. He adds that now, more than ever, is the best time for all Amateur Radio groups to seek out and establish working relationships with local emergency response agencies.

Since September 11th, Amateur Radio and its potential has moved into a prominent position on the national front. But he stresses that we must move quickly at a local level to establish our place in the overall emergency response plan.

Reporting from the Ft. Wayne Hamfest, for amateur News Weekly, I'm Jack Parker, W8ISH."
--

Hollingsworth's views are echoed by many who are already involved in organizing ham radio emergency communications on a local level. They say you can never have to many well trained volunteers. (Amateur News Weekly)

**

SPECTRUM USE: FCC OPENS UP MORE SPECTRUM TO COMMERCIAL USERS

The government has moved to eliminate a cap on how much spectrum any one wireless company can own in a given market. The decision opens the way for mergers between major carriers and allows them to provide more mobile services such as high-speed Internet access.

The Federal Communications Commission had previously limited the amount of spectrum that an operator could own in a particular geographic area, in an effort to prevent a single giant company from squelching competition in that market. But in a recent 3 to 1 vote, the agency decided to immediately raise the amount of bandspace a company can own from 45 MHz to 55 MHz. This is an increase of more than 20 percent. The FCC plans to completely eliminate the limit in January 2003. (FCC)

**

HAMVENTION 2002: TIME TO NOMINATE REMINDER

Another reminder that the Dayton Amateur Radio Association has opened the nominating period for the 2002 Dayton Hamvention Awards. There are three

awards presented each year. They are the Radio Amateur of the Year, Special Achievement, and Technical Excellence.

All amateurs Novice through Extra are eligible. Awards are decided by the Awards Committee, based partially upon the information received. Magazine articles, newsletters, newspaper clippings, videos and the like are appreciated but cannot be returned. The deadline for nominations is January 31, 2002. Nominations can be submitted by US Mail to Post Office Box 964, Dayton Ohio 45401 or by completing the convenient e-form on the web at www.hamvention.org. (DARA)

**

NEW HAM TECHNOLOGY: THE ELECRAFT RIG CONCEPT DESIGN CONTEST

Want to design the ham rig of the future and maybe win a prize? Well, Elecraft says that it will be giving three of its new EC1 project enclosures to those who submit the most interesting suggested designs concepts.
--
Eric Swartz WA6HQQ: “There’s quite a strong building and homebrewing community inside of the QRP’ers -- the low power operators -- these days. In fact, that is how we got our start.

We have broadened our audience past that and have pulled a lot of hams from the mainstream higher power groups to it also, but those guys (the QRP operators - ed.) build an awful lot of stuff. We are continually seeing folks talking about new project ideas and new things to design. It is quite a fertile group of people so I think we are just kind of servicing that need.”
--

Elecraft says its taking this rather unusual step to away to help stimulate the creative process within the ham radio community. According to Elecraft’s Wayne Burdick, N6KR and Eric Swartz, WA6HHQ, design concepts submitted can be for virtually any ham-related application, but they must be compatible with the Elecraft EC1 enclosure. The EC1 is the same size and color as the K1 transceiver. No schematics are required and designers are under no obligation or expectation to actually build the proposed projects. More information on this unique design contest along with all the rules is on the web at www.elecraft.com. (Elecraft)

**

ELECTRONIC BUSINESS: AILING POLOROID FILES CHAPTER 11

Polaroid has been known to generations of consumers for its instant cameras and film, and more recently as a supplier of digital imaging products. Now Poloroid has filed for Chapter 11 bankruptcy protection.

According to news reports, the company was unable to keep up with the new digital technologies of the photography world. It also has struggled with nearly $1 billion in debt. (Published reports)

**

BREAK 2

News never goes home for the holidays and neither do we. We are the amateur Radio Newsline with links to the world at our only official website - www.arnewsline.org.

**

EMERGING TECHNOLOGY: BRAIN DISEASE SUPERCOMPUTER

The University of California at San Diego will coordinate a consortium of interests banding together to build the first nationwide computer network for studying diseases of the brain. The network will enable researchers to share information on neurological diseases such as multiple sclerosis, schizophrenia, Alzheimer's disease and Parkinson's disease. The National Center for Research Resources, part of the National Institutes of Health, awarded the consortium more than $20 million for the project, which will enable researchers to share brain images via a high-speed network. (UCSD release)

**

HAM RADIO IN SPACE: FREE UPDATED TRACKING SOFTWARE

An updated version of the PREDICT satellite tracking and orbital prediction program is now available. This latest updated corrects some errors that have caused instability under certain conditions in the past. The program's documentation has also been updated, and new versions in Portable Document File and HTML have been added. PREDICT is free software.

The latest DOS version may be downloaded from ftp://ftp.amsat.org/amsat/software/PC/tracking/predict2.zip >. Further information on PREDICT software is available at http://www.qsl.net/kd2bd/predict.html.

Also, new Linux version is currently being prepared for release as well. (KD2BD)

**

INTERNATIONAL - SOUTH AFRICA: NO HT’S IN THIS CAR

Radio Amateurs in South Africa can no longer use a hand held radio in a vehicle unless its attached to a hands free operating system. This is the result of a new law that says that no person will drive a vehicle on a public road while holding a cellular telephone or any other communications device in one or both hands.

To operate mobile, hams and non hams alike now must use a radio permanently mounted in the vehicle and adapted to hands free operation. The law permits mobile radio operators to use such devices as a permanently mounted microphone and speaker or other specialized gear to comply. (SARL, Q-News)

**

INTERNATIONAL-UK: MARCONI 100TH ANNIVERSARY

The 100th anniversary of the reception of the first trans-Atlantic radio signal by Guilermo Marconi at Signal Hill in St. John's, Newfoundland, takes place on Wednesday the December 12th. In celebration, a number of United Kingdom special event stations will be active to commemorate the event.

Most of the operations will take place on the 12th of December itself. Even Great Britain’s Radiocommunications Agency is getting into the act. It will be operating GB100WT from its laboratory site at Whyteleafe, Surrey, during part of December including, they hope, the full 24 hours of the 12th of December. The Radiocommunications Agency expects to be operational on the High Frequency bands as well as 2 meters and 70 centimeters. The station will be operated by Radiocommunications Agency staff in addition to members of local radio clubs and will welcome QSOs with stations worldwide. (RSGB)

**

RADIOSPORTS: WRTC-2002 REMINDER AND UPDATE

A reminder that the next World Team Radiosport Championship will take place next July in Finland. The games will be hosted by the Finnish Amateur Radio Society and the Contest Club of Finland. WRTC brings together over fifty two man teams made up of the best contest operators from around the world. The actual on-the-air competition pits two man teams operating from a common geographic area using identical equipment, power and antennas.

To get a good idea of what goes on at the World Radiosport Team Championship games, film-maker Dave Bell has produced a half hour documentary video titled “The Ham Radio Olympics.” Its priced at only $19.95 and is available on video CD or VHS tape from the American Radio Relay League. More information is on the web at www.arrl.org. (WRTC, ARRL, W6AQ)

**

DX

In D-X, word that wore torn Afghanistan is back on the air following the ouster of Taliban forces from most of that nation. Q-News Graham Kemp, VK4BB, is back with the details:
--
Graham Kemp VK4BB:

“World traveller Peter Casier, ON6TT (5X1T), has been in Afghanistan for the last few days and has now obtained permission to operate in this worn torn nation.

On November 21 he was QRV as YA/ON6TT/M operating in a convoy. The foreign ministry of the Islamic Republic of Afghanistan (Northern Alliance) issued the call YA5T, which can be used on all bands by Peter, ON6TT, Matts, SM7PKK, and Robert, S53R.

Wayne Mills, N7NG, will have to look at the permission, once it is received. His initial reaction was that it should be good for DXCC. Peter will hopefully be contacting Wayne and submitting the documentation. Meantime, look out for these three operating as YA5T.”
--

And late word from the ARRL’s DXCC Desk is that it has already received acceptable documentation for YA5T and has approved it for credit. (Q-News)

Several DX newsletters report that N6TJ is active as ZD8Z from Ascension Island again. He is expected to be there through the 18th of December. QSL as directed on the air. (OPDX, Modern DX’er)

Lastly, word that high seas have forced the Ducie Island DXpedition team to abandon its already-delayed effort to reach that DXCC entity located in the South Pacific. According to the RSGB, the team was some 80 nautical miles from its destination and facing high seas when the decision was taken to turn around and head back to Pitcairn Island. (GB2RS)

**

THAT FINAL ITEM: STRANGE SCIENCE - FAT BIRDS FLY BETTER

About twice a year we bring you stories about radio tagged migratory birds. In most cases its those ever elusive Burrowing Owls. Now we have a totally different kind of bird story. It still involves radio tracking, but this time to see if bigger birds or smaller birds have a better chance to survive in flight. Amateur Radio Newsline’s Joe Moell, KO0V has more:

--
European scientists have discovered what seems like a contradiction about migrating birds. They found that the fatter the bird, the more efficiently it appears to fly.

Researchers at Lund University in Sweden have studied several small species including the Red Knot. In our hemisphere, these 20-ounce wading shorebirds travel 18,000 miles every year, to the tip of South America and back to the Arctic. On the way north, they stop on the shores of New Jersey to feast on the eggs of horseshoe crabs, to build up energy for the last 2000 miles of their northward trip, which they make non-stop. On these binges, the Red Knots can double their normal body weight.

Over the past few years a number of European Red Knots were radio tagged and tracked by the Swedes as they prepared for a similar trip between the British Isles and the Russian Arctic. The study indicates that building up of fat deposits to be burned as fuel during the migration is more than worth the energy that it takes to carry the additional weight. The heavier birds apparently use their muscles more efficiently. Just why this is so remains a mystery. Even stranger is that the results seem to 'fly in the face' of a central theory of aerodynamics -- no pun intended of course.

So what does this have to do with ham radio? Well, it points out that research always seems to yield unexpected results, and it gives me a chance to remind you that dozens of ham operators in western states are listening for the VHF radio tags on endangered Burrowing Owls this winter. You could help out too. Find out by visiting my Web site -- www.homingin.com. Who knows, maybe a ham will make a similar startling discovery about the migration habits of these unique critters. That's homingin -- one word -- for the Web site, homingin.com.

For Amateur Radio Newsline, in southern California, this is Joe Moell - K-zero-Oscar-Victor saying, "no jokes about birdbrains, please."
--

All of this really goes to show that the more mankind uses science to discover the secrets of Mother Nature, the more amazed man is at what he learns. (Ecology Today)

**

NEWSCAST CLOSE

With thanks to Alan Labs, Amateur News Weekly, AMSAT, the ARRL, the CGC Communicator, CQ Magazine, the FCC, the Ohio Penn DX Bulletin, Radio Netherlands, Rain, the RSGB and Australia's Q-News, that's all from the Amateur Radio Newsline(tm). Our e-mail address is newsline@arnewsline.org. More information is available at Amateur Radio Newsline's(tm) only official website located at www.arnewsline.org. You can also write to us or support us at Amateur Radio Newsline(tm), P.O. Box 660937, Arcadia, California 91066.

For now, with Bill Pasternak, WA6ITF, at the editors desk, I'm Roy Neal, K6DUE, saying God Bless America, 73, and we thank you for listening." Amateur Radio Newsline(tm) is Copyright 2001. All rights reserved.

7678. Need HV capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 10:46:06 UTC
From: Bill Russell <willy@global2000.net>
Message-ID: <iulj1u0dur1g0608h11r455d69k4dptgjm@4ax.com>
Source record: 48075

Im looking for a 24mfd cap at 3000volts for a replacement in my Thunderbolt. This is to replace the origional factory cap. in the HV supply.

Bill KC2IFR

7679. Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 11:30:29 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C19E29A.6DBD403F@attbi.com>
Source record: 48076

Hello,

I've got a Ramsey FR146 VHF receiver (it's MC3359 based). I've been using it to receive the NOAA satellites with some (great at one time) success. One thing I'm not to sure of is, what is the proper procedure for adjusting a quad. detector coil? Sure, the manual says, "adjust coil for loudest noise," but that isn't good enough for satellite work. Everything was just right until I got new PC and didn't tinker with radio for a few months.

How I thought I could do it was to scope pin 8 of the MC3359 chip while the receiver is tuned to snow and adjust quad. det. coil so it's centered at 450kHz. Do I need to have a valid signal to adjust the coil?

Much appreciation in advance,

-Tim H.

P.S.
I'm working on converting the receiver to use a digital pot. instead of the old analog pot. (It's a stability issue.) I intially did this with Microchip's MCP42010 (256 taps), but feel the need to use Analog's AD5231 digital pot. (1024 taps!). I've got the pot. rigged up to my printer port and I'm bit-banging the interface in Visual Basic. So, if anyone has this receiver or wants to use a digital pot. for something, I'd be more than happy to share my source code.

7680. Re: Need HV capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 13:43:16 UTC
From: "Harold E. Johnson" <W4ZCB@Home.com>
Message-ID: <UlnS7.65596$py4.32266941@news2.nash1.tn.home.com>
Source record: 48077

> Im looking for a 24mfd cap at 3000volts for a replacement in my
> Thunderbolt. This is to replace the origional factory cap. in the HV
> supply.

I just lost one of questionable heritage in a homebrew 4CX1500 amp, (Not as dramatic as I would have thought although I do need a new set of 5 KV diodes.) Just ordered a new one from Condenser Products in Brooksville, FL. 25 uF, 4 KV in 3-3/4 x 4-9/16 x 9-5/8. I think that's pretty close to the size of the one in the T-bolt.

Talk to their engineer "Gene". He can make one that will operate in any position and they have a VERY nice predicted operating lifetime. (You can operate 24 hours a day and it will still be around after you're planted.)

W4ZCB

7681. Re: Need Thoradson Transformer specs

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 14:04:47 UTC
From: Crazy George <munschNO@attglobal.net.SPAM>
Message-ID: <3c1a0a59_2@news1.prserv.net>
Source record: 48078
Cross-posted to: rec.antiques.radio+phono,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

None of my Thordarson catalogs shows that numeric format. Pre-55 transformers were all 21- or 22- series. Then they started 1A, 2A, etc. I would initially suspect that is a manufacturer's part number, rather than a Thordarson number.

--
Crazy George
Remove NO and SPAM from return address
Mark Martindale <markmart@jas.net> wrote in message news:DoeS7.290$YE4.95707@newshog.newsread.com...
> I am posting for a friend who does not have internet access. He has a
> Thoradson transformer with the numbers 64M-24 on it and would like to know
> what the specs are.
>
> I sure would appreciate it if anyone with an old catalog could help him
> out.
> If you reply to me please remove "nospam" to reply.
>
> Thanks,
> Mark Martindale
> N5KJ
>
>
>
>

7682. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 15:02:39 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0112140702.34c3893a@posting.google.com>
Source record: 48079

There are probably others with more experience with this than I, but
this is what I would do.

Put a DC voltmeter at the output of the quadrature detector, assuming
it is DC coupled at that point.

Apply an on-frequency unmodulated signal and adjust the coil for 0.0
volts.

Jim
N8EE

"Tim H." <tekphobia@attbi.com> wrote in message news:<3C19E29A.6DBD403F@attbi.com>...
> Hello,
>
> I've got a Ramsey FR146 VHF receiver (it's MC3359 based). I've been
> using it to receive the NOAA satellites with some (great at one time)
> success. One thing I'm not to sure of is, what is the proper procedure
> for adjusting a quad. detector coil? Sure, the manual says, "adjust coil
> for loudest noise," but that isn't good enough for satellite work.
> Everything was just right until I got new PC and didn't tinker with
> radio for a few months.
>
> How I thought I could do it was to scope pin 8 of the MC3359 chip while
> the receiver is tuned to snow and adjust quad. det. coil so it's
> centered at 450kHz. Do I need to have a valid signal to adjust the coil?
>
> Much appreciation in advance,
>
> -Tim H.
>
> P.S.
> I'm working on converting the receiver to use a digital pot. instead of
> the old analog pot. (It's a stability issue.) I intially did this with
> Microchip's MCP42010 (256 taps), but feel the need to use Analog's
> AD5231 digital pot. (1024 taps!). I've got the pot. rigged up to my
> printer port and I'm bit-banging the interface in Visual Basic. So, if
> anyone has this receiver or wants to use a digital pot. for something,
> I'd be more than happy to share my source code.

7683. FM radar (was Amateur Radar)

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 15:57:21 UTC
From: jim.bolinger@lintek.aeroflex.com
Message-ID: <8d5ec8a2.0112140757.168a3a0b@posting.google.com>
Source record: 48081

There has been quite a thread going on Amateur Radar.

I thought I would give some info on one way to do it that would work on any band where FM is allowed (so long as you ID properly).

You FM the transmitter with a sawtooth wave that looks like:

/|/|/|/|/|

...and then mix the same signal with the receive signal.

One method would be to generate the FM signal at an IF frequency and then mix up to the final RF. Use the same IF frequency in the receiver and mix the receive IF with the transmit IF to get a baseband signal.

Digitize the baseband and run an FFT on it. In the FFT spectrum there will be spikes corresponding to the distance to all the targets.

The neat thing about this is that it could be done on 10 GHz with Gunnplexors, where pulse is not allowed. A Gunnplexor, remember, already uses the transmit signal as the receiver oscillator.

I have, of course, left out a lot of details, but I know this will work. The company I work for (www.aeroflexlintek.com) was building such a thing, but the project was canned. I don't know why because Radar is in a different department.

Jim
N8EE

7684. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 17:39:32 UTC
From: Bob Liesenfeld <robert.liesenfeld@neicoltech.org>
Message-ID: <3C1A3954.48A94C44@neicoltech.org>
Source record: 48080

"Tim H." wrote:

> Hello,
>
> I've got a Ramsey FR146 VHF receiver (it's MC3359 based). I've been
> using it to receive the NOAA satellites with some (great at one time)
> success. One thing I'm not to sure of is, what is the proper procedure
> for adjusting a quad. detector coil?

I know when I worked in two-way, lots of radios used this type of FM detector. I spent a fair amount of time testing out ideas to get better performance from the discriminator, but always found that the 'best' (not so good but as good as it would get) technique was to be sure the 1st & 2nd oscillators were dead on freq, sweep the IF strip to insure proper bandpass characteristics, and then connect a full quieting RF signal with about 60% system deviation at 1KHz. Then adjust quad coil for max AF output from the detector consistent with a good sine wave.

I found that probing the quadrature circuit at the IF freq upset the tuning of the coil even with a good quality 10X probe. This type of FM detector is not known for it's linearity. Perhaps you might consider building a Foster-Sealy discriminator and picking off an IF signal ahead of the quad detector? A properly adjusted FS can give bee-uuu-tea-ful audio.

One other thought.....where are you taking the recovered audio from? If you are in the audio chain somewhere, you may be dealing with a de-emphasis network that your satellite decoder circuitry may not like. Just a thought.....

Bob L. WB0POQ

7685. Re: ARNewsline 1269 - Dec 7 2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 20:39:47 UTC
From: Eamon Skelton <Xnospam@oceanfree.net>
Message-ID: <j2odv9.tkq.ln@darkstar.localdomain>
Source record: 48083

Radionews wrote:

> AMATEUR RADIO NEWSLINE(tm) REPORT #1269 - DEC 7, 2001

Way off-topic for this NG.

73, Ed. EI9GQ.

--
Remove 'X' to reply.
http://homepage.eircom.net/~ei9gq
Linux 2.4.16

7686. Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-14 22:16:57 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3C1A79F0.183BDDD5@spam.me.not>
Source record: 48082

Hello OM's.

I'm currently in the middle of building an antenna tuner, off a basic "L" network design, but I'm having some trouble with the inductor. What I've done is wound a coil out of aluminum electric fence wire (it's cheap, and I use the stuff for dipoles, etc, from time to time). The problem I'm having is that I can't seem to find anyplace to tap it where the capacitor can flatten out the match for any band, 160 to 6.

Is there an optimum spacing of the turns in the coil? Has anyone built a tuner of this sort who might have some advice for a new "Extra Light"? I've only been a HAM for 7 months, and I've still got alot of questions.

Thanks in advance.

de AB8LR, Chris

-SSB

7687. FA: EICO Model 666 Tube Tester

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 00:17:47 UTC
From: Brian Maynard <bmaynard@uri.edu>
Message-ID: <B84000DB.1062%bmaynard@uri.edu>
Source record: 48085
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.boatanchors

This might be an interesting accessory...

EICO Model 666 dynamic conductance vacuum tube and transistor tester. Excellent condition, slight chipping on case. Ten separate tube sockets for old/new receiving tubes, lamps, npn or pnp transistors. Size 12x15x16", 20 lbs.

Thanks for looking:

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1675016358

Happy Holiday! Brian

****
Brian Maynard
99 North Road
Peace Dale, RI 02879
Tel: 401-782-6583
****

7688. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 00:18:53 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C1A96ED.6E212948@clifto.com>
Source record: 48084

Tim H. wrote:
> I've got a Ramsey FR146 VHF receiver (it's MC3359 based). I've been
> using it to receive the NOAA satellites with some (great at one time)
> success. One thing I'm not to sure of is, what is the proper procedure
> for adjusting a quad. detector coil?

You can try this one at your own risk.

Random notes:
My BC700A scanner went hinky; wouldn't stop on live channels when scanning.
The radio seems to use the demodulator, but not the squelch, of the 3359
chip. Looking at the 3359 schematic suggests that the discriminator output
pin should be near 1/2 Vcc.

What I did:
Adjusting the discriminator coil so that the superimposed DC voltage of
the discriminator output was 1/2 Vcc made scan work. Further checking
showed the range of the discriminator output does not go to the Vcc rail;
with 10V Vcc on pin 4, noise peaks were only 8V and flat-topping there.
Noise went all the way to zero, though. So I readjusted the output to
have 4V DC superimposed on the signal, and the radio is MUCH better.

Note the 4V was determined by looking at peak-to-peak noise at the output,
which clipped at 0V and 8V; I took the midpoint.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7689. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 00:39:24 UTC
From: ET Design <etdesign@shentel.net>
Message-ID: <u1l6u2bhr1hn06@corp.supernews.com>
Source record: 48086

What is dia. of coil, dia. of wire, spacing between turns, no. of turns?
What antenna ru trying to tune, on what freqs.? What size cap ru using?
Sorry for all the dumb questions. Why "L" not pi? have fun experimenting.
Do u have handbook? 73 Ed KC4FD
"Sideband" <sideband@spam.me.not> wrote in message
news:3C1A79F0.183BDDD5@spam.me.not...
> Hello OM's.
>
> I'm currently in the middle of building an antenna tuner, off a basic "L"
> network design, but I'm having some trouble with the inductor. What I've
> done is wound a coil out of aluminum electric fence wire (it's cheap, and
I
> use the stuff for dipoles, etc, from time to time). The problem I'm having
> is that I can't seem to find anyplace to tap it where the capacitor can
> flatten out the match for any band, 160 to 6.
>
> Is there an optimum spacing of the turns in the coil? Has anyone built a
> tuner of this sort who might have some advice for a new "Extra Light"?
I've
> only been a HAM for 7 months, and I've still got alot of questions.
>
> Thanks in advance.
>
> de AB8LR, Chris
>
> -SSB

7690. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 00:43:45 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C1A9C87.BF664520@attbi.com>
Source record: 48087

Hello,

I just wanted to thank everyone for their insight. Don't tell anyone, but I posted this to sci.electronics.basics and got nada; so, thanks guys! =)

I've discovered this 1/2Vcc method myself and it seems foolproof. I've tried everything with the coil and my satellite images still look quite pitiful. This leads me to believe something else is wrong. For kicks, I scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven, clipping in some parts). Of course, this is after Ramsey's "IF Amp."

So, next question, am I right in assuming that the signal from the 10.7Mhz ceramic filter should be a fairly clean sine? Also, Ramsey did an apparent no-no on the L.O. design. According to the SA(NE)602 datasheet, there shouldn't be a resistance smaller than 22k from pin 7 to GND. Ramsey has 10k - so I swapped it out. I guess I should take this to sci.electronics.repair as I'm at a loss as to what could be wrong.

-Tim

"Clifton T. Sharp Jr." wrote:
>
> Tim H. wrote:
> > I've got a Ramsey FR146 VHF receiver (it's MC3359 based). I've been
> > using it to receive the NOAA satellites with some (great at one time)
> > success. One thing I'm not to sure of is, what is the proper procedure
> > for adjusting a quad. detector coil?
>
> You can try this one at your own risk.
>
> Random notes:
> My BC700A scanner went hinky; wouldn't stop on live channels when scanning.
> The radio seems to use the demodulator, but not the squelch, of the 3359
> chip. Looking at the 3359 schematic suggests that the discriminator output
> pin should be near 1/2 Vcc.
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> What I did:
> Adjusting the discriminator coil so that the superimposed DC voltage of
> the discriminator output was 1/2 Vcc made scan work. Further checking
> showed the range of the discriminator output does not go to the Vcc rail;
> with 10V Vcc on pin 4, noise peaks were only 8V and flat-topping there.
> Noise went all the way to zero, though. So I readjusted the output to
> have 4V DC superimposed on the signal, and the radio is MUCH better.
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> Note the 4V was determined by looking at peak-to-peak noise at the output,

> which clipped at 0V and 8V; I took the midpoint.
>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7691. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 01:25:35 UTC
From: mcalhoun@ksu.edu
Message-ID: <9ve8qf$j98@unix1.cc.ksu.edu>
Source record: 48089

la8ak.xnd@online.no (J M Noeding) writes:
>>>>Just worked a cw contest. Several stations seems to have a problem
>>>>tuning to correct frequency, so I wondered if it is a stroboscope type
>>>....[snip]....
>>If what you mean by "correct frequency" is "the frequency YOUR radio
>....[snip]....
>my radio EXPECTS what it must. This means that if you tune zero beat
>to my signal your signal will pass through my filters.

NOT true; MY transceiver just might (it doesn't, but it MIGHT) shift 20KHz
from receive to transmit mode. Just because I tune MY receiver to zero-
beat YOUR signal does NOT mean that MY transmitted signal will be within
YOUR receiver's passband.

I think you are making the mistake of assuming that everyone on the
"other" end has a radio that is exactly (or even almost) like yours.
That is not necessarily true.

>Which way you choose is only interesting for yourself. I made some
>extensive tests to check that when I tune a signal through my cw
>filter + DSP-9 it is exactly zero beat for the opposite station

Instead of telling us how extensive your tests were, think a minute:

since YOU do NOT know what the SETUP is at the OTHER end,
and
since YOU can NOT control what HAPPENS on the OTHER end,
then
NOTHING YOU do can guarantee zero beat (exact or otherwise) on either end!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7692. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 01:29:59 UTC
From: Roger Leone <arleone@inreach.com>
Message-ID: <RJxS7.354$RF5.109329501@news.inreach.com>
Source record: 48088

Chris:

An L network is an effective circuit. I have used one myself for over 20 years, based on a DJ2LR design that appeared in QST around 1974.

I assume you have the inductance in between the input and output terminals and the capacitance from one end of the coil to ground. The tuner port next to the capacitor has to be the higher impedance end. If the other tuner port is transmitter side, with 50 ohms going in, you must have more than 50 ohms on the tuner port next to capacitor. If the antenna/feedline actually presents a lower than 50 ohm impedance, then you will need to reverse the tuner so the capacitor is on the imput side.

If you are unable to obtain a match with any coil/capacitor settings, try reversing the tuner and try again.

Roger K6XQ

7693. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 02:32:14 UTC
From: mzenier@eskimo.com
Message-ID: <9vg4behpj1@eskinews.eskimo.com>
Source record: 47998

In article <3C19E29A.6DBD403F@attbi.com>, Tim H. <tekphobia@attbi.com> wrote:
>How I thought I could do it was to scope pin 8 of the MC3359 chip while
>the receiver is tuned to snow and adjust quad. det. coil so it's
>centered at 450kHz. Do I need to have a valid signal to adjust the coil?

Not pin 8, that's from the limiter output so that it will be constant
amplitude noise. Look at one of the demod outputs, pin 10 (I think,
but it's been a while), and you'll see, with no input, noise that is
getting clipped on either top or the bottom of the waveform. Adjust the
quad coil halfway between the two points where each happens.

Mark Zenier mzenier@eskimo.com Washington State resident

7694. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 04:55:15 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1ad219.7564546@news.online.no>
Source record: 48090

On 14 Dec 2001 19:25:35 -0600, mcalhoun@ksu.edu (Myron A Calhoun)
wrote:

>la8ak.xnd@online.no (J M Noeding) writes:
>>>>>Just worked a cw contest. Several stations seems to have a problem
>>>>>tuning to correct frequency, so I wondered if it is a stroboscope type
>>>>....[snip]....
>>>If what you mean by "correct frequency" is "the frequency YOUR radio
>>....[snip]....
>>my radio EXPECTS what it must. This means that if you tune zero beat
>>to my signal your signal will pass through my filters.
>
>NOT true; MY transceiver just might (it doesn't, but it MIGHT) shift 20KHz
>from receive to transmit mode. Just because I tune MY receiver to zero-
>beat YOUR signal does NOT mean that MY transmitted signal will be within
>YOUR receiver's passband.
>
>I think you are making the mistake of assuming that everyone on the
>"other" end has a radio that is exactly (or even almost) like yours.
>That is not necessarily true.
>
>
Bullshit, this is a technical newsgroup so I believe some technical
details may be understood......(?).
Many years ago one had to listen over the band after a CQ call because
not everybody had the same xtals as you, I must admit that such
operational practice is not particular effective when operating
contests, not even on VHF, so often one didn't make too many QSO's!

It is all a question of understanding what it means to tune to ZERO
BEAT. I've never had any problem to do this, and I have had many
different rigs, but maybe not any junk would perform satisfactorily.
What it means to tune to ZERO BEAT has been repetitively mentioned in
QST and ARRL handbooks for the last 80 years or so, so I won't mention
how to do it here.

For many years I used the combination Drake 2-B with FL-dx-500, the
receiver was later Drake R-4C, and the transmitter was later FT-101B
(I didn't use the receiver much as it is garbage) - still operated
SEPARATE RX and TX. Then I used FT-7 for some years, and then FT-902
for the last 13 years. Also used Heath-Kit SB-300 with Starflite 390
TX in the 60's, but Drake 2-B was found to be extremely much better.

I checked the circuit diagrams for the transceivers to verify that
they would transmit ZERO-BEAT when they are tuned to the suitable

pitch, and discovered that it was an advantage to change the CW-carrier frequency xtal for FT-7 and modify the RX so CW was operated as USB on most bands, because you often listen in SSB mode and then wish to transmit, and most part of my operation is CW/SSB on VHF/UHF.

FT-902 has 20 modifications to update it to a useful state, one such modification is to allow the ssb filter to be used for CW operation, but of course - in HF contests 0.5kHz or lower selectivity should be used, the DSP-9 is well suited for this purpose

Another important point to bear in mind is that it is very crowded on many bands, so if you are not exactly zero beat, you occupy more spectrum than neccessary, and you should ALWAYS listen on the frequency you transmit to verify that it is not occupied by somebody else, you may have to wait if somebody has occupied your frequency which wasn't in use when you listened to the opposite station, such ends up with quite IMPRACTCAL way of operation

73
LA8AK
--
remove ,xnd to reply

7695. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 05:06:38 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3C1ADA6E.A177345D@spam.me.not>
Source record: 48091

Roughly 2 1/2 inches, and 25 turns on the coil, 14 ga aluminum solid wire.

I've tried one wire width to about 5 wire widths spacing, to no avail.

Trying to tune a G5RV for 80-6, but 160-6 would be nice. I'm only running
100 watts.

The cap is out of an old Kenwood stereo receiver. I haven't seen any arcing
(yet), but then again, I've only put 30 watts through it so far.

"L" because it's simple, and I haven't been able to find any schematics for
a pi network or the like, and I only have/can afford the one capacitor.

I don't have anything with "ARRL" on it. There are many reasons for that,
the first and foremost being that I don't have alot of money to spare.

Hope that helps to fill in the holes.

de AB8LR, Chris

-SSB

ET Design wrote:
>
> What is dia. of coil, dia. of wire, spacing between turns, no. of turns?
> What antenna ru trying to tune, on what freqs.? What size cap ru using?
> Sorry for all the dumb questions. Why "L" not pi? have fun experimenting.
> Do u have handbook? 73 Ed KC4FD
> "Sideband" <sideband@spam.me.not> wrote in message
> news:3C1A79F0.183BDDD5@spam.me.not...
> > Hello OM's.
> >
> > I'm currently in the middle of building an antenna tuner, off a basic "L"
> > network design, but I'm having some trouble with the inductor. What I've
> > done is wound a coil out of aluminum electric fence wire (it's cheap, and
> I
> > use the stuff for dipoles, etc, from time to time). The problem I'm having
> > is that I can't seem to find anyplace to tap it where the capacitor can
> > flatten out the match for any band, 160 to 6.
> >
> > Is there an optimum spacing of the turns in the coil? Has anyone built a
> > tuner of this sort who might have some advice for a new "Extra Light"?
> I've
> > only been a HAM for 7 months, and I've still got alot of questions.
> >
> > Thanks in advance.
> >

> > de AB8LR, Chris
> >
> > -SSB

7696. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 05:07:41 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3C1ADAAE.9140A4B8@spam.me.not>
Source record: 48092

Hrm. Never thought of that. Thanks Roger, I'll give that a shot and see
what happens.

73 de AB8LR, Chris

Roger Leone wrote:
>
> Chris:
>
> An L network is an effective circuit. I have used one myself for over 20
> years, based on a DJ2LR design that appeared in QST around 1974.
>
> I assume you have the inductance in between the input and output terminals
> and the capacitance from one end of the coil to ground. The tuner port
> next to the capacitor has to be the higher impedance end. If the other
> tuner port is transmitter side, with 50 ohms going in, you must have more
> than 50 ohms on the tuner port next to capacitor. If the antenna/feedline
> actually presents a lower than 50 ohm impedance, then you will need to
> reverse the tuner so the capacitor is on the imput side.
>
> If you are unable to obtain a match with any coil/capacitor settings, try
> reversing the tuner and try again.
>
> Roger K6XQ

7697. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 09:41:58 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <FBLXZNFmrxG8EA4a@ifwtech.com>
Source record: 48093

Sideband wrote:
>Hello OM's.
>
>I'm currently in the middle of building an antenna tuner, off a basic "L"
>network design, but I'm having some trouble with the inductor. What I've
>done is wound a coil out of aluminum electric fence wire (it's cheap, and I
>use the stuff for dipoles, etc, from time to time). The problem I'm having
>is that I can't seem to find anyplace to tap it where the capacitor can
>flatten out the match for any band, 160 to 6.
>
>Is there an optimum spacing of the turns in the coil? Has anyone built a
>tuner of this sort who might have some advice for a new "Extra Light"? I've
>only been a HAM for 7 months, and I've still got alot of questions.
>
There are actually *eight* different configurations of L-networks, and
none of them can match all possible impedances. Maybe you're trying to
match an impedance that is impossible for the configuration you are
using.

Also you need to be aware that a perfect match can only be obtained with
one specific value of L and one specific value of C. Even if you are
using the correct network, with a tapped L the optimum value may be
between two tap positions.

The two most common L-networks are:
A: 50 ohm input - series L - parallel c - output
B: 50 ohm input - parallel C - series L - output
(Actually the right L-network will match any impedance to any other, but
for this application the input is always 50 ohms.)

Network A gives an impedance step-up from 50 ohms, and network B gives a
step-down. To change from one to the other, simply swap the input and
output.

Between these two networks, there is no impedance that cannot be
matched... except, ironically, impedances very close to 50 ohms. To
match 50 ohms to exactly 50 ohms you would have to make both L and C
zero - in other words, remove the network. Likewise the L and C values
needed to match impedances close to 50 ohms may become unworkable (like
C less than the minimum value of your variable capacitor).

I guess the core reference to this topic is 'Antenna Impedance Matching'
by W N Caron, published by ARRL, though I haven't read that, and it may
tell you more than you need to know right now! However, ARRL have a
number of other titles that don't go into as much detail, but also cover
a wider range of topics you're soon going to find useful. These include

the 'ARRL Antenna Book', 'Antennas and Techniques for Low-Band DXing' (because that does give a good summary about L-networks, quoting from Caron) and of course the 'ARRL Handbook'. All these titles can be ordered from www.arrl.org.

Later: noted your comment about not having much money to spare, eg for books. But look at where you are right now: you have a rig, you have some wire, and you have some components. Now is the time to invest a few $$ in the knowledge you need to make it all work.

I strongly recommend that you buy at least the ARRL Handbook - and now is a good time to get the 2000 edition at a discounted price. Or if you are more interested in antennas right now, the Antenna Book contains vastly more information than the single chapter in the main Handbook... it's the usual balance between breadth and depth of coverage.

Seriously - I mean it. From where you are now, it's the right next move. Get some good books and get your head into them!

--
73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

7698. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 12:20:39 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3C1B4017.5060107@mwci.net>
Source record: 48094

J M Noeding wrote:

> Bullshit, this is a technical newsgroup so I believe some technical
> details may be understood......(?).

The assumption that replying at zero beat is
highly desirable is incorrect. Good and
competitive CW operators know that calling as much
as 200 Hz off frequency is usually much more
productive in pileup situations. The XIT control
is useful for this. A disadvantage of razor-thin
filter selectivity is that this very useful
strategy does not work well. A good operator uses
his "ear" as an adaptive filter and lets the
receiver cover a few hundred HZ.

Bill W0IYH

7699. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 12:46:19 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3C1B45B5.BEDA6608@spam.me.not>
Source record: 48095

Ian:

Thanks for the input here.

Hrm. I was hoping a simple L network would be able to do what I need it to do, but it's not looking that way.

What other low cost options are there? I can't afford to be dropping a couple hundred dollars (US) on capacitors anytime soon... and to be honest, of I had $250 to drop, I'd buy that nice LDG autotuner with the IC-706 interface cable to go with my rig (which is mostly why I'm broke to begin with. Still paying that one off). and be done with it. One of the local HAMs was nice enough to loan me his MFJ tuner for the time being, until I can brew up/buy/get from Santa Claus one of my own, so I'm able to play on HF, but I'd like to get his equipment back to him as soon as I can. I'm not planning on running any more than the 100 watts I have for now... eventually I hope to have something nice and large to put behind the radio, but that's going to be a few years off.

Thanks again, and 73 de AB8LR, Chris

-SSB

"Ian White, G3SEK" wrote:
>
> Sideband wrote:
> >Hello OM's.
> >
> >I'm currently in the middle of building an antenna tuner, off a basic "L"
> >network design, but I'm having some trouble with the inductor. What I've
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> >Is there an optimum spacing of the turns in the coil? Has anyone built a
> >tuner of this sort who might have some advice for a new "Extra Light"? I've
> >only been a HAM for 7 months, and I've still got alot of questions.
> >
> There are actually *eight* different configurations of L-networks, and
> *none* of them can match all possible impedances. Maybe you're trying to
> match an impedance that is impossible for the configuration you are
> using.
>
> Also you need to be aware that a perfect match can only be obtained with
> one specific value of L and one specific value of C. Even if you are

> using the correct network, with a tapped L the optimum value may be
> between two tap positions.
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> The two most common L-networks are:
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> (Actually the right L-network will match any impedance to any other, but
> for this application the input is always 50 ohms.)
>
> Network A gives an impedance step-up from 50 ohms, and network B gives a
> step-down. To change from one to the other, simply swap the input and
> output.
>
> Between these two networks, there is no impedance that cannot be
> matched... except, ironically, impedances very close to 50 ohms. To
> match 50 ohms to exactly 50 ohms you would have to make both L and C
> zero - in other words, remove the network. Likewise the L and C values
> needed to match impedances close to 50 ohms may become unworkable (like
> C less than the minimum value of your variable capacitor).
>
> I guess the core reference to this topic is 'Antenna Impedance Matching'
> by W N Caron, published by ARRL, though I haven't read that, and it may
> tell you more than you need to know right now! However, ARRL have a
> number of other titles that don't go into as much detail, but also cover
> a wider range of topics you're soon going to find useful. These include
> the 'ARRL Antenna Book', 'Antennas and Techniques for Low-Band DXing'
> (because that does give a good summary about L-networks, quoting from
> Caron) and of course the 'ARRL Handbook'. All these titles can be
> ordered from www.arrl.org.
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> Later: noted your comment about not having much money to spare, eg for
> books. But look at where you are right now: you have a rig, you have
> some wire, and you have some components. Now is the time to invest a
> few $$ in the knowledge you need to make it all work.
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> I strongly recommend that you buy at least the ARRL Handbook - and now
> is a good time to get the 2000 edition at a discounted price. Or if you
> are more interested in antennas right now, the Antenna Book contains
> vastly more information than the single chapter in the main Handbook...
> it's the usual balance between breadth and depth of coverage.
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> Seriously - I mean it. From where you are now, it's the right next move.
> Get some good books and get your head into them!
>
> --
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

7700. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 15:19:42 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1b694a.46275116@news.online.no>
Source record: 48096

On Sat, 15 Dec 2001 06:20:39 -0600, "William E. Sabin"
<sabinw@mwci.net> wrote:

>J M Noeding wrote:
>
>
>> Bullshit, this is a technical newsgroup so I believe some technical
>> details may be understood......(?).
>
>
>The assumption that replying at zero beat is
>highly desirable is incorrect. Good and
>competitive CW operators know that calling as much
>as 200 Hz off frequency is usually much more
>productive in pileup situations. The XIT control
>is useful for this. A disadvantage of razor-thin
>filter selectivity is that this very useful
>strategy does not work well. A good operator uses
>his "ear" as an adaptive filter and lets the
>receiver cover a few hundred HZ.
>
>Bill W0IYH
>
200Hz offset shouldn't cause any problem when I use a 500kHz cw filter
for my receiver when calling CQ, but I don't useually expects
pile-ups, such happens more on ssb, and also on aurora, but the
problem with aurora is that a cw signal sounds more like switched
white noise, two signals or more will mask each other even if they are
not on same frequency

LA8AK
--
remove ,xnd to reply

7701. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 15:30:51 UTC
From: "Ian White, G3SEK" <G3SEK@ifwtech.com>
Message-ID: <9VIZsJLry2G8EAu+@ifwtech.com>
Source record: 47997

Sideband wrote:
>
>Hrm. I was hoping a simple L network would be able to do what I need it
>to do, but it's not looking that way.
>
>What other low cost options are there? I can't afford to be dropping a
>couple hundred dollars (US) on capacitors anytime soon... and to be
>honest, of I had $250 to drop, I'd buy that nice LDG autotuner with the
>IC-706 interface cable to go with my rig (which is mostly why I'm broke
>to begin with. Still paying that one off). and be done with it. One of
>the local HAMs was nice enough to loan me his MFJ tuner for the time
>being, until I can brew up/buy/get from Santa Claus one of my own, so
>I'm able to play on HF, but I'd like to get his equipment back to him
>as soon as I can.

The greater versatility of the T-network is why it is used in most factory-made tuners. For now, I suggest you open up your friend's MFJ tuner and clone it as closely as you can!

The main problem will be to find *two* capacitors with wide enough spacing to handle 100W in all applications... but the bargains are out there, if you can find them.

Don't buy the auto-tuner - on your budget, that's a luxury item. You won't learn anything from it, so it will only make you poor and ignorant. (Bah humbug, I'm beginning to sound like Reg!)

--
73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.com/g3sek

7702. Re: Where can I get PCBs ready made or made to order for projects in the ARRL Hand Book and similar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 19:17:15 UTC
From: Max Imo <not@this.com>
Message-ID: <3c1ba38a$0$30969$f5f63664@news.tdin.com>
Source record: 47999
Cross-posted to: alt.ham-radio.vhf-uhf,aus.radio.amateur.misc,rec.radio.amateur.homebrew,uk.radio.amateur

Try FAR Circuits. I believe they have a circuit board for every popular
article written. They're always a good resource.

"clive greenwood" <clive2e0avt@hotmail.com> wrote in message
news:3c195562.2706749@news.btinternet.com...
> On Wed, 12 Dec 2001 22:42:06 -0400, Your Friend Bill <"Remove The NO
> In The Reply Address"@coqui.net> wrote:
>
> >Peter wrote:
> >>
> >> Where can I get PCBs ready made or made to order for projects in the
ARRL
> >> Hand Book and similar.
> >> I'm particularly interested in the low noise GaAsFET pre-amp for 70cm
in the
> >> ARRL hand book 1990, Chapter 32-3, using the Mitsubishi MGF1402.
> >> --
> >> Peter Miles
> >>
> >> VK3YSF
> >>
> >> petermiles@optushome.com.au
> >
> >See if you can find on Eamon Skelton's (EI9GQ) website his technique for
> >using iron-on transfers. Sri but I don't have the URL bookmarked...he
> >is usually here (r.r.a.h.) lurking somewhere.
> >-Bill
> >
> if you can mail me a pcb lay out i will etch one for you if you like
> need pcb diamentions clive2e0avt@hotmail.com

7703. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 19:31:20 UTC
From: Sideband <sideband@spam.me.not>
Message-ID: <3C1BA49F.EBB58DAC@spam.me.not>
Source record: 48000

Ian:

ROFL! Would that be so bad to sound like Reg? From what I've read from him, he's a pretty smart guy.

Even if I get the autotuner, I'm still going to build one... It's just a matter of how, when, and how much.

At least I'm getting the right ideas now... an "L" just isn't going to do it, unless I can reverse the "L", and that's not likely to be convenient.

Time to rethink (but not drop) the whole thing.

Thanks for the comments.

73 de AB8LR, Chris

"Ian White, G3SEK" wrote:
>
> Sideband wrote:
> >
> >Hrm. I was hoping a simple L network would be able to do what I need it
> >to do, but it's not looking that way.
> >
> >What other low cost options are there? I can't afford to be dropping a
> >couple hundred dollars (US) on capacitors anytime soon... and to be
> >honest, of I had $250 to drop, I'd buy that nice LDG autotuner with the
> >IC-706 interface cable to go with my rig (which is mostly why I'm broke
> >to begin with. Still paying that one off). and be done with it. One of
> >the local HAMs was nice enough to loan me his MFJ tuner for the time
> >being, until I can brew up/buy/get from Santa Claus one of my own, so
> >I'm able to play on HF, but I'd like to get his equipment back to him
> >as soon as I can.
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> The greater versatility of the T-network is why it is used in most
> factory-made tuners. For now, I suggest you open up your friend's MFJ
> tuner and clone it as closely as you can!
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> The main problem will be to find *two* capacitors with wide enough
> spacing to handle 100W in all applications... but the bargains are out
> there, if you can find them.
>
> Don't buy the auto-tuner - on your budget, that's a luxury item. You
> won't learn anything from it, so it will only make you poor and
> ignorant. (Bah humbug, I'm beginning to sound like Reg!)
>

> --
> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
> 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.com/g3sek

7704. Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 20:23:05 UTC
From: Jim Hill <Xslimjimzz@home.com>
Message-ID: <04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com>
Source record: 48001

I built a crystal set with a large coil, and discovered the coil acted as a loop antenna and picked up a few local stations. 50 kW KNX 1070, a few miles from my house, was so strong it could not be nulled out by rotating the set.

I built a shielded enclosure by taping aluminum foil to a large cardboard box that held a TV set, but there no attenuation.

There were a few holes in the foil, but I decided to experiment with a smaller radio without earphone leads, and turned used an old transistorized AM radio. I tried a metal cookie can, and any attenuation seemed to be from the audio signal going through the can. While the lid was not RF-tight, it did have about a ï¿½' overlap.

I have an old Heath TX-1 transmitter (an updated DX-100) that is shielded for TVI avoidance. For example, the meter and frequency dial are enclosed in metal containers. There's an access port at the top, and I used it to put the radio inside. There are plenty of 1/16" ventilation holes, so no audio attenuation - or any decrease in audio level. Surface between the access port door and case is painted and no finger stock, but presumably the case provides attenuation at TV frequencies. Otherwise there would be no reason to go to the trouble of shielding the meter and dial.

I also tried some commercial metal file cabinets. There was no attenuation.

Further tests would require fabricating metal test boxes using my small stock of expensive sheet aluminum or galvanized iron sheet. I've decided the magnetic field is harder to shield the electric field, and need some advice before proceeding.

Does anyone have experience in this field? Is aluminum ok? Is thicker wall sheet needed? Is galvanized iron the way to go? If so, I'll need a larger enclosure to avoid lower Q problems. Is double shielding required? Much more work is involved, if so.
Thanks

7705. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 21:21:44 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3C1BBEE6.4CA18C4B@home.com>
Source record: 48002

If you are looking for magnetic shielding, you need a ferris metal.
This usually means some kind of steel. Simply test any potential metal
with a magnet. If the magnet is attracted, you can give it a try.
Aluminum will not work.

We have a metal scrap yard here in Phoenix (Davis Metal) that sells
scrap sheets of metal cheap. The only way I could tell some grades of
aluminum (there are many) from steel was by using the magnet test.

If you want really, really good magnetic field shielding, mu metal can
be used, but it is a speciality metal and is thus very expensive.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

Jim Hill wrote:
>
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
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> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
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> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a ï¿½' overlap.
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> shielded for TVI avoidance. For example, the meter and frequency dial
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> ventilation holes, so no audio attenuation - or any decrease in audio
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> of shielding the meter and dial.
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> I also tried some commercial metal file cabinets. There was no
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> Further tests would require fabricating metal test boxes using my
> small stock of expensive sheet aluminum or galvanized iron sheet. I've

> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>
> Does anyone have experience in this field? Is aluminum ok? Is thicker
> wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.
> Thanks

7706. FS: Portable Multiband Dipole System

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 21:42:47 UTC
From: wa8mea@hotmail.com
Message-ID: <8a260fb2.0112151342.63d17377@posting.google.com>
Source record: 48003
Cross-posted to: rec.radio.swap,rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

The YO-YO-TENNA DELUXE is a portable, multiband dipole antenna featured at Dayton and in many of the ham publications. Two wind-up "fishing reel" style antennas make up this little gizmo. A GREAT Christmas gift for that ham/swl friend or relative! ONLY $29.95! (plus s&h) For a photo and further details, please visit: http://qth.com/dwm Merry Christmas! Bill - WA8MEA

7707. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 21:52:42 UTC
From: "John S. MacKay" <k35454@direct.ca>
Message-ID: <ZSPS7.8827$xB4.1231571@brie.direct.ca>
Source record: 48004

If you are listening on headphones, RF chokes and filtering in the cord may be thr answer.

--
CERTIFIED 100 % ANTHRAX FREE
Jim Hill <Xslimjimzz@home.com> wrote in message
news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
>
> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
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> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a &#65533;' overlap.
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> I have an old Heath TX-1 transmitter (an updated DX-100) that is
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> are enclosed in metal containers. There's an access port at the top,
> and I used it to put the radio inside. There are plenty of 1/16"
> ventilation holes, so no audio attenuation - or any decrease in audio
> level. Surface between the access port door and case is painted and no
> finger stock, but presumably the case provides attenuation at TV
> frequencies. Otherwise there would be no reason to go to the trouble
> of shielding the meter and dial.
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> I also tried some commercial metal file cabinets. There was no
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> Further tests would require fabricating metal test boxes using my
> small stock of expensive sheet aluminum or galvanized iron sheet. I've
> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>
> Does anyone have experience in this field? Is aluminum ok? Is thicker
> wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.

> Thanks
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.307 / Virus Database: 168 - Release Date: 12/11/2001

7708. FS Motorola Micor/Mitrek Radios

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 22:32:03 UTC
From: vortechx <vortechx@attbi.com>
Message-ID: <DbQS7.3542$KY.155154@rwcrnsc54>
Source record: 48005

Currently for sale are 2 Micor T73RTN-3400A Radios.These radios look complete but they are untested and sold AS IS.I would be happy to email photos if interested.I am asking $50 each plus actual shipping charges.I also have a large quantity of Micors and a few Mitreks plus components such as wiring harnesses,speakers,control heads and antennas.I will accept offers on the whole lot.
Thank You

7709. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 22:54:09 UTC
From: mikea@mikea.ath.cx
Message-ID: <lwQS7.17175$il6.1645195510@newssvr16.news.prodigy.com>
Source record: 48006

J M Noeding <la8ak.xnd@online.no> wrote:

: 200Hz offset shouldn't cause any problem when I use a 500kHz cw filter
: for my receiver when calling CQ, but I don't useually expects
: pile-ups, such happens more on ssb, and also on aurora, but the
: problem with aurora is that a cw signal sounds more like switched
: white noise, two signals or more will mask each other even if they are
: not on same frequency

No, I guess that in a filter with a passband 500,000 Hz wide,
you won't have much trouble letting a signal through that's
only 200 Hz off. That's also true for a filter with a 500 Hz
passband, which I think is what you meant.

Thanks for the thread, everyone. I'm learning stuff I need to
know for when I get my ticket back -- 41 years after I let it
lapse. At least I don't have to take the code exam again. ;=)

--
"This system operates under martial law. The constitution is suspended. You
have no rights except as declared by the area commander. Violators will be
shot. Repeat violators will be repeatedly shot...." -from "A_W_O_L"

7710. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 23:06:26 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <SHQS7.104341$Y6.10311368@news1.rdc1.ct.home.com>
Source record: 48007

I believe steel will destroy the Q of the coil. I suggest going to
Crystal Set Club on Yahoo! and viewing the posts that have dealt
with this subject in older threads.

Peter

"

7711. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 23:10:51 UTC
From: "M.E." <bogus@nospam.com>
Message-ID: <3c1bd800_2@newsa.ev1.net>
Source record: 48008

Any xtal receiver set, WILL receive the strongest station only. There is absolutely NO selectivity in a Xtal set.
You will have to build a "super-het" to do what you say you want. A tunable bandpass circuit might help on the xtal set, but not likely.

--
Respond to my "real" e-mail;
kk5dr@ev1.net
"Jim Hill" <Xslimjimzz@home.com> wrote in message
news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
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> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
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> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a ' overlap.
>
> I have an old Heath TX-1 transmitter (an updated DX-100) that is
> shielded for TVI avoidance. For example, the meter and frequency dial
> are enclosed in metal containers. There's an access port at the top,
> and I used it to put the radio inside. There are plenty of 1/16"
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> small stock of expensive sheet aluminum or galvanized iron sheet. I've
> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>
> Does anyone have experience in this field? Is aluminum ok? Is thicker
> wall sheet needed? Is galvanized iron the way to go? If so, I'll need

> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.
> Thanks
>

7712. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 23:19:15 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C1BDA73.E9A49AFF@coqui.net>
Source record: 48009

"M.E." wrote:
>
> Any xtal receiver set, WILL receive the strongest station only. There is
> absolutely NO selectivity in a Xtal set.
> You will have to build a "super-het" to do what you say you want. A tunable
> bandpass circuit might help on the xtal set, but not likely.
>
> --
> Respond to my "real" e-mail;
> kk5dr@ev1.net

Rubbish. A friend of mine in suburban LA has logged a couple dozen
stations on his crystal set, as far away as St. George, Utah and San
Francisco. He is using a double-tuned 'front-end'.
-Bill

> "Jim Hill" <Xslimjimzz@home.com> wrote in message
> news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> > I built a crystal set with a large coil, and discovered the coil acted
> > as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> > a few miles from my house, was so strong it could not be nulled out by
> > rotating the set.
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> > a larger enclosure to avoid lower Q problems. Is double shielding
> > required? Much more work is involved, if so.
> > Thanks
> >

7713. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 23:22:33 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u1nmqpjgv6om4e@corp.supernews.com>
Source record: 48010

Aluminum shielding should be fine and the thickness should not make a significant difference. Remember however that in addition to shielding you have to prevent the RF from entering the enclosure via some other means. If you do not bypass the headset leads, for example, then the RF will just follow the leads into the box. If you are trying to eliminate interferrence from a strong station on the broadcast band while picking up a weak signal in the same band, you will also need a very sharp filter on the antenna input. Otherwise your antenna will simply feed the undesired signal into the box. What you might do here is to use a series resonant circuit (tuned to the undesired station) between the antenna and ground (the box). The series resonant circuit will be a "short circuit" to the undesired signal and an "open circuit" to all other frequencies. The more widely separated the two stations are in frequency, the better this works.

7714. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-15 23:34:44 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u1nnhjnd3kua27@corp.supernews.com>
Source record: 48011

> There is absolutely NO selectivity in a Xtal set.

Well, most of the "simple" xtal sets we are familiar with have a tuned
circuit that is not very selective. It's not really related to the
fact that it is a xtal set - its related to the simple circuit used.
It should be quite possible to build a multiple stage tuned circuit
that would provide much better selectivity for the crystal detector.

7715. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:07:04 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1be149.413578@news.online.no>
Source record: 48013

On Sat, 15 Dec 2001 06:20:39 -0600, "William E. Sabin"
<sabinw@mwci.net> wrote:

>J M Noeding wrote:
>
>
>> Bullshit, this is a technical newsgroup so I believe some technical
>> details may be understood......(?).
>
>
>The assumption that replying at zero beat is
>highly desirable is incorrect. Good and
>competitive CW operators know that calling as much
>as 200 Hz off frequency is usually much more
...
>
200Hz offset shouldn't cause any problem when I use a 500kHz cw filter
in a contest, but I don't usually expects pile-ups

The tactic you mention is not particularly useful in contests when the
band is crowded, but whatever you do, it is important to know what you
do, you must hit the frequency you intend to, if you moved the
opposite way would be bad tactic. My first intention was to make a
tool to simplify correct tuning whatever the tactic is

LA8AK
--
remove ,xnd to reply

7716. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:07:07 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1be3d6.1066064@news.online.no>
Source record: 48014

On Sat, 15 Dec 2001 19:31:20 GMT, Sideband <sideband@spam.me.not>
wrote:

>> >Hrm. I was hoping a simple L network would be able to do what I need it
>> >to do, but it's not looking that way.
>> >
>> >What other low cost options are there? I can't afford to be dropping a
>> >couple hundred dollars (US) on capacitors anytime soon... and to be
>> >honest, of I had $250 to drop, I'd buy that nice LDG autotuner with the
>> >IC-706 interface cable to go with my rig (which is mostly why I'm broke
>> >to begin with. Still paying that one off). and be done with it. One of
>> >the local HAMs was nice enough to loan me his MFJ tuner for the time
>> >being, until I can brew up/buy/get from Santa Claus one of my own, so
>> >I'm able to play on HF, but I'd like to get his equipment back to him
>> >as soon as I can.
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>> The greater versatility of the T-network is why it is used in most
>> factory-made tuners. For now, I suggest you open up your friend's MFJ
>> tuner and clone it as closely as you can!
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>> The main problem will be to find *two* capacitors with wide enough
>> spacing to handle 100W in all applications... but the bargains are out
>> there, if you can find them.
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>> Don't buy the auto-tuner - on your budget, that's a luxury item. You
>> won't learn anything from it, so it will only make you poor and
>> ignorant. (Bah humbug, I'm beginning to sound like Reg!)
>>
>> --
>> 73 from Ian G3SEK Editor, 'The VHF/UHF DX Book'
>> 'In Practice' columnist for RadCom (RSGB)
>> http://www.ifwtech.com/g3sek

It is a very good idea to check http://www.g4fgq.com and try the
program endfeed.exe, the program shows different L-C combinations
needed to transform to 50 ohm. Try different antenna lengths and see
how the component values varies
I have have pasted the different results to word and printed for some
local discussions and got good response from several local hams during
the last week

73,
Jan-Martin
LA8AK
--

remove ,xnd to reply

7717. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:07:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C1BE5DB.F20FAE88@eznec.com>
Source record: 48012

Here's some information about shielding, but I don't think that even a perfect shield will solve your problem.

Like quite a few other things, effective shielding isn't nearly as easy as it might seem. People often look in the wrong place for the problem when shielding isn't effective, and a common place they look is the material being used. It doesn't matter how good you make the shield itself, if energy can get through or around it. And that's usually the problem when done by people who aren't very well acquainted with proper shielding techniques. If you want to make an effective shield, you have to prevent RF from getting through it on any of the wires going in or out. This includes power and headphone leads. These wires act like antennas outside the box, then the signals they pick up follow the wires in. Very careful bypassing directly to the shield right at the entry points with physically small capacitors having very short leads is one technique. Feedthrough capacitors are better. Common mode chokes made by winding the leads on a high-permeability ferrite core at the point of entry can also help a lot, and even more when combined with bypass capacitors. Even small gaps in a shield can let in many, many times more energy than can get through the shield metal itself, so sealing has to be good.

Shields keep fields out by two methods, reflection and absorption. The reflective loss is independent of material thickness provided the material is at least a few skin depths thick, but varies with frequency and material type. At 1 MHz, the reflection loss of an aluminum shield is about 105 dB. Copper is only very slightly better. You'd need an aluminum or copper thickness of around 15-20 mils (.015 - .020") to meet the requirement of being several skin depths thick in the broadcast band. Absorption loss does vary with thickness, and would be around 40 dB for 15 mil aluminum. You'd have to work really hard on gaps and on wires penetrating the shield to avoid having them being the dominant source of leakage. If you hook up an external antenna, there'll undoubtedly be way more signal coming in on it than will be coming through the shield.

In your case, you could test the effectiveness of the shield by disconnecting any external antenna, then working on the shielding until the interfering signal is gone. I assure you it's entirely possible to do, although it might take a while. But I assume you're wanting to use an external antenna, and this will unavoidably let the interfering signal into the enclosure. The tuned circuit you have is unavoidably pretty nonselective, and the crystal will happily rectify whatever it gets. So my guess is that you won't be able to get rid of the interfering station no matter how good a shield you make -- it'll simply

come in on the antenna with the desired signals, get through or around the tuned circuit, and be demodulated. If I'm right, the only thing you can do is to make a higher Q front end, which probably means multiple tuned circuits and additional loss, and then an amplifier to make up for the loss. In short, I think you're pretty much stuck with listening to the one strong station with your crystal set.

Roy Lewallen, W7EL

Jim Hill wrote:
>
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
>
> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
>
> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a ï¿½' overlap.
>
> I have an old Heath TX-1 transmitter (an updated DX-100) that is
> shielded for TVI avoidance. For example, the meter and frequency dial
> are enclosed in metal containers. There's an access port at the top,
> and I used it to put the radio inside. There are plenty of 1/16"
> ventilation holes, so no audio attenuation - or any decrease in audio
> level. Surface between the access port door and case is painted and no
> finger stock, but presumably the case provides attenuation at TV
> frequencies. Otherwise there would be no reason to go to the trouble
> of shielding the meter and dial.
>
> I also tried some commercial metal file cabinets. There was no
> attenuation.
>
> Further tests would require fabricating metal test boxes using my
> small stock of expensive sheet aluminum or galvanized iron sheet. I've
> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>
> Does anyone have experience in this field? Is aluminum ok? Is thicker
> wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.
> Thanks

7718. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:14:31 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1be6ad.1793673@news.online.no>
Source record: 48016

On Sat, 15 Dec 2001 06:20:39 -0600, "William E. Sabin"
<sabinw@mwci.net> wrote:

>J M Noeding wrote:
>
>
>> Bullshit, this is a technical newsgroup so I believe some technical
>> details may be understood......(?).
>
>
>The assumption that replying at zero beat is
>highly desirable is incorrect. Good and
>competitive CW operators know that calling as much
>as 200 Hz off frequency is usually much more
...
>
200Hz offset shouldn't cause any problem when I use a 500Hz cw filter
in a contest, but I don't usually expects pile-ups

The tactic you mention is not particularly useful in contests when the
band is crowded, but whatever you do, it is important to know what you
do, you must hit the frequency you intend to, if you moved the
opposite way would be bad tactic. My first intention was to make a
tool to simplify correct tuning whatever the tactic is

LA8AK
--
remove ,xnd to reply

7719. Re: Stroboscope for CW RX tuning

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:14:32 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1be714.1896895@news.online.no>
Source record: 48015

On Sat, 15 Dec 2001 22:54:09 GMT, mikea@mikea.ath.cx (Mike Andrews)
wrote:

>J M Noeding <la8ak.xnd@online.no> wrote:
>
>: 200Hz offset shouldn't cause any problem when I use a 500kHz cw filter
>: for my receiver when calling CQ, but I don't useually expects
>: pile-ups, such happens more on ssb, and also on aurora, but the
>: problem with aurora is that a cw signal sounds more like switched
>: white noise, two signals or more will mask each other even if they are
>: not on same frequency
>
>No, I guess that in a filter with a passband 500,000 Hz wide,
>you won't have much trouble letting a signal through that's
>only 200 Hz off. That's also true for a filter with a 500 Hz
>passband, which I think is what you meant.
>
>Thanks for the thread, everyone. I'm learning stuff I need to
>know for when I get my ticket back -- 41 years after I let it
>lapse. At least I don't have to take the code exam again. ;=)
>
>--
>"This system operates under martial law. The constitution is suspended. You
> have no rights except as declared by the area commander. Violators will be
> shot. Repeat violators will be repeatedly shot...." -from "A_W_O_L"

thanks
don't understand wy I am so stupid as to write 500kHz when I mean
500Hz, seems I have to cancel the message again.....

Also forgot to say that
whatever the tactic is, it is important to know that you can rely on
yourself - this time I couldn't, hope it is correct now!
--
remove ,xnd to reply

7720. ASE 1302 east german transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 00:41:34 UTC
From: peter grueninger <grueninger-wirth@z.zgs.de>
Message-ID: <9vgqjj$1i1i$1@msheas02.msh.de>
Source record: 48017

Hello,

does anyone have spare parts (Coils) for the ase 1302
east german transceiver

peter.grueninger@rowitex.de

Thanks an vy 73
de DL8SCP, Peter

7721. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 04:32:10 UTC
From: Reg Edwards <G4fgq.Regp@btinternet.com>
Message-ID: <9vh849$oo5$1@knossos.btinternet.com>
Source record: 48018

Program DIPOLE2 will calculate L and C values of an L-tuner for any dipole at any height with any transmission line, coax or balanced-twin or both, of any length.

Program ENDFEED will calculate L and C values of a T-tuner or L-tuner for almost any vertical or inverted inverted L over a ground system.

Just enter all dimensions then What-if?

Both programs also estimate radiating efficiency.

Program SOLNOID2 will tell you number of turns to wind on a coil former of given length and diameter.

Download in a few seconds from website below. Not zipped-up. Run immediately.

What a pity they take all the fun out of stuimbling about in the dark.
;o)
--
==========
Regards from Reg, G4FGQ
For free radio design software go to:-
http://www.g4fgq.com
==========

7722. Homebuilt Tube Radio Club

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 04:55:39 UTC
From: SteveHolden1951@hotmail.com
Message-ID: <aeac1dd6.0112152055.6b96f51a@posting.google.com>
Source record: 48019

Ladies and Gentlemen,

If you are interested in homebrew tube radios or have knowlege you would like to share please visit us at our club. You can read the posts without joining Yahoo, but if you want to see the pics or post you have to join. It is free and takes less than a minute.

http://clubs.yahoo.com/clubs/homebuilttuberadios

Crystal radios are here....

http://clubs.yahoo.com/clubs/thecrystalsetradioclub

Y'all come!

Steve Holden aka Variocoupler

7723. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 06:17:19 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <P%WS7.188673$tf5.12354593@bin5.nnrp.aus1.giganews.com>
Source record: 48020

You also have to shield the bottom. In other words, the shield has to totally enclose the receiver. Further, the shield needs to be grounded! The best idea would be a metal box like a rack cabinet, depending on how big the unit is. Then you ground the case and bypass all leads entering, except of course the antenna lead.

But if you have a powerful local station like that, you may have to add a trap in the antenna lead. This is a filter, like a tuned circuit, tuned to 1070 kHz that attenuates that frequency. The simplest would be a series tuned circuit between antenna and ground, or a parallel tuned circuit in series with the antenna lead. If you make it adjustable you can tune it precisely for minimum interference, and if you want to listen to 1070 you just detune it. (That frequency has good old time radio every evening so you can really pretend you are living in the 1940s or so!)

Bob

7724. pi network

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 10:15:53 UTC
From: Kosmas Anastasiadis <anako@otenet.gr>
Message-ID: <9vhs3f$a26$1@usenet.otenet.gr>
Source record: 47877

Hello to all !!!
I building a 160m (1750 - 1850 Khz) AM/CW transmitter. I use the 6AG7 as colpitts oscilator, the 6L6 as buffer and two 807 in parallel
in class C at the final stage running at 600 VDC. I need data for the output pi-network (or thomson network) for 50 ohm unbalanced out.
After this I would use a 4:1 balanced to unbalanced ballun to feed an open wire feed line to a dipole.
I need also the output circuit data to feed directly the open wire feed line without the use of the ballun.

--

Kosmas Anastasiadis
rckos@hotmail.com

7725. Antenna change-over rly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 13:24:52 UTC
From: jgboyles@aol.com
Message-ID: <20011216082452.10753.00000350@mb-fk.aol.com>
Source record: 48021

Hi,
Can anyone recommend a DPDT 12vdc coil antenna change over relay for a 600 watt amp I am building. Coaxial relays are a bit expensive. I have a fair selection of Potter, Struthers-Dunn ect. with 12vdc coils and ample voltage/current ratings, but I am sure there is more to it for rf service. Got any tests to see if a particular relay can be used? Got mfj-259b, scope, Z meter, vom, power supplies ect. The references I have consulted don't seem to address relay selection very well. Thanks
73 Gary N4AST

7726. Re: Antenna change-over rly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 13:56:55 UTC
From: kenneth m cubilo <kce@freeway.net>
Message-ID: <3c1ca82a$0$35622$2c3e98f8@news.voyager.net>
Source record: 48022

hi gary all i have ever used were dpdt relays with contacts rated for
10-15 amps i use these everyday for phased arrays and they handle legal
limit no problem. you may have some vswr problems at the higher freqs in
that case go with a 4pdt relay and short all common side contacts
together to bring the z bump down.
ken w8ob

JGBOYLES wrote:
>
> Hi,
> Can anyone recommend a DPDT 12vdc coil antenna change over relay for a 600
> watt amp I am building. Coaxial relays are a bit expensive. I have a fair
> selection of Potter, Struthers-Dunn ect. with 12vdc coils and ample
> voltage/current ratings, but I am sure there is more to it for rf service. Got
> any tests to see if a particular relay can be used? Got mfj-259b, scope, Z
> meter, vom, power supplies ect. The references I have consulted don't seem to
> address relay selection very well. Thanks
> 73 Gary N4AST

7727. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 15:53:13 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <Jr3T7.105023$Y6.10317701@news1.rdc1.ct.home.com>
Source record: 48023

Nonsense. My crystal set will resolve DX stations 30kHz from a
local 50kW powerhouse on 1080kHz, and it isn't close to some
of the more competitive designs currently in use.

Serious crystal sets have up to three variably coupled tuned circuits,
notch filter tuning, properly matched sound-powered headphones,
etc. to log rather amazing DX work. Too many people judge crystal
radios by what RadioShack stocks.

Pete

"M.E." <bogus@nospam.com> wrote in message news:3c1bd800_2@newsa.ev1.net...
> Any xtal receiver set, WILL receive the strongest station only. There is
> absolutely NO selectivity in a Xtal set.
> You will have to build a "super-het" to do what you say you want. A
tunable
> bandpass circuit might help on the xtal set, but not likely.
>
> --
> Respond to my "real" e-mail;
> kk5dr@ev1.net
> "Jim Hill" <Xslimjimzz@home.com> wrote in message
> news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> > I built a crystal set with a large coil, and discovered the coil acted
> > as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> > a few miles from my house, was so strong it could not be nulled out by
> > rotating the set.
> >
> > I built a shielded enclosure by taping aluminum foil to a large
> > cardboard box that held a TV set, but there no attenuation.
> >
> > There were a few holes in the foil, but I decided to experiment with a
> > smaller radio without earphone leads, and turned used an old
> > transistorized AM radio. I tried a metal cookie can, and any
> > attenuation seemed to be from the audio signal going through the can.
> > While the lid was not RF-tight, it did have about a ' overlap.
> >
> > I have an old Heath TX-1 transmitter (an updated DX-100) that is
> > shielded for TVI avoidance. For example, the meter and frequency dial
> > are enclosed in metal containers. There's an access port at the top,
> > and I used it to put the radio inside. There are plenty of 1/16"
> > ventilation holes, so no audio attenuation - or any decrease in audio
> > level. Surface between the access port door and case is painted and no
> > finger stock, but presumably the case provides attenuation at TV

> > frequencies. Otherwise there would be no reason to go to the trouble
> > of shielding the meter and dial.
> >
> > I also tried some commercial metal file cabinets. There was no
> > attenuation.
> >
> > Further tests would require fabricating metal test boxes using my
> > small stock of expensive sheet aluminum or galvanized iron sheet. I've
> > decided the magnetic field is harder to shield the electric field, and
> > need some advice before proceeding.
> >
> > Does anyone have experience in this field? Is aluminum ok? Is thicker
> > wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> > a larger enclosure to avoid lower Q problems. Is double shielding
> > required? Much more work is involved, if so.
> > Thanks
> >
>
>

7728. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 15:54:08 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <As3T7.105024$Y6.10317603@news1.rdc1.ct.home.com>
Source record: 48024

One of the main reasons competitive sets are shielded is to improve
the circuit Q.

Pete

"Bob" <balbert@cnmnetwork.com> wrote in message
news:P%WS7.188673$tf5.12354593@bin5.nnrp.aus1.giganews.com...
> You also have to shield the bottom. In other words, the shield has to
> totally enclose the receiver. Further, the shield needs to be grounded!
> The best idea would be a metal box like a rack cabinet, depending on how
big
> the unit is. Then you ground the case and bypass all leads entering,
except
> of course the antenna lead.
>
> But if you have a powerful local station like that, you may have to add a
> trap in the antenna lead. This is a filter, like a tuned circuit, tuned
to
> 1070 kHz that attenuates that frequency. The simplest would be a series
> tuned circuit between antenna and ground, or a parallel tuned circuit in
> series with the antenna lead. If you make it adjustable you can tune it
> precisely for minimum interference, and if you want to listen to 1070 you
> just detune it. (That frequency has good old time radio every evening so
> you can really pretend you are living in the 1940s or so!)
>
> Bob
>
>

7729. Re: Antenna change-over rly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 16:05:49 UTC
From: w4pqwhs@aol.com
Message-ID: <20011216110549.18504.00000402@mb-fw.aol.com>
Source record: 48025

>
>Hi,
> Can anyone recommend a DPDT 12vdc coil antenna change over relay for a 600
>watt amp I am building. Coaxial

Gary, I use a relay that is sold by Surplus Sales Of Nebraska it is pn
KO-RNF-100-SP they are $4.25 12VDC SPDT it is an RF relay and will handle
your power very easily.. You can call it up at www.surplussales.com 73
Harold W4PQW

7730. CHASSIS, CABINETS, BIG SELECTION CHEAP

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 16:17:49 UTC
From: MICHAEL NEIDICH <neidich@worldnet.att.net>
Message-ID: <NO3T7.225829$3d2.10728723@bgtnsc06-news.ops.worldnet.att.net>
Source record: 48026
Cross-posted to: alt.ham-radio.marketplace,rec.radio.amateur.equipment,rec.radio.amateur.homebrew

HELP ME CLEAN HOUSE. NEW AND USED ALUMINUM CABINETS OF ALL SIZES UP TO 1' X 1' X 1' DOWN TO 1" X1" X 1"

EMAIL FOR PHOTOS.

CHEAP GUARANTEED.

MIKE, K2ENN

7731. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 16:40:44 UTC
From: Dave Holford <holford@sympatico.ca>
Message-ID: <3C1CCE8C.310796CB@sympatico.ca>
Source record: 48027

Interesting. Must be a hole or a wire coming out?

I have demonstrated shielding for years by placing a wide band noise source in a coffee can and covering it with aluminum foil. Works perfectly. No detectable signal gets out so therfore no detectable signal gets in. Without the cover noise is present above but not in any other direction - at least in the near field.

Dave

Jim Hill wrote:
>
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
>
> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
>
> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a ï¿½' overlap.
>
> I have an old Heath TX-1 transmitter (an updated DX-100) that is
> shielded for TVI avoidance. For example, the meter and frequency dial
> are enclosed in metal containers. There's an access port at the top,
> and I used it to put the radio inside. There are plenty of 1/16"
> ventilation holes, so no audio attenuation - or any decrease in audio
> level. Surface between the access port door and case is painted and no
> finger stock, but presumably the case provides attenuation at TV
> frequencies. Otherwise there would be no reason to go to the trouble
> of shielding the meter and dial.
>
> I also tried some commercial metal file cabinets. There was no
> attenuation.
>
> Further tests would require fabricating metal test boxes using my
> small stock of expensive sheet aluminum or galvanized iron sheet. I've
> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>
> Does anyone have experience in this field? Is aluminum ok? Is thicker

> wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.
> Thanks

7732. Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 19:03:53 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1CF018.78868ED7@ieee.org>
Source record: 48028

This may be little off topic, but this group is a likely place to find a reader who knows how to adjust a quartz watch.

This is what I tried, not knowing how jewelers do it, when asked.

I wound a coil on a 2 inch form with all the #30 wire I had to about 2 inches in length and it measured .94 mH. I tuned it to 32768 kHz with 0.25 uF, making a parallel circuit. I amplified the signal across it quite a bit and hooked it up to the scope.

I put a watch with a second hand in the coil and what I saw was once per second a burst of 32 kHz energy. Not what I expected. I expected to pick up a continuous signal.

I have a watch with an LCD and saw nothing.

Any thoughts you may share?

Clyde
KA1CRV

7733. Re: ASE 1302 east german transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 19:15:34 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1ccf42.61343126@news.online.no>
Source record: 48029

On Sun, 16 Dec 2001 01:41:34 +0100, "peter grueninger"
<grueninger-wirth@z.zgs.de> wrote:

>Hello,
>
>does anyone have spare parts (Coils) for the ase 1302
>east german transceiver
>
>peter.grueninger@rowitex.de
>
>Thanks an vy 73
>de DL8SCP, Peter
>
>
have you tried to call the factory in DDR?

--
remove ,xnd to reply

7734. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 19:39:02 UTC
From: n7ws@yahoo.com
Message-ID: <3c1cf249.4239812@news.triconet.org>
Source record: 48030

On Sat, 15 Dec 2001 16:07:55 -0800, Roy Lewallen <w7el@eznec.com> wrote:

|Here's some information about shielding, but I don't think that even a
|perfect shield will solve your problem.
|
|Like quite a few other things, effective shielding isn't nearly as easy
|as it might seem. People often look in the wrong place for the problem
|when shielding isn't effective, and a common place they look is the
|material being used. It doesn't matter how good you make the shield
|itself, if energy can get through or around it. And that's usually the
|problem when done by people who aren't very well acquainted with proper
|shielding techniques. If you want to make an effective shield, you have
|to prevent RF from getting through it on any of the wires going in or
|out. This includes power and headphone leads. These wires act like
|antennas outside the box, then the signals they pick up follow the wires
|in. Very careful bypassing directly to the shield right at the entry
|points with physically small capacitors having very short leads is one
|technique. Feedthrough capacitors are better. Common mode chokes made by
|winding the leads on a high-permeability ferrite core at the point of
|entry can also help a lot, and even more when combined with bypass
|capacitors. Even small gaps in a shield can let in many, many times more
|energy than can get through the shield metal itself, so sealing has to
|be good.
|
|Shields keep fields out by two methods, reflection and absorption. The
|reflective loss is independent of material thickness provided the
|material is at least a few skin depths thick, but varies with frequency
|and material type. At 1 MHz, the reflection loss of an aluminum shield
|is about 105 dB. Copper is only very slightly better. You'd need an
|aluminum or copper thickness of around 15-20 mils (.015 - .020") to meet
|the requirement of being several skin depths thick in the broadcast
|band. Absorption loss does vary with thickness, and would be around 40
|dB for 15 mil aluminum. You'd have to work really hard on gaps and on
|wires penetrating the shield to avoid having them being the dominant
|source of leakage. If you hook up an external antenna, there'll
|undoubtedly be way more signal coming in on it than will be coming
|through the shield.
|
|In your case, you could test the effectiveness of the shield by
|disconnecting any external antenna, then working on the shielding until
|the interfering signal is gone. I assure you it's entirely possible to
|do, although it might take a while. But I assume you're wanting to use
|an external antenna, and this will unavoidably let the interfering
|signal into the enclosure. The tuned circuit you have is unavoidably

|pretty nonselective, and the crystal will happily rectify whatever it
|gets. So my guess is that you won't be able to get rid of the
|interfering station no matter how good a shield you make -- it'll simply
|come in on the antenna with the desired signals, get through or around
|the tuned circuit, and be demodulated. If I'm right, the only thing you
|can do is to make a higher Q front end, which probably means multiple
|tuned circuits and additional loss, and then an amplifier to make up for
|the loss. In short, I think you're pretty much stuck with listening to
|the one strong station with your crystal set.

I second everything Roy says. I have in my previous career specified and purchased a couple of shielded rooms. I can attest to the fact that achieving high levels of attenuation is not a trivial exercise.

And of course in this case, as Roy has already pointed out, the problem is exacerbated by the fact that if you want to listen to any stations, you must connect an antenna, which means all efforts at shielding are pretty much for naught. Penetrations into the shielded volume are some of most difficult factors to deal with in maintaining high degrees of attenuation.

One thought would be to forget trying to shield the inductor and use multiple tuned circuits and go to toroidial construction for the inductors.

Wes Stewart, N7WS

7735. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 19:48:45 UTC
From: rcnixon@mindspring.com
Message-ID: <3c1cfa26.8616115@news.mindspring.com>
Source record: 48031

Yeah, you are seeing the pulse of energy that moves the hands. There is a little motor or solenoid in there. The LCD watch has no moving parts and thus no motors. The batteries will last longer in the LCD watch for that reason.

Russ

"Clyde R. Shappee" <cshappee@ieee.org> wrote:

>This may be little off topic, but this group is a likely place to find a
>reader who knows how to adjust a quartz watch.
>
>This is what I tried, not knowing how jewelers do it, when asked.
>
>I wound a coil on a 2 inch form with all the #30 wire I had to about 2
>inches in length and it measured .94 mH. I tuned it to 32768 kHz with
>0.25 uF, making a parallel circuit. I amplified the signal across it
>quite a bit and hooked it up to the scope.
>
>I put a watch with a second hand in the coil and what I saw was once per
>second a burst of 32 kHz energy. Not what I expected. I expected to
>pick up a continuous signal.
>
>I have a watch with an LCD and saw nothing.
>
>Any thoughts you may share?
>
>Clyde
>KA1CRV
>

7736. Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 20:04:08 UTC
From: Robert John <RAJohnGM@worldnet.att.net>
Message-ID: <Y67T7.226595$3d2.10750814@bgtnsc06-news.ops.worldnet.att.net>
Source record: 48032

Looking for a simple circuit to provide 10 volts AC output with 120 volts in. No regulation requried. Anyone have a schematic for such a supply?
Tnx, Bob, AA8X

7737. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 20:37:07 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C1D05F3.E3E76DAD@coqui.net>
Source record: 48033

Robert John wrote:
>
> Looking for a simple circuit to provide 10 volts AC output with 120 volts
> in. No regulation requried. Anyone have a schematic for such a supply?
> Tnx, Bob, AA8X

Do you not want simply a 10 volt transformer?
-Bill

7738. Re: Amateur Radar

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 20:47:27 UTC
From: Paul Keinanen <keinanen@sci.fi>
Message-ID: <blrp1u4o80t81283poq5d8s418a82dos30@4ax.com>
Source record: 48034

On Wed, 12 Dec 2001 03:08:28 GMT, jeff <wd4nmq@earthlink.net> wrote:

>Paul,
>
>At first I didn't understand about "scanning" to get the range. But,
>then I thought it might have to do with drastically changing the
>frequency and timing the time it takes to see that new frequency
>reflection's on the receiver?
>Is that thought in the right ballpark?

Yes.

Assume operating around 10 GHz, the wavelength is 3 cm. If an object moves towards you at 30 m/s (108 km/h, 67mps), the two-way doppler will be 2 kHz.

However, if the object is stationary at a distance of 300m, thus the round trip time will be 2 us and the transmitter frequency is varied by 100 MHz/s, the received frequency will differ by 200 Hz from the current Tx frequency.

If the object is moving towards you at 30 m/s at a distance of 300 m, when scanning upwards, the frequency difference is 1800 Hz (2000 - 200) and when scanning downwards 2200Hz (2000+200). From these figures it easy to calculate both the speed and distance. Use the Tx as the local oscillator for the receiver to avoid any frequency tracking problems.

Paul OH3LWR

7739. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 21:06:07 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1D0CBF.46E03D78@ay.com.au>
Source record: 48035

Try using a microphone instead.

I've used piezo elements physically coupled to the watch with a short piece of paperclip soldered directly to the element face (be careful not to overheat the piezo pellet).

That doesn't work too well for mechanical watches, the tick saturates the amplifier, but in between you can see the 32 kHz oscillations. The actual crystal is normally a tiny silicon tuning fork.

If you are really careful you can unsolder the can without destroying it, I did it accidently once to a 38 kHz version, and inspect it. With a strobe light (LED + 555) and a magnifier you can actually see it moving.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (4% of Full)

7740. RX audio bandwidth for Hellschreiber

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 22:30:23 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1d1e6b.81611291@news.online.no>
Source record: 48036

wonder what is optimum RX audio bandwidth for Hellschreiber using PC?
Made an MC1496P demodulator once for morse detection, it also includes
slide-back circuit which was earlier used for two-tone RTTY (850Hz
shift) opposite to frequency shift RTTY, so I might eventually use it,
but wonder if certain demodulators is recommended?**) Believe
Hellschreiber should have more bandwidth than needed for CW.

see
http://www.algonet.se/~lovelinf/biblio.htm#S runs in dos
http://iz8bly.sysonline.it (Windoz95/98)

73,
Jan-Martin
LA8AK

**) terms are explained in RSGB paper for Region 1 conference in 1975

--
remove ,xnd to reply

7741. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 23:00:03 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C1D2773.FA95B172@nf.sympatico.ca>
Source record: 48037

Your Friend Bill wrote:
>
> Robert John wrote:
> >
> > Looking for a simple circuit to provide 10 volts AC output with 120 volts
> > in. No regulation requried. Anyone have a schematic for such a supply?
> > Tnx, Bob, AA8X
>
> Do you not want simply a 10 volt transformer?
> -Bill

If the 10 volts is not too critical an old junked tube radio power
transformer will give you 6.3 and 5 volt windings which if connected in
series will provide 11.3 volts at several amps. (especially if there is
now no load on the B+ winding). 11.3 x 3 amps = 30+ watts.
If it is only a small load of say half an amp or less a regular wall
wart or maybe an old toy train set or front door bell transformer may do
the trick!
Could depend what you need the ten volts for?
Couple of ideas.

7742. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 23:02:36 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C1D280C.7CA70996@nf.sympatico.ca>
Source record: 48038

"Clyde R. Shappee" wrote:
>
> This may be little off topic, but this group is a likely place to find a
> reader who knows how to adjust a quartz watch.

Watch 'crystal' used to mean the glass face of the watch! These days it refers to the timing element of electronic watches!
However and with apologies for being further off topic can anybody suggest a news group or where to look for a 'non-electric' no batteries needed, wrist watch. i.e. One that you mechanically wind up periodically.
So far the only one I have a lead on is $125 plus tax and shipping and possibly import duty; I am not in that price league! More of a Timex or Cardinal candidate!
TIA

7743. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-16 23:43:16 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1D3194.FE6810E6@ieee.org>
Source record: 48039

Terry,

Actually, I have a really cool wind up watch, being a time freak.

I decided that lots of folks have Swiss army watches, and, being a patriot, I looked for a US Army watch.

I found one, with what is called a "hack stop", so you may synchronize the seconds. I'll poke around on the web and try to find a source. It is manufactured by Stocker and Yale in New Hampster. It keeps acceptable time, and (sigh) has a Swiss Movement, 23 jewels if I recall.

My other wind up watch was given to me on my 12th birthday, many years ago and I wear it sometimes when I want a trip back in time and remember a simpler time.

Kindest regards,

Clyde

Terry wrote:

> "Clyde R. Shappee" wrote:
> >
> > This may be little off topic, but this group is a likely place to find a
> > reader who knows how to adjust a quartz watch.
>
> Watch 'crystal' used to mean the glass face of the watch! These days it
> refers to the timing element of electronic watches!
> However and with apologies for being further off topic can anybody
> suggest a news group or where to look for a 'non-electric' no batteries
> needed, wrist watch. i.e. One that you mechanically wind up
> periodically.
> So far the only one I have a lead on is $125 plus tax and shipping and
> possibly import duty; I am not in that price league! More of a Timex or
> Cardinal candidate!
> TIA

7744. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 01:08:07 UTC
From: rcnixon@mindspring.com
Message-ID: <3c1d442d.27570224@news.mindspring.com>
Source record: 48040

Rolex Submariner. It's a certified chronometer, it "hacks" and it's
waterproof to 300M. It gains about .75 to 1 second per day (I know,
it's a chronometer and I have it logged against WWV. Unlike a
chronometer, I set it twice a year, I don't like remembering if it's
UTC -4 or UTC -5.) I haven't been able to even scratch the crystal.
The downside...4 kilodollars and it goes in for service every 5 years
for about $500 worth.

Russ

"Clyde R. Shappee" <cshappee@ieee.org> wrote:

>Terry,
>
>Actually, I have a really cool wind up watch, being a time freak.
>
>I decided that lots of folks have Swiss army watches, and, being a patriot, I
>looked for a US Army watch.
>
>I found one, with what is called a "hack stop", so you may synchronize the
>seconds. I'll poke around on the web and try to find a source. It is
>manufactured by Stocker and Yale in New Hampster. It keeps acceptable time,
>and (sigh) has a Swiss Movement, 23 jewels if I recall.
>
>My other wind up watch was given to me on my 12th birthday, many years ago and
>I wear it sometimes when I want a trip back in time and remember a simpler
>time.
>
>Kindest regards,
>
>Clyde
>
>Terry wrote:
>
>> "Clyde R. Shappee" wrote:
>> >
>> > This may be little off topic, but this group is a likely place to find a
>> > reader who knows how to adjust a quartz watch.
>>
>> Watch 'crystal' used to mean the glass face of the watch! These days it
>> refers to the timing element of electronic watches!
>> However and with apologies for being further off topic can anybody
>> suggest a news group or where to look for a 'non-electric' no batteries
>> needed, wrist watch. i.e. One that you mechanically wind up
>> periodically.

>> So far the only one I have a lead on is $125 plus tax and shipping and
>> possibly import duty; I am not in that price league! More of a Timex or
>> Cardinal candidate!
>> TIA
>

7745. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 01:29:56 UTC
From: Tim <N6DRA@nc.rr.comnospam>
Message-ID: <oUbT7.299311$HA6.57173683@typhoon.southeast.rr.com>
Source record: 48041

You're a lucky man if your Sub is that accurate. I've owned 3 over the years, as well as a few other models and about 5-6 seconds per day is more typical.

I have a GMT Master II that is also a 5-6 seconds per day watch. This is still WELL below the standards required for COSC chronograph rating- they aren't that stringent. It doesn't have to be very accurate to be able to find continental land masses by celestial navigation, which is what COSC certification refers to.

I have a Bell and Ross Space One that is within a second a day, and a 60's model Wakmann Breitling that is as well, but I've never seen a Rolex that was that tight. I have a couple other Swiss watches that run about 3 seconds per day.

Hang on to it!

Tim N6DRA

"Russell C. Nixon" <rcnixon@mindspring.com> wrote in message news:3c1d442d.27570224@news.mindspring.com...
> Rolex Submariner. It's a certified chronometer, it "hacks" and it's
> waterproof to 300M. It gains about .75 to 1 second per day (I know,
> it's a chronometer and I have it logged against WWV. Unlike a
> chronometer, I set it twice a year, I don't like remembering if it's
> UTC -4 or UTC -5.) I haven't been able to even scratch the crystal.
> The downside...4 kilodollars and it goes in for service every 5 years
> for about $500 worth.
>
> Russ
>
> "Clyde R. Shappee" <cshappee@ieee.org> wrote:
>
> >Terry,
> >
> >Actually, I have a really cool wind up watch, being a time freak.
> >
> >I decided that lots of folks have Swiss army watches, and, being a patriot, I
> >looked for a US Army watch.
> >
> >I found one, with what is called a "hack stop", so you may synchronize the
> >seconds. I'll poke around on the web and try to find a source. It is
> >manufactured by Stocker and Yale in New Hampster. It keeps acceptable time,

> >and (sigh) has a Swiss Movement, 23 jewels if I recall.
> >
> >My other wind up watch was given to me on my 12th birthday, many years
ago and
> >I wear it sometimes when I want a trip back in time and remember a
simpler
> >time.
> >
> >Kindest regards,
> >
> >Clyde
> >
> >Terry wrote:
> >
> >> "Clyde R. Shappee" wrote:
> >> >
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> >> > reader who knows how to adjust a quartz watch.
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> >> Watch 'crystal' used to mean the glass face of the watch! These days it
> >> refers to the timing element of electronic watches!
> >> However and with apologies for being further off topic can anybody
> >> suggest a news group or where to look for a 'non-electric' no batteries
> >> needed, wrist watch. i.e. One that you mechanically wind up
> >> periodically.
> >> So far the only one I have a lead on is $125 plus tax and shipping and
> >> possibly import duty; I am not in that price league! More of a Timex or
> >> Cardinal candidate!
> >> TIA
> >>
>

7746. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 02:16:40 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1D5588.FD7A627C@ieee.org>
Source record: 48042

I just got off the phone with my father, and he at one point in his career dealt with the guy who invented the crystal cut for the 32,768 kHz crystal.

According to my father, (information now second hand), this person stated that quartz watches are not adjustable. You get what you get, and that they were pretty good. Hmmm. I wonder about my new Swiss watch.

My wife who is ABSOLUTELY not ruled by time at all has a Pulsar, and when I go and adjust it for Daylight Savings Time, it is right on. None of my watches are so good. No justice.

Clyde

Tim wrote:

> You're a lucky man if your Sub is that accurate. I've owned 3 over the
> years, as well as a few other models and about 5-6 seconds per day is more
> typical.
>
> I have a GMT Master II that is also a 5-6 seconds per day watch. This is
> still WELL below the standards required for COSC chronograph rating- they
> aren't that stringent. It doesn't have to be very accurate to be able to
> find continental land masses by celestial navigation, which is what COSC
> certification refers to.
>
> I have a Bell and Ross Space One that is within a second a day, and a 60's
> model Wakmann Breitling that is as well, but I've never seen a Rolex that
> was that tight. I have a couple other Swiss watches that run about 3
> seconds per day.
>
> Hang on to it!
>
> Tim N6DRA
>
> "Russell C. Nixon" <rcnixon@mindspring.com> wrote in message
> news:3c1d442d.27570224@news.mindspring.com...
> > Rolex Submariner. It's a certified chronometer, it "hacks" and it's
> > waterproof to 300M. It gains about .75 to 1 second per day (I know,
> > it's a chronometer and I have it logged against WWV. Unlike a
> > chronometer, I set it twice a year, I don't like remembering if it's
> > UTC -4 or UTC -5.) I haven't been able to even scratch the crystal.
> > The downside...4 kilodollars and it goes in for service every 5 years
> > for about $500 worth.
> >
> > Russ
> >

> > "Clyde R. Shappee" <cshappee@ieee.org> wrote:
> >
> > >Terry,
> > >
> > >Actually, I have a really cool wind up watch, being a time freak.
> > >
> > >I decided that lots of folks have Swiss army watches, and, being a
> patriot, I
> > >looked for a US Army watch.
> > >
> > >I found one, with what is called a "hack stop", so you may synchronize
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> > >seconds. I'll poke around on the web and try to find a source. It is
> > >manufactured by Stocker and Yale in New Hampster. It keeps acceptable
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> > >and (sigh) has a Swiss Movement, 23 jewels if I recall.
> > >
> > >My other wind up watch was given to me on my 12th birthday, many years
> ago and
> > >I wear it sometimes when I want a trip back in time and remember a
> simpler
> > >time.
> > >
> > >Kindest regards,
> > >
> > >Clyde
> > >
> > >Terry wrote:
> > >
> > >> "Clyde R. Shappee" wrote:
> > >> >
> > >> > This may be little off topic, but this group is a likely place to
> find a
> > >> > reader who knows how to adjust a quartz watch.
> > >>
> > >> Watch 'crystal' used to mean the glass face of the watch! These days it
> > >> refers to the timing element of electronic watches!
> > >> However and with apologies for being further off topic can anybody
> > >> suggest a news group or where to look for a 'non-electric' no batteries
> > >> needed, wrist watch. i.e. One that you mechanically wind up
> > >> periodically.
> > >> So far the only one I have a lead on is $125 plus tax and shipping and
> > >> possibly import duty; I am not in that price league! More of a Timex or
> > >> Cardinal candidate!
> > >> TIA
> > >
> >

7747. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 02:24:41 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <b6lq1u47il8ps2d3jr0s7tmi2jc7hipm41@4ax.com>
Source record: 48043

"M.E." <bogus@nospam.com> wrote:

>Any xtal receiver set, WILL receive the strongest station only. There is
>absolutely NO selectivity in a Xtal set.
>You will have to build a "super-het" to do what you say you want. A tunable
>bandpass circuit might help on the xtal set, but not likely.

In that case I have to wonder why I was able to listen to a variety of
stations with the set I built as a boy. I think I would agree that the
selectivity was poor, but there IS a tuned circuit, which is tunable.
At least mine had one.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

7748. Homebrew AM Transmitter/Transceiver Suggestions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 02:44:49 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011216214449.09259.00000609@mb-fd.aol.com>
Source record: 48044

Happy holidays all,

I am contemplating building an HF AM transmitter or transceiver soon and I am looking for suggested plans and/or schematics. I would like the rig to operate on both 40 and 80 meters, but would consider a monobander. Something in the 300 to 500 watt range would be fine, preferably using sweep tubes. This isn't necessary, though.

Anybody have a favorite project that they have built along these lines? Any suggestions or references would be appreciated. I don't want to purchase a prebuilt rig, I want to build it myself.

Thanks,
Scott M.

7749. Re: Homebrew AM Transmitter/Transceiver Suggestions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 03:48:37 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C1D6B15.4DC2AC46@coqui.net>
Source record: 48045

SAM wrote:
>
> Happy holidays all,
>
> I am contemplating building an HF AM transmitter or transceiver soon and I am
> looking for suggested plans and/or schematics. I would like the rig to operate
> on both 40 and 80 meters, but would consider a monobander. Something in the 300
> to 500 watt range would be fine, preferably using sweep tubes. This isn't
> necessary, though.
>
> Anybody have a favorite project that they have built along these lines? Any
> suggestions or references would be appreciated. I don't want to purchase a
> prebuilt rig, I want to build it myself.
>
> Thanks,
> Scott M.

Hi Scott,
I don't think you'll find yourself in the multi-hundred watt range on AM
with sweep tubes. I just browsed thru a few old ARRL Handbooks from the
50s and early 60s and 813s seem to be a favorite. Thats good because
they are cheap! 4-400s would be nice too. The modulator info gets much
better in the 60s editions, btw.
I seem to recall a very nice multi-band tranmitter in the '64 Edition
which I no longer have...its not in the '65.
Typically what I'm seeing in these old transmitter designs is the basic
VFO multiplying technique to get to the band you want. That won't lend
itself to a transceiver design.
Are you wanting to build all with tubes (except maybe the VFO)? I've
got quite a few bookmarks and will help do some browsing just out of
curiosity.
-Bill

7750. Re: Homebrew AM Transmitter/Transceiver Suggestions

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 04:10:37 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <%eeT7.166$GRg.25559160@news2.randori.com>
Source record: 48046

Bill (and Scott);

That transmitter in the 64 book is CW and SSB only as shown, although the book makes a brief mention of it being 'capable of plate modulation being applied to the RF amplifier in the usual manner', its output is derated to 250 W under that mode.

Scott, if you want copies of the relevant pages of the book, e-mail me and I'll get them to you.

regards,

G

"Your Friend Bill" <"Remove The NO In The Reply Address"@coqui.net> wrote in message news:3C1D6B15.4DC2AC46@coqui.net...
> SAM wrote:
> >
> > Happy holidays all,
> >
> > I am contemplating building an HF AM transmitter or transceiver soon and I am
> > looking for suggested plans and/or schematics. I would like the rig to operate
> > on both 40 and 80 meters, but would consider a monobander. Something in the 300
> > to 500 watt range would be fine, preferably using sweep tubes. This isn't
> > necessary, though.
> >
> > Anybody have a favorite project that they have built along these lines? Any
> > suggestions or references would be appreciated. I don't want to purchase a
> > prebuilt rig, I want to build it myself.
> >
> > Thanks,
> > Scott M.
>
> Hi Scott,
> I don't think you'll find yourself in the multi-hundred watt range on AM
> with sweep tubes. I just browsed thru a few old ARRL Handbooks from the
> 50s and early 60s and 813s seem to be a favorite. Thats good because
> they are cheap! 4-400s would be nice too. The modulator info gets much
> better in the 60s editions, btw.
> I seem to recall a very nice multi-band tranmitter in the '64 Edition

> which I no longer have...its not in the '65.
> Typically what I'm seeing in these old transmitter designs is the basic
> VFO multiplying technique to get to the band you want. That won't lend
> itself to a transceiver design.
> Are you wanting to build all with tubes (except maybe the VFO)? I've
> got quite a few bookmarks and will help do some browsing just out of
> curiosity.
> -Bill
>

7751. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 05:07:21 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C1D7D89.21AF34AA@blackhole.net>
Source record: 47947

"Clyde R. Shappee" wrote:
>
> This may be little off topic, but this group is a likely place to find a
> reader who knows how to adjust a quartz watch.
>
> This is what I tried, not knowing how jewelers do it, when asked.
>
> I wound a coil on a 2 inch form with all the #30 wire I had to about 2
> inches in length and it measured .94 mH. I tuned it to 32768 kHz with
> 0.25 uF, making a parallel circuit. I amplified the signal across it
> quite a bit and hooked it up to the scope.
>
> I put a watch with a second hand in the coil and what I saw was once per
> second a burst of 32 kHz energy. Not what I expected. I expected to
> pick up a continuous signal.
>
> I have a watch with an LCD and saw nothing.
>
> Any thoughts you may share?

If you have a burst at 1/second, use it to trigger a timer
with a time long enough to end up with a once per second
simple pulse. Feed that into a flipflop to get a positive gate
signal of 1 second, and use that to gate a high frequency signal
into a counter. Most counters will accept an external gate for
their reference frequencies. Then you can adjust the watch.
For example, if the counter ref freq is 10 mhz, just adjust the
watch until you get exactly 10 million pulses in the gate time.

--
john

7752. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 05:47:25 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <NFfT7.299301$W8.10483390@bgtnsc04-news.ops.worldnet.att.net>
Source record: 47948

Mr. Hill,
If you want to try winding a higher Q coil, I can let you
have some Litz wire. Let me know how many feet you need.

Pete Gianakopoulos KE9OA
Chicago, Il.

Dave Holford <holford@sympatico.ca> wrote in message
news:3C1CCE8C.310796CB@sympatico.ca...
> Interesting. Must be a hole or a wire coming out?
>
> I have demonstrated shielding for years by placing a wide band noise
> source in a coffee can and covering it with aluminum foil. Works
> perfectly. No detectable signal gets out so therfore no detectable
> signal gets in. Without the cover noise is present above but not in any
> other direction - at least in the near field.
>
> Dave
>
>
>
> Jim Hill wrote:
> >
> > I built a crystal set with a large coil, and discovered the coil acted
> > as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> > a few miles from my house, was so strong it could not be nulled out by
> > rotating the set.
> >
> > I built a shielded enclosure by taping aluminum foil to a large
> > cardboard box that held a TV set, but there no attenuation.
> >
> > There were a few holes in the foil, but I decided to experiment with a
> > smaller radio without earphone leads, and turned used an old
> > transistorized AM radio. I tried a metal cookie can, and any
> > attenuation seemed to be from the audio signal going through the can.
> > While the lid was not RF-tight, it did have about a ' overlap.
> >
> > I have an old Heath TX-1 transmitter (an updated DX-100) that is
> > shielded for TVI avoidance. For example, the meter and frequency dial
> > are enclosed in metal containers. There's an access port at the top,
> > and I used it to put the radio inside. There are plenty of 1/16"
> > ventilation holes, so no audio attenuation - or any decrease in audio
> > level. Surface between the access port door and case is painted and no
> > finger stock, but presumably the case provides attenuation at TV

> > frequencies. Otherwise there would be no reason to go to the trouble
> > of shielding the meter and dial.
> >
> > I also tried some commercial metal file cabinets. There was no
> > attenuation.
> >
> > Further tests would require fabricating metal test boxes using my
> > small stock of expensive sheet aluminum or galvanized iron sheet. I've
> > decided the magnetic field is harder to shield the electric field, and
> > need some advice before proceeding.
> >
> > Does anyone have experience in this field? Is aluminum ok? Is thicker
> > wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> > a larger enclosure to avoid lower Q problems. Is double shielding
> > required? Much more work is involved, if so.
> > Thanks

7753. Re: Antenna change-over rly

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 06:33:46 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <elgT7.36199$Zd.3394175@bin1.nnrp.aus1.giganews.com>
Source record: 47949

You didn't indicate what frequency range you are using. For HF work, most any relay will do the job but if you are including 10 meters it's wise to choose a relay with low loss insulation. Use a relay with larger than necessary contacts because there will be carbon build after a while and you don't want the contacts eroding and causing intermittent high SWR.

For higher frequency work, you will need something with small dimensions yet fat contacts. That's why a coaxial relay is the best choice.

73, Bob K6DDX

7754. "Natural Radio" VLF Discussion Group!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 06:56:26 UTC
From: Korgans@yahoo.com
Message-ID: <a8d6dae0.0112162256.3f9f79d2@posting.google.com>
Source record: 47950

Attention all "natural radio" VLF listeners,

This is to announce the startup of an e-mail based "natural radio" VLF discussion group. This group contains members from all walks of life who are interested in discussing "natural radio" and related topics to "natural radio" VLF monitoring. VLF listeners now have an outlet for discussing "natural radio" related issues and similar topics in a group format. Current VLF activity, whistlers, chorus, schematics, receiver designs, etc., are all welcome.

If you are interested in becoming a member of the "natural radio" VLF discussion group, contact me directly by sending an e-mail to Korgans@yahoo.com.

Shawn Korgan

7755. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 07:24:50 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c1d9c2a.6828345@news.cantech.net.au>
Source record: 47951

On Sun, 16 Dec 2001 19:03:53 GMT, "Clyde R. Shappee"
<cshappee@ieee.org> wrote:

>This may be little off topic, but this group is a likely place to find a
>reader who knows how to adjust a quartz watch.
>
>This is what I tried, not knowing how jewelers do it, when asked.
>
>I wound a coil on a 2 inch form with all the #30 wire I had to about 2
>inches in length and it measured .94 mH. I tuned it to 32768 kHz with
>0.25 uF, making a parallel circuit. I amplified the signal across it
>quite a bit and hooked it up to the scope.
>
>I put a watch with a second hand in the coil and what I saw was once per
>second a burst of 32 kHz energy. Not what I expected. I expected to
>pick up a continuous signal.
>
>I have a watch with an LCD and saw nothing.
>
>Any thoughts you may share?

You have gone to some trouble to achieve a loosely coupled pickup, but
it's an inductive one which will see what you saw - the energy puls
into the stepper/solenoid.

I use a spectrum analyser and sniffer for this type of work (doesn't
help the 99.9% of hams who don't have one though). Most jewellers
(sic) use a probe connected to an instrument which reads out directly
in units fast/slow compared to the inbuilt reference. Dunno if the
units are secs/day, ppm or what.

The thing to note is the relative impracticality of setting such a low
frequency reference directly. One second per day is 12 ppm, which is
a cycle of the 32k every 2.7 secs. Unless you have a very precise
local 32k reference, this isn't all that easy.

7756. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 07:56:14 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1DA51E.D0983FA6@ay.com.au>
Source record: 47952

John O'Flaherty wrote:

> If you have a burst at 1/second, use it to trigger a timer
> with a time long enough to end up with a once per second
> simple pulse. Feed that into a flipflop to get a positive gate
> signal of 1 second, and use that to gate a high frequency signal
> into a counter. Most counters will accept an external gate for
> their reference frequencies. Then you can adjust the watch.
> For example, if the counter ref freq is 10 mhz, just adjust the
> watch until you get exactly 10 million pulses in the gate time.

He is probably seeing his tank circuit ringing down after being
energised by the tick transient. So all he will see is how accurate his
coil + cap is. It is all pretty academic, because I've never seen a
crystal watch with a trimmer capacitor.

Also, have you ever tried to trim a low frequency oscillator? The
count times are so damn long it just isn't practical.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (6% of Full)

7757. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 07:59:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C1DA5C8.B52F2E50@eznec.com>
Source record: 47953

Looks like you've gotten some good advice. I'll add that the 32 kHz energy is your tuned pickup ringing in response to the pulse it's responding to, and has nothing to do with the oscillator frequency. I'll bet that you can make the ring frequency whatever you want by tuning the pickup. The suggestion of using the one second pulse period to set a counter gate time seems like a good one to me. The oscillator power has to be extremely low, or the watch battery wouldn't last long. The pulse to the stepping motor, on the other hand, would involve a lot more current, which is why you're seeing it and not the oscillator.

Roy Lewallen, W7EL

budgie wrote:
>
> On Sun, 16 Dec 2001 19:03:53 GMT, "Clyde R. Shappee"
> <cshappee@ieee.org> wrote:
>
> >This may be little off topic, but this group is a likely place to find a
> >reader who knows how to adjust a quartz watch.
> >
> >This is what I tried, not knowing how jewelers do it, when asked.
> >
> >I wound a coil on a 2 inch form with all the #30 wire I had to about 2
> >inches in length and it measured .94 mH. I tuned it to 32768 kHz with
> >0.25 uF, making a parallel circuit. I amplified the signal across it
> >quite a bit and hooked it up to the scope.
> >
> >I put a watch with a second hand in the coil and what I saw was once per
> >second a burst of 32 kHz energy. Not what I expected. I expected to
> >pick up a continuous signal.
> >
> >I have a watch with an LCD and saw nothing.
> >
> >Any thoughts you may share?

7758. Rack Mount cabinet free to a good home

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 13:17:09 UTC
From: kb8uhu@aol.com
Message-ID: <20011217081709.16694.00000705@mb-ci.aol.com>
Source record: 47954

Hello all--I have a 19" rack mount cabinet manufactured by the Optima corporation on casters that needs a home. It has a Formica top and a slide-out drawer in the bottom front. It is 36"H 22"W and 25"D. It formerly housed a home-brew UHF repeater with the drawer containing back-up batteries (we insulated it with foam and "heated" it with a 25W bulb and a basic thermostat. Located in Northern OH and free. 73 de Bob W8IJG Please respond to my e-mail direct. KB8UHU@aol.com

7759. WARNING: VE2SWL THIEF, LIAR, MAIL FRAUD ALERT!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 14:12:00 UTC
From: Webster Williams <kr4wm@sc.rr.com>
Message-ID: <MPG.1687c92dda8be850989806@news-server.sc.rr.com>
Source record: 47956

On October 15th, I mailed a money order to Jordan Arndt,
VE2SWL in the amount of $116.00 for two turns counters,
a front panel, and a tuned input circuit for an amplifier.
The items have not shown up, and Mr. Arndt refuses to
contact me or refund my money. I have filed international
mail fraud charges with local law enforcement and the
U.S. Postal Service. All amateurs who can put pressure
on Mr. Arndt to send my items or a refund please act!
Do not buy anything from Mr. Arndt until he follows
through on his promise. If you want to see what kind of
person he is, look at his E-bay feedback! Let's put this
thief OUT OF BUSINESS!!!

Kindest regards, -Webster D. Williams in Myrtle Beach, SC

VE2SWL
Jordan Arndt
406 - 26 AVE. N.W.
CALGARY, AB T2M 2E2
CANADA

7760. DB Products duplexer cavities

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 14:15:29 UTC
From: gspubl@tca.net
Message-ID: <3c1dfde3.1032963613@news.tamu.edu>
Source record: 47955

FS; DB Products Corp., VHF duplexer model DB-4062 (a bank of 6 cavities). Duplexer is in its own original steel cabinet and ready to go. It is currently on 153/154 mhz so will need to be retuned for 2 meter use. $425.

7761. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 15:37:20 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u1s495cmil8l8a@corp.supernews.com>
Source record: 47957

"Alan Yates" <alany@ay.com.au> wrote ...
> He is probably seeing his tank circuit ringing down after being
> energised by the tick transient. So all he will see is how accurate his
> coil + cap is. It is all pretty academic, because I've never seen a
> crystal watch with a trimmer capacitor.

Huh? I could have sworn that I saw a trimmer cap in my watch last time I replaced the batteries.

How do they "calibrate" the things for timekeeping? Surely those 25-cent crystals aren't accurate enough on their own!

RC

7762. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 15:51:16 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1E1473.FA4781D6@ay.com.au>
Source record: 47958

Richard Crowley wrote:
>
> "Alan Yates" <alany@ay.com.au> wrote ...
> > He is probably seeing his tank circuit ringing down after being
> > energised by the tick transient. So all he will see is how accurate his
> > coil + cap is. It is all pretty academic, because I've never seen a
> > crystal watch with a trimmer capacitor.
>
> Huh? I could have sworn that I saw a trimmer cap in my watch last time I
> replaced the batteries.

None of the $2 store ones I've ever opened and fiddled with have. All they have is a board with an embeded chip in some black epoxy, 2 chip caps, a battery, button contacts, a crystal, and the LCD assembly, some have a piezo and/or a grain of wheat globe depending on their features.

The Swatch style electromechanical devices have even less, just a big electromagnet, the mechanics, a battery, crystal, and a some chip in there too.

Maybe the more fancy ones have trimmers? Can't be too easy to calibrate though, they'd have to be a body temp, and jitter could be a problem with a gated pulse counting system.

> How do they "calibrate" the things for timekeeping? Surely those 25-cent
> crystals aren't accurate enough on their own!

It would be close enough, they aren't exactly a hydrogen maser.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (8% of Full)

7763. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 15:55:33 UTC
From: mcalhoun@ksu.edu
Message-ID: <9vl4hl$12j@unix1.cc.ksu.edu>
Source record: 47959

>>What other low cost options are there? I can't afford to be dropping a
>>couple hundred dollars (US) on capacitors anytime soon... and to be
>....[snip]....

>The greater versatility of the T-network is why it is used in most
>factory-made tuners. For now, I suggest you open up your friend's MFJ
>tuner and clone it as closely as you can!

NO! If it's like the one I opened (and then immediately returned), it's a
HIGH-PASS network and not a LOW-PASS, which you may want (need?-):

```
---C---+---C--- ---LLLLLLLLL---
| >>>>>>>>> ^ <<<<< Alligator clip tap!
in L out |
| C
-------+------- -------+--------
```

ONE inductor, ONE capacitor, and TWO alligator clips (good quality--but
that's another story) make the most versatile tuner possible at VERY LOW
cost. It does look a little home-brew, but IMHO that ADDs to its value!

--Myron.
--
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTX). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

7764. Re: Need HV capacitor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 16:23:55 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9vl66q$9uj$4@woodrow.ucdavis.edu>
Source record: 47960

Hi Bill,

If you don't find a cap, drop me a note... If I don't have one, I can get
them.

cheers
skipp
http://sonic.ucdavis.edu

take the nospamplease out of my Email header when you reply.

: Bill Russell <willy@global2000.net> wrote:
: Im looking for a 24mfd cap at 3000volts for a replacement in my
: Thunderbolt. This is to replace the origional factory cap. in the HV
: supply.

: Bill KC2IFR

7765. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 17:26:16 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1E2AB8.87C0486A@ieee.org>
Source record: 47961

I think you are correct. That is why the LCD watch doesn't yield any signal.

Clyde

Alan Yates wrote:

> John O'Flaherty wrote:
>
> > If you have a burst at 1/second, use it to trigger a timer
> > with a time long enough to end up with a once per second
> > simple pulse. Feed that into a flipflop to get a positive gate
> > signal of 1 second, and use that to gate a high frequency signal
> > into a counter. Most counters will accept an external gate for
> > their reference frequencies. Then you can adjust the watch.
> > For example, if the counter ref freq is 10 mhz, just adjust the
> > watch until you get exactly 10 million pulses in the gate time.
>
> He is probably seeing his tank circuit ringing down after being
> energised by the tick transient. So all he will see is how accurate his
> coil + cap is. It is all pretty academic, because I've never seen a
> crystal watch with a trimmer capacitor.
>
> Also, have you ever tried to trim a low frequency oscillator? The
> count times are so damn long it just isn't practical.
>
> --
> Alan Yates
> http://www.vk2zay.net/
> The Moon is Waxing Crescent (6% of Full)

7766. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 17:44:20 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C1E2EF4.FFF10637@blackhole.net>
Source record: 47962

Alan Yates wrote:
>
> John O'Flaherty wrote:
>
> > If you have a burst at 1/second, use it to trigger a timer
> > with a time long enough to end up with a once per second
> > simple pulse. Feed that into a flipflop to get a positive gate
> > signal of 1 second, and use that to gate a high frequency signal
> > into a counter. Most counters will accept an external gate for
> > their reference frequencies. Then you can adjust the watch.
> > For example, if the counter ref freq is 10 mhz, just adjust the
> > watch until you get exactly 10 million pulses in the gate time.
>
> He is probably seeing his tank circuit ringing down after being
> energised by the tick transient. So all he will see is how accurate his
> coil + cap is.

You didn't read my suggestion closely enough. The idea is to get a
1-second pulse and exclude the 32.768 khz part.

> It is all pretty academic, because I've never seen a
> crystal watch with a trimmer capacitor.

The Casio watch I had before I lost it had a trimmer. I haven't opened
the Timex I'm wearing yet because it's been pretty accurate.

> Also, have you ever tried to trim a low frequency oscillator? The
> count times are so damn long it just isn't practical.

That's where using an hf oscillator (such as the frequency counter's
precision clock) gated by the 1 second pulse comes in. You use period
measurement rather than frequency measurement. Using a 10 mhz
oscillator, you can adjust to within +/- 1 part in 10^7, plus or minus
one count, plus or minus the inaccuracy of the oscillator. There being
about 30 million seconds in a year, you could get as close as, say, five
seconds per year, disregarding thermal drift.

--
john

7767. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 17:51:02 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C1E3086.579C510C@blackhole.net>
Source record: 47963

"Clyde R. Shappee" wrote:
>
> This may be little off topic, but this group is a likely place to find a
> reader who knows how to adjust a quartz watch.
{snipped}
>
> Any thoughts you may share?

To take the topic even further afield, how about this for a consumer
product:
There are cheap receivers that get wwv and display it digitally. What if
someone builds one into a little stand that we set our watches on at
night, that magnetically or optically connect to the watch and correct
it to the exact second.

--
john

7768. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 18:12:53 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1E35A4.E4630EDD@ay.com.au>
Source record: 47964

John O'Flaherty wrote:
>
> Alan Yates wrote:
> >
> > John O'Flaherty wrote:
> >
> > > If you have a burst at 1/second, use it to trigger a timer
> > > with a time long enough to end up with a once per second
> > > simple pulse. Feed that into a flipflop to get a positive gate
> > > signal of 1 second, and use that to gate a high frequency signal
> > > into a counter. Most counters will accept an external gate for
> > > their reference frequencies. Then you can adjust the watch.
> > > For example, if the counter ref freq is 10 mhz, just adjust the
> > > watch until you get exactly 10 million pulses in the gate time.
> >
> > He is probably seeing his tank circuit ringing down after being
> > energised by the tick transient. So all he will see is how accurate his
> > coil + cap is.
>
> You didn't read my suggestion closely enough. The idea is to get a
> 1-second pulse and exclude the 32.768 khz part.

Sorry, you are correct.

> > It is all pretty academic, because I've never seen a
> > crystal watch with a trimmer capacitor.
>
> The Casio watch I had before I lost it had a trimmer. I haven't opened
> the Timex I'm wearing yet because it's been pretty accurate.

I must admit my only experence is with those really cheap all plastic
except the backplate watches you get from $2 stores.

> > Also, have you ever tried to trim a low frequency oscillator? The
> > count times are so damn long it just isn't practical.
>
> That's where using an hf oscillator (such as the frequency counter's
> precision clock) gated by the 1 second pulse comes in. You use period
> measurement rather than frequency measurement. Using a 10 mhz
> oscillator, you can adjust to within +/- 1 part in 10^7, plus or minus
> one count, plus or minus the inaccuracy of the oscillator. There being
> about 30 million seconds in a year, you could get as close as, say, five
> seconds per year, disregarding thermal drift.

In the Sydney Observatory there used to be a watch calibrator machine,
it had a chunk of metal with a tiny spring-loaded tranducer pin sticking

out of it, you'd rest to watch on it, back down, touching the pin that stuck out through the top.

It had two modes, mechanical or quartz. I guess it used a similar gated pulse counting technique for the mechanical watches, but it could do LCD ones to, so I assume it could feel the 32kHz oscillator. It had a 10 segment multi-coloured bargraph of LEDs that indicated 'signal', it would either sit at about 7 lights with LCD/quartz watches, or bounce off the scale each second for quartz/mechanicals, pure mechanicals were more complex having a sporadic signal in between pulses per second.

It read out in ppm, seconds per day, and frequency. I remember some readings took a while to light up (like a minute or so). I think it had a rubidium reference. The unit it self was fairly small, about the size of a 3RU case, on a stand off the floor, with some operation instructions in a perspex box behind it. I was pretty young the last time I saw it, so it may not still be there, and details about it are a bit hazy.

I had a quartz mechanical watch that used to confuse it totally, it would say it was loosing then gaining 100s of seconds per day, while in my experence the watch lost only a second or two per week. Other watches were fine, most LCD ones I tried were around 20 ppm IIRC. I used to love playing with it whenever I was there, I totally forgot about it until now!

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (8% of Full)

7769. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 18:16:34 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1E3682.441AA97D@ay.com.au>
Source record: 47965

John O'Flaherty wrote:
>
> "Clyde R. Shappee" wrote:
> >
> > This may be little off topic, but this group is a likely place to find a
> > reader who knows how to adjust a quartz watch.
> {snipped}
> >
> > Any thoughts you may share?
>
> To take the topic even further afield, how about this for a consumer
> product:
> There are cheap receivers that get wwv and display it digitally. What if
> someone builds one into a little stand that we set our watches on at
> night, that magnetically or optically connect to the watch and correct
> it to the exact second.

Can't you buy a wrist watch that syncs to the LW time reference
(forgotten the call sign)? I think I remember reading that on the NIST
website.

I've seen the WWV wall and desk clocks.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (9% of Full)

7770. E-Bay user ID for <*THIEF*> Jordan Arndt, VE2SWL DANGER! MAIL FRAUD!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 18:30:42 UTC
From: Webster Williams <kr4wm@sc.rr.com>
Message-ID: <MPG.168805d11fc0ee98989810@news-server.sc.rr.com>
Source record: 47966

jordana@nucleus.com

Sorry, I left that out of my previous post.

I just got done at the local Law Enforcement Center. It appears that Mr. Arndt has attracted the curiosity of the U.S. Secret Service as well as the Post Office! There is a new branch of the Secret Service that investigates thievery over the internet! How 'bout THEM apples!?!?

Thanks, -Web Williams in Myrtle Beach, SC

7771. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 18:57:58 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C1E4036.4B5F66A8@blackhole.net>
Source record: 47967

Alan Yates wrote:
>
> John O'Flaherty wrote:
> >
> > "Clyde R. Shappee" wrote:
> > >
> > > This may be little off topic, but this group is a likely place to find a
> > > reader who knows how to adjust a quartz watch.
> > {snipped}
> > >
> > > Any thoughts you may share?
> >
> > To take the topic even further afield, how about this for a consumer
> > product:
> > There are cheap receivers that get wwv and display it digitally. What if
> > someone builds one into a little stand that we set our watches on at
> > night, that magnetically or optically connect to the watch and correct
> > it to the exact second.
>
> Can't you buy a wrist watch that syncs to the LW time reference
> (forgotten the call sign)? I think I remember reading that on the NIST
> website.
>
> I've seen the WWV wall and desk clocks.

I haven't seen one of the LW watches yet. I have a small digital clock
that receives the LW, and I really like it- it's always on the button. I
bought an analog clock at Wal-mart that claimed to be atomic, but I took
it back. It was a quartz movement with an added module that received the
wwv signal, but there was no indication whether it was receiving or
locked, and the instructions said something like 'if the signal is not
received, the clock will work as a regular quartz clock...'. I don't
need another clock around that I might have to set.

--
john

7772. Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 19:40:00 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3C1E4A11.D5C2945A@psu.edu>
Source record: 47969

Hi All

I'm working on a homebrew Galena crystal detector radio, and had a few questions.

What is a historically accurate method of mounting the crystal? I was going to mount the crystal in solder in a steel or copper cup (melt the solder in the cup, and plunk it in the cup.

The other question is on the cats whisker. I was going to make a "pinched ball" arrangement with the whisker on an end. Is this at all accurate?

- mike -

7773. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 19:40:17 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112171140.6426bef5@posting.google.com>
Source record: 47968

Alan Yates <alany@ay.com.au> wrote in message news:<3C1E1473.FA4781D6@ay.com.au>...
...
> Maybe the more fancy ones have trimmers? Can't be too easy to
> calibrate though, they'd have to be a body temp, and jitter could be a
> problem with a gated pulse counting system.

But of course you wouldn't use that sort of system! With a 100MHz timebase and only pulse counting techniques, you can get one part in 10^8 in a second or so. You just use the 32.768kHz (divided down) to generate the gate, while counting the 100MHz. Obviously you don't need anything that high resolution. That gives you period, and 1/period = frequency. You could also do it (since it's only one frequency you're interested in) with a phase-comparator system which would let you measure, say, phase drift rates of under one degree per second, in a second or so. That's well under one part per million. (We--HP/Agilent at other sites--build some counters that claim to be fast at resolving any input frequency to many digits. But I've found when I want to get the fastest resolution to microhertz of a signal that's a few kHz, the FFT techniques we--at this site--have focussed on.)

Since the tuning-fork crystals have a known temperature characteristic, it wouldn't be too bad to simply calibrate "off" just a bit at room temperature.

I suppose not all watch-repair places have the ability to properly adjust LCD watches (the ones that do have trimmers...and I have seen some that do), but the calibrator equipment wouldn't (shouldn't?) be prohibitively expensive for places that deal in kilodollar watches.

Cheers,
Tom

7774. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 19:42:24 UTC
From: Frank Dinger <f.dinger@ntlword.com>
Message-ID: <HAET7.31655$pU3.3642642@news2-win.server.ntlworld.com>
Source record: 47897

> I haven't seen one of the LW watches yet. I have a small digital clock
> that receives the LW, and I really like it- it's always on the button. I
> bought an analog clock at Wal-mart that claimed to be atomic, but I took
> it back. It was a quartz movement with an added module that received the
> wwv signal, but there was no indication whether it was receiving or
> locked, and the instructions said something like 'if the signal is not
> received, the clock will work as a regular quartz clock...'. I don't
> need another clock around that I might have to set.
==========
Nowadays most if not all of the LCD , LW clocks whether operating on MSF
(Rugby-England) , 60 Khz or WWV (60 KHz ??) or DCF - Germany (77 KHz) do
have their own quartz crystal such that in case the locking signal
temporarily disappears (for example due to TX maintenance) the clock keeps
running and if necessary is corrected as soon as the LW sig is back .
I use a make Zenith clock (made in Germany) receiving MSF ,60KHz which
indicates whether the LW sig is received ,or not.
The clock is always in operation.

Note : If you consider purchasing such a clock for use in the shack ,make
sure it can be set to 24 hrs time indication. Not all makes can be set that
way . The Zenith clock can.

Frank gm0csz.kn6wh@ntlworld.com

7775. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 19:54:36 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112171154.58abd56a@posting.google.com>
Source record: 47970

Bob Liesenfeld <robert.liesenfeld@neicoltech.org> wrote in message news:<3C1A3954.48A94C44@neicoltech.org>...

> This type of FM
> detector is not known for it's linearity.

Actually, the linearity can be extremely good, but it depends on the phase linearity of the quadrature network. I say "network" because people have used double-tuned networks and transmission lines to get much better phase linearity than you can get with a simple single coil. There's a tradeoff between linearity and sensitivity, too: if you use a lower-Q coil, you'll get better linearity and lower sensitivity.

As I recall, it was either a fancy Marantz or McIntosh (MR-71??) FM broadcast tuner that used the delay line for essentially a quadrature detection scheme. I know the marketing hyped it, but don't know if it was as wonderful as some other techniques or not.

Want _really_ good linearity? Do it digitally! ;-) (And for sure avoid non-phase-linear filtering in the signal path before the detector!)

Cheers,
Tom

7776. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 20:21:56 UTC
From: w4pqwhs@aol.com
Message-ID: <20011217152156.17762.00000537@mb-fn.aol.com>
Source record: 47971

>
>Looking for a simple circuit to provide 10 volts AC output with 120 volts
>in. No regulation requried. Anyone have a schematic for such a supply?
>Tnx, Bob, AA8X

Bob, this is a joke."Right" it`s got to be a joke. you are an extra
class..lordy, lordy...

7777. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 20:47:12 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3C1E59D0.5ADB1FEE@psu.edu>
Source record: 47972

I tried this once. It sounds easy, but is actually impossible to do.

.....really big grin!

- Mike -

W4pqw HS wrote:
>
> >
> >Looking for a simple circuit to provide 10 volts AC output with 120 volts
> >in. No regulation requried. Anyone have a schematic for such a supply?
> >Tnx, Bob, AA8X
>
> Bob, this is a joke."Right" it`s got to be a joke. you are an extra
> class..lordy, lordy...

7778. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 20:56:16 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3c1e5bf0@news.svn.net>
Source record: 47973

Back in Sept 1979, RF Design magazine had an article to do just what you ask. A simple piezoelectric bender (beeper disk) fed a PLL (phase locked loop) to generate a clean 32768 Hz signal from any quartz watch placed face down on it.

As to getting it accurate to sub-hertz rates - the article covered that, too. The idea was to set the time accurately, then just wear the watch for a month or so. Record when it was first set. Then, when adjustment time comes, record the new time, date, and error that was corrected. Some simple math will show exactly how fast or slow the watch has been running (in parts per million, for instance).

Then, using a good (period) counter (which typically gives 6 to 9 digits of resolution per period of gate time), measure the crystal frequency. Using the above error rate, you can easily compute the necessary correction and correct frequency. Then trim to get it.

The author typically got watch errors down to 1 second per month on the first try.

Note that even the counter's accuracy isn't a factor.

Sorry I don't have the article any more - at a prior job someone decided to throw all my back issues away (aargh!!). But the elegance of that particular one has had it stuck in the back of my mind since then...

Jim Horn, WB9SYN/6

7779. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 21:08:04 UTC
From: James <jamesf@xxxnec.com.au>
Message-ID: <1008623319.237496@busy.neca.nec.com.au>
Source record: 47974

Hi,

I guess all discussions have been based on the assumption that the pulses
are one per second. What if the manufacturer used a different figure, like
two per socond. My "Seiko 5" (fully mechanical) looks to be about 4 or 5 per
second, as the second hand moves almost smoothly.

James.

"Alan Yates" <alany@ay.com.au> wrote in message
news:3C1E35A4.E4630EDD@ay.com.au...
> John O'Flaherty wrote:
> >
> > Alan Yates wrote:
> > >
> > > John O'Flaherty wrote:
> > >
> > > > If you have a burst at 1/second, use it to trigger a timer
> > > > with a time long enough to end up with a once per second
> > > > simple pulse. Feed that into a flipflop to get a positive gate
> > > > signal of 1 second, and use that to gate a high frequency signal
> > > > into a counter. Most counters will accept an external gate for
> > > > their reference frequencies. Then you can adjust the watch.
> > > > For example, if the counter ref freq is 10 mhz, just adjust the
> > > > watch until you get exactly 10 million pulses in the gate time.
> > >
> > > He is probably seeing his tank circuit ringing down after
being
> > > energised by the tick transient. So all he will see is how accurate
his
> > > coil + cap is.
> > >
> > You didn't read my suggestion closely enough. The idea is to get a
> > 1-second pulse and exclude the 32.768 khz part.
>
> Sorry, you are correct.
>
> > > It is all pretty academic, because I've never seen a
> > > crystal watch with a trimmer capacitor.
> > >
> > The Casio watch I had before I lost it had a trimmer. I haven't opened
> > the Timex I'm wearing yet because it's been pretty accurate.
>
> I must admit my only experence is with those really cheap all plastic
> except the backplate watches you get from $2 stores.

>
> > > Also, have you ever tried to trim a low frequency oscillator?
The
> > > count times are so damn long it just isn't practical.
> >
> > That's where using an hf oscillator (such as the frequency counter's
> > precision clock) gated by the 1 second pulse comes in. You use period
> > measurement rather than frequency measurement. Using a 10 mhz
> > oscillator, you can adjust to within +/- 1 part in 10^7, plus or minus
> > one count, plus or minus the inaccuracy of the oscillator. There being
> > about 30 million seconds in a year, you could get as close as, say, five
> > seconds per year, disregarding thermal drift.
>
> In the Sydney Observatory there used to be a watch calibrator machine,
> it had a chunk of metal with a tiny spring-loaded tranducer pin sticking
> out of it, you'd rest to watch on it, back down, touching the pin that
> stuck out through the top.
>
> It had two modes, mechanical or quartz. I guess it used a similar
> gated pulse counting technique for the mechanical watches, but it could
> do LCD ones to, so I assume it could feel the 32kHz oscillator. It had
> a 10 segment multi-coloured bargraph of LEDs that indicated 'signal', it
> would either sit at about 7 lights with LCD/quartz watches, or bounce
> off the scale each second for quartz/mechanicals, pure mechanicals were
> more complex having a sporadic signal in between pulses per second.
>
> It read out in ppm, seconds per day, and frequency. I remember some
> readings took a while to light up (like a minute or so). I think it had
> a rubidium reference. The unit it self was fairly small, about the size
> of a 3RU case, on a stand off the floor, with some operation
> instructions in a perspex box behind it. I was pretty young the last
> time I saw it, so it may not still be there, and details about it are a
> bit hazy.
>
> I had a quartz mechanical watch that used to confuse it totally, it
> would say it was loosing then gaining 100s of seconds per day, while in
> my experence the watch lost only a second or two per week. Other
> watches were fine, most LCD ones I tried were around 20 ppm IIRC. I
> used to love playing with it whenever I was there, I totally forgot
> about it until now!
>
> --
> Alan Yates
> http://www.vk2zay.net/
> The Moon is Waxing Crescent (8% of Full)

7780. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 21:35:02 UTC
From: WB8RCR <wb8rcr_NOSPAM@qsl.net>
Message-ID: <9vloea0tvh@enews4.newsguy.com>
Source record: 47975

Back when I was a young'un I had one of those, and it worked fairly well, although it did seem like some others didn't work as well, so there is apparently some variability in the crystals.

Anyway, in mine, the crystal was mounted in a cup that appeared to be tin or solder plated, and apparently immersed in a blob of solder as you describe. The cup was perhaps 1/2" in diameter and perhaps a little less high.

The "whisker" was actually a spring. There was a conical spring, with the wide end slipped over the end of the arm, a little less than 1/8" in diameter. The spring was perhaps 24 or 26 gage, ending with a wire protruding maybe 3/4" or so from the narrow end which was then poked onto the crystal.

The arm was perhaps 4 or 5" long, had a ball in the center where it was mounted, and a small handle, maybe Bakelite maybe wood, on the end opposite to the whisker. If I recall, and this part is getting really fuzzy, there were fahenstock clips at the cup and at the mount that held the ball. I seem to recall a black Bakelite base.

Really tough to describe without drawing a picture.

..

"mike coslo" <mjc5@psu.edu> wrote in message
news:3C1E4A11.D5C2945A@psu.edu...
> Hi All
>
> I'm working on a homebrew Galena crystal detector radio, and had a few
questions.
>
> What is a historically accurate method of mounting the crystal? I was
> going to mount the crystal in solder in a steel or copper cup (melt the
> solder in the cup, and plunk it in the cup.
>
> The other question is on the cats whisker. I was going to make a
> "pinched ball" arrangement with the whisker on an end. Is this at all
accurate?
>
> - mike -

7781. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 22:19:10 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <ybuT7.105836$Y6.10328663@news1.rdc1.ct.home.com>
Source record: 47976

Galena can be mounted in two ways... NEVER NEVER NEVER
use a blob of solder to mount galena. Galena is lead ore, and
the heat required to melt solder can destroy or greatly reduce the
sensitivity of a good piece of galena ore.

The proper metal to use is WOODS METAL. This is the stuff that
gag melting spoons were made of, and it will melt below the
temperature of boiling water. You can buy properly mounted
galanas for about $1.50 each.

Or, you can make up a simple clamp arrangement to hold the
chunk of galena in position.

The proper material for the probe is a very light gauge wire, such
as brass. Do NOT use a stiff probe, or the constant probing
will quickly destroy the sweet spots on the galena surface. I use
brass wire sold in hardware stores for picture hanging. Cut the
wire on a bias using sharp scissors. You can still buy the proper
cat whiskers for galena and silicon detectors (silicon detectors
require a stiffer catswhisker.)

If an older galena crystal appears to have lost its sensitivity,
clean the surface with some pure alcohol. This will usually
restore a crystal to usable condition.

73

Peter

"mike coslo" <mjc5@psu.edu> wrote in message
news:3C1E4A11.D5C2945A@psu.edu...
> Hi All
>
> I'm working on a homebrew Galena crystal detector radio, and had a few
questions.
>
> What is a historically accurate method of mounting the crystal? I was
> going to mount the crystal in solder in a steel or copper cup (melt the
> solder in the cup, and plunk it in the cup.
>
> The other question is on the cats whisker. I was going to make a
> "pinched ball" arrangement with the whisker on an end. Is this at all
accurate?
>
> - mike -

7782. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 22:23:51 UTC
From: lasse.moell@swipnet.se
Message-ID: <6331e8e9.0112171423.1561f0c0@posting.google.com>
Source record: 47977

Tim,
not knowing too much about the Ramsey, have you checked the IF filter
bandwith? If the receivier is meant for nbFM it is likely to be 15 kHz
or so, and I think (not knowing) that the band with of the wx-sat is
more than 30 kHz....

With proper post-filtering I usually get nice clean AF from my 3359
ckt's. I think if you look in the Motorola databook you will see that
the waveform is not really pure sine wave at the IF part.

/Lasse SM5GLC

"Tim H." <tekphobia@attbi.com> wrote in message news:<3C1A9C87.BF664520@attbi.com>...
> Hello,
>
> I just wanted to thank everyone for their insight. Don't tell anyone,
> but I posted this to sci.electronics.basics and got nada; so, thanks
> guys! =)
>
>
> I've discovered this 1/2Vcc method myself and it seems foolproof. I've
> tried everything with the coil and my satellite images still look quite
> pitiful. This leads me to believe something else is wrong. For kicks, I
> scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven,
> clipping in some parts). Of course, this is after Ramsey's "IF Amp."
>
> So, next question, am I right in assuming that the signal from the
> 10.7Mhz ceramic filter should be a fairly clean sine? Also, Ramsey did
> an apparent no-no on the L.O. design. According to the SA(NE)602
> datasheet, there shouldn't be a resistance smaller than 22k from pin 7
> to GND. Ramsey has 10k - so I swapped it out. I guess I should take this
> to sci.electronics.repair as I'm at a loss as to what could be wrong.
>
> -Tim
>

7783. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 22:25:40 UTC
From: "Harold E. Johnson" <W4ZCB@Home.com>
Message-ID: <EhuT7.74560$py4.35181393@news2.nash1.tn.home.com>
Source record: 47978

I think that "blob" of solder was really "Woods metal" a low melting point combination of bismuth, tin, antimony and whatever from memory. At least that's the way I made them in 1944, I suspect that most soldering temperatures might not do the galena any particular good.

> Anyway, in mine, the crystal was mounted in a cup that appeared to be tin or
> solder plated, and apparently immersed in a blob of solder as you describe.
> The cup was perhaps 1/2" in diameter and perhaps a little less high.

W4ZCB

7784. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 22:55:09 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C1E77CD.78C3BDCE@clifto.com>
Source record: 47979

Tim H. wrote:
> For kicks, I
> scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven,
> clipping in some parts). Of course, this is after Ramsey's "IF Amp."
>
> So, next question, am I right in assuming that the signal from the
> 10.7Mhz ceramic filter should be a fairly clean sine?

I'd expect some noise, but not clipping or unevenness.

> Also, Ramsey did
> an apparent no-no on the L.O. design. According to the SA(NE)602
> datasheet, there shouldn't be a resistance smaller than 22k from pin 7
> to GND. Ramsey has 10k - so I swapped it out.

Sounds like a real winner. I'd consider taking a $10 FM radio and using
its IF circuitry instead.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7785. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 22:59:46 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <CNuT7.105868$Y6.10328676@news1.rdc1.ct.home.com>
Source record: 47980

Jim

Try using a tunable trap.. Add another coil in the same axis that
can be slid away or closer to the main coil. Use a 365 pF cap
across it. You can tune the trap to eliminate the offending station,
and set the coupling to the minimum needed to avoid sucking out
desired adjacent stations.

Peter

"Jim Hill" <Xslimjimzz@home.com> wrote in message
news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> I built a crystal set with a large coil, and discovered the coil acted
> as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> a few miles from my house, was so strong it could not be nulled out by
> rotating the set.
>
> I built a shielded enclosure by taping aluminum foil to a large
> cardboard box that held a TV set, but there no attenuation.
>
> There were a few holes in the foil, but I decided to experiment with a
> smaller radio without earphone leads, and turned used an old
> transistorized AM radio. I tried a metal cookie can, and any
> attenuation seemed to be from the audio signal going through the can.
> While the lid was not RF-tight, it did have about a &#65533;' overlap.
>
> I have an old Heath TX-1 transmitter (an updated DX-100) that is
> shielded for TVI avoidance. For example, the meter and frequency dial
> are enclosed in metal containers. There's an access port at the top,
> and I used it to put the radio inside. There are plenty of 1/16"
> ventilation holes, so no audio attenuation - or any decrease in audio
> level. Surface between the access port door and case is painted and no
> finger stock, but presumably the case provides attenuation at TV
> frequencies. Otherwise there would be no reason to go to the trouble
> of shielding the meter and dial.
>
> I also tried some commercial metal file cabinets. There was no
> attenuation.
>
> Further tests would require fabricating metal test boxes using my
> small stock of expensive sheet aluminum or galvanized iron sheet. I've
> decided the magnetic field is harder to shield the electric field, and
> need some advice before proceeding.
>

> Does anyone have experience in this field? Is aluminum ok? Is thicker
> wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> a larger enclosure to avoid lower Q problems. Is double shielding
> required? Much more work is involved, if so.
> Thanks
>

7786. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 23:09:40 UTC
From: SAM <scottm@netcommander.com>
Message-ID: <UWuT7.300634$8q.27350582@bin2.nnrp.aus1.giganews.com>
Source record: 47981

The problem may not be with the RF portion of the radio but rather in the sensitive crystal earphone or audio lead. You may be picking up the stations directly through the leads or earpiece. You might try, just for a test, shielding the earphone lead or puting a couple ferrite bead on the earphone lead, installing one of them as close to the earpiece as possible. This may be enough to eliminate any audio rectification.

Scott M.

"Peter J. Bertini" <commquart@home.com> wrote in message
news:CNuT7.105868$Y6.10328676@news1.rdc1.ct.home.com...
> Jim
>
> Try using a tunable trap.. Add another coil in the same axis that
> can be slid away or closer to the main coil. Use a 365 pF cap
> across it. You can tune the trap to eliminate the offending station,
> and set the coupling to the minimum needed to avoid sucking out
> desired adjacent stations.
>
> Peter
>
> "Jim Hill" <Xslimjimzz@home.com> wrote in message
> news:04cn1ugnvibm3cgd8vqvc3guljih56mufo@4ax.com...
> > I built a crystal set with a large coil, and discovered the coil acted
> > as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
> > a few miles from my house, was so strong it could not be nulled out by
> > rotating the set.
> >
> > I built a shielded enclosure by taping aluminum foil to a large
> > cardboard box that held a TV set, but there no attenuation.
> >
> > There were a few holes in the foil, but I decided to experiment with a
> > smaller radio without earphone leads, and turned used an old
> > transistorized AM radio. I tried a metal cookie can, and any
> > attenuation seemed to be from the audio signal going through the can.
> > While the lid was not RF-tight, it did have about a ' overlap.
> >
> > I have an old Heath TX-1 transmitter (an updated DX-100) that is
> > shielded for TVI avoidance. For example, the meter and frequency dial
> > are enclosed in metal containers. There's an access port at the top,
> > and I used it to put the radio inside. There are plenty of 1/16"
> > ventilation holes, so no audio attenuation - or any decrease in audio
> > level. Surface between the access port door and case is painted and no
> > finger stock, but presumably the case provides attenuation at TV

> > frequencies. Otherwise there would be no reason to go to the trouble
> > of shielding the meter and dial.
> >
> > I also tried some commercial metal file cabinets. There was no
> > attenuation.
> >
> > Further tests would require fabricating metal test boxes using my
> > small stock of expensive sheet aluminum or galvanized iron sheet. I've
> > decided the magnetic field is harder to shield the electric field, and
> > need some advice before proceeding.
> >
> > Does anyone have experience in this field? Is aluminum ok? Is thicker
> > wall sheet needed? Is galvanized iron the way to go? If so, I'll need
> > a larger enclosure to avoid lower Q problems. Is double shielding
> > required? Much more work is involved, if so.
> > Thanks
> >
>
>

7787. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-17 23:53:32 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C1E857C.699E0FE4@ieee.org>
Source record: 47982

Yes, but I have a nice watch already.... I also wanted to understand

1.) how it is done,

2.) can it be done

3.) where my measurements and lab test meaningful.

I did get a note today from the former editor of RF Design Magazine and he explained what others have said here that it is usually accomplished acoustically, and that a counter measures period, not frequency.

I may discover that the watch I want to adjust has no capability for it, as some posters have claimed, and I will just live with it.

Thanks to all who have posted; I did not expect so much activity.

Clyde

Alan Yates wrote:

> John O'Flaherty wrote:
> >
> > "Clyde R. Shappee" wrote:
> > >
> > > This may be little off topic, but this group is a likely place to find a
> > > reader who knows how to adjust a quartz watch.
> > {snipped}
> > >
> > > Any thoughts you may share?
> >
> > To take the topic even further afield, how about this for a consumer
> > product:
> > There are cheap receivers that get wwv and display it digitally. What if
> > someone builds one into a little stand that we set our watches on at
> > night, that magnetically or optically connect to the watch and correct
> > it to the exact second.
>
> Can't you buy a wrist watch that syncs to the LW time reference
> (forgotten the call sign)? I think I remember reading that on the NIST
> website.
>
> I've seen the WWV wall and desk clocks.
>
> --
> Alan Yates
> http://www.vk2zay.net/

> The Moon is Waxing Crescent (9% of Full)

7788. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 00:08:42 UTC
From: la8ak.xnd@online.no
Message-ID: <3c1e69f3.14313429@news.online.no>
Source record: 47983

On 17 Dec 2001 20:21:56 GMT, w4pqwhs@aol.com (W4pqw HS) wrote:

>>
>>Looking for a simple circuit to provide 10 volts AC output with 120 volts
>>in. No regulation requried. Anyone have a schematic for such a supply?
>>Tnx, Bob, AA8X
>
>Bob, this is a joke."Right" it`s got to be a joke. you are an extra
>class..lordy, lordy...

have seen several requests elsewhere for 120/230 to 10VAC converters
- transformer seem to be an unknown word for many LLIDs
--
remove ,xnd to reply

7789. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 00:44:43 UTC
From: kb9olm@yahoo.com
Message-ID: <cba55a41.0112171644.a4241c3@posting.google.com>
Source record: 47984

Mike,
You are 100% right on copper cup arrangements. Steel cup would be my
2nd choice.
For the cats whisker you need a good quality steel spring with one end
mounted on a screw (for adjustment) and another end is made straight
and sharpened as an arrow to make a reliable contact with the Galena
crystal surface.
vlad
kb9olm
==========
mike coslo <mjc5@psu.edu> wrote in message news:<3C1E4A11.D5C2945A@psu.edu>...
> Hi All
>
> I'm working on a homebrew Galena crystal detector radio, and had a few questions.
>
> What is a historically accurate method of mounting the crystal? I was
> going to mount the crystal in solder in a steel or copper cup (melt the
> solder in the cup, and plunk it in the cup.
>
> The other question is on the cats whisker. I was going to make a
> "pinched ball" arrangement with the whisker on an end. Is this at all accurate?
>
> - mike -

7790. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 02:00:04 UTC
From: "." <no_s@pam.xxx>
Message-ID: <3C1EA323.A4826C7C@pam.xxx>
Source record: 47985

Let's see...

First you need a 3 phase 240 VAC 1 HP motor.
Have your house wired for 3-phase 240 VAC and run the motor from it.
Through a complicated series of pulleys and belts drive 2 automobile SIX volt generators.
Adjust the field current on each so you get 10 volts.
Use a DC to AC inverter to produce a square wave 10 volt output.
Apply the 10 volts to the primary of a 10 volt to 120VAC transformer. (Make sure it's not a DC transformer now!)
From that apply the 120VAC to the 120VAC winding of a 120-240VAC transformer.
Connect a 240VAC to 10VAC transformer to the output of that transformer.

And, amazingly enough you now have unregulated 10 VAC!!!!

And, yes, it's NOT April 1st here but perhaps in Illinois April 1 comes on December 16!

Robert John wrote:

> Looking for a simple circuit to provide 10 volts AC output with 120 volts
> in. No regulation requried. Anyone have a schematic for such a supply?
> Tnx, Bob, AA8X

7791. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 02:06:39 UTC
From: john graesser <graesser@tca.net>
Message-ID: <u1t93chd5spoc6@corp.supernews.com>
Source record: 47986

> Can't you buy a wrist watch that syncs to the LW time reference
> (forgotten the call sign)? I think I remember reading that on the NIST
> website.

I guess we can tell who doesn't have a subscription to qst. There was an ad for a watch that picked up and synced with wwv, in one of the issues in the last year. One of the local hams bought one. My parents have one of the wall clocks that syncs and it was a sight to behold when powered up and the hands just spun around until it got to the correct time.

I on the other hand enjoy setting my local timepieces, since I have to set one different so that it is in time with the timeclock at work which is 6 minutes behind wwv. My vcr though is supposed to read the signals off the cable and keep current that way. No blinking 12:00 there.
thanks, John.
KC5DWD

7792. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 02:22:17 UTC
From: john graesser <graesser@tca.net>
Message-ID: <u1ta0n7hldjga5@corp.supernews.com>
Source record: 47987

"Phineas Henshaw" <phineas@engineer.com> wrote in message
news:3c166a75.964537571@goliath.newsfeeds.com...
> Better yet, get a GMRS license for your home. That way you can go up
> to 50 watts.

You have to show that 50 watts is needed for your use. Gmrs repeaters have to be evaluated periodically to justify their power level. The 5 watt rigs are less paperwork to use. To be honest if frs freqs are overloaded, have you tried 49mhz or 27mhz? If all three are overloaded, then get on the stick and train your entire family to be hams and provide them with 222 mhz rigs, I don't think you will find anyone else using that portion of the spectrum.
thanks, John.
KC5DWD

7793. Re: Antenna Tuner Project

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 02:23:06 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112171823.62a6c3fe@posting.google.com>
Source record: 47988

"Ian White, G3SEK" <G3SEK@ifwtech.com> wrote in message
news:<FBLXZNFmrxG8EA4a@ifwtech.com>...
...(loads of good stuff about L networks deleted to save bandwidth)

A couple more comments...

Some loads are quite reactive, and that can cause trouble, in a couple of ways. First, if you have a load whose reactance is high compared with the resistive part, you're going to have a high-Q matching network...or else a matching network with lots of loss itself. That means it's going to tune sharply, and in the case of the L network, _both_ the inductor and the capacitor have to be right to get a good match. So if you use a tapped inductor, and have a high-Q load, it may be frustrating to try to find the match.

Second, if the load is quite reactive, the difference between that and the same resistance without reactance might be thought of as "adding to" or "subtracting from" the reactance of one of the tuner parts.

To help you see this, realize that what you have is a loaded tuned circuit. The load is the resistive part of your load, and the tuned circuit is the tuner's L and C PLUS the reactance of your load. Of course, things don't always add in a simple way, but you'll find that the load reactance has to be allowed for. In fact, if the cap is on the transmitter side, with a series L, then that series L's reactance adds directly to the load's reactance. So if the load is already inductive, you can end up needing a capacitor instead of an inductor in series, to get the same effective match as if the load were just resistive.

Cheers,
Tom

7794. Re: Shielding Question

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 04:41:49 UTC
From: "Jim Hill, w6ivw" <Xslimjimzz@home.com>
Message-ID: <ktht1u4u9tl92tc8m0rehve9prs0uifbc3@4ax.com>
Source record: 47989

Thanks for all the good suggestions; they give me new ideas and help me re-think ideas that I would dismiss otherwise.

A few comments and responses:
After dismal results with an aluminum covered cardboard box, I decided start with a good shield where I could hear nothing, and then try aluminum foil again. Since the crystal set was large and required external leads, I used a portable radio. Tests were made with nothing connected to the portable radio. The setup was similar to that used by Dave Hoford and his noise source. I can think of three reasons why our results differ when I use the cookie can. 1) The seal between the lid and remainder of the can was not RF-tight, and possibly was isolated by the paint. However, I also used a large circular can used to hold food for commercial users. I sanded the junction between the lid and can. I think I'll tin this junction to improve the chances of a good joint. 2) The antenna sensed the magnetic field, which might be harder to attenuate than an electric field. 3). The receiver has a sensitive antenna, while the noise source has an awful antenna. Dave, did the noise source radiate a really strong signal when operated outside the can?

The skirts of a simple tuned circuit become really broad down 30 dB or more, and maybe this is the problem. I don't think so. I'm using a coil wound with 16 gage magnet wire double spaced on a 4" Plexiglass form. Q is roughly 400, which isn't bad when not using suitable Litz wire. For comparison, Q of antenna coils used in pre-loop antenna radios is more like 40. The signal really peaks when tuning across KNX-1070, and then drops down to a barely discernable signal and seems to remain there as I tune further and further away. My crystal set noise floor is KNX, at a barely readable level. I'm using RCA sound powered headphones through a matching transformer(s). Sound powered phones are considered the ultimate among crystal set aficionados. They are noticeably more sensitive than my old-style magnetic and Brush crystal phones, and I have a number of each.

I have two tuned circuits. I series tune the antenna with an inductor, and have a normal parallel tuned circuit for the detector. I've tried a wave trap inductively coupled to the detector coil, and it doesn't help the KNX "noise floor" problem.

Pickup from the headphone leads is a definite possibility. I'm thinking of running a test using a signal generator. I'll tune the set to KNX with the normal antenna connected and measure crystal current (an S-meter of sorts). I'll connect the signal generator through a series capacitor to simulate the antenna, set the crystal current for

a higher level, and then tune across the band. If I hear nothing, I'll look into filtering the headphone leads.

Pete Gianakopoulos, thanks for your generous offer of Litz wire. I have some, but it's expensive and I don't want to use it until I experiment more with standard wire. I think taps help, but don't want to use more than one or two with a Litz wire coil. My current coil is tapped every turn, which is far more than needed. What size wire do you have?

I was going to try the signal generator test, but misplaced my sound powered phones. After a couple hours looking, I found them late this afternoon.

I'm sure some of you are members of the Yahoo Crystal Set Radio Club. Who are you, and what is your Yahoo name?

73's Jim, w6ivw Xslimjimzz@home.com Delete the X before using. It's there to reduce spam.

On Sat, 15 Dec 2001 20:23:05 GMT, Jim Hill <Xslimjimzz@home.com> wrote:

>I built a crystal set with a large coil, and discovered the coil acted
>as a loop antenna and picked up a few local stations. 50 kW KNX 1070,
>a few miles from my house, was so strong it could not be nulled out by
>rotating the set.
>
>I built a shielded enclosure by taping aluminum foil to a large
>cardboard box that held a TV set, but there no attenuation.
>
>There were a few holes in the foil, but I decided to experiment with a
>smaller radio without earphone leads, and turned used an old
>transistorized AM radio. I tried a metal cookie can, and any
>attenuation seemed to be from the audio signal going through the can.
>While the lid was not RF-tight, it did have about a ï¿½' overlap.
>
>I have an old Heath TX-1 transmitter (an updated DX-100) that is
>shielded for TVI avoidance. For example, the meter and frequency dial
>are enclosed in metal containers. There's an access port at the top,
>and I used it to put the radio inside. There are plenty of 1/16"
>ventilation holes, so no audio attenuation - or any decrease in audio
>level. Surface between the access port door and case is painted and no
>finger stock, but presumably the case provides attenuation at TV
>frequencies. Otherwise there would be no reason to go to the trouble
>of shielding the meter and dial.
>
>I also tried some commercial metal file cabinets. There was no
>attenuation.
>
>Further tests would require fabricating metal test boxes using my
>small stock of expensive sheet aluminum or galvanized iron sheet. I've

>decided the magnetic field is harder to shield the electric field, and
>need some advice before proceeding.
>
>Does anyone have experience in this field? Is aluminum ok? Is thicker
>wall sheet needed? Is galvanized iron the way to go? If so, I'll need
>a larger enclosure to avoid lower Q problems. Is double shielding
>required? Much more work is involved, if so.
>Thanks

7795. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 05:12:33 UTC
From: "Jim Hill, w6ivw" <Xslimjimzz@home.com>
Message-ID: <qvit1u8vueqo1fabkmfd8q4j8u6humekj6@4ax.com>
Source record: 47990

Suggest you join the Yahoo 'The Crystal Set Radio Club'. There are some photos of detectors at that site that should give you some construction ideas. Bring up www.yahoo.com and search for 'the crystal set radio club' (without the quotes). #1 is the club, #2 a crystal set organization that puts out a newsletter every few months, and #3 and #5 are web site of two of the members. Other members have good web sites, too. Check #4 too, it's an Australian crystal set club with some nice photos.

Jim, w6ivw, Xslimjimxx@home.com Delete the X before using.

On Mon, 17 Dec 2001 22:19:10 GMT, "Peter J. Bertini" <commquart@home.com> wrote:

>Galena can be mounted in two ways... NEVER NEVER NEVER
>use a blob of solder to mount galena. Galena is lead ore, and
>the heat required to melt solder can destroy or greatly reduce the
>sensitivity of a good piece of galena ore.
>
>The proper metal to use is WOODS METAL. This is the stuff that
>gag melting spoons were made of, and it will melt below the
>temperature of boiling water. You can buy properly mounted
>galanas for about $1.50 each.
>
>Or, you can make up a simple clamp arrangement to hold the
>chunk of galena in position.
>
>The proper material for the probe is a very light gauge wire, such
>as brass. Do NOT use a stiff probe, or the constant probing
>will quickly destroy the sweet spots on the galena surface. I use
>brass wire sold in hardware stores for picture hanging. Cut the
>wire on a bias using sharp scissors. You can still buy the proper
>cat whiskers for galena and silicon detectors (silicon detectors
>require a stiffer catswhisker.)
>
>If an older galena crystal appears to have lost its sensitivity,
>clean the surface with some pure alcohol. This will usually
>restore a crystal to usable condition.
>
>73
>
>Peter
>
>
>"mike coslo" <mjc5@psu.edu> wrote in message

>news:3C1E4A11.D5C2945A@psu.edu...
>> Hi All
>>
>> I'm working on a homebrew Galena crystal detector radio, and had a few
>questions.
>>
>> What is a historically accurate method of mounting the crystal? I was
>> going to mount the crystal in solder in a steel or copper cup (melt the
>> solder in the cup, and plunk it in the cup.
>>
>> The other question is on the cats whisker. I was going to make a
>> "pinched ball" arrangement with the whisker on an end. Is this at all
>accurate?
>>
>> - mike -
>

7796. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 06:18:01 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <C28A376340DFE114.4794CF2805BC85AC.D9A43E8B72BEC56B@lp.airnews.net>
Source record: 47991

On Mon, 17 Dec 2001 20:22:17 -0600, "john graesser" <graesser@tca.net>
wrote:

>If all three are overloaded, then get on the stick
>and train your entire family to be hams and provide them with 222 mhz rigs,
>I don't think you will find anyone else using that portion of the spectrum.

Well, about 20 billion repeaters, but nobody's actually talking on
them :)

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7797. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 07:52:52 UTC
From: "Paul M. Jaeger" <n7pj@ieee.org>
Message-ID: <C82785F6BAB4E168.832A9C627BA7C925.A7A1E9CE56BAC89A@lp.airnews.net>
Source record: 47992

http://home.earthlink.net/~lenyr/iposc.htm

7798. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 08:09:29 UTC
From: post_to_usenet@hotmail.com
Message-ID: <b6b4e772.0112180009.6a3ffe42@posting.google.com>
Source record: 47993

I think you can do it much simpler than that:

Items needed:

1 high-quality and high-power hifi amplifier (look for one with "extra
bass").
1 50/60 Hz sine wave generator

Optionals:

- Graphic equaliser (to get rid of the armonics in the oscilator)
- moster audio cables and gold connectors

Just plug the generator to the amplifier (take care with signal
levels) and adjust the volume of the amplifier until you get the 10 V
required at the speaker outputs.

If the amplifier is good enought you will have thermal/overcurrent/DC
protection :-)))

Toni

"." <no_s@pam.xxx> wrote in message news:<3C1EA323.A4826C7C@pam.xxx>...
> Let's see...
>
> First you need a 3 phase 240 VAC 1 HP motor.
> Have your house wired for 3-phase 240 VAC and run the motor from it.
> Through a complicated series of pulleys and belts drive 2 automobile SIX volt
> generators.
> Adjust the field current on each so you get 10 volts.
> Use a DC to AC inverter to produce a square wave 10 volt output.
> Apply the 10 volts to the primary of a 10 volt to 120VAC transformer. (Make
> sure it's not a DC transformer now!)
> From that apply the 120VAC to the 120VAC winding of a 120-240VAC transformer.
> Connect a 240VAC to 10VAC transformer to the output of that transformer.
>
> And, amazingly enough you now have unregulated 10 VAC!!!!
>
> And, yes, it's NOT April 1st here but perhaps in Illinois April 1 comes on
> December 16!
>
> Robert John wrote:
>
> > Looking for a simple circuit to provide 10 volts AC output with 120 volts
> > in. No regulation requried. Anyone have a schematic for such a supply?
> > Tnx, Bob, AA8X

7799. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 08:19:56 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <M_CT7.106270$Y6.10333101@news1.rdc1.ct.home.com>
Source record: 47994

First, I assume you are using a highspeed scope to observe the
RF waveform....

Why would you expect to see a sinewave reproduced accurately
in an FM IF strip? It is desirable to run the IF stages well into
compression/clipping to reduce any AM components (noise) on the
signal. That's why there is no AGC in most FM receivers--the
clipping is desirable. Most good FM stages have one or more
limiter stages just for this function.

73

Peter

"Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
news:3C1E77CD.78C3BDCE@clifto.com...
> Tim H. wrote:
> > For kicks, I
> > scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven,
> > clipping in some parts). Of course, this is after Ramsey's "IF Amp."
> >
> > So, next question, am I right in assuming that the signal from the
> > 10.7Mhz ceramic filter should be a fairly clean sine?
>
> I'd expect some noise, but not clipping or unevenness.
>
> > Also, Ramsey did
> > an apparent no-no on the L.O. design. According to the SA(NE)602
> > datasheet, there shouldn't be a resistance smaller than 22k from pin 7
> > to GND. Ramsey has 10k - so I swapped it out.
>
> Sounds like a real winner. I'd consider taking a $10 FM radio and using
> its IF circuitry instead.
>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear
warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7800. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 08:29:44 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <Y7DT7.106271$Y6.10333025@news1.rdc1.ct.home.com>
Source record: 47995

Yes, I do. Copies are 5 dollars each.

"Robert John" <RAJohnGM@worldnet.att.net> wrote in message
news:Y67T7.226595$3d2.10750814@bgtnsc06-news.ops.worldnet.att.net...
> Looking for a simple circuit to provide 10 volts AC output with 120 volts
> in. No regulation requried. Anyone have a schematic for such a supply?
> Tnx, Bob, AA8X
>
>

7801. Multiband Hartley Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 08:53:06 UTC
From: brocks@mailandnews.net
Message-ID: <3c1f02d1.88501249@news.ramlink.net>
Source record: 47996

I am working on building Rick Campbell's R2 and T2 based transceiver.

For the VFO I was thinking about using the Hartley type oscillator suggested in the R2 article. I was wondering if anyone has successfully built the oscillator to cover multiple bands (say 1.75-14MHz) without the use of mixing or multipliers. This seems like it could easily be done with 1000pF of tunable capacitance with some band select and some tuning capacitors. Is it possible to get a circuit like this stable enough? Would I need to change the coil for different bands as well?

Brock Schuler, Va6BtS

7802. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 12:19:19 UTC
From: willy <willyacht@yahoo.com>
Message-ID: <1tGT7.4656$zB6.3526@newsfeeds.bigpond.com>
Source record: 47898

Anyone know if a HF version of these clocks like the old Heathkit version is made? I would like one because where i am i cant receive WWV on LF. The Heathkit patent has expired anyone can now reverse engineer it. Besides i dont want to pay Ebay prices for a collectors item

Willy
"Frank Dinger" <f.dinger@ntlword.com> wrote in message news:HAET7.31655$pU3.3642642@news2-win.server.ntlworld.com...
>
> > I haven't seen one of the LW watches yet. I have a small digital clock
> > that receives the LW, and I really like it- it's always on the button. I
> > bought an analog clock at Wal-mart that claimed to be atomic, but I took
> > it back. It was a quartz movement with an added module that received the
> > wwv signal, but there was no indication whether it was receiving or
> > locked, and the instructions said something like 'if the signal is not
> > received, the clock will work as a regular quartz clock...'. I don't
> > need another clock around that I might have to set.
> ================================
> Nowadays most if not all of the LCD , LW clocks whether operating on MSF
> (Rugby-England) , 60 Khz or WWV (60 KHz ??) or DCF - Germany (77 KHz) do
> have their own quartz crystal such that in case the locking signal
> temporarily disappears (for example due to TX maintenance) the clock keeps
> running and if necessary is corrected as soon as the LW sig is back .
> I use a make Zenith clock (made in Germany) receiving MSF ,60KHz which
> indicates whether the LW sig is received ,or not.
> The clock is always in operation.
>
> Note : If you consider purchasing such a clock for use in the shack ,make
> sure it can be set to 24 hrs time indication. Not all makes can be set that
> way . The Zenith clock can.
>
> Frank gm0csz.kn6wh@ntlworld.com
>
>

7803. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 12:34:47 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C1F37B0.63F99E6A@attbi.com>
Source record: 47899

"Clifton T. Sharp Jr." wrote:
>
> Tim H. wrote:
> > For kicks, I
> > scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven,
> > clipping in some parts). Of course, this is after Ramsey's "IF Amp."
> >
> > So, next question, am I right in assuming that the signal from the
> > 10.7Mhz ceramic filter should be a fairly clean sine?
>
> I'd expect some noise, but not clipping or unevenness.

Well, it sure ain't pretty I'll tell ya that! I've scoped other 10.7Mhz
filter outputs in different radios and they seemed halfway decent.

>
> > Also, Ramsey did
> > an apparent no-no on the L.O. design. According to the SA(NE)602
> > datasheet, there shouldn't be a resistance smaller than 22k from pin 7
> > to GND. Ramsey has 10k - so I swapped it out.
>
> Sounds like a real winner. I'd consider taking a $10 FM radio and using
> its IF circuitry instead.

Do you mean run SA602's output to the IF front end of another radio?
Also, something that's REALLY bugging me, and forgive me if it's a
rather silly question. But what determines if it's going to be high-side
injection or low-side? Seems the receiver is just RFin --> NE602 (with
L.O.) -->10.7Mhz filter. I can understand the difference in freq.
between the LO and the input but can't figure out how it's destined to
be high-side or low-side injection. Does mixer say, "Ok Mr. RF in, you
have to be 10.7Mhz lower than my LO or else!" ?

I was messing around with diffeernt 10.7Mhz filters and put what I think
is the original back in, but still a poopy looking satellite image -- no
grays. So I'm wondering if the 10.7 filter I have in there is the right
one; have tried many others.

Thanks,

Tim Hamel

>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7804. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 12:40:26 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C1F3903.59C605E4@attbi.com>
Source record: 47900

Hi Peter,

"Peter J. Bertini" wrote:
>
> First, I assume you are using a highspeed scope to observe the
> RF waveform....

Well, I wouldn't consider 10.7Mhz high speed.

>
> Why would you expect to see a sinewave reproduced accurately
> in an FM IF strip? It is desirable to run the IF stages well into
> compression/clipping to reduce any AM components (noise) on the
> signal. That's why there is no AGC in most FM receivers--the
> clipping is desirable. Most good FM stages have one or more
> limiter stages just for this function.

Well, it's obviously not bad enough to mess up receiver too much. Makes
sense, no need to preserve the peaks of the FM waveform since it's the
deviation we're concerned with. I can scope pin 8 of 3359 and see a nice
FM wave. Funny thing is, as satellite passes over and I max out quad.
coil (flush with top), the signal sounds perfect but it's apparently not
because the resulting image's histogram is black/white with no grays
which makes for a worthless image. It's weird, everything sounds fine,
it just seems like the frequency is shifted along the way and it kills
some of the 2400Hz signal.

Thanks,

Tim Hamel

>
> 73
>
> Peter
>
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote in message
> news:3C1E77CD.78C3BDCE@clifto.com...
> > Tim H. wrote:
> > > For kicks, I
> > > scoped pin 18 (IF Input) of the 3359 and got a sad looking sine (uneven,
> > > clipping in some parts). Of course, this is after Ramsey's "IF Amp."
> > >
> > > So, next question, am I right in assuming that the signal from the
> > > 10.7Mhz ceramic filter should be a fairly clean sine?
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> > I'd expect some noise, but not clipping or unevenness.
> >
> > > Also, Ramsey did
> > > an apparent no-no on the L.O. design. According to the SA(NE)602
> > > datasheet, there shouldn't be a resistance smaller than 22k from pin 7
> > > to GND. Ramsey has 10k - so I swapped it out.
> >
> > Sounds like a real winner. I'd consider taking a $10 FM radio and using
> > its IF circuitry instead.
> >
> > --
> > Remember, "close" counts in horse-shoes, hand-grenades and nuclear
> warfare,
> > but in spamming, it's considered unnecessary precision. -- Alun Jones

7805. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 14:35:44 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C1F543F.78E04725@ay.com.au>
Source record: 47901

James wrote:

> I guess all discussions have been based on the assumption that the pulses
> are one per second. What if the manufacturer used a different figure, like
> two per socond. My "Seiko 5" (fully mechanical) looks to be about 4 or 5 per
> second, as the second hand moves almost smoothly.

Good point.

For a human doing the calibration they can just set a scale factor.

Perhaps the automatic ones, like the one I describe, do some kind of heuristic, dividing by a large enough integer until it gets close to the right value. If I was writing the code for the controller, that is what I'd try first.

It would also explain why my quartz/mechanical watch confused the calibrator, it may have had uneven pulses, or beats from two geared objects inside the device. It had a second hand that moved a fraction of a second per 'tick', not a tick per second like a Swatch (the ones that have a second hand that is).

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Crescent (14% of Full)

7806. 12 pin Plessey Mark 4 Circular Connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 14:48:18 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <2DIT7.33180$pU3.3832853@news2-win.server.ntlworld.com>
Source record: 47902
Cross-posted to: alt.military.collecting,alt.military.uk,rec.radio.amateur.homebrew,uk.radio.amateur

Hi

I'm seeking 2 Plessey free (as opposed to fixed) sockets for a R.N. (CAS) receiver. The socket is a Plessey Mark 4 circular connector with 12 pins, marked from A to M (I missing). It probably is a right-angled socket, and will have a screwing collar. The inside thread on the collar is about 25mm. There are 2 versions, differentiated by the thread, I'm seeking the fine threaded ones, NOT the coarse square threaded ones. Looks military.

Please email me if you have one or two. Thanks.

7807. Re: 12 pin Plessey Mark 4 Circular Connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 14:54:27 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <tIIT7.33224$pU3.3838405@news2-win.server.ntlworld.com>
Source record: 47903
Cross-posted to: alt.military.collecting,alt.military.uk,rec.radio.amateur.homebrew,uk.radio.amateur

"Richard Daventry" <newsgps_email@ntlworld.com> wrote in message
news:2DIT7.33180$pU3.3832853@news2-win.server.ntlworld.com...
> Hi
>
> I'm seeking 2 Plessey free (as opposed to fixed) sockets for a R.N. (CAS)
> receiver. The socket is a Plessey Mark 4 circular connector with 12 pins,
> marked from A to M (I missing). It probably is a right-angled socket, and
> will have a screwing collar. The inside thread on the collar is about
25mm.
> There are 2 versions, differentiated by the thread, I'm seeking the fine
> threaded ones, NOT the coarse square threaded ones. Looks military.
>
> Please email me if you have one or two. Thanks.

That is, the diameter of the circular collar thing with thread on it, which
screws onto the plug collar, is about 25mm diameter.

7808. Re: 12 pin Plessey Mark 4 Circular Connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 14:55:56 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <%JIT7.33234$pU3.3839349@news2-win.server.ntlworld.com>
Source record: 47904
Cross-posted to: alt.military.collecting,alt.military.uk,rec.radio.amateur.homebrew,uk.radio.amateur

That is, the diameter of the circular collar thing with thread on it, which screws onto the plug collar, is about 25mm inside diameter.

7809. iLINK web site correction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 16:03:11 UTC
From: Radiohead <hduff@ica.net>
Message-ID: <3C1F68BF.3DCDA1A@ica.net>
Source record: 47905
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Please note this URL correction to my previous post
regarding iLINK.

The iLINK homepage is: www.aacnet.net
Click on "Click here to access the main site."

The iLINK interface board homepage is: www.iLINKca.com

'73 es tnx.

7810. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 16:16:28 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3C1F6BDB.7111ABE9@psu.edu>
Source record: 47906

Excellent advice everyone! I appreciate the links, the personal
experiences and the advice on rejuvenation of the crystal. I'm off fo
tind some Woods metal now! And to join in the Crystal rcvr group.

- Mike -

"Paul M. Jaeger" wrote:
>
> http://home.earthlink.net/~lenyr/iposc.htm

7811. Re: iLINK web site correction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 16:33:51 UTC
From: john <w9jcm@arrl.net>
Message-ID: <PdKT7.5374$6t1.10538@newsfeed.intelenet.net>
Source record: 47907
Cross-posted to: rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.swap

Or you can check look up WB2REM he makes them too.
"Radiohead" <hduff@ica.net> wrote in message
news:3C1F68BF.3DCDA1A@ica.net...
> Please note this URL correction to my previous post
> regarding iLINK.
>
> The iLINK homepage is: www.aacnet.net
> Click on "Click here to access the main site."
>
> The iLINK interface board homepage is: www.iLINKca.com
>
> '73 es tnx.
>

7812. Re: Watch Crystal Adjustment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 17:11:18 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C1F78B6.28CC1015@clifto.com>
Source record: 47908

willy wrote:
> Anyone know if a HF version of these clocks like the old Heathkit version
> is made? I would like one because where i am i cant receive WWV on LF. The
> Heathkit patent has expired anyone can now reverse engineer it. Besides i
> dont want to pay Ebay prices for a collectors item

Wouldn't even have to reverse-engineer Heath's stuff. The timecode stuff
is all documented by NIST. Problem is, such a clock would have to be
priced competitively with GPS receivers, which probably give more accurate
time anyway because they're able to factor in propagation delays.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7813. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 17:58:27 UTC
From: Michael Black <blackm00@cam.org>
Message-ID: <Pine.LNX.4.20.0112181248530.1265-100000@darkstar.example.net>
Source record: 47909

On Tue, 18 Dec 2001, Tim H. wrote:

>
> Do you mean run SA602's output to the IF front end of another radio?
> Also, something that's REALLY bugging me, and forgive me if it's a
> rather silly question. But what determines if it's going to be high-side
> injection or low-side? Seems the receiver is just RFin --> NE602 (with
> L.O.) -->10.7Mhz filter. I can understand the difference in freq.
> between the LO and the input but can't figure out how it's destined to
> be high-side or low-side injection. Does mixer say, "Ok Mr. RF in, you
> have to be 10.7Mhz lower than my LO or else!" ?
>
The first thing that determines if the LO is high or low side injection
is at the design stage, where someone does calculations to see if
one is a better choice than the other.

But it's the front-end tuned circuits that determine what will be
mixed with the oscillator to get the IF. The unwanted mix is the
image frequency. You probably can never completely eliminate the
image response, but the better the front end circuitry, the more
attenuated the image frequency is. A higher IF helps in this,
because then the image is further away from the desired frequency
and it's easier to make good front end filters.

So there are plenty of old shortwave receivers around, that were low
end when they originally sold, with 455KHz IFs. By the time they
get to the top band, 20 to 30MHz or so, they have really lousy
image rejection because there is little front end selectivity,
and the choice of IF makes the image almost right next to
the signal frequency. On the other hand, there are plenty of old
shortwave receivers with 455KHz IFs that had good front end selectivity
(the HRO comes to mind, with it's two RF stages and associated
tuned circuits), where image rejection is good in the same frequency
range.

All those FM receivers, both broadcast and communication, have 10.7MHz
IFs (now, I suppose a lot of two-way stuff uses 21.4MHz or 45MHz IFs)
is because the signal frequency is much higher. If they'd gone
with 455KHz IFs, they would have needed ridiculous amounts of
front end selectivity, or live with lousy image rejection. As it is,
with the image 21.4MHz away, the front end tuned circuits don't
have to be all that fancy.

Michael VE2BVW

7814. Re: Multiband Hartley Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 18:01:10 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <GvLT7.271628$uB.29252730@bin3.nnrp.aus1.giganews.com>
Source record: 47910

Not being familiar with the circuit you are attempting to build, I will make some general statements based on what I think you have.

It's probably best to switch coils, not capacitors. This has been done successfully many times in multiband radios for consumer use and older communications receivers and transmitters.

Stability is definitely an issue if you are planning to use this for SSB. You can't make an oscillator like that stable enough for HF SSB use without a great deal of effort. Or even WITH a great deal of effort.

When Collins came out with their variable IF double conversion receiver, the 75A, finally hams had a radio stable enough for serious SSB work. This used a non-switched VFO for tuning and used crystal oscillators for first conversion. So basically, it was a low frequency stable receiver with crystal controlled converters ahead of it for the various bands.

The system worked so well that it has become standard for all ham transceivers. Some get fancy and use more than double conversion but the idea is very similar.

73, Bob K6DDX

7815. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 18:22:55 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <3QLT7.106275$Y6.10335673@news1.rdc1.ct.home.com>
Source record: 47911

Hi Tim

Most FM transmitters use frequency multipliers and class C amps
after the modulator... Linearity is not very important, as you can see!

I wonder if you might be having some alignment problems, or if
there might be undue ripple in the IF filtering passbands... These
would show more on weaker signal signals than stronger ones.

Peter

"Tim H." <tekphobia@attbi.com> wrote in message
news:3C1F3903.59C605E4@attbi.com...
> Hi Peter,
> .
>
> Well, it's obviously not bad enough to mess up receiver too much. Makes
> sense, no need to preserve the peaks of the FM waveform since it's the
> deviation we're concerned with.

7816. Re: modifying a frs .5watt to 1watt

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 18:43:07 UTC
From: Sylvan Butler <Znospam+noZs_0112@hpb13799Z.Zboi.hpZ.com.invalid>
Message-ID: <slrna1v3ka.5e7.Znospam+noZs_0112@hpb13799Z.Zboi.hpZ.com.invalid>
Source record: 47912

On Mon, 17 Dec 2001 20:22:17 -0600, john graesser <graesser@tca.net> wrote:
> You have to show that 50 watts is needed for your use. Gmrs repeaters have
> to be evaluated periodically to justify their power level. The 5 watt rigs
> are less paperwork to use.

Not any more. GMRS licensing is trivial since the last changes
(last year? maybe two years ago?).

sdb
--
| Sylvan Butler | Not speaking for Hewlett-Packard | sbutler-boi.hp.com |
| Watch out for my e-mail address. Thank UCE. ##### change ^ to @ ##### |
They that can give up essential liberty to obtain a little temporary
safety deserve neither liberty nor safety. --Benjamin Franklin, 1759
Fight terrorism, arm the population!

7817. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 19:17:59 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3C1F95CF.242CCA62@gte.net>
Source record: 47913

mike coslo wrote:

> Hi All
>
> I'm working on a homebrew Galena crystal detector radio, and had a few questions.
>
> What is a historically accurate method of mounting the crystal? I was
> going to mount the crystal in solder in a steel or copper cup (melt the
> solder in the cup, and plunk it in the cup.
>
> The other question is on the cats whisker. I was going to make a
> "pinched ball" arrangement with the whisker on an end. Is this at all accurate?
>
> - mike -

It took Google less than 5 sec to turn up pages of links.\One of the 1st was:
http://members.aol.com/scottswim/

The information is on the 'net- we just need to search.

W4OP

7818. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 20:27:46 UTC
From: mike coslo <mjc5@psu.edu>
Message-ID: <3C1FA6C2.D3D1463E@psu.edu>
Source record: 47914

Oh, yes, I've searched. I have found a number of sites also. But I
wanted to cover my bases, and learned a few things not on any site I
looked at. One is seldom ill served by asking lots of questions.

Thanks! - Mike -

Dale Parfitt wrote:
>
> mike coslo wrote:
>
> > Hi All
> >
> > I'm working on a homebrew Galena crystal detector radio, and had a few questions.
> >
> > What is a historically accurate method of mounting the crystal? I was
> > going to mount the crystal in solder in a steel or copper cup (melt the
> > solder in the cup, and plunk it in the cup.
> >
> > The other question is on the cats whisker. I was going to make a
> > "pinched ball" arrangement with the whisker on an end. Is this at all accurate?
> >
> > - mike -
>
> It took Google less than 5 sec to turn up pages of links.\One of the 1st was:
> http://members.aol.com/scottswim/
>
> The information is on the 'net- we just need to search.

7819. WTB mike/keypad

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 20:52:00 UTC
From: Marty Reynolds <marty@ba-watch.org>
Message-ID: <Q%NT7.148451$C8.10485691@bin4.nnrp.aus1.giganews.com>
Source record: 47915
Cross-posted to: rec.ham-radio.swap,rec.radio.amateur.swap,rec.radio.amateur,rec.radio.amateur.homebrew,rec.radio.amateur.equipment,rec.radio.swap,rec.radio.amateur.boatanchors

Mike/keypad from any radio wanted. Wanto to use it rarely with a Alinco HT

I know, I know, I'll have to supply juice to pad &, perhaps, mic preamp.

Diag. of jack on radio where it once plugged wud be a big help.

Thanks for attention es 73s

Marty AA4RM

7820. Modify FRS for very simple 70cm telemetry?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 21:07:09 UTC
From: "Joe Bramblett, KD5NRH" <kd5nrh@kd5nrh.net>
Message-ID: <1ABDDEBF1F105693.F51D9FDF18DD558F.DE623D207CB9D071@lp.airnews.net>
Source record: 47916

How hard would it be to modify a cheap FRS unit to transmit very simple telemetry on 70cm? I'm only looking to send a simple status (or possibly just a F3A ID) when a trigger is on, and nothing when it's off. Range isn't really an issue, as it's only about 300ft max, and of course, it would only need one frequency.

27 or 49MHz might be a better option, but I don't have anything handy that's as usable for either as the two extra FRS units.

Joe Bramblett, KD5NRH
kd5nrh@kd5nrh.net

7821. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-18 23:08:05 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C1FCC55.FC304B0@clifto.com>
Source record: 47917

Peter J. Bertini wrote:
> "Clifton T. Sharp Jr." <clifto@clifto.com> wrote...
> > Tim H. wrote:
> > > So, next question, am I right in assuming that the signal from the
> > > 10.7Mhz ceramic filter should be a fairly clean sine?
> >
> > I'd expect some noise, but not clipping or unevenness.
>
> Why would you expect to see a sinewave reproduced accurately
> in an FM IF strip? It is desirable to run the IF stages well into
> compression/clipping to reduce any AM components (noise) on the
> signal. That's why there is no AGC in most FM receivers--the
> clipping is desirable. Most good FM stages have one or more
> limiter stages just for this function.

Right. In my memory, all the FM IF strips I've inspected had clean (or at least relatively clean) signal up until the limiter stage. Because of that, I didn't think to question whether "the signal from the 10.7 MHz ceramic filter" had yet passed through a limiter. There's a good question for Tim.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare, but in spamming, it's considered unnecessary precision. -- Alun Jones

7822. Ferrite Toroid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 00:51:12 UTC
From: "Rex Klopfenstein, Jr." <rklopfen@wcnet.org>
Message-ID: <3C1FE47F.7DD72C45@wcnet.org>
Source record: 47918

Has anybody constructed the "A Universal VFO" described in "W1FB's QRP Notebook" published by ARRL? I have a question. There is a toroid listed which appears to be a typo. The plans call for an Amidon FT-25-43 ferrite toroid, this number does not appear to be valid. It appears that the number should be FT-23-43!

Any help would be appreciated.

--
Rex Klopfenstein, Jr.
Bowling Green, OH
KC8PFP
rklopfen@wcnet.org
http://www.wcnet.org/~rklopfen

7823. CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 01:26:49 UTC
From: N1RZB <n1rzb@110.net>
Message-ID: <u1vr7dm1d2ua07@corp.supernews.com>
Source record: 47919

Has anyone built a PL tone circuit for six and two meter rigs that lack a PL tone?

Any help in any direction would be gratefully appreciated.

Dave, N1RZB

7824. Re: Galena Crystal detector construction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 01:47:32 UTC
From: "John D. Farr" <jfarr62@home.com>
Message-ID: <UkST7.78111$py4.36182947@news2.nash1.tn.home.com>
Source record: 47920

Small Parts Inc. http://www.smallparts.com/index.htm has several alloys of
low melting point metals.

"mike coslo" <mjc5@psu.edu> wrote in message
news:3C1F6BDB.7111ABE9@psu.edu...
> Excellent advice everyone! I appreciate the links, the personal
> experiences and the advice on rejuvenation of the crystal. I'm off fo
> tind some Woods metal now! And to join in the Crystal rcvr group.
>
> - Mike -
>
> "Paul M. Jaeger" wrote:
> >
> > http://home.earthlink.net/~lenyr/iposc.htm

7825. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 01:52:09 UTC
From: Bob Nielsen <nielsen@remove_this.oz.net>
Message-ID: <9vors9$3nl$0@216.39.144.81>
Source record: 47921

On Tue, 18 Dec 2001 20:26:49 -0500, N1RZB wrote:
> Has anyone built a PL tone circuit for six and two meter rigs that lack a PL
> tone?
>
> Any help in any direction would be gratefully appreciated.

I recall a friend using a neon-bulb relaxation oscillator in a pinch
to create a CTCSS tone. Of course it had a bit of a buzz sound to it.

There are some simple ICs which can be used. I believe the old ARRL
handbooks had a circuit, but haven't looked at a recent one to
see if it still is published. The Communications Specialists tone
boards are a pretty good choice, and at $30 (at least that was the
price the last time I bought one), you can't go wrong.

Bob, N7XY

7826. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 01:59:39 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <ewST7.467$GRg.25821357@news2.randori.com>
Source record: 47922

"Bob Nielsen" <nielsen@remove_this.oz.net> wrote in message
news:9vors9$3nl$0@216.39.144.81...

> The Communications Specialists tone
> boards are a pretty good choice, and at $30 (at least that was the
> price the last time I bought one), you can't go wrong.
>

amen

CSI is great stuff

7827. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 03:13:07 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <7BTT7.106396$Y6.10340372@news1.rdc1.ct.home.com>
Source record: 47923

You can use an op amp in an oscillator circuit (wein bridge?) to do a
passable job.
The waveform must be very clean and free of harmonics, and you have to
inject the
tone at a point in the modulator that will pass it with minimal distortion.
If not, the
tone will be audible (harmonic energy) on the receive end since those
artifacts fall
outside of the high pass audio filtering.

Pete

"N1RZB" <n1rzb@110.net> wrote in message
news:u1vr7dm1d2ua07@corp.supernews.com...
> Has anyone built a PL tone circuit for six and two meter rigs that lack a
PL
> tone?
>
> Any help in any direction would be gratefully appreciated.
>
> Dave, N1RZB
>
>

7828. Re: Ferrite Toroid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 03:37:45 UTC
From: GB <gregory.beat@attbi.com>
Message-ID: <dYTT7.5117$xl6.786516@rwcrnsc54>
Source record: 47924

Rex -

It's been a few years, but yes, I believe that you are correct in that this was a typo. Doug W1FB used this design in other work. He was writing some articles for other (non ARRL) magazines in the 1980 and 1990's and I would see his older work updated (or typos corrected) in these articles.

Greg
w9gb

"Rex Klopfenstein, Jr." <rklopfen@wcnet.org> wrote in message news:3C1FE47F.7DD72C45@wcnet.org...
> Has anybody constructed the "A Universal VFO" described in "W1FB's QRP
> Notebook" published by ARRL? I have a question. There is a toroid
> listed which appears to be a typo. The plans call for an Amidon
> FT-25-43 ferrite toroid, this number does not appear to be valid. It
> appears that the number should be FT-23-43!
>
> Any help would be appreciated.
>
> --
> Rex Klopfenstein, Jr.
> Bowling Green, OH
> KC8PFP
> rklopfen@wcnet.org
> http://www.wcnet.org/~rklopfen
>
>

7829. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 03:38:38 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9vp26f$9g7$1@slb6.atl.mindspring.net>
Source record: 47925

One item to bear in mind is how the radio is modulated... If it is direct into the VCO then the synthesizer loop filter might react to the PL tone and all sorts of strange things can happen.

This screwed up one rig I added a PL to. Ah well, time to buy a new radio.

Jim Pennell
N6BIU

7830. Re: Ferrite Toroid

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 03:44:10 UTC
From: Jim Pennell <NoSpam@killspam.com>
Message-ID: <9vp2j1$d79$1@slb0.atl.mindspring.net>
Source record: 47926

Rex Klopfenstein, Jr. Wrote:

> Has anybody constructed the "A Universal VFO" described
> in "W1FB's QRP Notebook" published by ARRL? I have a
> question. There is a toroid listed which appears to be
> a typo. The plans call for an Amidon FT-25-43 ferrite
> toroid, this number does not appear to be valid. It
> appears that the number should be FT-23-43!
>

You won't notice any practical difference if you use the FT-23-43 core
even if it wasn't a typo. I suspect it was a typo anyway....

That digit refers to the diameter of the toroid so the value of the
inductor will be for all practical purposes the same on either diameter
core.

Jim Pennell
N6BIU

7831. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 05:01:35 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C201EF5.E0097BD3@attbi.com>
Source record: 47927

Howdy,

"Clifton T. Sharp Jr." wrote:
>
> Right. In my memory, all the FM IF strips I've inspected had clean (or at
> least relatively clean) signal up until the limiter stage. Because of that,
> I didn't think to question whether "the signal from the 10.7 MHz ceramic
> filter" had yet passed through a limiter. There's a good question for Tim.

So, I SHOULD be seeing relatively clean FM signals!(?) The only limiter I know of is internal to the 3359 chip. As I said, when I scope the quad. detector pin (pin 8 of 3359), it's a beautiful sine wave (too bad she's not single)! I assume these Ramsey receivers aren't too popular with this crowd, no? It's actually a simple design. I've learned what I know about receivers because of it, so I gotta hand that to Ramsey. It's just this recent thing that's got me pulling my hair.

When I first got the receiver, the first thing I noticed was, "This little 1-turn pot. ain't gonna cut it." So, I went to a 10-turn pot., it worked out better. But then, for fun, I rigged up (to printer port; PC control!) a Microchip digital pot. (256 position) MUCH more stable! Even though it's spec'd at 800ppm, it was still fairly stable. Now I'm working on a 1024 position pot. design. I noticed there's a few PIC projects in the ham community, so I plan on adapting this pot. to a PIC design and offer it back to the community. A replacement for pot. tuned radios!

I do thank everyone for their ideas/suggestions.

-Tim Hamel

>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7832. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 06:43:35 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrna20f3b.e4c.w9wi@linux1.localdomain>
Source record: 47928

On 19 Dec 2001 01:52:09 GMT, Bob Nielsen <nielsen@remove_this.oz.net> wrote:
>On Tue, 18 Dec 2001 20:26:49 -0500, N1RZB wrote:
>> Has anyone built a PL tone circuit for six and two meter rigs that lack a PL
>> tone?
>>
>> Any help in any direction would be gratefully appreciated.
>
>I recall a friend using a neon-bulb relaxation oscillator in a pinch
>to create a CTCSS tone. Of course it had a bit of a buzz sound to it.

I once built one using a 555. Passed it through a pi-net low-pass filter (using the primary of a filament transformer..) to get rid of the harmonics. Worked pretty well - managed to borrow a scope and it really was a pretty clean sine wave.

But it was connected to a tube-type transmitter, otherwise the CTCSS encoder would have been bigger than the rig.. Also helped that I had 12 volts of square wave on the input, I could afford to use a filter with HUGE insertion loss!
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

7833. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 07:06:47 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c203c3b.24469817@news.cantech.net.au>
Source record: 47929

On Tue, 18 Dec 2001 19:38:38 -0800, "Jim Pennell"
<NoSpam@killspam.com> wrote:

> One item to bear in mind is how the radio is modulated... If it is direct
>into the VCO then the synthesizer loop filter might react to the PL tone and
>all sorts of strange things can happen.
>
> This screwed up one rig I added a PL to. Ah well, time to buy a new
>radio.

The most common problem I have seen with DIY encoders is insertion
BEFORE the dev control (IDC). The result is that any deviation
limiting strips the CTCSS off the signal waveform. It MUST be
inserted after such processing.

7834. DXERS UNLIMITED Arnie Coro CO2KK

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 10:31:18 UTC
From: Radio Havana Cuba <radiohc@radiohc.org>
Message-ID: <9vpq9j$u87$1@nytr.blythe.org>
Source record: 47930
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.shortwave

RADIO HABANA CUBA
DXERS UNLIMITED

MID-WEEK EDITION
TUESDAY, DECEMBER 18, 2001

By Arnie Coro CO2KK

Send your comments, questions and ideas to: arnie@radiohc.org

Hi, amigos! With less than 2 weeks left of the year 2001, old man Sol, our nearest star, continues to provide radio hobby enthusiasts with very nice propagation conditions.... Early morning Tuesday local time in Havana, I was able to pick up some interesting signals that indicated a very fast rise of the daytime maximum useable frequency curve.... and although solar activity is expected now to move down for the next few days, the fact is that there is so much ionization at the higher levels of the ionosphere that free electrons are really plentiful, even after the Sun sets.... Solar flux still above the 200 mark, and the effective sunspot number has now moved down to around 160, still an impressive figure by all standards...

Item two: I have just updated my list of all the ways that you and I may enjoy our wonderful hobby!!! And it has grown to 63 different and clearly identifiable ways of having a nice time with our hobby, from monitoring natural radio signals on the extremely low frequencies of ELF to playing with LASER BEAM communications in order to add points to your station when participating in a VHF-UHF-SHF amateur radio contest.... And don't forget such nice ways of enjoying the hobby as antique radio restoration, radio kit-building, computer-aided design of antenna systems, building amateur radio equipment from original designs and some very interesting aspects of the radio hobby like doing intruders watch on the amateur radio bands to help keep the ham bands clear of illegal users !!!

Yes my friends, the list now adds up to 63 different ways you and I may enjoy the hobby....radio has the unique feature that it is a never-boring hobby .... with some aspects of it costing next to nothing, like the way many of us seem to have started here... SHORT WAVE LISTENING, the flagship of all radio hobbies!!!!

Item three: You have questions and Arnie answers them section of Dxers Unlimited will reply today to a question sent by several listeners in relation to the so-called coaxial cable antenna, a very

easy to make dipole that requires just a length of coaxial cable and one antenna connector, plus a small length of PVC insulating electrical tape and a small amount of silicone weather sealant, and as always at the end of the show, I'll provide you the most up to date HF propagation update and forecast which, even when heard during our late-late show at just after 0530 UTCm is never more than 12 hours old....

Stay tuned right on this same short wave frequency or if you are listening to me on the world wide web streaming audio, keep your computer connected to Radio Havana Cuba... Margarita Delgado is my sound engineer and producer , I am Arnie Coro, radio amateur CO2KK, back with you in a few seconds...

This is the mid-week edition of Dxers Unlimited, you can always reach me via e-mail by sending your message to arnie@radiohc.org and I will reply to you directly with an answer to your radio hobby-related questions as soon as I see your message displayed on my computer screen....

Now here is item three, our popular YOU have questions and Arnie answers them section of the show.... Today, I will be answering a question sent in by listeners in Cuba, Canada, the United States of America and several European nations, plus Australia... The question has to do with a very simple way of making a low-cost yet effective dipole antenna, that has proven to be very useful for portable work in the frequency range from 10 meters all the way up to the 2 meters amateur radio bands, and all frequencies in between.

This coaxial cable dipole, can also be made for lower frequencies, but it is a bit more troublesome to do the tricky operation of pushing the coaxial cable braid back over the outer jacket of the cable for a length of more than about 2.5 meters or eight feet required for the 10 meter band version.

The "Coaxial cable push back dipole," as it is known among radio amateurs, is an excellent emergency antenna for the 10, 6 and 2 meter bands, and ranks among the lowest-cost skywires that the radio hobbyist may build and install, as it only requires enough coaxial cable and an antenna male connector.... The coaxial cable push back dipole is one of my favorite portable antennas for the 2 meter band handie talkie when travelling, as it has the advantage over the 300 ohm TV twinlead J pole, that it is smaller in length and does not require any soldering at all... something that has helped me to build these antennas even right in the middle of a communications emergency with the help of my faithful pocket knife, if a length of coaxial cable with a connector at one end was available from a broken antenna... The only thing needed is that one end of your coaxial cable will have an appropriate type of antenna connector for the radio that you are using soldered to it.... Now, ready to copy, ready??? Here is how to make a coaxial cable push back dipole following these easy step-by-step instructions:

First calculate the length of your dipole antenna for the center of the frequency band you want to operate your radios on... Here is the formula: Divide the number 143 by the frequency in megaHertz, and your result will come out in meters... For example, let's make a coaxial cable push back dipole for the 2 meter amateur band.... Center frequency: 146 megaHertz.... so -- very easy -- divide 143 by 146 and you will find out that the overall length of the dipole, of course, your result will be less than one meter in length, exactly 979 millimeters, or in round numbers 98 centimeters.

Now, step two: Very carefully remove the outer plastic jacket of the coaxial cable for a length about one and a half meters, to make things easier for the next step. That is, strip the cable of its outer jacket for roughly one and a half meters and then proceed to fold back the coaxial cable shield or braid over the cable's plastic insulation, in a way similar to what you do when you are removing your stockings.... The braid will then leave a length of the center of the coaxial cable exposed to form the other half of the dipole antenna....

Step three is a very easy one: Just trim the braid that is over the coaxial cable's outer jacket so that it will be 49 centimeters long... And also cut the center conductor to slightly more than 50 centimeters, so that you can trim it later for minimum standing wave radio in case you want to transmit with this antenna...

Step 4 is also very simple: Find a length of PVC plumbers pipe of about 100 millimeters or 4 inches long, and just wind as many turns of the coaxial cable as will fit, starting from the point where the shield or braid ends. This is the coaxial choke balun, essential for the proper operation of this type of antenna....

As you may realize, this is just another way of building a half wave dipole antenna, so its gain, compared to a standard half wave dipole will be zero db d, or zero decibels over a dipole, as this is the reference antenna for practical radio work....

By the way, you must install the antenna according to the polarization used by the stations you want to listen or talk to, so in the case of the two meter amateur band FM, the coaxial dipole must be installed vertically, as by convention, and to facilitate communications with mobile and hand held stations using vertical antennas, the 2 meter FM amateur sub band stations all use vertical polarization.

Of course that you can make a coaxial cable push-back dipole in just a few minutes for any particular frequency in the range of from about 25 to 250 megaHertz, by applying the formula, and proceeding to first remove the outer plastic jacket for enough length, pushing back the shield or braid over the cable's plastic jacket, and trimming the length of the center conductor and the exposed braid to the appropriate length to make the dipole resonate. Don't forget that the coa_ial cable choke is essential for the proper operation of this

antenna, and here I must add that the choke for the lower frequencies in the range from 25 to 50 megaHertz must be wound on a length of PVC pipe of no less than 3 inches in diameter, that is 75 millimeters, winding at least 8 turns. In the range from 50 to 100 megaHertz reduce the diameter of the pipe to 2 inches, that is 50 millimeters , and as mentioned previously for the antennas in the range from 100 to 250 megaHertz, the coaxial choke diameter must be one inch or 25 millimeters.

I have done some experiments regarding the number of turns required for optimum operation of the antenna, and it is between 6 and 8 turns... Please notice that this coaxial choke is just the same cable wound over the PVC pipe "coil form" to effectively isolate the antenna from the feedline.

By tying a nylon fishing line to the end of the exposed center conductor you can install the coaxial cable push-back dipole vertically at any location, for example, it may hang from a tree branch, or supported by a plastic or wooden mast...

If you want to use the antenna, as I do here, as part of your permanent receiving or receiving and transmitting station, then carefully seal the place where the coaxial cable shield or braid separates from the center conductor by winding several layers of plastic insulating tape, and then sealing with silicone compound....

Many Cuban radio amateurs use this antenna for 2 meters FM by placing the dipole inside a length of PVC pipe for additional weather protection, but they soon found add that the presence of the dielectric so near to the antenna changed its operating frequency, so the length had to be trimmed experimentallly for minimum standing wave ratio...

Si amigos, yes my friends, oui mes amis, one of the easiest to make and lower cost antennas -- the coaxial cable push back dipole is an excellent performer, and all it takes to make one is a length of coaxial cable, an antenna connector of the type used by your rig and some plastic PVC insulating tape and a bit of silicone sealing compound for the portable version of the antenna.

An antenna for permanent, fixed, station use will be better protected if placed inside a length of PVC plumbers pipe of about 25 to 50 millimeters diameter, but again, you must carefully trim the length of the center conductor half of the dipole and of the braid for minimum standing wave ratio!!!

Any doubts, any doubts on the how to make your own coaxial cable push back the braid dipole? Then just send me an e-mail and maybe I can send you a nice .jpg picture of yours truly and the most recently built antenna!!! Send mail to arnie@radiohc.org or VIA AIR MAIL, a postcard is fine, to Arnie Coro, Radio Havana Cuba, Havana, Cuba.

And now as always at the end of the show, here is Arnie Coro's HF plus 6 meters propagation update and forecast: Solar activity moving down now, but still high enough to support very high daytime maximum useable frequencies, amigos!!! There is still one solar active region with the complex magnetic configuration required to produce solar flares. Running typical HF propagation forecasting software is not that difficult at all, and at least one of the most recent ones is absolutely freeware and works very well... it is W6EL's brainchild, and Sheldon C. Shallon, radio amateur W6EL, who owns the copyright, but kindly has made the program available free, in the public domain...

Well a test run of the W6EL's HF propagation software that I did just before finishing to type this script showed that the maximum useable frequency from Havana, Cuba to Buenos Aires, Argentina stays above 30 megaHertz from 13.30 UTC to 22.30 UTC, reaching a peak of 38 megaHertz at 19 hours UTC, so you see what I mean, the second peak of solar cycle 23 is doing a very good job to push those daytime maximum useable frequencies way up... Enjoy them amigos, and don't forget to try our new streaming audio from www.radiohc.cu!

Arnie Coro CO2KK
Havana, Cuba
December 18, 2001

Postal address:
Arnie Coro, "Dxers Unlimited"
Radio Havana Cuba, Havana, CUBA
e-mail: arnie@radiohc.org
http://www.radiohc.org/dxers/

7835. Club Contest-Transmitter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 14:09:51 UTC
From: wa4uso@aol.com
Message-ID: <20011219090951.28018.00000002@mb-mw.aol.com>
Source record: 47931

The "Louisville Homebrewers" have completed their tube type transmitter building contest. The winner was a four tube 40 meter cw xmiter. The other xmiters were of the single tube type. Pictures will be posted at a later date. Thanks to all who donated parts to the builders. Many lessons were learned from this club project.
73 from "Hands on Radio" D. Darby WA4USO

7836. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 16:42:54 UTC
From: Allodoxaphobia <QSB@QRM-QRN.net>
Message-ID: <slrna21gsm.np2.QSB@animas.frontier.net>
Source record: 47932

On Tue, 18 Dec 2001 20:26:49 -0500, N1RZB scribbled:
> Has anyone built a PL tone circuit for six and two meter rigs
> that lack a PL tone?
>
> Any help in any direction would be gratefully appreciated.

KISS. A couple'o wires and a double-sided sticky foam strip:

http://www.com-spec.com/ss64.htm

Jonesy
--
| Marvin L Jones | jonz | W3DHJ | OS/2
| Gunnison, Colorado | @ | Jonesy | linux __
| 7,703' -- 2,345m | frontier.net | DM68mn SK

7837. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 18:48:25 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9vqndpdkh1@woodrow.ucdavis.edu>
Source record: 47933

: N1RZB <n1rzb@110.net> wrote:
: Has anyone built a PL tone circuit for six and two meter rigs that lack a PL
: tone?
: Any help in any direction would be gratefully appreciated.
: Dave, N1RZB

Hi Dave,

It's all a measure of how practical you want to be, more time or more money. If you want to blow $35 to pick up a Com Spec pl encoder and wire it in, you wont be sorry. They are rock stable and pretty straight forward to install. Plus the paperwork is very clear and easy to follow.

If you want to build an encoder... the most practical chip to use is a 555 timer chip. By nature it's stable against voltage changes (it works on on/off charging ratios) and will put out more than enough power to modulate even the most stubborn phase modulator.

A lot of people worry about the output square wave, but the circuit I have uses three poles of RC filtering which clean it up real nice. The result is a practical sine wave that is relatively stable in frequency and amplitude.

There are people out there using op-amps set up in many ways to obtain similar results, but they have problems with frequency drift when the supply voltage changes a small amount.

I have diagrams for all the above, the classic 555 circuit that I've built a gazillion of in my day, the op amp version and the single transistor Twin Tee type circuits. Just Email me if your serious about building one. (take the NOSPAMPLEASE out of my Email address).

cheers
skipp
http://sonic.ucdavis.edu

7838. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 19:02:10 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112191102.59fcd63a@posting.google.com>
Source record: 47934

"Tim H." <tekphobia@attbi.com> wrote in message news:<3C201EF5.E0097BD3@attbi.com>...
> Howdy,
...
> So, I SHOULD be seeing relatively clean FM signals!(?) The only limiter
> I know of is internal to the 3359 chip. As I said, when I scope the
> quad. detector pin (pin 8 of 3359), it's a beautiful sine wave (too bad
> she's not single)!
So...at the quadrature coil, you SHOULD see a clean sinewave! It's a
reasonably high-Q tank, lightly coupled to the incoming IF signal.
That IF signal moves in frequency. At different frequencies, the
phase shift between it and the quad coil (which stays on the same freq
as the IF signal, with only a very tiny time lag) changes because of
the changing phase of the impedance of the quadrature tank (coil) as
the freq changes. The differing phase difference between the IF input
and the quad coil is what is used to detect the modulation. It's a
true FM detector, not a phase detector, and will maintain a DC output
if the carrier is "off frequency".

If you can get ahold of a signal generator at the second IF (455kHz??)
that will do clean FM, you can check to see if things are working
right there. A scope would help a lot too, to look at the recovered
audio to make sure it looks like the audio you put into the generator.
(Guess that's easy for me to say, since I work for a test instrument
company...but it really is helpful to have ways of measuring things,
even if you have to kludge them together yourself.) It's pretty hard
to troubleshoot something knowing only that "I put in something that I
think is a good signal, and get trash out." Things become a LOT
easier if you can break the problem apart into ever smaller pieces
till you isolate it. And you can do that working in from either end,
by either changing where you apply the signal or where you look at the
result. Being able to do either is nice, because sometimes one gives
quicker answers or answers that are easier to interpret than the
other.

> When I first got the receiver, the first thing I noticed was, "This
> little 1-turn pot. ain't gonna cut it." So, I went to a 10-turn pot., it
> worked out better. But then, for fun, I rigged up (to printer port; PC
> control!) a Microchip digital pot. (256 position) MUCH more stable! Even
> though it's spec'd at 800ppm, it was still fairly stable. Now I'm
> working on a 1024 position pot. design. I noticed there's a few PIC
> projects in the ham community, so I plan on adapting this pot. to a PIC
> design and offer it back to the community. A replacement for pot. tuned
> radios!

Radio Shack used to sell a pot-tuned Weatheradio (or whatever they called it). At least it had limited tuning range, but still, it's a bit tough to tune things with a one-turn pot. On the other hand, if you say you want 10kHz settability and you're tuning a 2MHz range, that immediately tells you that you need at least one part in 200 resolution, more if the tuning turns out to be nonlinear as it often is with pot tuning. So the 1024 step output should do OK. Something to beware of, though, is how clean the output is. If you do it with the PWM capability of the PIC, be sure to filter out the fundamental frequency. And you need to filter it better than you might have thought: say it's at 1kHz. Then if there's "half a least-significant bit" of remaining ripple, that's around 1kHz of peak FM deviation, and you'll have a 1kHz tone superimposed on your received signal! In fact, it's possible that the problem you are NOW seeing, if you're not using your ten-turn pot, is noise getting into that tuning circuit, effectively adding modulation to the signal. Worth mentioning, anyway!

Cheers,
Tom

7839. Re: looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-19 22:17:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C2111EB.FCA59E0D@eznec.com>
Source record: 47935

There's been quite a lot of discussion about these transformers on this newsgroup in the past. I suggest doing a search at groups.google.com (formerly deja.com) and checking it out. One recurring topic was how to deal with the problem of one of the secondary leads being internally attached to the metal transformer housing.

Roy Lewallen, W7EL

Ivan wrote:
>
> "Matt's email" <matthieub@tareum.freeserve.co.uk> wrote in message news:<9v52ha$i9b$1@newsg2.svr.pol.co.uk>...
> >
> > do you know what is the current rating for the secondary of those kind of
> > transformer?
>
> Hi Matt,
> microwave ovens usually have power ratings 600 watts or more. The
> transformer must carry that energy plus magnetron losses when the oven
> is on, i.e. for tens of minutes continuously if the oven is set to
> maximum power.
> So you can expect power rating of the transformer 600 - 1200 watts
> continuously. The secondary voltage is usually 2 - 4 kilovolts
> (WARNING - ABSOLUTELY LETHAL !!), the secondary amperage you get by
> simple division and should be somewhere about 600 / 2000 = 0,3 amp. No
> current limiting is involved in the transformer.
>
> BR from Ivan

7840. CB convert to 10 meters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 01:00:17 UTC
From: gervais <gfillio1@globetrotter.net>
Message-ID: <BKaU7.7399$fl.2439990@carnaval.risq.qc.ca>
Source record: 47936

hi all,
well i have a Cityzen MPL11 40 channel cb radio that i would like to convert
for 10 meters,if possible for a satellite project.
i wonder if this model of radio is modifiable for 10 meters.
so far i found no information about about the possibility ,can someone
inform me please?

73/s and merci

gervais,ve2ckn
ve2ckn@rac.ca

7841. Pre-ampli vhf wanted,or diagramm?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 01:00:18 UTC
From: gervais <gfillio1@globetrotter.net>
Message-ID: <CKaU7.7400$fl.2439983@carnaval.risq.qc.ca>
Source record: 47937

hi all,well also i need a pre-ampli on the vhf band,does anyone have a
diagramm to built one?
it would be use on the packet network for a test on a long range pattern.

any help appreciated

gervais
ve2ckn@rac.ca

merry christmas

7842. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 03:28:12 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C215A95.9263FDD9@attbi.com>
Source record: 47938

Hi Tom,

Tom Bruhns wrote:
>
> "Tim H." <tekphobia@attbi.com> wrote in message news:<3C201EF5.E0097BD3@attbi.com>...
> > Howdy,
> ...
> > So, I SHOULD be seeing relatively clean FM signals!(?) The only limiter
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> > quad. detector pin (pin 8 of 3359), it's a beautiful sine wave (too bad
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> phase shift between it and the quad coil (which stays on the same freq
> as the IF signal, with only a very tiny time lag) changes because of
> the changing phase of the impedance of the quadrature tank (coil) as
> the freq changes. The differing phase difference between the IF input
> and the quad coil is what is used to detect the modulation. It's a
> true FM detector, not a phase detector, and will maintain a DC output
> if the carrier is "off frequency".

That's what I've learned in recent days. It's all about the I and Q. I'm thinking about callin up Ramsey and ordering a new SA602, ceramic filters (1st IF and 2nd IF), and another quad. coil. I think replacing the main parts will fix it, not to mention, saving me from more hair pulling!

>
> If you can get ahold of a signal generator at the second IF (455kHz??)
> that will do clean FM, you can check to see if things are working
> right there. A scope would help a lot too, to look at the recovered
> audio to make sure it looks like the audio you put into the generator.
> (Guess that's easy for me to say, since I work for a test instrument
> company...but it really is helpful to have ways of measuring things,
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> to troubleshoot something knowing only that "I put in something that I
> _think_ is a good signal, and get trash out." Things become a LOT
> easier if you can break the problem apart into ever smaller pieces
> till you isolate it. And you can do that working in from either end,
> by either changing where you apply the signal or where you look at the
> result. Being able to do either is nice, because sometimes one gives
> quicker answers or answers that are easier to interpret than the
> other.

Oh yes! My scope has been a tremendous help. Last night, I discovered that instead of the colored dot on the ceramic filter being RED, it was ORANGE! The scope proved this by the attenuated signal going into the 3359. Hard to tell colors apart in low light. So, I replaced it with another filter with a RED dot and got a better signal. I even found the original filter and stuck that in; still a sad looking satellite image. All this leads me to believe my problem is AFTER the 1st IF "stuff."

I do have a MAX083 sig. generator IC that I might be able to cobble together a 450kHz osc. with. Then I'll figure out a way to modulate it. Not to sound too stupid, but where I would inject this signal?

>
> > When I first got the receiver, the first thing I noticed was, "This
> > little 1-turn pot. ain't gonna cut it." So, I went to a 10-turn pot., it
> > worked out better. But then, for fun, I rigged up (to printer port; PC
> > control!) a Microchip digital pot. (256 position) MUCH more stable! Even
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> bit" of remaining ripple, that's around 1kHz of peak FM deviation, and
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> fact, it's possible that the problem you are NOW seeing, if you're not
> using your ten-turn pot, is noise getting into that tuning circuit,
> effectively adding modulation to the signal. Worth mentioning,
> anyway!

Actually, these pots. are real pots., just digital. No PWM or anything. They're SPI in, resistance value out. Check out the AD5231 (http://products.analog.com/products/info.asp?product=AD5231) if you're interested. I'm currently using a Bourns 10-turn pot. which seems to be ok for now. The radio is designed to allow you to tune a 5Mhz segment given the LO setting. This obviously A LOT to tune with a single turn pot., so 10-turn was natural. I think a 1024 pot. will be even better! Of course, what's the point of fancy tuning if your radio doesn't work right? =)

-Tim H.

>
> Cheers,
> Tom

7843. Simplifying Rick Cambell's R2 and T2 Transceiver

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 07:34:32 UTC
From: brocks@mailandnews.net
Message-ID: <3c21938b.14673757@pen6.pen.k12.va.us>
Source record: 47939

In one of the rx articles it states that the rx could be greatly simplified with only minor degradation of performance. I was wondering what could be done?

Brock Schuler, VA6BTS

7844. Re: Multiband Hartley Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 07:34:53 UTC
From: brocks@mailandnews.net
Message-ID: <3c218219.10207349@pen6.pen.k12.va.us>
Source record: 47940

From what I have read it seems like in a well-designed VFO the coil is usually the cause of drift. This may mean that with a high Q air-coil (most designs I have seen use a powdered iron core) a person could use very small amounts of tuning capacitance require for enough selectivity on higher frequency bands with adequate stability. I have seen a simple regen RX circuit that covered the HF bands with a Hartley looking circuit (the coil was replaced with a transformer) by only varying capacitance but the RX had very poor selectivity at 10M! Perhaps a single coil with switched taps?

Sure modern radios are nice but much more complex. Direct conversion rigs are much simpler when trying to put together a homebrew rig.

Brock Schuler, VA6BTS

7845. YIG data wtd

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 08:34:51 UTC
From: gd <not.my.real@email.com.au>
Message-ID: <9vs7qc$67j$1@news.eisa.net.au>
Source record: 47941
Cross-posted to: aus.electronics,sci.electronics.misc,rec.radio.amateur.misc,rec.radio.amateur.homebrew

Hi all,
I'm looking for data on the following YIGs. IF you can help I would really appreciate data on voltages, currents and pin outs

Make HP, P/N 5086-7267
Make HP, P/N 8555-60081
Make Avantek, P/N Y084-2715
Make Avantek, P/N ASF-8368M

On the avanteks, I'm looking for tune and fm currents, on the Y084 I'd like to know what the fm filter pins are for? I thought it might be a generic housing but the pins are wired to a coil (i think - it's got 1 ohm across them)

On the HPs, voltages, currents and pin out

Please email me any info that may be helpful

Thanks in advance

Greg
email is gcd AT eisa.net.au

(not my real email - i hate spam)

7846. Re: YIG data wtd

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 10:10:12 UTC
From: rexa*non*spam*@dnai.com
Message-ID: <a8d32ug9qlo50sr2kkcqlmi588tsnteo09@4ax.com>
Source record: 47942

I have an '89 Avantek catlog that lists the normal YIG oscillator
products. None of them seem to match your part numbers in any way.

Sorry. Sure there were many custom products. Just thought I'd share
this null info.

Not sure where you get the "fm filter" terminology. Many yig
oscillators have two sets of coils. One is the main tune current. A
separate coil is often provided which gives finer tuning control and
this is labeled FM. Sorry if you already knew this.

There are, of course, also yig filters which would have two sma
connectors for input and output. None of the numbers I saw in the
Avantek catalog matched these either.

-Rex, KK6MK

On Thu, 20 Dec 2001 19:34:51 +1100, "gd" <not.my.real@email.com.au>
wrote:

>Hi all,
>I'm looking for data on the following YIGs. IF you can help I would really
>appreciate data on voltages, currents and pin outs
>
>Make HP, P/N 5086-7267
>Make HP, P/N 8555-60081
>Make Avantek, P/N Y084-2715
>Make Avantek, P/N ASF-8368M
>
>On the avanteks, I'm looking for tune and fm currents, on the Y084 I'd like
>to know what the fm filter pins are for? I thought it might be a generic
>housing but the pins are wired to a coil (i think - it's got 1 ohm across
>them)
>
>On the HPs, voltages, currents and pin out
>
>Please email me any info that may be helpful
>
>Thanks in advance
>
>Greg
>email is gcd AT eisa.net.au
>
>(not my real email - i hate spam)
>

7847. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 11:19:09 UTC
From: Henry Gernhardt/Andrea Winship <hcg_alw@earthlink.net>
Message-ID: <3C21C935.9FF0A1AD@earthlink.net>
Source record: 47943

Folks---

> > Has anyone built a PL tone circuit for six and two meter rigs
> > that lack a PL tone?
> >
> > Any help in any direction would be gratefully appreciated.

> KISS. A couple'o wires and a double-sided sticky foam strip:
>
> http://www.com-spec.com/ss64.htm

Does anyone have any data on how to wire that unit to an old ICOM
IC-2AT?

Thanks,

Henry C. Gernhardt, III
KE4PIB

7848. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 13:56:24 UTC
From: Gary Glaenzer <nobulltrans@irtc.net>
Message-ID: <c6mU7.126$nxl.7536670@news2.randori.com>
Source record: 47944

CSI boards used to come with a sheet that gave all kinds of usefull install info

"Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message news:3C21C935.9FF0A1AD@earthlink.net...
> Folks---
>
> > > Has anyone built a PL tone circuit for six and two meter rigs
> > > that lack a PL tone?
> > >
> > > Any help in any direction would be gratefully appreciated.
>
> > KISS. A couple'o wires and a double-sided sticky foam strip:
> >
> > http://www.com-spec.com/ss64.htm
>
> Does anyone have any data on how to wire that unit to an old ICOM
> IC-2AT?
>
> Thanks,
>
> Henry C. Gernhardt, III
> KE4PIB
>

7849. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 16:02:42 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2012011104320001@dplane-176-88-250.pompano.net>
Source record: 47945

The final problem will be getting the deviation set to the right level.
Nothing sounds better than a 7A tone as someone is talking. Maybe those
new rice boxes aren't as bad as all that, after all. :-)

Steve WB4CZR exMoto eng

In article <c6mU7.126$nxl.7536670@news2.randori.com>, "Gary Glaenzer"
<nobulltrans@irtc.net> wrote:

> CSI boards used to come with a sheet that gave all kinds of usefull install
> info
>
>
> "Henry Gernhardt/Andrea Winship" <hcg_alw@earthlink.net> wrote in message
> news:3C21C935.9FF0A1AD@earthlink.net...
> > Folks---
> >
> > > > > Has anyone built a PL tone circuit for six and two meter rigs
> > > > > that lack a PL tone?
> > > > >
> > > > > Any help in any direction would be gratefully appreciated.
> > >
> > > > KISS. A couple'o wires and a double-sided sticky foam strip:
> > > >
> > > > http://www.com-spec.com/ss64.htm
> > >
> > > Does anyone have any data on how to wire that unit to an old ICOM
> > > IC-2AT?
> > >
> > > Thanks,
> > >
> > > Henry C. Gernhardt, III
> > > KE4PIB
> > >

7850. lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 17:52:18 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C222552.B0D316D1@blackhole.net>
Source record: 47946

This is off-topic, but it seems like a good place to ask. I have a laptop computer with a lithium ion battery pack, about 3 years old. I only get about half an hour of use instead of the greater than two hours I should get. I'd like to get a new battery pack, but they want about $180 for it. I tried to find a source for the six battery cells inside it (3-volt 1500 mah units) and everywhere I turn I'm told that these cells are never sold to consumers because charging them is such a specialized task that only oem's can be entrusted with it.

Well, the charger circuit board is built into the battery pack, and I haven't changed it, so I don't see why just replacing the cells wouldn't restore the unit. It sounds like an excuse to keep the prices of the battery packs really high.

Does anyone know of a source for this type of battery?

--
john

7851. Clemens SG-83A solid state signal Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 18:54:29 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C2233E5.1070700@charter.net>
Source record: 47847

Have a good SG-83A Would like to sell or trade.
has power cord and test leads copy of manual.
looking for 150.00 cash shipped to your door, or maybe some interesting
trade. have a pic.
thanks
chris ni4l

7852. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 19:39:44 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112201139.12628801@posting.google.com>
Source record: 47848

"Tim H." <tekphobia@attbi.com> wrote in message news:<3C215A95.9263FDD9@attbi.com>...
...
> That's what I've learned in recent days. It's all about the I and Q. I'm
> thinking about callin up Ramsey and ordering a new SA602, ceramic
> filters (1st IF and 2nd IF), and another quad. coil. I think replacing
> the main parts will fix it, not to mention, saving me from more hair
> pulling!

Well, that sounds like kind of a shotgun approach...it would be nice
to KNOW what was wrong before replacing a bunch of things, it seems to
me.
...
> Oh yes! My scope has been a tremendous help. Last night, I discovered
> that instead of the colored dot on the ceramic filter being RED, it was
> ORANGE! The scope proved this by the attenuated signal going into the
> 3359. Hard to tell colors apart in low light. So, I replaced it with
> another filter with a RED dot and got a better signal. I even found the
> original filter and stuck that in; still a sad looking satellite image.
> All this leads me to believe my problem is AFTER the 1st IF "stuff."
>
> I do have a MAX083 sig. generator IC that I might be able to cobble
> together a 450kHz osc. with. Then I'll figure out a way to modulate it.
> Not to sound too stupid, but where I would inject this signal?

I imagine the MAX083 should be able to generate a decent FM signal,
though perhaps not terribly low noise. But still, probably fine for
signal tracing. One problem is knowing fairly accurately what the
deviation is.

The idea would be to send a test signal at the IF frequency into
wherever you can closest to the detector first, and then move toward
the antenna input end of the chain. If things are fine at output when
using the first injection point, you can be pretty sure that
everything between where you injected the signal and the output is OK.
Eventually you get to a point where things are not OK, and in between
the first bad injection point and the last good one is where the
problem most likely is. You need to keep the levels reasonable for
where you're injecting, of course.

OK on the pots...well, one is never _quite_ sure what is actuall
inside an IC, but I imagine those that you're using are fine. I'd
agree with another posting I saw, that if your filters are too narrow
for the signal you're receiving, you'll get a lot of distortion. Try
listening to an FM broadcast band signal on a NBFM ham receiver
sometime...you can kind of make it out, but it sure doesn't sound

good.

What I've always found works well in troubleshooting is to observe what I reasonably can, then think about what could be causing the things I'm seeing. It's also very productive to think about what might have changed between when things worked and when they didn't. Then I think of 'speriments that either confirm or disprove those suspected causes. Certainly replacing parts (with ones that I'm pretty sure are good) is one way to test things, but I generally learn a lot more by trying to understand how things work a bit more deeply. And...it can be really frustrating if replacing all the parts doesn't fix the problem!

One thing I'm not 100% clear on here: did you say that it used to work well, and then _on_the_same_signals_ quit working well? Or did it used to work well on some signals, but you never tried it before on the ones it's not working well on now? Sorry if you 'splained that before and I missed it.

Cheers,
Tom

7853. Re: YIG data wtd

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 19:56:29 UTC
From: gd <not.my.real@email.com.au>
Message-ID: <9vtfoftq1@news.eisa.net.au>
Source record: 47849

Hi Rex,
yes, custom products.....hmmmm - didn't think about that - DOH!

I was also surprised by the "fm filter" pins.It identifies them as filter, as there are also (as expected) a set of "fm osc" pins. The case has a second sma connector housing but its blind. The label states oscillator: 2-8 GHz, so thats where i assumed that perhaps a standard housing was used. But when i measured ~1 ohm between the pins iI became a little confused why fit the coil?
No date of manufacture indicated unless thats extracted from the serial number? SN 2072B

Thanks for the help
Cheers
All the best for Christmas & New Year from Australia

Greg

"Rex Allers" <rexa*non*spam*@dnai.com> wrote in message news:a8d32ug9qlo50sr2kkcqlmi588tsnteo09@4ax.com...
> I have an '89 Avantek catlog that lists the normal YIG oscillator
> products. None of them seem to match your part numbers in any way.
>
> Sorry. Sure there were many custom products. Just thought I'd share
> this null info.
>
> Not sure where you get the "fm filter" terminology. Many yig
> oscillators have two sets of coils. One is the main tune current. A
> separate coil is often provided which gives finer tuning control and
> this is labeled FM. Sorry if you already knew this.
>
> There are, of course, also yig filters which would have two sma
> connectors for input and output. None of the numbers I saw in the
> Avantek catalog matched these either.
>
> -Rex, KK6MK
>
> On Thu, 20 Dec 2001 19:34:51 +1100, "gd" <not.my.real@email.com.au>
> wrote:
>
> >Hi all,
> >I'm looking for data on the following YIGs. IF you can help I would really
> >appreciate data on voltages, currents and pin outs
> >

> >Make HP, P/N 5086-7267
> >Make HP, P/N 8555-60081
> >Make Avantek, P/N Y084-2715
> >Make Avantek, P/N ASF-8368M
> >
> >On the avanteks, I'm looking for tune and fm currents, on the Y084 I'd
like
> >to know what the fm filter pins are for? I thought it might be a generic
> >housing but the pins are wired to a coil (i think - it's got 1 ohm
across
> >them)
> >
> >On the HPs, voltages, currents and pin out
> >
> >Please email me any info that may be helpful
> >
> >Thanks in advance
> >
> >Greg
> >email is gcd AT eisa.net.au
> >
> >(not my real email - i hate spam)
> >
>

7854. FA: President Lincoln HR2510 Correction to Auction

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 20:35:11 UTC
From: Kamatu <admin@ahww.net>
Message-ID: <9vtiet01umn@enews3.newsguy.com>
Source record: 47851
Cross-posted to: rec.radio.amateur.boatanchors,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I posted an auction address for a President Lincoln HR2510 earlier.
The address has changed to

http://www.2wayradioauction.com/cgi-bin/auction.cgi?mobiles_amateur&1009053525

Thank you for your understanding.

7855. AM reception in a metal building

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 20:48:37 UTC
From: Wayne <wrace@softhome.net>
Message-ID: <F8sU7.121$896.607125@paloalto-snr2.gtei.net>
Source record: 47853

Hi folks,
I have a situation where I would like to get AM and SW reception in a metal pole building (siding and roof are all metal). To compound the situation, the shop has Twenty 8ft. two tube noisy fluorescent lights. The lights just overpower the am radio regardless of where I locate the radio. Eliminating these lights is not an option.

Installing an outside antenna is however. I have a couple of long wire antennas that I could use. Thought about putting a long wire on top of the shop building which is 36ft. long. Is this long enough for a effective long wire antenna? Any problems with putting it on top of a all metal building?

What can I do to block out the noise, so I can listen to AM radio in my shop? I realize this may not be an easy problem to solve. I am looking for any ideas..... What about locating the am radio in my house and running some speaker wire underground to the shop? I generally listen to three different am stations depending on the time of day, so changing the channel would be a hassle.

Any thoughts??

Thanks
Wayne

7856. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 21:03:59 UTC
From: Skipp <skipp@pilotNOSPAMPLEASE.ucdavis.edu>
Message-ID: <9vtjnv$8k2$1@woodrow.ucdavis.edu>
Source record: 47850

Real simple John... watch Ebay. Works for me almost every time.

cheers
skipp
http://sonic.ucdavis.edu

: John O'Flaherty <wewelcomespam@blackhole.net> wrote:
: This is off-topic, but it seems like a good place to ask. I have a
: laptop computer with a lithium ion battery pack, about 3 years old. I
: only get about half an hour of use instead of the greater than two hours
: I should get. I'd like to get a new battery pack, but they want about
: $180 for it. I tried to find a source for the six battery cells inside
: it (3-volt 1500 mah units) and everywhere I turn I'm told that these
: cells are never sold to consumers because charging them is such a
: specialized task that only oem's can be entrusted with it.

: Well, the charger circuit board is built into the battery pack, and I
: haven't changed it, so I don't see why just replacing the cells wouldn't
: restore the unit. It sounds like an excuse to keep the prices of the
: battery packs really high.

: Does anyone know of a source for this type of battery?

: --
: john

7857. Bandwidth & Antenna Diameter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 21:06:48 UTC
From: Reg Edwards <g4fgq.regp@btinternet.com>
Message-ID: <9vtjt8$o9h$4@knossos.btinternet.com>
Source record: 47852

Download NEW program WIRECAGE from website below to find how antenna length/diameter affects bandwidth.

****
Regards, Reg G4FGQ
Free Radio Design Programs
Http://www.g4fgq.com
****

7858. Re: "Natural Radio" VLF Discussion Group!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 21:29:25 UTC
From: Monty Brandenberg <mcbinc@ne.mediaone.net>
Message-ID: <3C22587C.D57F1BF9@ne.mediaone.net>
Source record: 47854

Shawn Korgan wrote:
>
> If you are interested in becoming a member of the "natural radio" VLF
> discussion group, contact me directly by sending an e-mail to
> Korgans@yahoo.com.

Interested but is this going to be an irritating yahoo group or
a proper mailist?

--
Monty Brandenberg, Software Consultant MCB, Inc.
mcbinc@world.std.com P.O. Box 426188
mcbinc@ne.mediaone.net Cambridge, MA 02142-0021
617.864.6907

7859. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 22:33:09 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C226725.6F9402C1@blackhole.net>
Source record: 47855

Even for new stuff?

Skipp wrote:
>
> Real simple John... watch Ebay. Works for me almost every time.
>
> cheers
> skipp
> http://sonic.ucdavis.edu
>
> : John O'Flaherty <wewelcomespam@blackhole.net> wrote:
> : This is off-topic, but it seems like a good place to ask. I have a
> : laptop computer with a lithium ion battery pack, about 3 years old. I
> : only get about half an hour of use instead of the greater than two hours
> : I should get. I'd like to get a new battery pack, but they want about
> : $180 for it. I tried to find a source for the six battery cells inside
> : it (3-volt 1500 mah units) and everywhere I turn I'm told that these
> : cells are never sold to consumers because charging them is such a
> : specialized task that only oem's can be entrusted with it.
>
> : Well, the charger circuit board is built into the battery pack, and I
> : haven't changed it, so I don't see why just replacing the cells wouldn't
> : restore the unit. It sounds like an excuse to keep the prices of the
> : battery packs really high.
>
> : Does anyone know of a source for this type of battery?
>
> : --
> : john

--
john

7860. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-20 23:34:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C227595.66B4E9F0@eznec.com>
Source record: 47856

Hey, sounds like a great idea. I've wondered what to do with the old notebook computer Li-ion batteries that don't hold much of a charge any more. Sell them on ebay . . yeah, great idea.

Roy Lewallen, W7EL

Skipp wrote:
>
> Real simple John... watch Ebay. Works for me almost every time.

7861. Re: "Natural Radio" VLF Discussion Group!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 00:20:02 UTC
From: la8ak.xnd@online.no
Message-ID: <3c22656e.22232885@news.online.no>
Source record: 47857

On Thu, 20 Dec 2001 21:29:25 GMT, Monty Brandenberg
<mcbinc@ne.mediaone.net> wrote:

>Shawn Korgan wrote:
>>
>> If you are interested in becoming a member of the "natural radio" VLF
>> discussion group, contact me directly by sending an e-mail to
>> Korgans@yahoo.com.
>
>Interested but is this going to be an irritating yahoo group or
>a proper mailist?
>
yahoo maillists works best if you avoid html, hi

73 LA8AK
--
remove ,xnd to reply

7862. Re: Clemens SG-83A solid state signal Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 00:53:40 UTC
From: ni4l <ni4l@charter.net>
Message-ID: <3C228814.6060409@charter.net>
Source record: 47858

thanks has been sold

ni4l wrote:

>
> Have a good SG-83A Would like to sell or trade.
> has power cord and test leads copy of manual.
> looking for 150.00 cash shipped to your door, or maybe some interesting
> trade. have a pic.
> thanks
> chris ni4l
>

7863. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 01:02:02 UTC
From: Dan Tayloe <dtayloe@home.com>
Message-ID: <3C228A09.693F9880@home.com>
Source record: 47859

Three years is about right. I understand that a lithium ion battery has
a three year life span from the date of manufacture. These batteries
can explode if overcharged, and catch fire if shorted. In the battery
pack is usually circuitry to protect against this. Make sure you keep
this circuitry!

I would suggest finding surplus cell phone battery packs cheap (7.2v has
two batteries if Li-Ion), and rob them for batteries for your computer.
Make sure it is Li-Ion, not NiMH or Nicad. These are newer and harder
to find.

Again, keep in mind the batteries have a life span of three years, used
or not.

- Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

John O'Flaherty wrote:
>
> This is off-topic, but it seems like a good place to ask. I have a
> laptop computer with a lithium ion battery pack, about 3 years old. I
> only get about half an hour of use instead of the greater than two hours
> I should get. I'd like to get a new battery pack, but they want about
> $180 for it. I tried to find a source for the six battery cells inside
> it (3-volt 1500 mah units) and everywhere I turn I'm told that these
> cells are never sold to consumers because charging them is such a
> specialized task that only oem's can be entrusted with it.
>
> Well, the charger circuit board is built into the battery pack, and I
> haven't changed it, so I don't see why just replacing the cells wouldn't
> restore the unit. It sounds like an excuse to keep the prices of the
> battery packs really high.
>
> Does anyone know of a source for this type of battery?
>
> --
> john

7864. Re: Multiband Hartley Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 01:22:37 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C228EDD.43DB3ADF@clifto.com>
Source record: 47861

Brock Schuler wrote:
> From what I have read it seems like in a well-designed VFO the coil is
> usually the cause of drift.

From what I have read, a well-designed VFO doesn't drift. :)

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7865. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 01:24:31 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C228F1A.D263747B@attbi.com>
Source record: 47860

Hi Tom,

Tom Bruhns wrote:
>
> Well, that sounds like kind of a shotgun approach...it would be nice
> to KNOW what was wrong before replacing a bunch of things, it seems to
> me.

Yes, I know exactly what you mean. I hear discussions where people say,
"My monitor is stuck at 640x480x16!" and the other "techy" person will
say, "Ahh, just reformat and reinstall windows..." Ugh!

> ...
> > Oh yes! My scope has been a tremendous help. Last night, I discovered
> > that instead of the colored dot on the ceramic filter being RED, it was
> > ORANGE! The scope proved this by the attenuated signal going into the
> > 3359. Hard to tell colors apart in low light. So, I replaced it with
> > another filter with a RED dot and got a better signal. I even found the
> > original filter and stuck that in; still a sad looking satellite image.
> > All this leads me to believe my problem is AFTER the 1st IF "stuff."
> >
> > I do have a MAX083 sig. generator IC that I might be able to cobble
> > together a 450kHz osc. with. Then I'll figure out a way to modulate it.
> > Not to sound too stupid, but where I would inject this signal?
>
> I imagine the MAX083 should be able to generate a decent FM signal,
> though perhaps not terribly low noise. But still, probably fine for
> signal tracing. One problem is knowing fairly accurately what the
> deviation is.

I'll probably figure out a way to have a 555 modulate the signal, then
I'll be able to dictate the deviation.

>
> The idea would be to send a test signal at the IF frequency into
> wherever you can closest to the detector first, and then move toward
> the antenna input end of the chain. If things are fine at output when
> using the first injection point, you can be pretty sure that
> everything between where you injected the signal and the output is OK.
> Eventually you get to a point where things are not OK, and in between
> the first bad injection point and the last good one is where the
> problem most likely is. You need to keep the levels reasonable for
> where you're injecting, of course.

Sounds like a project! Many thanks for the simple explanation!

>
> OK on the pots...well, one is never _quite_ sure what is actuall
> inside an IC, but I imagine those that you're using are fine. I'd
> agree with another posting I saw, that if your filters are too narrow
> for the signal you're receiving, you'll get a lot of distortion. Try
> listening to an FM broadcast band signal on a NBFM ham receiver
> sometime...you can kind of make it out, but it sure doesn't sound
> _good_.

I guess I should have emphasized the fact that I WAS receiving the sat. signals quite well. During my experimentation (it's a good education), I swapped out filters, different caps for the LO,etc. -- then I set it down for a few months and came back to this. I went back to pure stock for troubleshooting purposes. At first I thought maybe my soundcard was filtering the audio somehow, but I tried it on the PC I originally started with, same thing.

>
> What I've always found works well in troubleshooting is to observe
> what I reasonably can, then think about what could be causing the
> things I'm seeing. It's also very productive to think about what
> might have changed between when things worked and when they didn't.
> Then I think of 'speriments that either confirm or disprove those
> suspected causes. Certainly replacing parts (with ones that I'm
> pretty sure are good) is one way to test things, but I generally learn
> a lot more by trying to understand how things work a bit more deeply.
> And...it can be really frustrating if replacing all the parts doesn't
> fix the problem!

That's what I'm afraid of. Working on this radio sure has given me an intimate understanding of receivers, I just lack a bit of knowledge in some aspects. I've thought about "what's causing this" to the point of utter frustration. I've thought, "Let's see, we got RF on one side, the LO on the other, out pops the difference..." I should mention, the difference in freq. I see is 21.4Mhz (2x1st IF), though I'm thinking that's because the output is a mix of frequencies.

>
> One thing I'm not 100% clear on here: did you say that it used to
> work well, and then _on_the_same_signals_ quit working well? Or did
> it used to work well on some signals, but you never tried it before on
> the ones it's not working well on now? Sorry if you 'splained that
> before and I missed it.

Yes, that's correct. They were beautiful at one point. I was actually quite impressed with the image quality from a $35 receiver. Now it's like the filters are chopping out a good portion of the signal. It should be noted that the signal sounds perfect by ear but the image tells a different story.

Happy Holidays,

Tim Hamel

>
> Cheers,
> Tom

7866. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 01:35:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C2291E8.BDD58534@eznec.com>
Source record: 47862

The internal charger chips are specialized to charge a particular number
of cells with a particular capacity. I'd be a little leery of
substituting cells of different or unknown capacity.

Roy Lewallen, W7EL

Dan Tayloe wrote:
>
> Three years is about right. I understand that a lithium ion battery has
> a three year life span from the date of manufacture. These batteries
> can explode if overcharged, and catch fire if shorted. In the battery
> pack is usually circuitry to protect against this. Make sure you keep
> this circuitry!
>
> I would suggest finding surplus cell phone battery packs cheap (7.2v has
> two batteries if Li-Ion), and rob them for batteries for your computer.
> Make sure it is Li-Ion, not NiMH or Nicad. These are newer and harder
> to find.
>
> Again, keep in mind the batteries have a life span of three years, used
> or not.
>
> - Dan Tayloe, N7VE; Phoenix, Az; Az ScQRPions

7867. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 02:34:21 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c229f0c.4869747@news.cantech.net.au>
Source record: 47863

On Thu, 20 Dec 2001 17:35:36 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>The internal charger chips are specialized to charge a particular number
>of cells with a particular capacity. I'd be a little leery of
>substituting cells of different or unknown capacity.

Likewise, Roy. If anyone want a quick primer on Li-Ion go check
Maxim's MAX1737 data sheet.

The board in the pack is almost undoubtedly a protection circuit
(only), not a charger. I would expect the charging circuitry to be
in the laptop itself.

7868. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 03:55:24 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C22B2AC.28E40A38@eznec.com>
Source record: 47864

A while back I opened up a bad pack for my now-ancient WinBook and found a Mitsumi MM1248B chip on a board. It's a charge/discharge controller for three Li-ion cells in series. The pack had a series connection of three groups of three parallel cells each. The controller handles each cell or series group separately.

http://www.mitsumi.co.jp/Catalog/ic/battery/mm/1248/text01e.pdf is the data sheet for the IC.

Roy Lewallen, W7EL

budgie wrote:
>
> On Thu, 20 Dec 2001 17:35:36 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> >The internal charger chips are specialized to charge a particular number
> >of cells with a particular capacity. I'd be a little leery of
> >substituting cells of different or unknown capacity.
>
> Likewise, Roy. If anyone want a quick primer on Li-Ion go check
> Maxim's MAX1737 data sheet.
>
> The board in the pack is almost undoubtedly a protection circuit
> (only), not a charger. I would expect the charging circuitry to be
> in the laptop itself.

7869. FA B&K E200D Solid State Generator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 04:35:46 UTC
From: David Messing <dmessing@alltel.net>
Message-ID: <3C22BC22.AE05CF4@alltel.net>
Source record: 47865

I am cleaning out my shop and selling my test gear. I listed a nice
Solid State Signal on Ebay.
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1680236649

Dave

7870. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 12:42:07 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <TtHU7.13036$4z5.1271556@news6-win.server.ntlworld.com>
Source record: 47868

> Hey, sounds like a great idea. I've wondered what to do with the old
> notebook computer Li-ion batteries that don't hold much of a charge any
> more. Sell them on ebay . . yeah, great idea.
=======
Hey ,wait a minute ,that old Li-ion battery pack might have an extended life by 'reconditioning'.

Maha Energy advertising in QST ,now have an automatic re-conditioner/charger & analyser , model MH-C777Plus ,which can also deal with Li-ion battery packs . It supports NiCads and NiMHs from 1.2 to 14.4 V in 1.2V increments and Li-Ion batteries from 3.6 to 14.4 V in 3.6 V increments . It is fully automatic and accommodates any size of pack in the above voltage ranges.
Although the unit with its SMPU (to suit 80 -240 V -50/60 Hz) and cigarette lighter adapter (for use in a car) costs US$ 90.- , the pay back is obvious.
When I bought the earlier model MH-C777 , I also bought a new NiMH pack for an ICOM HT since the old NiCad pack no longer accepted charge from the ICOM supplied (simple) charger. But surprise...surprise ,that (9 years)old pack has been 'revived' with the charger and is still in use , be it with a somewhat reduced capacity.
I now also have the MH-C777Plus which is also used (from time to time) to charge the 7.2 V Li-ion pack for my Nokia 8110 mobile phone.
Smart technology .....go for it !

Frank gm0csz.kn6wh@ntlworld.com

PS : No commercial connections with MAHA Energy , just a satisfied customer.

7871. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 13:11:16 UTC
From: budgie <budgie@nowhere.cantech.net.au>
Message-ID: <3c23329a.1719573@news.cantech.net.au>
Source record: 47866

On Thu, 20 Dec 2001 19:55:24 -0800, Roy Lewallen <w7el@eznec.com>
wrote:

>A while back I opened up a bad pack for my now-ancient WinBook and found
>a Mitsumi MM1248B chip on a board. It's a charge/discharge controller
>for three Li-ion cells in series. The pack had a series connection of
>three groups of three parallel cells each. The controller handles each
>cell or series group separately.

Not sure if we have a slight difference in terminology here, Roy.

The normal protection board provides overvoltage and undervoltage
protection via series (usually FET) switches. Additionally,
protection against overcurrent (on discharge) is usually provided
either via a fuse or the series switch.

Better protection boards provide cell voltage differential sensing and
shutdown if individual cells differ by more than a certain amount.

There is often a thermistor to provide the charging circuit with pack
temp info, usually facilitating charge suspension if pack temp is
outside +5 - +45C.

With all the above connections to a series string to a (nom) 10.8 volt
pack, most laptop manufacturers and other OEM Li_Ion consumers elect
to place the charger on the laptop itself.

One instance, AcerNote Lite 370 series (P133/P150) - of which I own
two - are spec'd to use either Li-Ion or NiMH packs. Although in this
case the placement of the charger cct on the pack would be more
logical, the cct is in fact in the laptop, and the interface connector
determines which charging regime is employed.

None of which means that ALL manufacturers see the world that way :-)

>http://www.mitsumi.co.jp/Catalog/ic/battery/mm/1248/text01e.pdf is the
>data sheet for the IC.
>
>Roy Lewallen, W7EL
>
>budgie wrote:
>>
>> On Thu, 20 Dec 2001 17:35:36 -0800, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>
>> >The internal charger chips are specialized to charge a particular number
>> >of cells with a particular capacity. I'd be a little leery of

>> >substituting cells of different or unknown capacity.
>>
>> Likewise, Roy. If anyone want a quick primer on Li-Ion go check
>> Maxim's MAX1737 data sheet.
>>
>> The board in the pack is almost undoubtedly a protection circuit
>> (only), not a charger. I would expect the charging circuitry to be
>> in the laptop itself.

7872. Re: Multiband Hartley Oscillator

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 13:55:36 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3c233ef3$0$28721@echo-01.iinet.net.au>
Source record: 47867

I have some possible solutions for this
You can stabilize a free running oscillator with a phase locked loop. In my case I have a "huff and puff" design which uses a microcontroller to count and dsiplay the frequency (with user settable offsets if required). The controller also generates an error voltage to keep the loop locked and stabilize the VFO. The loop will work within a range of +/- 2.5 KHz or so. Beyond this the loop loses lock - but a reasonable VFO should stay within this range!! When the VFO is tuned the loop unlocks and locks again when the VFO is stable. I have used this circuit for a triband SSB rig on 7/14/18 MHz successfully
Alternatively I have a quadrature DDS board with controller board also using the AD9854 which could be used to generate the local oscillator signal with 0 and 90 degree RF signals accurately generated. In theory at least phase spurs might be a problem but they are better than -50dBc worst case. I dont know how it is in practice. The board has software for rotary encoder or keypad tuning or sweep modes etc from about 10 Hz to 65 MHz or so in 1 Hz steps. I have boards available via Paypal

See http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard
.
"Brock Schuler" <brocks@mailandnews.net> wrote in message
news:3c1f02d1.88501249@news.ramlink.net...
> I am working on building Rick Campbell's R2 and T2 based transceiver.
>
> For the VFO I was thinking about using the Hartley type oscillator
> suggested in the R2 article. I was wondering if anyone has
> successfully built the oscillator to cover multiple bands (say
> 1.75-14MHz) without the use of mixing or multipliers. This seems like
> it could easily be done with 1000pF of tunable capacitance with some
> band select and some tuning capacitors. Is it possible to get a
> circuit like this stable enough? Would I need to change the coil for
> different bands as well?
>
> Brock Schuler, Va6BtS

7873. Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 14:44:42 UTC
From: rzito@si.rr.com
Message-ID: <19870d87.0112210644.30dcb1f5@posting.google.com>
Source record: 47869

I have looked all over the place and having a hard time find this information, so any feedback would be appreciated:

Can a reading at uV be converted directly to uV/m? The same would go for dBmV, dBuV, dBm , dB, can reading taking at any one of these unit be converted directly to uV/m?

Thanks

7874. Re: AM reception in a metal building

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 14:53:03 UTC
From: john graesser <graesser@tca.net>
Message-ID: <u26j4c5tjq94b4@corp.supernews.com>
Source record: 47870

"Wayne" <wrace@softhome.net> wrote in message
news:F8sU7.121$896.607125@paloalto-snr2.gtei.net...
> Hi folks,
> I have a situation where I would like to get AM and SW reception in a
metal
> pole building (siding and roof are all metal). To compound the situation,
> the shop has Twenty 8ft. two tube noisy fluorescent lights. The lights
just
> overpower the am radio regardless of where I locate the radio. Eliminating
> these lights is not an option.
>
> Installing an outside antenna is however. I have a couple of long wire
> antennas that I could use. Thought about putting a long wire on top of the
> shop building which is 36ft. long. Is this long enough for a effective
long
> wire antenna? Any problems with putting it on top of a all metal building?

Something we did when I was in a similar situation was use the metal
building as the antenna. In my case it was a lot bigger building, but we
just tied the antenna input to one of the sheet metal screws holding the
metal panels together. And in our case we had even noisier vapor lamps up at
30 feet. Our building wasn't directly grounded at all locations, so if your
building has mutiple grounds it may act more as a ground plane than an
antenna.
thanks, John.
KC5DWD

7875. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 15:00:32 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C234E90.85D8E884@coqui.net>
Source record: 47871

Bobby wrote:
>
> I have looked all over the place and having a hard time find this
> information, so any feedback would be appreciated:
>
> Can a reading at uV be converted directly to uV/m? The same would go
> for dBmV, dBuV, dBm , dB, can reading taking at any one of these unit
> be converted directly to uV/m?
>
> Thanks

You should try Google among your places to look.
http://www.microvolt.com/table.html

-Bill WX4A

7876. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 17:11:22 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011221121122.24464.00000837@mb-fc.aol.com>
Source record: 47872

>Can a reading at uV be converted directly to uV/m? The same would go
>for dBmV, dBuV, dBm , dB, can reading taking at any one of these unit
>be converted directly to uV/m?

The answer, for the most part, is yes.

uV is an absolute measurement. uV/m is simply the uV divided by the wavelength in meters of the measured signal. dB is an expression of ratio over a fixed level, therefore you need to know what the base reference is before you can convert that measurement to uV. dBmV, dBuV, and dBm are dB above or below their specific reference at a defined impedence. dBmV is referenced to 1mV at 75 ohms. dBuV is referenced to (I believe) 1uV (And, as I recall, could have one of several reference impedences), and dBm is referenced to 1 milliwatt at 50 ohms.

Once you know the reference, you can determine the representative value and thus convert it to uV.

7877. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 18:10:24 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C237B10.61250F0C@blackhole.net>
Source record: 47873

Roy Lewallen wrote:
>
> A while back I opened up a bad pack for my now-ancient WinBook and found
> a Mitsumi MM1248B chip on a board. It's a charge/discharge controller
> for three Li-ion cells in series. The pack had a series connection of
> three groups of three parallel cells each. The controller handles each
> cell or series group separately.
>
> http://www.mitsumi.co.jp/Catalog/ic/battery/mm/1248/text01e.pdf is the
> data sheet for the IC.

I've opened the pack for my Toshiba Portege, and it has a series string
of three groups of two parallel cells. There are connections to each
node, a thermal fuse for each group of two cells, a temperature sensor,
and a circuit board with two chips, seven smt transistors, and several
chip capacitors and resistors. The connector that plugs into the
computer has plus and ground for the power to the computer, plus eight
other connections. There's enough there that I'm pretty sure the unit
reports its status to the computer, including when to shut down.
But the cells themselves could easily be replaced if I could just get
new ones somewhere.

--
john

7878. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 18:14:41 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112211014.cb65ab9@posting.google.com>
Source record: 47874

"Tim H." <tekphobia@attbi.com> wrote in message news:<3C228F1A.D263747B@attbi.com>...
...
> That's what I'm afraid of. Working on this radio sure has given me an
> intimate understanding of receivers, I just lack a bit of knowledge in
> some aspects. I've thought about "what's causing this" to the point of
> utter frustration. I've thought, "Let's see, we got RF on one side, the
> LO on the other, out pops the difference..." I should mention, the
> difference in freq. I see is 21.4Mhz (2x1st IF), though I'm thinking
> that's because the output is a mix of frequencies.

(Thanks for all the other stuff you wrote, too...just saving some
space here, but maybe someone else will see something in there that
triggers another idea they can share with you.)

The 21.4MHz is a bit puzzling! If you have enough signal to see
there, I'd expect it to be mostly the LO frequency, the RF input
frequency, and the difference and sum. I assume there's a tuned
circuit on the mixer output that should be fairly sharply tuned to
10.7MHz, though, so that's mostly what I'd expect to see. Do you have
any way to actually measure the LO frequency and verify that it's
10.7MHz from the desired RF input freq?

Another suggestion: is there anyone around where you are that you
could get to give you a hand? I often find that even if the person
doesn't fully understand what I'm trying to do, just having to explain
it to them will give me more ideas to try, and if they ask questions,
so much the better. Of course, if you're lucky enough to find someone
who actually has worked with similar circuits and knows them inside
out, that's even better. (You might mention where you are...some
lurker might pop up and offer to help in person.)

In any event, it sounds like you're learning a lot! I can remember
back to a few frustrating things like that, and looking back on them,
realize I learned things that I didn't fully appreciate at the time.
That is, I didn't even realize I'd learned them, till I saw something
similar years later and suddenly realized what it was that I'd seen
the first time, and what it all meant.

Cheers,
Tom

7879. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 20:11:38 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C23977A.119ECAFA@clifto.com>
Source record: 47875

SAM wrote:
> uV/m is simply the uV divided by the wavelength
> in meters of the measured signal.

Not even close. Description of a microvolt per meter from an old post by
Richard Harrison:

It is derived from the power radiated from a point source and the
geometry of a sphere. At any distance from the source, the power flowing
through the surface area of a square meter of the sphere surrounding the
point source is defined. The sum of all the incremental powers in the
total square meters of the sphere must add up to the radiated power.

The voltage per meter is related to the power per square meter by the
characteristic impedance of space which is 377 ohms.

Note that wavelength never enters into it.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7880. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 20:18:56 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C239930.42818687@clifto.com>
Source record: 47876

Tom Bruhns wrote:
> So...at the quadrature coil, you SHOULD see a clean sinewave! It's a
> reasonably high-Q tank, lightly coupled to the incoming IF signal.
> That IF signal moves in frequency. At different frequencies, the
> phase shift between it and the quad coil (which stays on the same freq
> as the IF signal, with only a very tiny time lag) changes because of
> the changing phase of the impedance of the quadrature tank (coil) as
> the freq changes. The differing phase difference between the IF input
> and the quad coil is what is used to detect the modulation. It's a
> true FM detector, not a phase detector, and will maintain a DC output
> if the carrier is "off frequency".

That has to be one of the best descriptions of the circuit that I've ever
seen. Where were you forty years ago when I needed you? :)

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7881. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 20:52:04 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C23A0F4.79825B10@clifto.com>
Source record: 47878

Tim H. wrote:
> "Clifton T. Sharp Jr." wrote:
> > Sounds like a real winner. I'd consider taking a $10 FM radio and using
> > its IF circuitry instead.
>
> Do you mean run SA602's output to the IF front end of another radio?

Sure, at least for a test. If nothing else it would tell you whether lots of extra IF bandwidth is needed; FM broadcast radio IFs have to be pretty wide, compared to most communications FM IFs. You might even get *lucky* and find out it works better than the kit with a little output filtering.

> Also, something that's REALLY bugging me, and forgive me if it's a
> rather silly question. But what determines if it's going to be high-side
> injection or low-side?

The design engineer. :) And, of course, other considerations. For example, think of an AM BCB receiver. For low injection, the LO would be 105 KHz to receive a 560 KHz signal (with a 455 KHz IF)... definitely less practical than high injection at 1015 KHz, if only because of the size of the LO coil.

> Seems the receiver is just RFin --> NE602 (with
> L.O.) -->10.7Mhz filter. I can understand the difference in freq.
> between the LO and the input but can't figure out how it's destined to
> be high-side or low-side injection. Does mixer say, "Ok Mr. RF in, you
> have to be 10.7Mhz lower than my LO or else!" ?

The mixer mixes ALL input frequencies with the LO and produces a whole lot of output frequencies. By filtering so that only 10.7 MHz comes out, you ensure that only input frequencies that are 10.7 MHz away from the LO frequency are left. The mixer doesn't care whether the LO is higher or lower, but you might. Suppose you wanted a simple receiver for 123.75 MHz and a 10.7 MHz IF, and a kilowatt repeater at 145.15 MHz a mile away. If you make the LO 134.45 MHz, you'll get both the signal you want, and the repeater. Then again, if you make the LO 113.05 MHz and you have a strong FM BC signal at 102.3 MHz, you're in trouble the same way, but from a different source.

> I was messing around with diffeernt 10.7Mhz filters and put what I think
> is the original back in, but still a poopy looking satellite image -- no
> grays. So I'm wondering if the 10.7 filter I have in there is the right
> one; have tried many others.

Maybe they're all poopy *for your purposes*. What matters is how wide they are, i.e. how wide a band of frequencies gets through. Too narrow, and you can distort the signal badly. Too wide, and you get other problems. If

indeed they're all poopy, they're probably all too narrow. How wide are
the satellite signals supposed to be?

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7882. Rig MODS on internet...???

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 22:08:43 UTC
From: la8ak.xnd@online.no
Message-ID: <3c23b234.107436131@news.online.no>
Source record: 47879

Have found several sites on internet where my mods are described with reference to figures, but the figures are totally missed, so I just wonder what sort of persons are providing the sites? Wonder if they do know what a circuit diagram (schematic) is?

you may search with google for la8ak and get 150 hits, so it shouldnt be necessary to quote any of the sites

73
Jan-Martin
LA8AK
--
remove ,xnd to reply

7883. Large Power supplies available!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 22:58:40 UTC
From: gorgeousmack@hotmail.com
Message-ID: <d0345038.0112211458.4939e2a8@posting.google.com>
Source record: 47880

I can build any thing from 100 amp up to 500amp.Power supply(dc)
voltage.I can also build you a 150amp that runs on 220.All power
supplies are variable volts from 6-20volts dc the price is $3.00 per
amp ////150amp$450+ shipping.All power supplies are war. for 1yr

7884. Re: lithium ion [OT]

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-21 23:04:45 UTC
From: James Horn <jimhorn@svn.net>
Message-ID: <3c23c00d@news.svn.net>
Source record: 47881

Because all Lithium chemistries include the capability for mischief (smoke, fire, flame, bursting, explosion), their manufacturers are *extremely* loathe to sell them to anyone besides well proven original equipment manufacturers (OEMs) who package them with the protection circuitry and enclosures that have been well described here. I ran into that in designing the fiber-to-the-home backup power capability for a former employer (a major telecom company). Turns out NEC, Matsushita / Panasonic, and so on were very interested in our business but none of them wanted to sell us the cells themselves for just that reason. Rather, they refered us to third party companies that incorporated the cells into packs which we would then use.

Combine that with the limited number of sales of such packs, that they are sold afterwards much like car parts (if you made a car from separately purchased parts it would cost an order of magnitude more than the complete car), and that limited supply of manufacturers for a given pack, the high pack prices are no suprise.

I've been tempted to replace the 16450 series cells in my now-nearly-dead NEC4000C's pack with NiMH cells. They wouldn't store nearly as much but they'd do much better than the now-dead cells, should last a long time, and would cost a fraction of the $169 for a "discounted" pack. Of course, the protection circuit would need revising.

Best of luck with your search!

Jim Horn, WB9SYN/6

7885. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 00:52:19 UTC
From: rzito@si.rr.com
Message-ID: <19870d87.0112211652.2f1c450@posting.google.com>
Source record: 47882

Not to sound dumb, because I deal with this on a daily basis. However all our test equipment does the converstions for us, Geting to the point! What do you mean when you say "wavelength in meters". Lets say I am testing at 139.2625

7886. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 01:25:53 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C23E121.DD930D88@coqui.net>
Source record: 47883

Bobby wrote:
>
> Not to sound dumb, because I deal with this on a daily basis. However
> all our test equipment does the converstions for us, Geting to the
> point! What do you mean when you say "wavelength in meters". Lets say
> I am testing at 139.2625

139.2625 what? MegaHertz? (I smell cable tv) Divide that number into
300 and you will get the wavelength in meters. 2.154 meters wavelength
in this case.
-Bill

7887. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 01:37:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C23E3CD.9780C692@eznec.com>
Source record: 47884

A radio wave travels through space at the speed of light. The fields change amplitude and direction in a periodic manner, the period being the inverse of the frequency. The fields from a 139.2625 MHz signal go through a complete cycle every 1/139,262,500 of a second, or about every 7 ns. The wavelength is the distance the wave travels during one of these cycles. If you think of a radio wave as being like an ocean wave, the wavelength (which you'll hear reported on your weather radio for the ocean waves) is the distance from one peak to the next, or one trough to the next. Remember from high school, or maybe junior high, the formula Rate X Time = Distance? To calculate the wavelength, which is the distance from one cycle to the next, the rate is the speed of light, or about 300,000,000 meters per second, and the time is the period of the wave, or 1/frequency. So the wavelength of a 139.2625 MHz signal = 300,000,000 * 1/139,262,500 = 300,000,000/139,262,500 = about 2.15 meters. 2.15 is approximately the wavelength in meters of a 139.2625 MHz wave in the air or space.

The speed that light, and therefore a radio wave, travels depends on the material it's moving through. It travels the fastest through a vacuum. So if the radio wave is moving through any material except space, the speed will be slower than 300,000,000 meters/second and the wavelength will be correspondingly greater. For nearly all practical purposes, the speed through air is the same as through space.

Roy Lewallen, W7EL

Bobby wrote:
>
> Not to sound dumb, because I deal with this on a daily basis. However
> all our test equipment does the converstions for us, Geting to the
> point! What do you mean when you say "wavelength in meters". Lets say
> I am testing at 139.2625

7888. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 02:00:39 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C23E913.C8B190CE@attbi.com>
Source record: 47885

Hi Tom,

I'll try and keep the typing to a minimum =)

Tom Bruhns wrote:
>
>
> (Thanks for all the other stuff you wrote, too...just saving some
> space here, but maybe someone else will see something in there that
> triggers another idea they can share with you.)
>
> The 21.4MHz is a bit puzzling! If you have enough signal to see
> there, I'd expect it to be mostly the LO frequency, the RF input
> frequency, and the difference and sum. I assume there's a tuned
> circuit on the mixer output that should be fairly sharply tuned to
> 10.7MHz, though, so that's mostly what I'd expect to see. Do you have
> any way to actually measure the LO frequency and verify that it's
> 10.7MHz from the desired RF input freq?

On this receiver, the mixer's output (where I'm seeing this 21.4Mhz signal) is shot through the ceramic filter from which its output goes to Ramsey's poor excuse for an IF amp (single transistor, couple 'o' resistors), then it's AC coupled to the 3359. I cracked open a Sony FM receiver (dual-conversion, surprising!) and scoped its IF circuits, etc. Nice signals! Allowed me to do a comparison test.

>
> Another suggestion: is there anyone around where you are that you
> could get to give you a hand? I often find that even if the person
> doesn't fully understand what I'm trying to do, just having to explain
> it to them will give me more ideas to try, and if they ask questions,
> so much the better. Of course, if you're lucky enough to find someone
> who actually has worked with similar circuits and knows them inside
> out, that's even better. (You might mention where you are...some
> lurker might pop up and offer to help in person.)

We have a ham club here in Eugene (OR). Last time I went was a few years ago, I seemed to click with the folks there. But, I thought I'd post to the newsgroup first given the greater population and borader knowledge base. I won't go w/out saying that I DO appreciate everyone's help. Like I said, I posted my first query to another newsgroup and got nothing. Then I figured I'd try a ham group; didn't let me down =)

>
> In any event, it sounds like you're learning a lot! I can remember
> back to a few frustrating things like that, and looking back on them,

> realize I learned things that I didn't fully appreciate at the time.
> That is, I didn't even realize I'd learned them, till I saw something
> similar years later and suddenly realized what it was that I'd seen
> the first time, and what it all meant.

And it's that epiphany that makes that experience THAT much more
valuable!

Regards and Happy Holidays,

Tim Hamel

>
> Cheers,
> Tom

7889. Re: Quad Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 02:22:06 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C23EE1A.1B40249B@attbi.com>
Source record: 47886

Howdy,

"Clifton T. Sharp Jr." wrote:
>
>
> > Do you mean run SA602's output to the IF front end of another radio?
>
> Sure, at least for a test. If nothing else it would tell you whether lots
> of extra IF bandwidth is needed; FM broadcast radio IFs have to be pretty
> wide, compared to most communications FM IFs. You might even get *lucky*
> and find out it works better than the kit with a little output filtering.

I tried that with a couple of receivers and didn't get good results.
Looking at these receivers, they run the output of the IF filter
directly to the chip; as opposed to Ramsey who amplifies it. Before I
did, I scoped the donor radio's circuits and found the 10.7Mhz IF input
on the iC, so I knew where to insert the signal from Ramsey's receiver.

>
> > Also, something that's REALLY bugging me, and forgive me if it's a
> > rather silly question. But what determines if it's going to be high-side
> > injection or low-side?
>
> The design engineer. :) And, of course, other considerations. For example,
> think of an AM BCB receiver. For low injection, the LO would be 105 KHz
> to receive a 560 KHz signal (with a 455 KHz IF)... definitely less practical
> than high injection at 1015 KHz, if only because of the size of the LO coil.

Makes sense. It's practicality vs. quality.

>
> The mixer mixes ALL input frequencies with the LO and produces a whole
> lot of output frequencies. By filtering so that only 10.7 MHz comes out,
> you ensure that only input frequencies that are 10.7 MHz away from the
> LO frequency are left. The mixer doesn't care whether the LO is higher
> or lower, but you might. Suppose you wanted a simple receiver for 123.75
> MHz and a 10.7 MHz IF, and a kilowatt repeater at 145.15 MHz a mile away.
> If you make the LO 134.45 MHz, you'll get both the signal you want, and
> the repeater. Then again, if you make the LO 113.05 MHz and you have a
> strong FM BC signal at 102.3 MHz, you're in trouble the same way, but
> from a different source.

Alrighty, I get it now. I was kind of under the impression that you do
get a whole slew of freqs. at the mixer output (which was the right
impression). Then it's a matter of selecting (and filtering) which
frequency you want.

> Maybe they're all poopy *for your purposes*. What matters is how wide they
> are, i.e. how wide a band of frequencies gets through. Too narrow, and you
> can distort the signal badly. Too wide, and you get other problems. If
> indeed they're all poopy, they're probably all too narrow. How wide are
> the satellite signals supposed to be?

"They" say you need roughly 40kHz bandwidth. The 450kHz filter I have is
a Murata 450B, B I believe denotes the bandwidth (as opposed to "D" at
15kHz) at 20-25kHz. I found a webpage once that had a list of the
bandwidth suffixes so those values are from memory. I haven't touched
the 2nd IF filter as it hasn't given me any problems (yet). Keep in mind
that I WAS receiving the satellite signals quite nicely at one time. So,
either I inadvertenly burnt something up (I do it occasionaly) or
there's something else going on.

I do appreciate the explanations and suggestions. I'll try some more
"run-the-IF-to-another-receiver" experiments and see what that reveals.

Happy Holidays,

Tim Hamel

>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7890. Re: Quad Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 02:54:13 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C23F5D5.2F1F8464@clifto.com>
Source record: 47888

Tim H. wrote:
> Alrighty, I get it now. I was kind of under the impression that you do
> get a whole slew of freqs. at the mixer output (which was the right
> impression). Then it's a matter of selecting (and filtering) which
> frequency you want.

Well, yeah. Even if you filter well (e.g. tuned RF), you can have lots of
unwanted frequencies going into the mixer. IF you could put precisely one
pure input frequency and one pure LO into a mixer, you should get four
frequencies out; but that may not happen all that often.

> "They" say you need roughly 40kHz bandwidth. The 450kHz filter I have is
> a Murata 450B, B I believe denotes the bandwidth (as opposed to "D" at
> 15kHz) at 20-25kHz. I found a webpage once that had a list of the
> bandwidth suffixes so those values are from memory. I haven't touched
> the 2nd IF filter as it hasn't given me any problems (yet). Keep in mind
> that I WAS receiving the satellite signals quite nicely at one time. So,
> either I inadvertenly burnt something up (I do it occasionaly) or
> there's something else going on.

Some further checking is in order. Sounds like even your wide filter is
a bit too narrow, given the data you supply. IfIGetAChance I'll dig a bit
and see what's supposed to be what.

> I do appreciate the explanations and suggestions. I'll try some more
> "run-the-IF-to-another-receiver" experiments and see what that reveals.

Playing is the best way to learn lots of neat stuff. :)

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7891. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 02:55:15 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011221215515.12147.00000464@mb-fs.aol.com>
Source record: 47887

>Not even close. Description of a microvolt per meter from an old post by
>Richard Harrison:

Well, I don't know who Mr. Harrison is, and I don't know the context of his description, but in the context that I believe this person's post was based the answer is correct. Call the FCC's Cable Television engineering department and ask for the definition of uV/m and they will tell you exactly what I stated.

From multiple broadcast and cable television references:

to convert uV/m to uV
(microvolts per meter) / .021xFMhz

to convert uV/m to dBmV
20log * microvolt per meter / 21*FMHz

to convert dBmV to dBm add 48.75

7892. Re: Quad Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 05:59:22 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.33.0112220031290.1541-100000@gloria.cam.org>
Source record: 47889

On Sat, 22 Dec 2001, Tim H. wrote:

>
> "They" say you need roughly 40kHz bandwidth. The 450kHz filter I have is
> a Murata 450B, B I believe denotes the bandwidth (as opposed to "D" at
> 15kHz) at 20-25kHz. I found a webpage once that had a list of the
> bandwidth suffixes so those values are from memory. I haven't touched
> the 2nd IF filter as it hasn't given me any problems (yet). Keep in mind
> that I WAS receiving the satellite signals quite nicely at one time. So,
> either I inadvertenly burnt something up (I do it occasionaly) or
> there's something else going on.
>
I'm with Clifton about the filter maybe being too narrow (though that
doesn't explain why you got okay reception first, and then not so good).

I haven't paid complete attention, but weather satellite receivers
have to deal with doppler shift, so that's one reason why a wider
bandwidth would be desired. I think the deviation is wider than
the usual two-way deviation, but I'm not certain.

So you want a filter that is wider, and certainly I've read comments
about that. Chances are pretty good that your stock filter is not
wide enough, since it would be intended for the usual deviation.
It's not like you will get wider 455Khz ceramic filters for less,
actually they're likely to be more costly since they will not be
used in as many places, so they are not likely to put a wider filter
in a receiver intended for voice communication.

Your concern about the 10.7MHz filter is probably the reverse, however.
As long as it's one of those small ceramic, brown three-legged filter,
most likely it is more than wide enough. Those probably have come out
of FM broadcast useage, cheap and easy to get ahold of, and hence will
be something like 280KHz wide. That filter in this case (and in
the case of many dual conversion narrow band FM receivers) is there
not for receiver selectivity but to make sure that only the 10.7MHz
product out of the mixer is passed onto the rest of the receiver.
You get a good filter, albeit wide, and it requires no adjustment.

Even if the 10.7MHz ceramic filter (so long as it is a ceramic filter)
isn't 280KHz wide, it will be wider than you will need for weather
satellite reception.

And if I recall properly, the colored dot has nothing to do with
the bandwidth, but comes from a sorting process that finds the center
frequency; like 10.7 versus 10.75MHz or whatever.

So any bandwidth problem would rest in the 455KHz filter. I saw one article once where the author bypassed the filter with a capacitor, thus making the receiver rely on the 10.7MHz filter for it's selectivity. That might make things a bit too wide.

From time to time, people suggest using an FM broadcast receiver for weather satellite reception. That gets the bandwidth too wide for optimum reception. And since they are designed for a wideband deviation, the narrower deviation of the satellite may result in low recovered audio.

Michael VE2BVW

7893. Re: Quad Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 06:30:49 UTC
From: "Tim H." <tekphobia@attbi.com>
Message-ID: <3C242866.E28586E0@attbi.com>
Source record: 47890

Hi Michael,

Michael Black wrote:
>

> >
> I'm with Clifton about the filter maybe being too narrow (though that
> doesn't explain why you got okay reception first, and then not so good).

Exactly. The stock reciever did fine with the satellites. Since I've had the receiver, I've made lots of changes and have since gone back to pure stock.

>
> I haven't paid complete attention, but weather satellite receivers
> have to deal with doppler shift, so that's one reason why a wider
> bandwidth would be desired. I think the deviation is wider than
> the usual two-way deviation, but I'm not certain.
>
> So you want a filter that is wider, and certainly I've read comments
> about that. Chances are pretty good that your stock filter is not
> wide enough, since it would be intended for the usual deviation.
> It's not like you will get wider 455Khz ceramic filters for less,
> actually they're likely to be more costly since they will not be
> used in as many places, so they are not likely to put a wider filter
> in a receiver intended for voice communication.

Actually, my receiver uses a 450kHz 2nd IF. Unless the satellites have changed, I shouldn't have to change that filter. Things were working find with it.

>
> Your concern about the 10.7MHz filter is probably the reverse, however.
> As long as it's one of those small ceramic, brown three-legged filter,
> most likely it is more than wide enough. Those probably have come out
> of FM broadcast useage, cheap and easy to get ahold of, and hence will
> be something like 280KHz wide. That filter in this case (and in
> the case of many dual conversion narrow band FM receivers) is there
> not for receiver selectivity but to make sure that only the 10.7MHz
> product out of the mixer is passed onto the rest of the receiver.
> You get a good filter, albeit wide, and it requires no adjustment.

Well, after a bit of experimentation and scoping different radios, I've come to the conclusion that either the SA602 is flakey or it's something further upstream, like the quad. detector. I've been trying all kinds of 10.7Mhz filters with varied results. When I tried one filter, the

amplitude of the wave going into the 3359 was much better. And I noticed the AFC circuit seemed to track the signal better as I made changes to the quad. coil.

>
> Even if the 10.7MHz ceramic filter (so long as it is a ceramic filter)
> isn't 280KHz wide, it will be wider than you will need for weather
> satellite reception.
>
> And if I recall properly, the colored dot has nothing to do with
> the bandwidth, but comes from a sorting process that finds the center
> frequency; like 10.7 versus 10.75MHz or whatever.

Yes, I'm quite aware of this. The bandwidth is sometimes (based on my "research") indicated by suffixes. One thing I do know is that 10.7Mhz with a red dot is centered on 10.7Mhz, while orange is on 10.73Mhz. Even that small of deviation affected the receivers performance.

>
> So any bandwidth problem would rest in the 455KHz filter. I saw one
> article once where the author bypassed the filter with a capacitor, thus
> making the receiver rely on the 10.7MHz filter for it's selectivity.
> That might make things a bit too wide.

I tried that for the heck of it to see what I would get. Unfortunately, the satellites only fly overhead twice a day so whatever changes I make, I have to wait. The cap didn't do anything (.01uF) really, I still had the same ugly pictures.
>
> From time to time, people suggest using an FM broadcast receiver
> for weather satellite reception. That gets the bandwidth too wide
> for optimum reception. And since they are designed for a wideband
> deviation, the narrower deviation of the satellite may result in
> low recovered audio.

If only I could figure this one out!

Happy Holidays!

Tim Hamel
>
> Michael VE2BVW

7894. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 14:47:55 UTC
From: la8ak.xnd@online.no
Message-ID: <3c2491ea.164714449@news.online.no>
Source record: 47891

On Fri, 21 Dec 2001 14:11:38 -0600, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>SAM wrote:
>> uV/m is simply the uV divided by the wavelength
>> in meters of the measured signal.
>
>Not even close. Description of a microvolt per meter from an old post by
>Richard Harrison:
>
>---
>It is derived from the power radiated from a point source and the
>geometry of a sphere. At any distance from the source, the power flowing
>through the surface area of a square meter of the sphere surrounding the
>point source is defined. The sum of all the incremental powers in the
>total square meters of the sphere must add up to the radiated power.
>
>The voltage per meter is related to the power per square meter by the
>characteristic impedance of space which is 377 ohms.
>---
>
>Note that wavelength never enters into it.
>
seems to be a parallel reply on rec.radio.amateur.antenna yesterday by
Bart Rowlett <bart@wb6hqk.ampr.org>
--
remove ,xnd to reply

7895. Wanted KVG cw filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 18:09:53 UTC
From: James Skalski <jskalski@bellatlantic.net>
Message-ID: <3C24D16F.A364591B@bellatlantic.net>
Source record: 47892

I need a 9.000mhz cw filter made by

KVG XF-9M or XF-9NB

or Yaesu XF-90C ---
73,

Jim n2go

7896. Re: Wanted KVG cw filter

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 18:36:41 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C24D2B9.FC0A70C8@coqui.net>
Source record: 47893

James Skalski wrote:
>
> I need a 9.000mhz cw filter made by
>
> KVG XF-9M or XF-9NB
>
> or Yaesu XF-90C ---
> 73,
>
> Jim n2go

Would this do?
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1311709177

7897. FS: Bird 43 Thruline

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-22 20:27:51 UTC
From: Walter Treftz <penguino@atlantic.net>
Message-ID: <3C24ECC7.704A9E13@atlantic.net>
Source record: 47894

For Sale:
Bird 43 Thru-Line wattmeter. Excellent condx. $150 plus postage.
73 N4GL
Walter Treftz
--- penguino@atlantic.net ---
--- hvalver@hotmail.com ---
(352) 637-1755

7898. Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 00:22:32 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011222192232.29056.00000442@mb-co.aol.com>
Source record: 47895

Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
Contact me at jcplpsm@aol.com if you have one to sell.

Thanks, and happy holidays.

Scott M.

7899. ATC for RTTY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 01:53:59 UTC
From: la8ak.xnd@online.no
Message-ID: <3c2538a6.207405035@news.online.no>
Source record: 47896

Need the circuit diagram showing automatic threshold control for RTTY,
but cannot find my old magazines showing the simple circuit using 4
diodes and an op-amp (Squarer)

could somebody guide me to an URL showing this?

73,
Jan-Martin
LA8AK
--
remove ,xnd to reply

7900. Re: ATC for RTTY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 03:41:10 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3C255256.630C1A10@dialpoint.net>
Source record: 47797

Have you looked at www.rtty.com in their files ? If the ST-6 is there
you should be able to take it from the circuit.

J M Noeding wrote:
>
> Need the circuit diagram showing automatic threshold control for RTTY,
> but cannot find my old magazines showing the simple circuit using 4
> diodes and an op-amp (Squarer)
>
> could somebody guide me to an URL showing this?
>
> 73,
> Jan-Martin
> LA8AK
> --
> remove ,xnd to reply

7901. ARNewsline 1271 - Dec 21 2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 04:07:52 UTC
From: radionews@aol.com
Message-ID: <20011222230752.24476.00001102@mb-fc.aol.com>
Source record: 47798

AMATEUR RADIO NEWSLINE(tm) REPORT #1271 - DEC 21, 2001

Amateur Radio Newsline report number 1271 with a release date of Friday, December 21st, 2001 to follow in 5-4-3-2-1.

The following is a Q-S-T. A national ham radio society is asked to train new hams for government service. This story is first on this weeks Amateur Radio Newsline report number 1271 coming your way right now.

(Billboard Cart Here)

**

THE EDUCATION SCENE: HAM TRAINING LEADS TO SA GOVERNMENT JOBS

A government agency has asked a national ham radio society to help train new hams. The reason. careers with that agency. Its happened in South Africa as we hear from Q-News Graham Kemp, VK4BB:

--

In South Africa, their Department of Communications contacted the SARL with the request to train seventeen post graduate students as amateur radio operators. These students had already qualified in different fields, some technical and some in the Information Technology fields. There were nine ladies and eight men. From next year they will be employed by the Department of Communications, and the idea was to give them some experience in the field of radio communications.

Training was done by Henry Chamberlain, ZS1AAZ, over a period of one full month. In addition to lectures, the students could see practical demonstrations of amateur radio and they spent one period building and testing a Morse Code practice oscillator. They also visited ZS1AAZ's home shack. The seventeen students had already proved their ability by passing their previous studies successfully. It was therefore no surprise that they ALL passed the amateur examination.

For the Amateur Radio Newsline, I’m Graham Kemp. VK4BB, of Q-News.

--

The seventeen will be assigned specific jobs with the South African Department of Communications in early 2002. (SARL, Q-News)

**

SPECTRUM SHARING: FCC SAYS YES TO HIGHER POWER UNLICENSED TRANSMITTERS AT 2.4 GHZ

The FCC has approved issued new rules permitting certain unlicensed Part 15 devices operating between 2405 and 2450 MHz to use higher power, but under significant restrictions. The band is allocated to amateurs on a co-secondary basis. Amateur Radio Newsline's Norm Seeley, KI7UP, takes a look at the FCC action:

--
According to the C-Q Magazine website, the decision was adopted on December 11Th. In it, the FCC approved a petition by Sierra Digital Communications, Inc. to permit unlicensed fixed point-to-point transmitters in the band to operate at field strengths of up to 2500 millivolts per meter. This is a tenfold increase over past power limitations.

Sierra Digital Communications manufactures and sells equipment for wireless data communications, including high-speed wireless computer networks and Internet links. The ARRL had opposed Sierra's petition on the basis of increased risk of interference to amateur and amateur satellite operations. This is because the downlink from the AO-40 satellite is in the 24 GHz band.

But the FCC said it believed the restrictions it is imposing on the higher-power transmitters will provide sufficient protection to other users. This includes industrial/scientific/medical equipment, radar and Earth exploration satellites, in addition to amateur radio. The new rules require highly directional antennas and high frequency stability of transmitters.

For the Amateur Radio Newsline, I'm Norm Seeley, KI7UP.

--

In its decision, the FCC singled out an ARRL comment where the League clamed that Part 15 devices are permitted by the Communications Act of 1934 only where they have no interference potential to licensed services. The Commission called the League's interpretation of the law overly conservative. It said that its rulings to date appropriately provide a means for allowing unlicensed devices to share spectrum with licensed services with little risk of interference and adequate protection to licensed service. (CQ)

**

HAM RADIO AND THE WAR: MARS ON THE AIR FROM THE WAR ON TERROR

Ham radio is making it possible for those fighting the war against terrorism to phone home. This as the ARRL Letter announces that Army Special Forces on duty in Islamabad, Pakistan, and in other undisclosed locations have begun keeping in touch with home via MARS -- the Military Affiliate Radio System.

Phone patches provided by the Military Affiliate Radio System make it possible for troops to call their families in the US from areas where commercial communications channels are not available. Amateur Radio operators enrolled in MARS provide the connection between the Military Affiliate Radio System stations deployed overseas and the telephone system back home.

During the Vietnam War, phone patches were a major source of comfort to families and service members alike. MARS also responded during Operation Desert Storm. (ARRL)

**

BREAK 1

Wishing you a Happy Holiday from the United States of America, we are the Amateur Radio Newsline, heard on bulletin stations around the world, including the Great South Bay Amateur Radio Club repeater, W2GSB, serving West Babylon New York.

(5 Sec Pause Here)

**

HAM RADIO AND THE WAR: GODDARD ARC FEELS THE PINCH

The Goddard Amateur Radio Club says that it has been having serious problems with manpower lately and the war on terrorism is partly to blame. This is because new security restrictions imposed after September 11th require all visitors to Goddard to be escorted by a badged employee at all times.

According to Dan Schultz, N8FGV writing to the Amsat Bulletin Board, the clubs WA3NAN ham shack is located on government property we are bound by the new restrictions. This says Schultz makes it much harder to bring in control operators who are not Goddard employees. As a result, WA3NAN which for years has been the primary rebroadcaster of shuttle communications on the ham bands is not there as often as it would like to be.

Schultz also notes that the Goddard Amateur Radio Club currently has no president because no one has stepped forward to accept the job. The position of Shuttle Retransmission Director is also vacant, this is the person who makes the phone calls to get operators lined up to pull shifts at the retransmission facility.

Schultz says that the long term technical solution will be to automate the station with remote controls and telemetry for the transmitters so that the retransmission operator can operate from his home. But adds N8FGV, but that is still a little ways off in the future. As a result, WA3NAN is not there as much as it used to be. (AMSAT-BB)

**

AMERICA AT WAR: NEW HOMELAND TERRORIST ALERT SYSTEM PROPOSED

Homeland security chief Tom Ridge is considering a multistage system for terrorism alerts. Ridge is also weighing how to reimburse states for the costs of increased security since the terror attacks.

Since the September 11th terrorist attacks on New York and Washington, Ridge has issued three general warnings. None of the alerts identified specific targets.

Now, according to news reports, Ridge will propose a four-stage Threat Alert Network similar to the military's DEFCON'' system. DEFCON alerts military personnel to the seriousness of a threat. A private sector version would be aimed at helping state and local law enforcement personnel determine the level to react to a Federal government issued terror warning.

The proposal came to light after California Governor Gray Davis met with Ridge about a week and a half ago. Davis told Ridge he had proposed such a similar system for California, and said Ridge had asked him to wait pending a national model. Ridge told Davis that he hopes to unveil the national system by January 15th of 2002. Whether or not ham radio will play any part in such an alert system is not known as we go to air. (Published news reports)

**

AMERICA AT WAR: CONFERENCE HELD ON ALERTING THE PUBLIC

Still in there area of alerting the public, more than 120 leaders from the emergency warning community met November 30th and unanimously called for the creation of a public-private partnership. This, aimed at improving the delivery of timely and accurate emergency information to people at risk. Don Wilbanks, KC5MFA reports:

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The group came together at a special conference arranged by the National Warning Organizing Committee. This is a group of emergency warning advocates representing the public and private sectors.

Those attending included federal, state and local government officials, not-for-profit organizations, and representatives from the private sector. And in the end the group has tasked itself to improve the delivery of warnings and emergency information to the public. This, through better education, research, standards creation and policy recommendations.

The Committee Chairman is David Liebersbach, Director of the Alaska Division of Emergency Services. He has appointed Peter Ward, formerly of the U.S. Geological Survey and chair of a White House-appointed working group on natural disaster information systems, to head up a committee to determine the new organization's structure and governance. Ward also serves as the new organization's spokesman. More news on the work of this committee as information is released.

For the Amateur Radio Newsline, Don Wilbanks, KC5MFA, in New Orleans.

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The conference was hosted by The MITRE Corporation in McLean, Va. MITRE is a not-for-profit national technology resource that provides systems engineering, research and development, and information technology support to the government. (MITRE)

**

HAM RADIO AND EDUCATION: HAM RADIO MASS BALLOON LAUNCH

The Timberlane Regional High School, in Plaistow New Hampshire will be taking part in a high altitude experiment next spring. This with an announcement that the Coordinated Algebra II and Physics classes taught by Lorainne Mascioli, N1VYQ, and Lou Broad, N1RCA, are planning thier third year of ham radio and high altitude balloons in May of 2002.

Six student teams will attempt to launch their balloons at the Hosstraders Ham Fest at the Hopkington Fair Grounds in New Hampshire. Each team is responsible for design, construction, and operation of their system. Each balloon will carry a GPS receiver, a packet reporting system and several experimental payloads. This could include cameras, video, amateur television and cross band repeaters. At maximum altitude such systems will have a range of 300 miles and should easily cover all of New England and more.

The class has grown to 34 students and they are planning to launch six balloons in a two day period! This could make it a record breaking event in both ham radio and high altitude ballooning. For more information check out the CAPSAT Website located in cyberspace at
http://www.mv.com/ipusers/llb/capsat.html (Via Internet)

**

HAM RADIO SPOTLIGHTED IN POUGHKEEPSIE JOURNAL

New York’s Poughkeepsie Journal has highlighted ham radio in a December 6th front page article. The piece focused on the public service aspects ham radio with quotes and pictures.

According to Andrew Schmidt, N2FTR, who is an ARRL Assistant Director in the League’s Hudson Division, many Poughkeepsie area local hams spent time at Ground Zero or at the Red Cross centers in the greater NYC area following the September 12th terrorist attacks. Andrew says that their work is well highlighted in the article. The link is:
http://www.poughkeepsiejournal.com/thursday/community/stories/co120601s12.
shtml. (Via Internet)

**

A SPECIAL AM EVENT: THE HEAVY METAL RALLYE

This is Paul Courson WA3VJB with news of an operating event Saturday night, December 22nd. It's the Heavy Metal Rally, featuring big iron, vacuum tubes, and the warm and inviting sound of AM on the shortwave ham bands.

Starting around local sunset listen for rigs in the 250 watt or 250 pound category to populate AM gathering points on 160, 75 and 40 meters.

Jim, W8MAQ was testing HIS 1947 Collins 300-G a few days ahead of the Heavy Metal Rally. The retired broadcast transmitter re-tuned to 75 meters sounded like this:

In-Q: it's been great to get on... 300-G..
Out-Q: forward to that

--

Prizes include a trophy, pictured as a posting on QRZ.com, for the best sounding station.

Last year more than a hundred stations took part -- and the winner was Mike, WN3B, on a Gates 250-C. He gave Jim an audio report the other night:

--
In-Q: It's got more highs....
Out-Q: Shure 55
--

The Heavy Metal Rally is sponsored by Electric Radio, a magazine featuring vintage ham radio, and published by Barry N6CSW. The event was pioneered by Bill, KD0HG of Colorado, a broadcast engineer with a knack for big homebrew rigs that sound great.

Frequencies and a website are listed on the news page of QRZ.com.
Paul Courson, WA3VJB, Annapolis Maryland.

**

HAM RADIO HISTORY: COLLINS RADIO CENTER NOW OPEN

The new Collins Radio Center which is the headquarters for the Collins Radio Association is now officially open for guests and visitors. Located near Johnstown, Pennsylvania, the Collins Radio Center includes a representative collection of Collins radio equipment, from the 1930's to the present. There are other classic and antique radios on display as well. More information is on the web at www.collinsra.com. (Collins RA Press release)

**

HAM RADIO BUSINESS: CITY ELECTRONICS - RIP

Alex Stalinsky, WA5UHT, who owns City Electronics, a small parts outlet in Houston for almost 50 years, has decided to call it quits. According to Chris Boone, WB5ITT, this place was one of the main sources of parts, components in Houston long before the likes of Mouser and Digikey took off in mail order sales.

Chris tell Amateur Radio Newsline that he bought many parts from City Electronics in his early days of repeater building. In fact, Chris says his mother claimed that he owned half of the local Radio Shack but she was wrong. It was really like he was a part of City Electronics as were many other young Houston area hams and Chris tells Amateur Radio Newsline, it will be missed. (WB5ITT)

**

BREAK 2

By telephone, satellite and the World Wide Web, we are the amateur Radio Newsline with links to the world at our only official website - www.arnewsline.org.

**

EMERGING TECHNOLOGY: INTELS NEW WARP SPEED CHIP

In another step toward faster computers, Intel Corp. has developed two new technologies that will help the tiny transistors inside microprocessors run cooler, use less power and operate more efficiently. The new designs

complement several recent breakthroughs in building minuscule transistors that form the basis of all modern computing as they switch on and off billions of times a second. Earlier this year, Intel unveiled transistors just 20 nanometers wide. Today's Pentium 4 has 42 million transistors, each about 180 nanometers. For reference, a manometer is about 10,000 times narrower than a human hair. (Intel)

**

EMERGING TECHNOLOGY: DTV ROLLOUT UPDATE

Roughly two-thirds of commercial television stations plan to broadcast a digital signal by a federal government deadline of May 1, 2002. This, according to the National Association of Broadcasters.

In a report to the Federal Communications Commission, the industry group said that many of those that won't make the deadline are waiting for equipment to be delivered and expect to have digital broadcasts on the air in the months afterward. But some stations in smaller markets are having a hard time paying for the upgrade, the association says.

Right now, most home television sets in use receive only analog signals. But congress has mandated that broadcasters must give up their analog channels to the government by 2006. As a result, there are concerns that consumers won't have made the costly upgrade to televisions that can receive digital signals by that date. (Broadcasting Daily)

**

HAM RADIO IN SPACE: EXPEDITION 4 CREW NOW ON THE ISS

An all ham crew is now in charge of the International Space Station and will be for the next six months.

Three astronauts and cosmonauts now running the ISS. They are Russian Commander Yuri Onufrienko, RK3DUO, along with American Flight Engineers Dan Bursch, KD5PNU, and Carl Walz, KC5TIE. They make up what is called the Expedition 4 crew and all three are expected to be on the air regularly for school contacts and possible open QSO times made available to talk with hams worldwide, as time permits.

The Expedition 3 crew comprised of United States Commander Frank Culbertson, KD5OPQ, along with Russian Flight Specialists Mikhal Tyurin and Vladimir Dezhurov is now back on good old Mother Earth. They returned on Monday, December the 17th aboard the space shuttle Endeavour. (AMSAT-NA, ARISS)

**

HAM RADIO IN SPACE: EDUCATIONAL ASSISTANCE FROM VK5ZAI

Attention educators. If you are thinking about teaching the International Space Station, here is a bit of assistance.

Tony Hutchison, VK5ZAI has updated his web pages with links to help schools in obtaining educational programs associated with the I-S-S and space science in

general. Hutchison says that this should be of interest students and teachers alike especially if they are contemplating applying for a ham radio contact with the astronauts on the station.

Hutchison is the Australian ARISS Coordinator. His website in cyberspace at www.electric-web.org (VK5ZAI)

**

SPACE AND SCIENCE: CHINA ON THE BRINK

Space Daily reports that China is getting ready to launch its third unmanned spaceship. This, to pave the way for sending that nations first astronaut into space sometime next year. China is reportedly also in final testing and preparation to launch a new satellite dedicated to study ocean colors and related phenomena. (Space Dailey)

**

DX

In DX, 9V1YC reports that he and eleven other hams will be activating South Georgia and South Sandwich Islands in January and February of 2002. The operation will be strictly on the high frequency bands. Exact dates, call signs and QSL managers are not being made public until the group is actually on the air. The New Zealand registered vessel "Braveheart" of ZL9CI fame will be supporting this team for the entire 30 day trip. (RSGB)

A bit higher in frequency, Jeff Klein, K1TEO reports that December 6th was another great D-X day on the 6 meter band. Jeff who lives in Connecticut says over the VHFReflector that the band was open for a solid two hours beginning at 7:30 am local. And talk about D-X. On his very first C-Q he landed HB9QQ who was operating portable HB0. Even better, Jeff says that the fifth caller was 4X1RF. (VHF Reflector)

Over in Great Britain hams are actually D-Xing for charity. Jeramy Boot G4NJH, reports from Nottingham in the U-K.

--

Every year in September, the British Wireless Fund for the Blind -- a registered charity - organises a fund-raising event in which amateur radio clubs and individuals are sponsored for the number and distance of the contacts that they make. As of the 11th of December, the British Wireless for the Blind Fund reported that 'Transmission 2001' had raised £6681.48, with more coming in every day. They say that they hope the final total will reach £7000. The charity offers prizes to the club and individual raising the greatest amounts.

This year the Cray Valley Radio Society operating as GB2FB and taking part for the first time, won the prizes for the club raising the most money and for making the most contacts. Robert Guscott, M5GUS, operating as GB0WB, won the prize for the leading individual.

Jeramy Boot, G4NJH.

--

The bottom line. This is another way that hams can not only enjoy their hobby, but can help others at the same time. (G4NJH)

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THAT FINAL ITEM: A HAM RADIO CHRISTMAS STORY

And finally this week, the story that we wait all year to tell you. Its the ongoing story of hams who care about hospitalized children and what they do to bring a bit of holiday cheer to those kids who cannot make it to the mall to spend a few moments with old Saint Nick. Here’s Amateur Radio Newsline’s Joe Moell, K0OV:

--

As most hams know, propagation is very good this time of year. It's so good that it's easy to make contact with the North Pole. Many clubs around the country are taking advantage of these propagation conditions to set up QSOs with a very special North Pole station. They're making these contacts from hospitals and rehabilitation centers, and they sound like this:

--
Santa and Kids Audio Here
--

That's what the North Pole Network sounds like in southern California, where it's celebrating its 25th anniversary at Childrens Hospital of Orange County. In the past few days, I've heard from other clubs in the North Pole Network, including the AkSarBen ARC in Omaha and the Southwest Missouri ARC in Springfield. And YOUR club could bring holiday joy to hospital patients. There's a how-to article on the subject, with a dozen suggestions for your best North Pole Network ever, currently running on ARRL's Web site. That's arrl.org, of course. And there's even more about North Pole Network in southern California, plus lots of photos showing a quarter century of holiday fun, at the Hospital Disaster Support Communications System Web site, www.hdscs.org. Check it out, and start planning for your own North Pole Network joy.

--
Santa And Kids Audio Here
--

Joe Moell K-zero-Oscar-Victor for Amateur Radio Newsline.

--

From us here at Amateur Radio Newsline: A Merry Christmas to those very special kids and a Merry Christmas to all of you.

**

NEWSCAST CLOSE

With thanks to Alan Labs, Amateur News Weekly, AMSAT, the ARRL, the CGC Communicator, CQ Magazine, the FCC, the Ohio Penn DX Bulletin, Radio Netherlands, Rain, the RSGB and Australia's Q-News, that's all from the Amateur Radio Newsline(tm). Our e-mail address is newsline@arnewsline.org. More information is available at Amateur Radio Newsline's(tm) only official website located at www.arnewsline.org. You can also write to us or support us at Amateur Radio Newsline(tm), P.O. Box 660937, Arcadia, California 91066.

Before we go, some get well wishes to our longtime friend Ron Broadbent, G3AAJ. Ron is the former Secretary of AMSAT-UK. He is in the hospital in the U-K and will be undergoing surgery. AMSAT says that he hopes to be home by Christmas. Get well wishes can be sent by e-mail to g3aaj@amsat.org.

For now, with Bill Pasternak, WA6ITF, at the editors desk, I'm Jeff Clark, K8JAC and I’m Jim Damron, N8TMW, saying Happy Holidays, God Bless America, 73, and we thank you for listening." Amateur Radio Newsline(tm) is Copyright 2001. All rights reserved.

**
End Newscast
**

RAIN PROMO HERE

7902. Small Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 05:36:18 UTC
From: Tazanator <tazanator1@attbi.com>
Message-ID: <m3eV7.959$r73.3760@rwcrnsc51.ops.asp.att.net>
Source record: 47799

Okay putting up a 10-12 meter vertical, only have 75 ohm coax how do I get it to work all happy like.
(the ANT is an ANTRON 99 with 150' belden 8281 coax to the surge box than goes thru 75 feet RG-213 50 ohm to the shack)

7903. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 06:54:22 UTC
From: hexter@blazenet.net
Message-ID: <u2avsubb88br84@corp.supernews.com>
Source record: 47800

In article <19870d87.0112210644.30dcb1f5@posting.google.com>,
rzito@si.rr.como says...
>
>I have looked all over the place and having a hard time find this
>information, so any feedback would be appreciated:
>
>Can a reading at uV be converted directly to uV/m? The same would go
>for dBmV, dBuV, dBm , dB, can reading taking at any one of these unit
>be converted directly to uV/m?
>
>Thanks
Generally speaking, microvolts per meter is a referance of a radiated
signal at some distance away from the radiating source (antenna), and
so you can't convert without knowing antenna characteristics.

What is it exactly you want to find out?

7904. Re: Small Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 07:20:14 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <OAfV7.364887$8q.31676140@bin2.nnrp.aus1.giganews.com>
Source record: 47801

Don't worry about it. Changing from 50 to 75 Ohms only creates an SWR of 1.5. If everything else is good, that's not too high. However, the great length of that feeder is of some concern. Verticals aren't very good antennas as it is so you may be disappointed.

7905. Re: Large Power supplies available!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 10:22:00 UTC
From: jb <Brandaris400@hotmail.com>
Message-ID: <dfiV7.508424$Jy2.37299469@news.quicknet.nl>
Source record: 47802

Do you have any foto's ?

"Allen" <gorgeousmack@hotmail.com> schreef in bericht
news:d0345038.0112211458.4939e2a8@posting.google.com...
> I can build any thing from 100 amp up to 500amp.Power supply(dc)
> voltage.I can also build you a 150amp that runs on 220.All power
> supplies are variable volts from 6-20volts dc the price is $3.00 per
> amp ////150amp$450+ shipping.All power supplies are war. for 1yr

7906. Re: looking for HV transfo in the UK...

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 15:10:01 UTC
From: Terry <tsanford@nf.sympatico.ca>
Message-ID: <3C25F3C9.F1A30A4@nf.sympatico.ca>
Source record: 47803

Roy Lewallen wrote:
>
> There's been quite a lot of discussion about these [ex microwave oven] transformers on this
> newsgroup in the past. I suggest doing a search at groups.google.com
> (formerly deja.com) and checking it out. One recurring topic was how to
> deal with the problem of one of the secondary leads being internally
> attached to the metal transformer housing.

> Ivan had written:
> >

> > microwave ovens usually have power ratings 600 watts or more.
> > So you can expect power rating of the transformer 600 - 1200 watts
> > continuously. The secondary voltage is usually 2 - 4 kilovolts
> > (WARNING - ABSOLUTELY LETHAL !!), the secondary amperage
> > should be somewhere about 600 / 2000 = 0,3 amp. No
> > current limiting is involved in the transformer.

Presuming that the HV transformer is to be used to produce HT/B+ for tube equipment, say a transmitter, would it not be possible to use the transformer with one end grounded i.e. attached to the metal chassis, as it is in a microwave oven? Then using a half wave rectification it should be possible to get somewhere around the secondary voltage x 0.707 volts (say 1600 to 1700 volts) DC of B+.
OR: Use two such transformers (heavy though) in a more conventional full wave circuit; the 'centre tap' being the grounded ends of the two secondaries, connected to chassis or the HT negative or B minus rail?
The primaries would need to be 'phased' correctly.
Gee whiz, even with one such transformer, a couple of thousand volts at say 300 milliamp is 600 watts!
DANGEROUS too! Keep those hands in a pocket!
In original microwave oven rectifying circuits that I have so far encountered, one end of the transformer HV secondary is 'grounded'; the positive IIRC because of the magnetron, not that it matters that much for what is being discussed here?
There are other rectifying configurations including voltage doublers etc. that might be used?
BTW. Those original rectifiers in microwave ovens must be able to handle the power required also? i.e. pulsed DC to operate the magnetron. The capacitor is often around 0.8 mfds. at several Kv.
Also wonder if it would be better to use 'choke input' filtering (again presuming the use of the High Voltage to produce filtered DC to operate tube electronic equipment) if such rectifiers are used and/or check the inrush current limitation. Also any DC choke resistance in the B+ line

(I guess chokes would have to be in the B+ line, in this instance, with a grounded transfomer? Unless unusual configurations were used!
I've saved a couple of such transformers from 1000 watt ovens (115 volts) that the owners do not want fixed. New units are so cheap now! They do look pretty sturdy and capable of operating in say intermittent amateur service. After all some microwave settings are for continuous cooking for 40 or 50 minutes or longer! Haven't seen a burnt transformer. Several magnetrons, yes.
We have five domestic, not commercial, microwave ovens in a school cafeteria business that operate semi continuously for much of the lunch period, daily; I would reckon at least 60% 'on', maybe higher, for one half hour; they get hot but none have blown a transformer; yet!
Couple of ideas. Terry.

7907. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 15:21:32 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C25F67C.3C41D4C@ieee.org>
Source record: 47804

Scott,

I will bet that it is a hard value to find...

Your best bet is to buy a 38 MHz crystal, build an oscillator, and divide it by 1000 and then by 2 with digital logic and then add a little filter to make a sinusoidal wave. If you need help with this circuit, drop me an E-mail.

Feed this into one leg or the other where the missing crystal is.

Having not seen the schematic of the generator, I cannot guarantee this will work, but it likely will.

Mouser Electronics sells a 38.00053MHz crystal (close enough) for $0.80 and they have no minimum order.

Clyde

SAM wrote:

> Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
> Contact me at jcplpsm@aol.com if you have one to sell.
>
> Thanks, and happy holidays.
>
> Scott M.

7908. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 15:38:13 UTC
From: rzito@si.rr.com
Message-ID: <19870d87.0112230738.624f4b08@posting.google.com>
Source record: 47805

I really cant thank everyone enough for these replies, I am able to take a reading at uv/m and convert it properly to uv with the feed back from Sam. What I am trying to do is create a small calculator to calculate and reading in uV/M and convert it to what it would be equal to at a different freq and distance. Example:

A reading of 30uV/m at 139.2625MHz taken at 30ft from source is equal to 16.7652 dB at 121.2625 and a distance of 10 ft.

I feel it is a good tool for those taking the measurements because now they will become more aware of what a reading maybe and not stupid like myself who always had testequipment do it for me!!!!!!!!

7909. Re: Small Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 16:24:06 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <u2c4f3rmhr45c1@corp.supernews.com>
Source record: 47807

Bob is right about the length of coax being a problem. I disagree about verticals not being very good antennas. They can be GREAT antennas, although often they are not.

First and foremost, depending on the particular vertical and the type of ground at your QTH, you may need an extensive ground system for the vertical to work well. If all that 75 ohm coax is vertical, then it may not be much of an issue assuming that the vertical you are installing has adequate radials.

Now, the really important part. When you install the antenna, there will presumably be some sort of adjustment. Coax loss at HF isn't too bad, although at the higher HF region, where you intend to operate, it starts to be a problem. The effect of the coax loss is magnified by SWR.

If you want this antenna to work reasonably well, you will need to carefully adjust it by reading the SWR *AT THE ANTENNA*. The SWR at the end of your feedline will at best be misleading, at worst totally irrelevant. Ideally, you want the antenna to be installed in it's final place when you do this. In a more "normal" installation this adjustment wouldn't be so critical, but with 225' of coax at 12 meters, the coax loss will not be insignificant, and it will be magnified by the SWR. It's this coax loss that makes the SWR reading in the shack not very meaningful.

I worry a little about the SWR bump in the middle of the feedline as well. You might be better off to run 75 ohm all the way if you can. At least that way the SWR reading in the shack might have some relationship to the reading at the antenna. Note that the reading in the shack will still be way low, but at least it might have a relationship to the SWR at the antenna. With the coax change, I wouldn't bet that there is even a simple relationship between the SWR you see in the shack and what you see at the antenna.

didleydadidah

"Bob" <balbert@cnmnetwork.com> wrote in message
news:OAfV7.364887$8q.31676140@bin2.nnrp.aus1.giganews.com...
> Don't worry about it. Changing from 50 to 75 Ohms only creates an SWR of
> 1.5. If everything else is good, that's not too high. However, the great
> length of that feeder is of some concern. Verticals aren't very good
> antennas as it is so you may be disappointed.
>
>

7910. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 17:07:20 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011223120720.20732.00000704@mb-cp.aol.com>
Source record: 47806

Bobby,

As Bill suggested in an earlier post, this sounds like cable TV. Correct? If you prefer, contact me off list and I can give you more information. Just take the municate off the com at the end of my address.

7911. Re: Small Problem

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 19:03:44 UTC
From: "Bob Lewis (AA4PB)" <rlewis@staffnet.com>
Message-ID: <u2cakn94ktq49e@corp.supernews.com>
Source record: 47808

> Verticals aren't very good antennas as it
> is so you may be disappointed.

That's primarily because most people try to get by with only half the antenna (the vertical piece without a decent ground). Try putting up only one side of a dipole or a yagi with one side of the elements missing and see how it works :-)

7912. Re: SN76514N Availability

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 19:16:02 UTC
From: Rana <ysrana2001@hotmail.com>
Message-ID: <a06nk6$jdcuv$1@ID-123388.news.dfncis.de>
Source record: 47820
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.equipment

Have any body got the data & application information for
SN76514N.

Rana

"Douglas Snowden" <snowden@peoplepc.com> wrote in message
news:u0vrs8etas0nf7@corp.supernews.com...
> There is a source of SN76514N IC's. They have a $50.00
minimum
> order. If one or more people want to go together and buy
I would
> be willing to do the purchase. I could use a few - a
couple for spares
> and one or two for experimenting.
>
> Doug N4IJ
>
>
>
>
>

7913. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 20:23:33 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C263D45.31B695@coqui.net>
Source record: 47809

SAM wrote:
>
> Bobby,
>
> As Bill suggested in an earlier post, this sounds like cable TV. Correct? If
> you prefer, contact me off list and I can give you more information. Just take
> the munication off the com at the end of my address.

Yep, there's graphs available for this in the trades and I think there
may be an actual chart in the FCC regs somewhere of how they 'see' it.
-Bill

7914. 20,000 Volt Variable Power Supply, Spellman - Ebay

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 21:35:46 UTC
From: Dan Long <w4tq@mindspring.com>
Message-ID: <a05irp$6mr$1@nntp9.atl.mindspring.net>
Source record: 47810

20,000 Volt Variable Power Supply, Spellman - Ebay

This magnificent power supply is variable 0 - 20,000 volts. It has a meter for voltage and a meter for current (leakage); see the close-up picture below. It can be used to perform hi-pot tests, and to verify insulators and dielectric materials. I purchased it to help in the design of a high power RF amplifier.

It works perfectly. As you can see, it is a rack mount design. The top and bottom are covered with sheet metal, so it can be placed directly on your workbench as well. The front panel and meters are in excellent condition.

I've been told that these sell for about $2000 when new, but I don't know if that's accurate. I purchased it a few years ago at the Dayton Hamvention.

For auction on Ebay, click on:
http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1679201652

I will be glad to provide additional information. Contact me at
w4tq@mindspring.com

7915. NEED PART: (or info on how to fabricate) Power Cord Lafayette HA-460

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-23 21:38:43 UTC
From: "Webster D. Williams" <kr4wm@sc.rr.com>
Message-ID: <MPG.1690192661be1f57989817@news-server.sc.rr.com>
Source record: 47811

Anyone have any information on how to fabricate a
power cord for this rig? It uses an 11 pin tube-socket-like
affair. Thanks in advance if you can help!

73, -Web Williams in Myrtle Beach, SC

7916. Transistor trf kit: instructions lost!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 00:47:00 UTC
From: gm@8apx.freeserve.co.uk
Message-ID: <memo.20011224004732.7439A@8apx.freeserve.co.uk.freeserve.co.uk>
Source record: 47812

Hoping someone can point me to the right newsgroup or whatever -

I've found a 1960s 4-transistor reflex trf kit, long and medium wave; and
of course the circuit diagram and instructions are missing.

Any sources of suitable circuits would be very welcome.

Thanks, and seasons' greetings -

Bill,
Edinburgh

7917. Re: Transistor trf kit: instructions lost!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 01:37:36 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <AFvV7.106456$Y6.10365879@news1.rdc1.ct.home.com>
Source record: 47813

Try the rec.antiques.radio+phono group. We will need the brand and
model number. Someone there might be able to help.

Pete

"BillJ" <gm@8apx.freeserve.co.uk> wrote in message
news:memo.20011224004732.7439A@8apx.freeserve.co.uk.freeserve.co.uk...
> Hoping someone can point me to the right newsgroup or whatever -
>
> I've found a 1960s 4-transistor reflex trf kit, long and medium wave; and
> of course the circuit diagram and instructions are missing.
>
> Any sources of suitable circuits would be very welcome.
>
> Thanks, and seasons' greetings -
>
> Bill,
> Edinburgh
>

7918. Re: Transistor trf kit: instructions lost!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 01:41:29 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C2687C9.25C4A304@coqui.net>
Source record: 47814

BillJ wrote:

> I've found a 1960s 4-transistor reflex trf kit, long and medium wave; and
> of course the circuit diagram and instructions are missing.
>
> Any sources of suitable circuits would be very welcome.
>
> Thanks, and seasons' greetings -
>
> Bill,
> Edinburgh

Hi Bill,
Here ya go...
http://www.spontaflex.freeserve.co.uk/

Merry Christmas from PR

7919. Re: NEED PART: (or info on how to fabricate) Power Cord Lafayette HA-460

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 03:04:12 UTC
From: w4pqwhs@aol.com
Message-ID: <20011223220412.11737.00000853@mb-cf.aol.com>
Source record: 47815

Check with Antique Electronics supply,they have all these sockets and covers .I believe it is WWW.tubesandmore.com .good luck Harold W4PQW

7920. Re: NEED PART: (or info on how to fabricate) Power Cord Lafayette HA-460

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 03:09:48 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C269C7C.98748D68@coqui.net>
Source record: 47816

W4pqw HS wrote:
>
> Check with Antique Electronics supply,they have all these sockets and covers .I
> believe it is WWW.tubesandmore.com .good luck Harold W4PQW

I had a dickens of a time locating an 11-pin plug recently. AES only
has the 8-pin ones, at least in the catalog. I believe I saw some
11-pin ones at Nebraska Sales and Surplus.
The irony in my story is that shortly after I found one, some guy sold a
group of about 20 on ebay for about $11. Oh well.
-Bill WX4A

7921. Re: Want Drake AC3 or AC-4 type connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 03:43:47 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C26A473.23221422@coqui.net>
Source record: 47818
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.boatanchors

Douglas Snowden wrote:
>
> I am building a power supply for my Drake T4XB and need
> a power connector as the one the AC3/4 have to plug into
> the transmitter.
>
> Doug N4IJ

Mouser (www.mouser.com) carries the line but last time I needed one they were indefinitely back-ordered which is not at all like Mouser to do. Its worth a try to see if that situation has cleared up. Search 'jones plug' on their site.
-Bill WX4A

7922. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 03:58:57 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <147d2uokbromd5nrasdm5nvg561a5ktedg@4ax.com>
Source record: 47819

jcplpsm@aol.communicate (SAM) wrote:

>Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.

I have a later incarnation of the same generator and also needed a 19kHz crystal about 20 years ago. After searching lots of sources I finally found someone who could make up low frequency crystals like this for me. He actually repaired mine (it's only fault was that it was actually a 20,000 Hz crystal instead of a 19,000 Hz.) I bought the generator from someone who had never been able to get it to work, and the fault just wasn't obvious until I got a nice HP frequency counter and started checking things with it.

At that time I wasn't sure whether the repaired crystal would hold up, so I had him make me 2 additional spares, which I still have. I'd be willing to sell one for $35, including shipping. Considering inflation, that's less than I paid for it. These are perfect replacements for the OE Heath part and I have run them in my IG-5237 to verify that they work the same as the original.

I have repaired one of the earlier IG-37s like you have, and the circuitry is the same, except that the ~100 MHz oscillator (at least some units) is missing a cap that lets it actually run at 100 MHz. While I found that the early unit could be made useful as is, it worked a LOT better when the frequency was right. I believe that without the cap the frequency is too high, but it's still picked up as a harmonic or something like that. At any rate the cap was easy to add in and made a big difference in the end result.

I always suspected that at the time Heath did the original design work they just didn't have a 100MHz scope or frequency counter. Or perhaps they did, but just couldn't see that most of the signal was at 200MHz. Sorry, it was a long time ago and I don't remember the details. At any rate I can send you a copy of the later schematic with the crystal and you can take a look at it.

Let me know if you're interested.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

7923. Want Drake AC3 or AC-4 type connector

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 06:32:03 UTC
From: Douglas Snowden <snowden@peoplepc.com>
Message-ID: <u2d7qpcubftt18@corp.supernews.com>
Source record: 47817
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.boatanchors

I am building a power supply for my Drake T4XB and need
a power connector as the one the AC3/4 have to plug into
the transmitter.

Doug N4IJ

7924. A compact, easy-to-build shortwave antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 09:02:02 UTC
From: Radio Havana Cuba <radiohc@radiohc.org>
Message-ID: <a06qtq$oc0$1@nytr.blythe.org>
Source record: 47821
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

```
The Broomstick Special:
A compact, easy-to-build shortwave antenna

BY ARNIE CORO
Host of "Dxers Unlimited"

http://www.radiohc.org/Distributions/Dxers/broomstick.html
http://www.radiohc.org/Distributions/Dxers/broom2.html

--

http://www.radiohc.org
```

7925. Re: A compact, easy-to-build shortwave antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 09:11:39 UTC
From: andy <music@soon.com>
Message-ID: <a06rjbape1@newsg1.svr.pol.co.uk>
Source record: 47822
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

"Radio Havana Cuba" <radiohc@radiohc.org> wrote in message
news:a06qtq$oc0$1@nytr.blythe.org...

> The Broomstick Special:
> A compact, easy-to-build shortwave antenna
> BY ARNIE CORO
> Host of "Dxers Unlimited"
> http://www.radiohc.org/Distributions/Dxers/broomstick.html
> http://www.radiohc.org/Distributions/Dxers/broom2.html

Return Of The Joystick.
On 15 No-One Can Hear You Scream...

7926. Re: Transistor trf kit: instructions lost!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 11:43:00 UTC
From: gm@8apx.freeserve.co.uk
Message-ID: <memo.20011224114326.42509B@8apx.freeserve.co.uk.freeserve.co.uk>
Source record: 47823

Many thanks, and Seasons' Greetings -

Bill

In article <AFvV7.106456$Y6.10365879@news1.rdc1.ct.home.com>,
commquart@home.com (Peter J. Bertini) wrote:

> Try the rec.antiques.radio+phono group. We will need the brand and
> model number. Someone there might be able to help.
>
> Pete
>

7927. WTB 8122 tubes

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 15:03:05 UTC
From: yardleyite@aol.com
Message-ID: <20011224100305.24753.00001353@mb-md.aol.com>
Source record: 47824

Hello,
If anyone had a pair of 8122's (NOS, or good used) for sale please let
me know.
Please send all replies directly to my email address.
73 de Joe N3IBX

7928. Re: Large Power supplies available!!!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 18:46:20 UTC
From: Tazanator <tazanator1@attbi.com>
Message-ID: <0KKV7.5993$Sa5.27366@rwcrnsc53>
Source record: 47825

can you do a 19" rack mount?

"Allen" <gorgeousmack@hotmail.com> wrote in message
news:d0345038.0112211458.4939e2a8@posting.google.com...
> I can build any thing from 100 amp up to 500amp.Power supply(dc)
> voltage.I can also build you a 150amp that runs on 220.All power
> supplies are variable volts from 6-20volts dc the price is $3.00 per
> amp ////150amp$450+ shipping.All power supplies are war. for 1yr

7929. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-24 19:06:51 UTC
From: N4DKD <bwingard@bellsouth.net>
Message-ID: <3c277d3f.0@newsman.viper.net>
Source record: 47826

This site has several circuits that work.
http://www.rason.org/Projects/projects.htm

--
Brian Wingard
N4DKD

"N1RZB" <n1rzb@110.net> wrote in message
news:u1vr7dm1d2ua07@corp.supernews.com...
> Has anyone built a PL tone circuit for six and two meter rigs that lack a
PL
> tone?
>
> Any help in any direction would be gratefully appreciated.
>
> Dave, N1RZB
>
>

7930. Re: Ì«ÑôÄÜ·¢µçÆ÷

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 05:22:08 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C280D00.379AB245@coqui.net>
Source record: 47827

```
"ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½" wrote:
>
> Ì«ï¿½ï¿½ï¿½Ü·ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Ø´ï¿½ï¿½ï¿½Ì£ï¿½Í¬Ê±Ñ°ï¿½ï¿½Ì«ï¿½ï¿½ï¿½ï¿½Ïµï¿½Ð²ï¿½Æ·
> ï¿½Íºï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½é¡£
> ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Ì«ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Ð·ï¿½ï¿½ç£¬ï¿½ï¿½ï¿½ï¿½ï¿½ß´ï¿½ï¿½æ¼°ï¿½ï¿½ï¿½
> ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Ã»ï¿½ï¿½Ì«ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Â¿ï¿½ï¿½ï¿¼4-5ï¿½ì¡£ï¿½ï¿½ï¿½ï¿½ï¿½500W--5000Wï¿½ï¿½
> 220Vï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½É¸ï¿½ï¿½ï¿½Ã»ï¿½ï¿½ï¿½Òªï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½
> ï¿½Ã»ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½Ð¡ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½á£¬ï¿½Û¸ï¿½Í£ï¿½Ð¯ï¿½ï¿½ï¿½×°ï¿½ï¿½ï¿½ã£¬ï¿½ï¿½
> É«ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½ï¿½È¾ï¿½ï¿½ï¿½Øµã¡£ï¿½ï¿½Ê¹ï¿½ï¿½Ú¾ï¿½Ô´ï¿½ï¿½ï¿½Ä¿ï¿½ï¿½ï¿½ï¿½ï¿½Ë´ï¿½ï¿½ï¿½ï¿½Æ¹ã£¬
> 2008ï¿½ê±±ï¿½ï¿½ï¿½ï¿½Ë»ï¿½ï¿½ï¿½Ðµï¿½ï¿½ï¿½ï¿½ï¿½Ý¾ï¿½ï¿½ï¿½ï¿½Ì«ï¿½ï¿½ï¿½Ü·ï¿½ï¿½ç¡£
```

Try searching "Google".

7931. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 07:36:32 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <40WV7.309942$W8.11341323@bgtnsc04-news.ops.worldnet.att.net>
Source record: 47828

This fellow is correct. I wasn't sure what it all meant myself, so I checked Dr. J. L. Norman Violette's treatise entitled "Electromagnetic Compatibllity (EMC) Grounding And Shielding Techniques for EMI Suppression", dated November 17, 1994. Also, a call to an EMI lab would be able to provide an answer to this question.

Pete Gianakopoulos KE9OA
Chicago, Il.

Clifton T. Sharp Jr. <clifto@clifto.com> wrote in message news:3C23977A.119ECAFA@clifto.com...
> SAM wrote:
> > uV/m is simply the uV divided by the wavelength
> > in meters of the measured signal.
>
> Not even close. Description of a microvolt per meter from an old post by
> Richard Harrison:
>
> ---
> It is derived from the power radiated from a point source and the
> geometry of a sphere. At any distance from the source, the power flowing
> through the surface area of a square meter of the sphere surrounding the
> point source is defined. The sum of all the incremental powers in the
> total square meters of the sphere must add up to the radiated power.
>
> The voltage per meter is related to the power per square meter by the
> characteristic impedance of space which is 377 ohms.
> ---
>
> Note that wavelength never enters into it.
>
> --
> Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
> but in spamming, it's considered unnecessary precision. -- Alun Jones

7932. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 15:50:26 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2512011052190001@dplane-176-88-250.pompano.net>
Source record: 47829

In article <3C1FCC55.FC304B0@clifto.com>, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

> Peter J. Bertini wrote:
> > "Clifton T. Sharp Jr." <clifto@clifto.com> wrote...
> > > Tim H. wrote:
> > > > So, next question, am I right in assuming that the signal from the
> > > > 10.7Mhz ceramic filter should be a fairly clean sine?
> > >
> > > I'd expect some noise, but not clipping or unevenness.
> >
> > Why would you expect to see a sinewave reproduced accurately
> > in an FM IF strip? It is desirable to run the IF stages well into
> > compression/clipping to reduce any AM components (noise) on the
> > signal. That's why there is no AGC in most FM receivers--the
> > clipping is desirable. Most good FM stages have one or more
> > limiter stages just for this function.
>
> Right. In my memory, all the FM IF strips I've inspected had clean (or at
> least relatively clean) signal up until the limiter stage. Because of that,
> I didn't think to question whether "the signal from the 10.7 MHz ceramic
> filter" had yet passed through a limiter. There's a good question for Tim.

I have never seen a receiver design with the filters after the limiters.
I guess you could do that, but why? You do want to filter out the undesired
freq's from the IF and then limit the signal as hard as possible to remove
the AM component of the signal. The resultant signal is then detected with
a reasonably good discriminator and then filtered for best audio between the
normal EIA limits of 300 and 3000 KHz. Without proper test equipment, the
best adjustment to the quadrature detector is to tune in a known good signal
and adjust the tuning coil for best preceived audio coming out of the speaker.
Otherwise, you end up requiring a service monitor, SINAD'er, etc and a bunch
of stuff most hams don't have in their tool box. If you still can't get a good
quality signal coming out of the speaker, I would look first at the audio
signals coming out of the first audio filters and then try to see if the
reference oscillator for the freq synthesizer is on freq. If you have a
fixed
freq receiver of the old variety, then you need to warp the LO on freq.

BTW, if the IF signal coming out of the last mixer can be monitored on a good
scope and it is distorted, then you should start troubleshooting the front end.
Once again, with no fancy rf equipment, I would recommend testing the bias
voltages on the mixers and rf amps as the first step.

RF is a pain without spectrum analyzers, etc. Come to think of it,
it's a pain anyway. :-)

Steve Carlton WB4CZR
Plantation, FL

P.S. The input to the last filters is called the "rise" point. Let's hope
I don't have to go through the use of this in troubleshooting. :-)

7933. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 16:03:38 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2512011105320001@dplane-176-88-250.pompano.net>
Source record: 47830

In article <3c203c3b.24469817@news.cantech.net.au>, budgie
<budgie@nowhere.cantech.net.au> wrote:

> On Tue, 18 Dec 2001 19:38:38 -0800, "Jim Pennell"
> <NoSpam@killspam.com> wrote:
>
> > One item to bear in mind is how the radio is modulated... If it is direct
> >into the VCO then the synthesizer loop filter might react to the PL tone and
> >all sorts of strange things can happen.
> >
> > This screwed up one rig I added a PL to. Ah well, time to buy a new
> >radio.
>
> The most common problem I have seen with DIY encoders is insertion
> BEFORE the dev control (IDC). The result is that any deviation
> limiting strips the CTCSS off the signal waveform. It MUST be
> inserted after such processing.

Modulating the VCO with PL is iffy at best. If you don't end up loading
down the VCO's feedback, you still are adding a low frequency error signal
to the loop which it removes quite nicely leaving you with little PL. If you
are PL modulating a synthesized rig, you should modulate the reference
oscillator and not the VCO.

I've said it a hundred times now. RF is a pain! :-)

Steve WB4CZR
Plantation, FL

7934. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 16:41:43 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <b%1W7.106471$Y6.10369829@news1.rdc1.ct.home.com>
Source record: 47831

Strange, but that is exactly where most ham and commercial two-way
rigs apply modulation--especially the PL tones--for best linearity.
Ditto for data. The reference frequency is normally high enough that
subaudible tones and voice frequencies are not removed
by the loop filtering.

Peter

"carltons" <motsteve@mediaone.net> wrote in message
news:motsteve-2512011105320001@dplane- > Modulating the VCO with PL is iffy
at best. If you don't end up loading
> down the VCO's feedback, you still are adding a low frequency error
signal
> to the loop which it removes quite nicely leaving you with little PL. If
you
> are PL modulating a synthesized rig, you should modulate the reference
> oscillator and not the VCO.
>
> I've said it a hundred times now. RF is a pain! :-)
>
>
>
> Steve WB4CZR
> Plantation, FL

7935. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 16:50:07 UTC
From: "Peter J. Bertini" <commquart@home.com>
Message-ID: <372W7.106472$Y6.10369855@news1.rdc1.ct.home.com>
Source record: 47832

Because without AGC soft limiting or clipping can occur in earlier stages
before
the filters. Some receivers use cascaded filters between the IFA stages--
especially amateur grade receivers. My point was that distortion of the RF
waveform would not affect the recovered audio.

BTW, if you use a Sinadder on a quad detector, you might find how
easy it is to end detuning the detector for minimum audio, instead of
minimum distortion.. The Sinnadder gives great readings with no audio
coming in.

"carltons" <motsteve@mediaone.net> wrote in message
news:motsteve-2512011052190001@dplane-176-88-250.pompano.net...
> In article <3C1FCC55.FC304B0@clifto.com>, "Clifton T. Sharp Jr."
> <clifto@clifto.com> wrote:
>
> > Peter J. Bertini wrote:
> > > "Clifton T. Sharp Jr." <clifto@clifto.com> wrote...
> > > > Tim H. wrote:
> > > > > So, next question, am I right in assuming that the signal from the
> > > > > 10.7Mhz ceramic filter should be a fairly clean sine?
> > > >
> > > > I'd expect some noise, but not clipping or unevenness.
> > >
> > > Why would you expect to see a sinewave reproduced accurately
> > > in an FM IF strip? It is desirable to run the IF stages well into
> > > compression/clipping to reduce any AM components (noise) on the
> > > signal. That's why there is no AGC in most FM receivers--the
> > > clipping is desirable. Most good FM stages have one or more
> > > limiter stages just for this function.
> >
> > Right. In my memory, all the FM IF strips I've inspected had clean (or
> at
> > least relatively clean) signal up until the limiter stage. Because of
> that,
> > I didn't think to question whether "the signal from the 10.7 MHz ceramic
> > filter" had yet passed through a limiter. There's a good question for
> Tim.
>
>
>
> I have never seen a receiver design with the filters after the limiters.
> I guess you could do that, but why? You do want to filter out the
> undesired
> freq's from the IF and then limit the signal as hard as possible to remove

> the AM component of the signal. The resultant signal is then detected
with
> a reasonably good discriminator and then filtered for best audio between
the
> normal EIA limits of 300 and 3000 KHz. Without proper test equipment, the
> best adjustment to the quadrature detector is to tune in a known good
signal
> and adjust the tuning coil for best preceived audio coming out of the
speaker.
> Otherwise, you end up requiring a service monitor, SINAD'er, etc and a
bunch
> of stuff most hams don't have in their tool box. If you still can't get a
good
> quality signal coming out of the speaker, I would look first at the audio
> signals coming out of the first audio filters and then try to see if the
> reference oscillator for the freq synthesizer is on freq. If you have a
> fixed
> freq receiver of the old variety, then you need to warp the LO on freq.
>
> BTW, if the IF signal coming out of the last mixer can be monitored on a
good
> scope and it is distorted, then you should start troubleshooting the front
end.
> Once again, with no fancy rf equipment, I would recommend testing the bias
> voltages on the mixers and rf amps as the first step.
>
> RF is a pain without spectrum analyzers, etc. Come to think of it,
> it's a pain anyway. :-)
>
>
> Steve Carlton WB4CZR
> Plantation, FL
>
> P.S. The input to the last filters is called the "rise" point. Let's
hope
> I don't have to go through the use of this in troubleshooting. :-)

7936. Re: CTCSS HOMEBREW

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 17:14:40 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2512011216340001@dplane-176-88-250.pompano.net>
Source record: 47833
Body handling: HTML body converted to readable text

In article , "Peter J.
Bertini" wrote:

> Strange, but that is exactly where most ham and commercial two-way
> rigs apply modulation--especially the PL tones--for best linearity.
> Ditto for data. The reference frequency is normally high enough that
> subaudible tones and voice frequencies are not removed
> by the loop filtering.
>
> Peter
>
>
> "carltons" wrote in message
> news:motsteve-2512011105320001@dplane- > Modulating the VCO with PL is iffy
> at best. If you don't end up loading
> > down the VCO's feedback, you still are adding a low frequency error
> signal
> > to the loop which it removes quite nicely leaving you with little PL. If
> you
> > are PL modulating a synthesized rig, you should modulate the reference
> > oscillator and not the VCO.
> >
> > I've said it a hundred times now. RF is a pain! :-)
> >
> >
> >
> > Steve WB4CZR
> > Plantation, FL

This is what is known as two port modulation. The vco has a modulation
frequency response which is a high pass response and the ref osc has a
low freq response. On commercial rigs, you end up doing alot of juggling
to balance the two ports so that you don't get too much of one or the other.

It is a good idea if we leave this discussion in an IEEE forum rather than here.
Back again to the "pain" aspect of all this RF stuff.

Steve

7937. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 17:30:23 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2512011232160001@dplane-176-88-250.pompano.net>
Source record: 47834

I hope the agc is not causing clipping. It should only adjust the front
end gain. Distortion would definitely be ungood and the cause of it hard
to trace.
There is alot of engineering going on in such radio's as the Motorola TalkAbout
to keep the front end linear. As they say, "Been there. Done that"

On the SINAD'er, I've never had that problem before, but we were running rated
audio output and were well into the agc range of the SINAD'er. I guess I could
recommend the HP331 method of measurement, but let's go into the 21st century
please. :-) Note: please don't suggest 20db Quieting as an alternative. This,
like RF, is also a pain. :-)

Steve
WB4CZR
Plantation, FL

In article <372W7.106472$Y6.10369855@news1.rdc1.ct.home.com>, "Peter J.
Bertini" <commquart@home.com> wrote:

> Because without AGC soft limiting or clipping can occur in earlier stages
> before
> the filters. Some receivers use cascaded filters between the IFA stages--
> especially amateur grade receivers. My point was that distortion of the RF
> waveform would not affect the recovered audio.
>
> BTW, if you use a Sinadder on a quad detector, you might find how
> easy it is to end detuning the detector for minimum audio, instead of
> minimum distortion.. The Sinnadder gives great readings with no audio
> coming in.
>
> "carltons" <motsteve@mediaone.net> wrote in message
> news:motsteve-2512011052190001@dplane-176-88-250.pompano.net...
> > In article <3C1FCC55.FC304B0@clifto.com>, "Clifton T. Sharp Jr."
> > <clifto@clifto.com> wrote:
> >
> > > Peter J. Bertini wrote:
> > > > "Clifton T. Sharp Jr." <clifto@clifto.com> wrote...
> > > > > Tim H. wrote:
> > > > > > So, next question, am I right in assuming that the signal from the
> > > > > > 10.7Mhz ceramic filter should be a fairly clean sine?
> > > > >
> > > > > I'd expect some noise, but not clipping or unevenness.
> > > >
> > > > Why would you expect to see a sinewave reproduced accurately
> > > > in an FM IF strip? It is desirable to run the IF stages well into

> > > > compression/clipping to reduce any AM components (noise) on the
> > > > signal. That's why there is no AGC in most FM receivers--the
> > > > clipping is desirable. Most good FM stages have one or more
> > > > limiter stages just for this function.
> > >
> > > Right. In my memory, all the FM IF strips I've inspected had clean (or
> at
> > > least relatively clean) signal up until the limiter stage. Because of
> that,
> > > I didn't think to question whether "the signal from the 10.7 MHz ceramic
> > > filter" had yet passed through a limiter. There's a good question for
> Tim.
> >
> >
> >
> > I have never seen a receiver design with the filters after the limiters.
> > I guess you could do that, but why? You do want to filter out the
> undesired
> > freq's from the IF and then limit the signal as hard as possible to remove
> > the AM component of the signal. The resultant signal is then detected
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> > a reasonably good discriminator and then filtered for best audio between
> the
> > normal EIA limits of 300 and 3000 KHz. Without proper test equipment, the
> > best adjustment to the quadrature detector is to tune in a known good
> signal
> > and adjust the tuning coil for best preceived audio coming out of the
> speaker.
> > Otherwise, you end up requiring a service monitor, SINAD'er, etc and a
> bunch
> > of stuff most hams don't have in their tool box. If you still can't get a
> good
> > quality signal coming out of the speaker, I would look first at the audio
> > signals coming out of the first audio filters and then try to see if the
> > reference oscillator for the freq synthesizer is on freq. If you have a
> > fixed
> > freq receiver of the old variety, then you need to warp the LO on freq.
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> > BTW, if the IF signal coming out of the last mixer can be monitored on a
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> > scope and it is distorted, then you should start troubleshooting the front
> end.
> > Once again, with no fancy rf equipment, I would recommend testing the bias
> > voltages on the mixers and rf amps as the first step.
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> > RF is a pain without spectrum analyzers, etc. Come to think of it,
> > it's a pain anyway. :-)
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> >
> > Steve Carlton WB4CZR

> > Plantation, FL
> >
> > P.S. The input to the last filters is called the "rise" point. Let's
> hope
> > I don't have to go through the use of this in troubleshooting. :-)

7938. FS: Bird, Tektronix, & HP Test equipment

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-25 21:05:49 UTC
From: Fred Allen <fallen-idc@worldnet.att.net>
Message-ID: <NS5W7.310499$W8.11375249@bgtnsc04-news.ops.worldnet.att.net>
Source record: 47835

I have following Test equipment for sale:

Bird Model 3180 FM Deviation Indicator. Adjust FM Deviation via the LED or with supplied ear phone. Unit runs on 9 volt battery, (supplied), and is in excellent condition. Will handle a max of 10 watts input power.
Pictures can be seen at:
http://home.att.net/~fallen-idc/idc/bird1.jpg

http://home.att.net/~fallen-idc/idc/bird.jpg

Bird Model 8072-1 Coaxial Dry Load. Will handle up to 300 watts continuous when bolted to a suitable heat sink, (supplied). Frequency Range dc to 2.5 GHZ, (VSWR dc to 800 MHz 1.1 max, 1.25 800-2.5 GHZ). Size: 4 25/64" x 2" x 1 /32". Unit weighs, (with out heat sink), 12 ounces. Picture can be seen at:

http://home.att.net/~fallen-idc/idc/dummy.jpg

Tektronix DA 4084 Programmable Distortion Analyzer. Fully automatic Programmable Distortion Analyzer. Unit is in excellent condition.

http://home.att.net/~fallen-idc/idc/tekda.jpg

Hewlett Packard Model 8640B RF Signal Generator. This is the military version of the Commercial 8640B. This unit goes to 512 MHz; it is in very nice condition. Picture can be seen at:

http://home.att.net/~fallen-idc/idc/8640m.jpg

Hewlett Packard Model 8640B RF Signal Generator. This is the commercial unit and goes to 512 MHZ. This unit comes with options 001 and 003. Unit is clean and in good working order. The power switch does not work so it has been hard wired to power up when it is plugged in. A picture can be seen at:

http://home.att.net/~fallen-idc/idc/8640b.jpg

I will warrant all equipment for 30 days, (except the power switch on the commercial 8640B. Serious offers only. Buyer pays all shipping and handling charges. I will ship Fedex or UPS only. Over seas sales welcome. Will also consider trades for other test equipment.

Thanks,
Fred

7939. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 04:04:32 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C294C50.5DAACDBA@ieee.org>
Source record: 47837

Another alternative to what I have previously proposed might be to look at the stereo FM transmitter from Ramsey?

I am a little fuzzy on broadcast FM transmission right now (haven't given it any thought for 20 years since I studied for my commercial license).

Maybe their transmitter circuit uses one of these and maybe they could sell you one.

Clyde

KA1CRV

SAM wrote:

> Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
> Contact me at jcplpsm@aol.com if you have one to sell.
>
> Thanks, and happy holidays.
>
> Scott M.

7940. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 04:32:18 UTC
From: "mkelly@powerup.com.au" <mkelly@powerup.com.au>
Message-ID: <3C2952D2.416C7BED@powerup.com.au>
Source record: 47838

Some watches used a 38kHz crystal - maybe you could
divide by 2 to get the 19kHz?

Cheers.
Murray

"Clyde R. Shappee" wrote:
>
> Another alternative to what I have previously proposed might be to look at the
> stereo FM transmitter from Ramsey?
>
> I am a little fuzzy on broadcast FM transmission right now (haven't given it any
> thought for 20 years since I studied for my commercial license).
>
> Maybe their transmitter circuit uses one of these and maybe they could sell you
> one.
>
> Clyde
>
> KA1CRV
>
> SAM wrote:
>
> > Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
> > Contact me at jcplpsm@aol.com if you have one to sell.
> >
> > Thanks, and happy holidays.
> >
> > Scott M.

--
****
* Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
* 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
* ph/fax Intl+ 61 7 3379 3307 *
****

7941. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 04:37:52 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C295420.D2B880C9@ieee.org>
Source record: 47839

I too believe this is on the mark, but I am still not satisfied with any answer on the thread so far.

How does one get from power per square meter to microvolts per meter? The units problem bothers me and maybe I am looking over something.

Are we dealing here with a concept similar to the "ohms per square" when dealing with surface conductivity?

Clyde

Pete Gianakopoulos wrote:

> This fellow is correct. I wasn't sure what it all meant myself, so I
> checked Dr. J. L. Norman Violette's treatise entitled "Electromagnetic
> Compatibllity (EMC) Grounding And Shielding Techniques for EMI Suppression",
> dated November 17, 1994. Also, a call to an EMI lab would be able to provide
> an answer to this question.
>
> Pete Gianakopoulos KE9OA
> Chicago, Il.
>
> Clifton T. Sharp Jr. <clifto@clifto.com> wrote in message
> news:3C23977A.119ECAFA@clifto.com...
> > SAM wrote:
> > > uV/m is simply the uV divided by the wavelength
> > > in meters of the measured signal.
> >
> > Not even close. Description of a microvolt per meter from an old post by
> > Richard Harrison:
> >
> > --
> > It is derived from the power radiated from a point source and the
> > geometry of a sphere. At any distance from the source, the power flowing
> > through the surface area of a square meter of the sphere surrounding the
> > point source is defined. The sum of all the incremental powers in the
> > total square meters of the sphere must add up to the radiated power.
> >
> > The voltage per meter is related to the power per square meter by the
> > characteristic impedance of space which is 377 ohms.
> > --
> >
> > Note that wavelength never enters into it.
> >
> > --
> > Remember, "close" counts in horse-shoes, hand-grenades and nuclear

> warfare,
> > but in spamming, it's considered unnecessary precision. -- Alun Jones

7942. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 04:42:22 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C29552E.DF38CD01@ieee.org>
Source record: 47840

Yes, I did think of that, but the tolerances involved in the final signal are +/- 1 Hz.

This crystal would have to be very pullable, and the reality of this type of part is that it is not.

The 38.00053MHz oscillator and associated divide chain yields an accuracy of nearly that unadjusted.

Clyde

"mkelly@powerup.com.au" wrote:

> Some watches used a 38kHz crystal - maybe you could
> divide by 2 to get the 19kHz?
>
> Cheers.
> Murray
>
> "Clyde R. Shappee" wrote:
> >
> > Another alternative to what I have previously proposed might be to look at the
> > stereo FM transmitter from Ramsey?
> >
> > I am a little fuzzy on broadcast FM transmission right now (haven't given it any
> > thought for 20 years since I studied for my commercial license).
> >
> > Maybe their transmitter circuit uses one of these and maybe they could sell you
> > one.
> >
> > Clyde
> >
> > KA1CRV
> >
> > SAM wrote:
> >
> > > Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
> > > Contact me at jcplpsm@aol.com if you have one to sell.
> > >
> > > Thanks, and happy holidays.
> > >
> > > Scott M.
>
> --
> ***
> * Murray Kelly vk4aok mailto://mkelly@powerup.com.au *

> * 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
> * ph/fax Intl+ 61 7 3379 3307 *
> **********

7943. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 06:54:03 UTC
From: "William E. Sabin" <sabinw@mwci.net>
Message-ID: <3C29740B.6030904@mwci.net>
Source record: 47841

Clyde R. Shappee wrote:

> I too believe this is on the mark, but I am still not satisfied with any answer
> on the thread so far.
>
> How does one get from power per square meter to microvolts per meter? The
> units problem bothers me and maybe I am looking over something.

Let S, the power density of the wave, be watts per
square meter. This is equal to

S = E^2 / Z0

E is the electric field strength, volts per meter,
Z0 is the impedance of free space, 377 ohms.

V = E * L

V is the induced voltage, L is the length in
meters of the test antenna.

From these equations,

V = L * sqrt(S * Z0)

is the relationship between V and S.

A test pickup rod antenna appliance is calibrated
over some frequency range in a test chamber that
has a known signal strength S, according to some
certified procedure.

Bill W0IYH

7944. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 07:29:11 UTC
From: "J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM>
Message-ID: <a0bu5tagd1@wanadoo.fr>
Source record: 47842

I think 19 kHz crystals are hard to find nowadays.

I'd try to build a small circuit with a 10240 kHz crystal, a MC145151 PLL IC, a 390 kHz VCO locked on the 10
kHz reference and a CD4017 to divide by ten the frequency. The total cost is less than 20 bucks. The
frequency of the resulting 19 kHz perfect square wave is very accurate, far better than 1 Hz.

--

73 de F4DAY

Jean-Fran&#65533;ois FOURCADIER
website: http://perso.wanadoo.fr/jf.fourcadier

"SAM" <jcplpsm@aol.communicate> a &#65533;crit dans le message news:
20011222192232.29056.00000442@mb-co.aol.com...
Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
Contact me at jcplpsm@aol.com if you have one to sell.

Thanks, and happy holidays.

Scott M.

7945. December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 16:31:04 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <ZRmW7.238$Pe5.62538@news1.iquest.net>
Source record: 47843
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

```
Parts for Sale as of 12/25/2001
==============================
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice
long leads. These are not NPO and are made by S&M Components
50/$3.00 or 100/$5.00

NOS .01 uF ceramic caps, 10% 100v brand new by Kyocera
50/$3 or 100/$5

NOS 470pf ceramics on paper tape, rated 5%
50/$3 or 100/$5

NOS 12pf NPO ceramics on tape
50/$4 or 100/$7

22uF 35v electrolytics These caps are on paper tape, NOS (New, but old
stock) made by Richey.
100/$2

I have NEW BNC chassis connectors for (includes nut and lock
washer)
============================================================
25 for $14.00
50 for $24.00
100 for $40.00

Voltage Regulators
==================
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

3 of each for $10

Key/Headphone Jacks
===================
These are 3.5mm female stereo PCB mount jacks. Can be used in
ugly/manhattan building projects with no problems.
3/$1.35 (or send a buck and a stamp)

Transistors
===========
2N2222A'S in plastic TO92 case - 50/$4.50 NEW PARTS
2N2222's in METAL TO18 case - 25/$7.50 NEW PARTS
2N3906's plastic TO92 case - 50/$4.00 NEW PARTS
```

IRF540's TMOS Power FET, N-Channel, 27A, 100v RDS(on) = .070 Ohms
http://www.onsemi.com/pub/Collateral/IRF540-D.PDF for data sheet
$1.00 each. (TO220 case)

Crystals
========
3.579545 Mhz Crystals for 80m - These are pulls, $1.00 each

POTS
====
10K 1 Turn Panel mount pots. These are pulls. No knobs, just
shafts. Most are Allen Bradley. Pot is about as big as a quarter.
With nut. 5/$4.00

Diodes
======
1N4148 - You always need these. 75 for $2.00 These are NEW.

Speakers
========
Little 2 inch PC speakers, 8 Ohm. $1.50 includes shipping in a
padded envelope. 10 for $8.00 - They work great for little external
speakers on QRP rigs. 1/4 watt

Let me know if you're interested. All prices are post paid to the
USA, unless otherwise noted. I will ship to non USA addresses but we
need to discuss the shipping charges first.

PAYPAL IS NOW CHARGING ME 5% FOR YOUR CREDIT CARD. SO IF YOU PAY
CREDIT CARD VIA PAYPAL, ADD 5%. IF YOU PAY FROM PAYPAL FUNDS THEN
THERE IS NO SURCHARGE. PLEASE REMEMBER, THIS IS NOT THE WAY I FEED MY
KIDS. THEY'RE BOTH OVER 18 AND EAT LIKE PIGS, SO I HAVE A REAL JOB.
I MAY STOP ACCEPTING PAYPAL, WE'LL SEE HOW IT GOES. I SELL THIS STUFF
CLOSE TO MY COST. ANY EXTRA FUNDS MY HAM RADIO HABIT UNLESS THE XYL
FINDS IT FIRST.

--

==
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
TEN TEC SCOUT @ 5W or NORCAL 40A @ 1.3W
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
==

7946. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 16:44:08 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.33.0112261132050.26565-100000@gloria.cam.org>
Source record: 47844

On Wed, 26 Dec 2001, Clyde R. Shappee wrote:

> Yes, I did think of that, but the tolerances involved in the final signal are +/- 1
> Hz.
>
> This crystal would have to be very pullable, and the reality of this type of part is
> that it is not.
>
> The 38.00053MHz oscillator and associated divide chain yields an accuracy of nearly
> that unadjusted.
>
> Clyde
>

I thought the crystals in watches were 38.768KHz. Certainly in digital watches, it's not going to be exactly 38KHz, because it's easier to use binary counters, and they won't divide down evenly.

Someone suggested a Ramsey kit. You're not the only one having problems finding a crystal for this use. While I can't remember what they said, when Radio Electronics ran an article some years back about using a Rohm IC that was both an FM BCB transmitter and a stereo encoder, it needed a 19KHz crystal. Something was said about the lack of availability, and they suggested something that they said would "be close enough". Of course, if you're trying to align something, close enough may not be.

There have also been two or three quite fancy "FM broadcasters" in Radio Electronics (and after it changed it's name to Electronics Now) by Randolph Graff. They all had stereo encoders, and the later ones had synthesizers for generating the FN-band carrier. I forget how they derive the 19KHz signal, but someone with a more easily searchable collection than me might look it up.

Their designs are also available as kits from North Country Radio, I beleive they have a website. So as with the suggestion about Ramsey, North Country might also be a potential supplier (though, I once tried to get an IC from Ramsey that they used in one of their kits, and was told they could not supply the ICs except in the kits).

Michael VE2BVW

> "mkelly@powerup.com.au" wrote:
>
> > Some watches used a 38kHz crystal - maybe you could
> > divide by 2 to get the 19kHz?
> >
> > Cheers.

> > Murray
> >
> > "Clyde R. Shappee" wrote:
> > >
> > > Another alternative to what I have previously proposed might be to look at the
> > > stereo FM transmitter from Ramsey?
> > >
> > > I am a little fuzzy on broadcast FM transmission right now (haven't given it any
> > > thought for 20 years since I studied for my commercial license).
> > >
> > > Maybe their transmitter circuit uses one of these and maybe they could sell you
> > > one.
> > >
> > > Clyde
> > >
> > > KA1CRV
> > >
> > > SAM wrote:
> > >
> > > > Looking for a 19KHz crystal HC-13 style for a Heathkit IG-37 stereo generator.
> > > > Contact me at jcplpsm@aol.com if you have one to sell.
> > > >
> > > > Thanks, and happy holidays.
> > > >
> > > > Scott M.
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> > * Murray Kelly vk4aok mailto://mkelly@powerup.com.au *
> > * 29 Molonga Ter. / Graceville/ QLD. 4075/ Australia *
> > * ph/fax Intl+ 61 7 3379 3307 *
> > **
>
>

7947. Re: A compact, easy-to-build shortwave antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 17:25:44 UTC
From: John O'Flaherty <wewelcomespam@blackhole.net>
Message-ID: <3C2A0818.C9BB6968@blackhole.net>
Source record: 47845
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Radio Havana Cuba wrote:
>
> The Broomstick Special:
> A compact, easy-to-build shortwave antenna
>
> BY ARNIE CORO
> Host of "Dxers Unlimited"
>
> http://www.radiohc.org/Distributions/Dxers/broomstick.html
> http://www.radiohc.org/Distributions/Dxers/broom2.html

A vertically oriented tightly-wound helical antenna. What would the
polarization angle be, I wonder?

--
john

7948. Re: December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 17:47:15 UTC
From: Walter Treftz <penguino@atlantic.net>
Message-ID: <3C2A0D23.2C0239E3@atlantic.net>
Source record: 47846
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

What's your mailing address & will you take personal check?
(for $3.00)?
73 Walt (N4GL)

Scrounger wrote:

> Parts for Sale as of 12/25/2001
> ==============================
> NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice
> long leads. These are not NPO and are made by S&M Components
> 50/$3.00 or 100/$5.00
>
> NOS .01 uF ceramic caps, 10% 100v brand new by Kyocera
> 50/$3 or 100/$5
>
> NOS 470pf ceramics on paper tape, rated 5%
> 50/$3 or 100/$5
>
> NOS 12pf NPO ceramics on tape
> 50/$4 or 100/$7
>
> 22uF 35v electrolytics These caps are on paper tape, NOS (New, but old
> stock) made by Richey.
> 100/$2
>
> I have NEW BNC chassis connectors for (includes nut and lock
> washer)
> ==
> 25 for $14.00
> 50 for $24.00
> 100 for $40.00
>
> Voltage Regulators
> ==================
> LM7805C voltage regulators. TO220 case. 5 for $4.00
> L7806CV voltage regulators. TO220 case. 5 for $4.00
> LM7808CT voltage regulators. TO220 case. 5 for $4.00
> LM7812T voltage regulators. TO220 case. 5 for $4.00
>
> 3 of each for $10
>
> Key/Headphone Jacks
> ===================
> These are 3.5mm female stereo PCB mount jacks. Can be used in

> ugly/manhattan building projects with no problems.
> 3/$1.35 (or send a buck and a stamp)
>
> Transistors
> ===========
> 2N2222A'S in plastic TO92 case - 50/$4.50 NEW PARTS
> 2N2222's in METAL TO18 case - 25/$7.50 NEW PARTS
> 2N3906's plastic TO92 case - 50/$4.00 NEW PARTS
>
> IRF540's TMOS Power FET, N-Channel, 27A, 100v RDS(on) = .070 Ohms
> http://www.onsemi.com/pub/Collateral/IRF540-D.PDF for data sheet
> $1.00 each. (TO220 case)
>
> Crystals
> ========
> 3.579545 Mhz Crystals for 80m - These are pulls, $1.00 each
>
> POTS
> ====
> 10K 1 Turn Panel mount pots. These are pulls. No knobs, just
> shafts. Most are Allen Bradley. Pot is about as big as a quarter.
> With nut. 5/$4.00
>
> Diodes
> ======
> 1N4148 - You always need these. 75 for $2.00 These are NEW.
>
> Speakers
> ========
> Little 2 inch PC speakers, 8 Ohm. $1.50 includes shipping in a
> padded envelope. 10 for $8.00 - They work great for little external
> speakers on QRP rigs. 1/4 watt
>
> Let me know if you're interested. All prices are post paid to the
> USA, unless otherwise noted. I will ship to non USA addresses but we
> need to discuss the shipping charges first.
>
> PAYPAL IS NOW CHARGING ME 5% FOR YOUR CREDIT CARD. SO IF YOU PAY
> CREDIT CARD VIA PAYPAL, ADD 5%. IF YOU PAY FROM PAYPAL FUNDS THEN
> THERE IS NO SURCHARGE. PLEASE REMEMBER, THIS IS NOT THE WAY I FEED MY
> KIDS. THEY'RE BOTH OVER 18 AND EAT LIKE PIGS, SO I HAVE A REAL JOB.
> I MAY STOP ACCEPTING PAYPAL, WE'LL SEE HOW IT GOES. I SELL THIS STUFF
> CLOSE TO MY COST. ANY EXTRA FUNDS MY HAM RADIO HABIT UNLESS THE XYL
> FINDS IT FIRST.
>
> --
>
> =======================================
> KB9BVN/QRP - New Whiteland IN - EM69WN
> QRP-ARCI #10223 QRP-L #1540 FIST #5695

> FISTS CC #764 - Proud Member ARRL
> TEN TEC SCOUT @ 5W or NORCAL 40A @ 1.3W
> INTO INFAMOUS AF4PS ATTIC DIPOLE
> SOC #400 AND FLYING PIGS QRP #-57
> ====================================

7949. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 18:04:22 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C2A1124.FC06A37A@ay.com.au>
Source record: 47747

Most cheap stereo encoders (ie BA1404) use a 38.0 kHz crystal. The
fundamental used for L-R DSB supressed carrier signal, then digitally
divided and cleaned up using a LPF to offer the 19kHz pilot.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waxing Gibbous (84% of Full)

7950. Re: NEED PART: (or info on how to fabricate) Power Cord Lafayette HA-460

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 18:50:10 UTC
From: Webster Williams <Doncha@WishuKnew.com>
Message-ID: <MPG.1693e8061dfd4c5a98981a@news-server.sc.rr.com>
Source record: 47748

Yep, verified! AES does not carry 11 pin, but they
do have the 8 pin ones.

I've had to leave my e-mail address off because of the
SPAM-bots. I've gotten an UNBELIEVABLE amount of junk
e-mail from just a few posts here!

Thanks, -Web

In article <20011223220412.11737.00000853@mb-cf.aol.com>, w4pqwhs@aol.com
says...
> Check with Antique Electronics supply,they have all these sockets and covers .I
> believe it is WWW.tubesandmore.com .good luck Harold W4PQW
>

7951. Looking for transistor sub for Delco-GM X439-24

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 18:56:20 UTC
From: Webster Williams <Doncha@WishuKnew.com>
Message-ID: <MPG.1693e97c71ae971098981b@news-server.sc.rr.com>
Source record: 47749

Hi All,

I'm working on a piece of electronic equipment
that uses two of these. Any chance someone here
might have a cross reference to look up a
replacement? I've tried NTE and SG books, no dice!
Even looked in an old Radio Shack crossover guide,
no such luck. www.diodes.com has nothing on it
either. It's likely from the mid-1960's or early
1970's. It's an ultrasonic cleaner made by a company
called Beckman. No such listing of the company on
the internet either, nor a city on the manufacturers
tag. There is a Beckman-Coulter in California that
knows nothing about Beckman, although they manufacture
similar equipment. No schematic- wouldn't you know it!

Thanks if anyone can help. I know this group isn't for
lab equipment, but I'm a ham and want to use this to
clean variable capacitor plates for antenna tuner
projects!

Thanks, -Webster Williams in Myrtle Beach, SC

Sorry for leaving my e-mail addy off here, I'm sick
of getting SPAM mail! Please just post your answer
here if you have one and I'll pick it up here. TNX!

7952. Re: A compact, easy-to-build shortwave antenna

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 20:09:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <3C2A2E82.D952ED70@eznec.com>
Source record: 47750
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc,uk.radio.amateur

Depends on the feed wire, since the feed wire will pick up about as much signal as the antenna, if it's approximately the same length as the broomstick. If both the broomstick and the feed wire are vertical, the polarization will be vertical.

Roy Lewallen, W7EL

John O'Flaherty wrote:
>
> Radio Havana Cuba wrote:
> >
> > The Broomstick Special:
> > A compact, easy-to-build shortwave antenna
> >
> > BY ARNIE CORO
> > Host of "Dxers Unlimited"
> >
> > http://www.radiohc.org/Distributions/Dxers/broomstick.html
> > http://www.radiohc.org/Distributions/Dxers/broom2.html
>
> A vertically oriented tightly-wound helical antenna. What would the
> polarization angle be, I wonder?
>
> --
> john

7953. Re: Looking for transistor sub for Delco-GM X439-24

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 20:41:19 UTC
From: rcnixon@mindspring.com
Message-ID: <3c2a356f.1337349@news.mindspring.com>
Source record: 47751

Try a web search for "beckman instruments" It will come up with all
kinds of links including "beckman-coulter" which is not what you want.
Of course, with equipment that old, you may never get parts or even a
cross-reference to a newer part. You might get lucky though, so give
it a try.

Russ

Webster Williams <Doncha@WishuKnew.com> wrote:

>Hi All,
>
>I'm working on a piece of electronic equipment
>that uses two of these. Any chance someone here
>might have a cross reference to look up a
>replacement? I've tried NTE and SG books, no dice!
>Even looked in an old Radio Shack crossover guide,
>no such luck. www.diodes.com has nothing on it
>either. It's likely from the mid-1960's or early
>1970's. It's an ultrasonic cleaner made by a company
>called Beckman. No such listing of the company on
>the internet either, nor a city on the manufacturers
>tag. There is a Beckman-Coulter in California that
>knows nothing about Beckman, although they manufacture
>similar equipment. No schematic- wouldn't you know it!
>
>Thanks if anyone can help. I know this group isn't for
>lab equipment, but I'm a ham and want to use this to
>clean variable capacitor plates for antenna tuner
>projects!
>
>Thanks, -Webster Williams in Myrtle Beach, SC
>
>Sorry for leaving my e-mail addy off here, I'm sick
>of getting SPAM mail! Please just post your answer
>here if you have one and I'll pick it up here. TNX!

7954. Re: December .....Good Guy!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 20:54:52 UTC
From: John KB5AG <jblack3@nc.rr.com>
Message-ID: <wOqW7.109326$RE3.20566479@typhoon.southeast.rr.com>
Source record: 47752
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

I ordered parts from this gentleman last month. They came quickly and are
first rate. I would recommend him!

John Black
KB5AG

"Scrounger" <brian@iquest.net> wrote in message
news:ZRmW7.238$Pe5.62538@news1.iquest.net...
> Parts for Sale as of 12/25/2001
> ==============================
> NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice
> long leads. These are not NPO and are made by S&M Components
> 50/$3.00 or 100/$5.00
>
> NOS .01 uF ceramic caps, 10% 100v brand new by Kyocera
> 50/$3 or 100/$5
>
> NOS 470pf ceramics on paper tape, rated 5%
> 50/$3 or 100/$5
>
> NOS 12pf NPO ceramics on tape
> 50/$4 or 100/$7
>
> 22uF 35v electrolytics These caps are on paper tape, NOS (New, but old
> stock) made by Richey.
> 100/$2
>
> I have NEW BNC chassis connectors for (includes nut and lock
> washer)
> ==
> 25 for $14.00
> 50 for $24.00
> 100 for $40.00
>
> Voltage Regulators
> ==================
> LM7805C voltage regulators. TO220 case. 5 for $4.00
> L7806CV voltage regulators. TO220 case. 5 for $4.00
> LM7808CT voltage regulators. TO220 case. 5 for $4.00
> LM7812T voltage regulators. TO220 case. 5 for $4.00
>
> 3 of each for $10
>
> Key/Headphone Jacks

> ====================
> These are 3.5mm female stereo PCB mount jacks. Can be used in
> ugly/manhattan building projects with no problems.
> 3/$1.35 (or send a buck and a stamp)
>
> Transistors
> ===========
> 2N2222A'S in plastic TO92 case - 50/$4.50 NEW PARTS
> 2N2222's in METAL TO18 case - 25/$7.50 NEW PARTS
> 2N3906's plastic TO92 case - 50/$4.00 NEW PARTS
>
> IRF540's TMOS Power FET, N-Channel, 27A, 100v RDS(on) = .070 Ohms
> http://www.onsemi.com/pub/Collateral/IRF540-D.PDF for data sheet
> $1.00 each. (TO220 case)
>
> Crystals
> ========
> 3.579545 Mhz Crystals for 80m - These are pulls, $1.00 each
>
> POTS
> ====
> 10K 1 Turn Panel mount pots. These are pulls. No knobs, just
> shafts. Most are Allen Bradley. Pot is about as big as a quarter.
> With nut. 5/$4.00
>
> Diodes
> ======
> 1N4148 - You always need these. 75 for $2.00 These are NEW.
>
> Speakers
> ========
> Little 2 inch PC speakers, 8 Ohm. $1.50 includes shipping in a
> padded envelope. 10 for $8.00 - They work great for little external
> speakers on QRP rigs. 1/4 watt
>
> Let me know if you're interested. All prices are post paid to the
> USA, unless otherwise noted. I will ship to non USA addresses but we
> need to discuss the shipping charges first.
>
> PAYPAL IS NOW CHARGING ME 5% FOR YOUR CREDIT CARD. SO IF YOU PAY
> CREDIT CARD VIA PAYPAL, ADD 5%. IF YOU PAY FROM PAYPAL FUNDS THEN
> THERE IS NO SURCHARGE. PLEASE REMEMBER, THIS IS NOT THE WAY I FEED MY
> KIDS. THEY'RE BOTH OVER 18 AND EAT LIKE PIGS, SO I HAVE A REAL JOB.
> I MAY STOP ACCEPTING PAYPAL, WE'LL SEE HOW IT GOES. I SELL THIS STUFF
> CLOSE TO MY COST. ANY EXTRA FUNDS MY HAM RADIO HABIT UNLESS THE XYL
> FINDS IT FIRST.
>
>
> --
>

> ==
> KB9BVN/QRP - New Whiteland IN - EM69WN
> QRP-ARCI #10223 QRP-L #1540 FIST #5695
> FISTS CC #764 - Proud Member ARRL
> TEN TEC SCOUT @ 5W or NORCAL 40A @ 1.3W
> INTO INFAMOUS AF4PS ATTIC DIPOLE
> SOC #400 AND FLYING PIGS QRP #-57
> ==
>
>
>

7955. Re: NEED PART: (or info on how to fabricate) Power Cord Lafayette HA-460

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 21:54:37 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3C2A471D.6F846F78@dialpoint.net>
Source record: 47753

While it may not look good, to get you going see if you can locate some of the plug in realys. There are versions that have 11 pins. I uesd one about 10 years ago to do the same thing. The new ones are very expensive just to get a plug, but you may be able to locate some on ebay or at a hamfest or maybe a surplus place.

Webster Williams wrote:
>
> Yep, verified! AES does not carry 11 pin, but they
> do have the 8 pin ones.
>
>

7956. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-26 22:33:51 UTC
From: la8ak.xnd@online.no
Message-ID: <3c2a4b35.8428573@news.online.no>
Source record: 47754

On Fri, 21 Dec 2001 14:18:56 -0600, "Clifton T. Sharp Jr."
<clifto@clifto.com> wrote:

>Tom Bruhns wrote:
>> So...at the quadrature coil, you SHOULD see a clean sinewave! It's a
>> reasonably high-Q tank, lightly coupled to the incoming IF signal.
>> That IF signal moves in frequency. At different frequencies, the
>> phase shift between it and the quad coil (which stays on the same freq
>> as the IF signal, with only a very tiny time lag) changes because of
>> the changing phase of the impedance of the quadrature tank (coil) as
>> the freq changes. The differing phase difference between the IF input
>> and the quad coil is what is used to detect the modulation. It's a
>> true FM detector, not a phase detector, and will maintain a DC output
>> if the carrier is "off frequency".
>
>That has to be one of the best descriptions of the circuit that I've ever
>seen. Where were you forty years ago when I needed you? :)
>
have noted the discussion, but do not feel it is so easy to contribute
as problem may seem different from what is discussed, particularly
when somebody talks about sinewaves....
Have some experiences with MC3359 and similar devices, since they were
used in German Packet radio transceiver, one problem was that the
squelch would function properly if you trimmed it backwards and didn't
have all the noise and gain from early stages. For sufficient
linearity with quadrature demodulators certain complicated
bandpassfilters were suggested by Philips at least for SN76660N
device, while linearity is not usually in discussion for TV receivers
we used SN76660 for NBFM on 455kHz, and had some problems, until it
was suggested in Radcom to use .01 capacitor in the circuit, nobody
around Midland area understood it, but it worked, hi

It was a serious consonant-S-problem with some TV-receivers in early
80's because some quadrature demodulators satured for certain
languages, but it was solved with a larger de-emphasis capacitor
Believe the device was TBA120T used on 5.5MHz SOUND IF.

73
Jan-Martin
LA8AK
--
remove ,xnd to reply

7957. RigBlaster + W32A = how?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 00:57:30 UTC
From: Stuart Blake Tener <stuart@misty.com>
Message-ID: <a0b7jh$g8g$1@news.misty.com>
Source record: 47836
Cross-posted to: rec.radio.amateur.digital.misc,rec.radio.amateur.homebrew,rec.radio.amateur.misc

W32A owners:

I am interested in purchasing (if anyone has one for sale, please let me know!) a RigBlaster NOMIC and using it with a W32A. Before I would purchase one, I am curious if anyone has been successful in such an endeavor?

What are the pinouts for the jumpers inside? What are the pinouts for the cables? Are the cables hard to make?

Stuart
Beverly Hills, CA
N3GWG

7958. HP 456A Current Probe and Amplifier help needed

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 01:00:31 UTC
From: "John D. Farr" <jfarr62@home.com>
Message-ID: <PouW7.14023$Yj6.4275911@news2.nash1.tn.home.com>
Source record: 47755
Cross-posted to: rec.radio.amateur.homebrew,sci.electronics.equipment

Hello. Thanks for reading this. I just purchased an HP 456A current probe and amplifier. I need to know what batteries goes in it. Also, if anybody has the specs on the two transistors in this, I'd appreciate that info also.
thanks
John

7959. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 01:53:53 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2612012055430001@dplane-176-88-250.pompano.net>
Source record: 47756

In article <3c2a4b35.8428573@news.online.no>, LA8AK@Online.NO wrote:

> On Fri, 21 Dec 2001 14:18:56 -0600, "Clifton T. Sharp Jr."
> <clifto@clifto.com> wrote:
>
> >Tom Bruhns wrote:
> >> So...at the quadrature coil, you SHOULD see a clean sinewave! It's a
> >> reasonably high-Q tank, lightly coupled to the incoming IF signal.
> >> That IF signal moves in frequency. At different frequencies, the
> >> phase shift between it and the quad coil (which stays on the same freq
> >> as the IF signal, with only a very tiny time lag) changes because of
> >> the changing phase of the impedance of the quadrature tank (coil) as
> >> the freq changes. The differing phase difference between the IF input
> >> and the quad coil is what is used to detect the modulation. It's a
> >> true FM detector, not a phase detector, and will maintain a DC output
> >> if the carrier is "off frequency".
> >
> >That has to be one of the best descriptions of the circuit that I've ever
> >seen. Where were you forty years ago when I needed you? :)
> >
> have noted the discussion, but do not feel it is so easy to contribute
> as problem may seem different from what is discussed, particularly
> when somebody talks about sinewaves....
> Have some experiences with MC3359 and similar devices, since they were
> used in German Packet radio transceiver, one problem was that the
> squelch would function properly if you trimmed it backwards and didn't
> have all the noise and gain from early stages. For sufficient
> linearity with quadrature demodulators certain complicated
> bandpassfilters were suggested by Philips at least for SN76660N
> device, while linearity is not usually in discussion for TV receivers
> we used SN76660 for NBFM on 455kHz, and had some problems, until it
> was suggested in Radcom to use .01 capacitor in the circuit, nobody
> around Midland area understood it, but it worked, hi
>
> It was a serious consonant-S-problem with some TV-receivers in early
> 80's because some quadrature demodulators satured for certain
> languages, but it was solved with a larger de-emphasis capacitor
> Believe the device was TBA120T used on 5.5MHz SOUND IF.
>
> 73
> Jan-Martin
> LA8AK
> --
> remove ,xnd to reply

Note: Non engineers please ignore below as it is a response to obfuscation perceived by me of the original thread's question. :-)

I guess I shouldn't say anything, but this thread is getting open-loop.

No matter how you do it, all "FM" detectors involved are phase detectors. Over a length of time the phase changes in an FM signal can be noted and will deliver eventually the information conveyed by the carrier via the modulating signal. Remember delta phi over delta T? Otherwise, why add the lowpass filter to the output of all of them? Clue: The >average< DC level output varies per delta freq, but it is supposed to.

The constant S problem noted above, I would assume, involves a digital modulated signal. This would have a constantly changing duty cycle. This causes a problem in a detector that is ac coupled as the recovered audio would have a varying average DC level. If this variation is at a frequency much lower than the time constant of the coupling circuit it would not be conveyed to subsequent circuits accurately causing grief for the engineer designing those particular stages. That is ungood as sometimes it is me doing the design. :-)

Believe me, I am not throwing rocks here, I am only pointing out that the FM detector is really not an "FM" detector directly. If you want to flame me for being picky then do it. I am used to it as I have taken grief for 24 years now.

Steve
WB4CZR
Plantation, FL

7960. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 02:04:22 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C2A81A6.4A3E47B3@ieee.org>
Source record: 47757

Yes, so I have learned this afternoon in my research...

The original poster, if he ever surfaces again, could try one of those and build an oscillator and divide by two and filter for the sine wave.

I have also learned that Statek may produce these crystals. I saw an App. Note referring to them for the 38 kHz device, and their web page says they go down to 10 kHz if I remember correctly.

I suggested earlier to contact Ramsey and a poster replied that they won't sell parts. I can understand that; don't carry inventory.

Maybe one could contact Ramsey and at least learn of their source of supply. This would be very useful information.

Clyde

P. S. I just looked at the App. Note and indeed it was for the BA1404 device.

Alan Yates wrote:

> Most cheap stereo encoders (ie BA1404) use a 38.0 kHz crystal. The
> fundamental used for L-R DSB supressed carrier signal, then digitally
> divided and cleaned up using a LPF to offer the 19kHz pilot.
>
> --
> Alan Yates
> http://www.vk2zay.net/
> The Moon is Waxing Gibbous (84% of Full)

7961. Re: Need 19KHz Xtal

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 02:22:17 UTC
From: Jim Adney <jadney@vwtype3.org>
Message-ID: <cavk2u4k5jpg87uc4d1v4r6vfo3aj7i543@4ax.com>
Source record: 47758

"J.F. FOURCADIER" <jf.fourcadier@wanadoo.fr_NOSPAM> wrote:

>I think 19 kHz crystals are hard to find nowadays.

Yes, this is correct, but I've already mentioned that I have EXACTLY
the right 19,000Hz crystal for this application. And I have spares
that are available for sale.

-

Jim Adney jadney@vwtype3.org
Madison,Wisconsin USA

7962. Re: Looking for transistor sub for Delco-GM X439-24

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 02:51:10 UTC
From: schatzie <jdwalton@home.com>
Message-ID: <y0wW7.296827$ez.42086138@news1.rdc1.nj.home.com>
Source record: 47759

Beckman Instrument is a manufacturer of high quality lab and electronics test equipment. Check in the Mouser Catalog for an NTE transistor with close specs. Beckman wasn't like Tektronix or HP in the use of a lot of sole-purpose chips and transistors.

"Webster Williams" <Doncha@WishuKnew.com> wrote in message news:MPG.1693e97c71ae971098981b@news-server.sc.rr.com...
> Hi All,
>
> I'm working on a piece of electronic equipment
> that uses two of these. Any chance someone here
> might have a cross reference to look up a
> replacement? I've tried NTE and SG books, no dice!
> Even looked in an old Radio Shack crossover guide,
> no such luck. www.diodes.com has nothing on it
> either. It's likely from the mid-1960's or early
> 1970's. It's an ultrasonic cleaner made by a company
> called Beckman. No such listing of the company on
> the internet either, nor a city on the manufacturers
> tag. There is a Beckman-Coulter in California that
> knows nothing about Beckman, although they manufacture
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> Thanks if anyone can help. I know this group isn't for
> lab equipment, but I'm a ham and want to use this to
> clean variable capacitor plates for antenna tuner
> projects!
>
> Thanks, -Webster Williams in Myrtle Beach, SC
>
> Sorry for leaving my e-mail addy off here, I'm sick
> of getting SPAM mail! Please just post your answer
> here if you have one and I'll pick it up here. TNX!

7963. Re: December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 03:38:00 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u2l5sm1hqqj889@corp.supernews.com>
Source record: 47760
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

"Scrounger" <brian@iquest.net> wrote ...
> Parts for Sale as of 12/25/2001

> Voltage Regulators
> ==================
> LM7805C voltage regulators. TO220 case. 5 for $4.00
> L7806CV voltage regulators. TO220 case. 5 for $4.00
> LM7808CT voltage regulators. TO220 case. 5 for $4.00
> LM7812T voltage regulators. TO220 case. 5 for $4.00
>
> 3 of each for $10

Huh? 5 for $4 and 3 for $10? Am I missing something?

Do you take cash? I trust you more than I trust PayPal.

RC

7964. Re: December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 03:56:00 UTC
From: Emmersom Bigguns <blowme@woody.com>
Message-ID: <kZwW7.9241$mu.5785445@typhoon.neo.rr.com>
Source record: 47761
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

I think he means 3 groups of 5 for $10 vs. $4 each group of 5.
Fuzzy math but it works. :-)

And yes, he is an honest fella!

EB

"Richard Crowley" <rcrowley7@xprt.net> wrote in message
news:u2l5sm1hqqj889@corp.supernews.com...
> "Scrounger" <brian@iquest.net> wrote ...
> > Parts for Sale as of 12/25/2001
>
> > Voltage Regulators
> > ==================
> > LM7805C voltage regulators. TO220 case. 5 for $4.00
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> > LM7808CT voltage regulators. TO220 case. 5 for $4.00
> > LM7812T voltage regulators. TO220 case. 5 for $4.00
> >
> > 3 of each for $10
>
> Huh? 5 for $4 and 3 for $10? Am I missing something?
>
> Do you take cash? I trust you more than I trust PayPal.
>
> RC
>
>

7965. Re: December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 04:47:03 UTC
From: KG4FBG <kg4fbg@onemain.com>
Message-ID: <bJxW7.99$5c4.12245@newsread1.prod.itd.earthlink.net>
Source record: 47762
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

How about this... 3 each
3 - LM7805-C
3 - L7806-CV
3 - LM7808-CT
3 - LM7812-T
For $10
Sorry about that EB.. Wrong reply button..
"Emmersom Bigguns" <blowme@woody.com> wrote in message
news:kZwW7.9241$mu.5785445@typhoon.neo.rr.com...
> I think he means 3 groups of 5 for $10 vs. $4 each group of 5.
> Fuzzy math but it works. :-)
>
> And yes, he is an honest fella!
>
> EB
>
> "Richard Crowley" <rcrowley7@xprt.net> wrote in message
> news:u2l5sm1hqqj889@corp.supernews.com...
> > "Scrounger" <brian@iquest.net> wrote ...
> > > Parts for Sale as of 12/25/2001
> >
> > > Voltage Regulators
> > > ==================
> > > LM7805C voltage regulators. TO220 case. 5 for $4.00
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> > > LM7808CT voltage regulators. TO220 case. 5 for $4.00
> > > LM7812T voltage regulators. TO220 case. 5 for $4.00
> > >
> > > 3 of each for $10
> >
> > Huh? 5 for $4 and 3 for $10? Am I missing something?
> >
> > Do you take cash? I trust you more than I trust PayPal.
> >
> > RC
> >
> >
>
>
>

7966. Re: Convert Reading

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 06:14:36 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C2ABC4C.3446380D@clifto.com>
Source record: 47763

Clyde R. Shappee wrote:
> How does one get from power per square meter to microvolts per meter? The
> units problem bothers me and maybe I am looking over something.

Think in terms of the impedance of free space being 377 ohms. E is equal
to the square root of the quantity power times impedance.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

7967. Re: Looking for transistor sub for Delco-GM X439-24

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 11:14:51 UTC
From: n9llo@aol.com
Message-ID: <20011227061451.28923.00001028@mb-mk.aol.com>
Source record: 47764

I work at Delco and have some literature
on the old stuff. I can tell you that part
number is a "house number" labeled for
the customer (Beckman) so it is most
likley useless. What you need to do is
determine if it is germanium or silicon.
We made a ton of germanuim power stuff back then. It is just an audio power
amplifier with freq response into the ultrasonic range. You should be able to
select an approprate part.

7968. New PHOTOS at www.ab7sl.com

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 20:34:20 UTC
From: Charles Johnston <ctj92@cableone.net>
Message-ID: <3c2b85db$1@news.bnb-lp.com>
Source record: 47765
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.amateur.misc,rec.radio.amateur.policy

See my new Ham Radio "toys" as well as new photos
of self and kitties too! Happy New Year to All!!!

At web site listed below.....

--

73 / DX

Charles T Johnston
Prescott, Arizona - U.S.A.
charles@ab7sl.com

AB7SL - Ham Radio Pages
Official W9INN Antennas Page
www.ab7sl.com

7969. Applying old RCA tube 8122, is it worth the trouble?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-27 22:51:02 UTC
From: la8ak.xnd@online.no
Message-ID: <3c2ba1ec.96177448@news.online.no>
Source record: 47766

According the data sheet 8122 will provide 570Watts PEP output @30MHz AB2. Full ratings up to 500MHz. DC supply voltage 2200V up to 500MHz and 3000V up to 30MHz.

the tube is quite easily found, but has got an extremely bad reputation in Europe. Some friends have quite large supplies, but it is no interest at all.
First of all: 30% of brand new tubes were found to have internal shortcicuit between control grid and screengrid as delivered and the manufacturer would not take any good in return - even if they were measured on receipt.
Second: Quite many make the same short-circuit when you try to use it, even if you follow all normal procedures.

Recently noted the
SM 5 BSZ - A procedure to recondition power tubes
http://ham.te.hik.se/homepage/sm5bsz/recondit.htm

perhaps this is the extended procedure needed to follow, but would like to hear if somebody has an experience that the tubes may be worth using or should be avoided. 8122 tubes are very much cheaper than all sorts of Russian types, but if they are totally unreliable and causes damage to the equipment it is no good idea to have tried them at all! Several considered the application, but avoided it as reports were noted about all the problems which seem inavoidable

73
LA8AK
--
remove ,xnd to reply

7970. Re: December Junk Box Items

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 01:21:47 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <tJPW7.272$Pe5.78206@news1.iquest.net>
Source record: 47767
Cross-posted to: rec.radio.amateur.homebrew,rec.radio.swap,rec.radio.amateur.misc

BINGO!!

That's what I was trying to say.

$10 gets you 12 VR's, 3 of each kind that I have listed.

I thought I was losing my mind!

(grin)

73 de KB9BVN (Good on QRZ)

--

==========
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
TEN TEC SCOUT @ 5W or NORCAL 40A @ 1.3W
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
==========

"KG4FBG" <kg4fbg@onemain.com> wrote in message
news:bJxW7.99$5c4.12245@newsread1.prod.itd.earthlink.net...
> How about this... 3 each
> 3 - LM7805-C
> 3 - L7806-CV
> 3 - LM7808-CT
> 3 - LM7812-T
> For $10
> Sorry about that EB.. Wrong reply button..
> "Emmersom Bigguns" <blowme@woody.com> wrote in message
> news:kZwW7.9241$mu.5785445@typhoon.neo.rr.com...
> > I think he means 3 groups of 5 for $10 vs. $4 each group of 5.
> > Fuzzy math but it works. :-)
> >
> > And yes, he is an honest fella!
> >
> > EB
> >
> > "Richard Crowley" <rcrowley7@xprt.net> wrote in message
> > news:u2l5sm1hqqj889@corp.supernews.com...
> > > "Scrounger" <brian@iquest.net> wrote ...
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> > > > Voltage Regulators
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> > > > 3 of each for $10
> > >
> > > Huh? 5 for $4 and 3 for $10? Am I missing something?
> > >
> > > Do you take cash? I trust you more than I trust PayPal.
> > >
> > > RC
> > >
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> >
> >
>
>

7971. Misc Gear for Swap

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 04:27:53 UTC
From: John <wanthamradio@hotmail.com>
Message-ID: <dxSW7.2386$e4.541268@news0.telusplanet.net>
Source record: 47768

Have for swap Yaesu FL2100B amp in good condition,an Alinco DJ-196 in the box as well as a HTX-404 in the box,Microwave Modules MMT-432-28 Transverter,pentium 1 75 mhz laptop,and a 750 Mhz Computer with 52x cdrom, CDRW, 20gig Hard drive,256 meg ram,Soundblaster live, 32 meg video,1.44 floppy drive, 10/100 network card as well as a 56k voice/fax/modem, looking to swap some or all for a Yaesu FT-817,Icom 706 , or similar. What do you have to offer?

7972. Re: Schematic for a 10 volt AC supply

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 05:35:38 UTC
From: hexter@blazenet.net
Message-ID: <u2o15a2a1896fb@corp.supernews.com>
Source record: 47769

In article
<Y67T7.226595$3d2.10750814@bgtnsc06-news.ops.worldnet.att.net>,
RAJohnGM@worldnet.att.net says...
>
>Looking for a simple circuit to provide 10 volts AC output with 120
volts
>in. No regulation requried. Anyone have a schematic for such a supply?
>Tnx, Bob, AA8X
>
I used to build these for the military. The cost was apprx 1 million
dollars per unit. I have 2 units in stock. For a bargain price of
$500,000 each, I will personally deliver them right to your door, and
will do so riding my tennessee walker horse, with national media
coverage. Let me know. KD3SH

7973. Re: Looking for transistor sub for Delco-GM X439-24

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 10:40:40 UTC
From: Webster Williams <Doncha@WishuKnew.com>
Message-ID: <MPG.16961850f765fd7498981f@news-server.sc.rr.com>
Source record: 47772

Thanks much! I was thinking the same thing, but just not sure
how this thing works. I have no schematic....so I'm just
SWAGging along.

73, -Web

In article <20011227061451.28923.00001028@mb-mk.aol.com>, n9llo@aol.com
says...
> I work at Delco and have some literature
> on the old stuff. I can tell you that part
> number is a "house number" labeled for
> the customer (Beckman) so it is most
> likley useless. What you need to do is
> determine if it is germanium or silicon.
> We made a ton of germanuim power stuff back then. It is just an audio power
> amplifier with freq response into the ultrasonic range. You should be able to
> select an approprate part.
>

7974. 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 12:15:08 UTC
From: Jason Dugas <jdugas@ems.jsc.nasa.gov>
Message-ID: <gnZW7.2249$4D6.491871363@newssvr15.news.prodigy.com>
Source record: 47770
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi,

I've heard that these small 2m horizontal loop antennas (sometimes stacked 2 or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are interested in building one for fun. Does anyone know if the plans for this type of antenna can be found in QST or in the Antenna book?

We are interested in using one or two of them for 2m SSB (we're just getting started).

Thanks for any help you can provide,

Jason
KB5URQ

7975. Convert an industrial RF generator to a linear amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 12:27:54 UTC
From: Tom2000 <tom2000@mindspring.com>
Message-ID: <87po2uskntrbis8sp22i92d7r17sbjjjp5@4ax.com>
Source record: 47771

Folks,

I stumbled across an eBay auction for a Henry 2000 watt RF generator.
The seller doesn't seem to know much about it, but mentions "13.56 MHz."
This might have been used as a sputtering source.

Looking at the picture, it appears to have a power supply, an amplifier
module, and some other good stuff.

Although I have no need for an amp these days (apartment dweller) the
picture makes me wonder if industrial surplus sputtering sources might be a
relatively inexpensive source of parts for homebrew high-powered linear
amps. They must have appropriate power and bias supplies, tubes (or a
lot of transistors), a maybe-convertible output network, shielded
metalwork, etc. A veritable linear amp construction junkbox.

Has anyone ever taken a good look at the inside of one of these things?

(If anyone's interested, the auction can be found at

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1682291894

I have no connection with the seller.)

Very 73,

Tom AB9B

7976. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 13:00:45 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3c2c6b2b.638607@news.freeserve.net>
Source record: 47773
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

On Fri, 28 Dec 2001 12:15:08 GMT, "Jason Dugas"
<jdugas@ems.jsc.nasa.gov> wrote:

>Hi,
>
>I've heard that these small 2m horizontal loop antennas (sometimes stacked 2
>or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see
>them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are
>interested in building one for fun. Does anyone know if the plans for this
>type of antenna can be found in QST or in the Antenna book?
>
>We are interested in using one or two of them for 2m SSB (we're just getting
>started).
>
>Thanks for any help you can provide,
>
>Jason
>KB5URQ
>

Here in UK we call them Halo's, basically a dipole bent into a circle,
or "squalo's' bent into a square, and fed with a gamma match.
I have seen some where the dipole is centre-fed and capacitivly tuned
between/across the ends.
Not too bad for horizontal mobile aerial, but down on a dipole.
Cardiac radiation pattern with null at the ends.

I have dimentions somewhere, but nothing too critical for you to fail
with 'cut and try' tuning. Shout if you want specifics and drawings.
hth HNY Mike W, G8NXD

7977. Re: ATC for RTTY

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 13:32:35 UTC
From: la8ak.xnd@online.no
Message-ID: <3c2bd570.109366572@news.online.no>
Source record: 47774

On Sat, 22 Dec 2001, Ralph Mowery <rmowery@dialpoint.net> wrote:

>Have you looked at www.rtty.com in their files ? If the ST-6 is there
>you should be able to take it from the circuit.
>
>
>J M Noeding wrote:
>>
>> Need the circuit diagram showing automatic threshold control for RTTY,
>> but cannot find my old magazines showing the simple circuit using 4
>> diodes and an op-amp (Squarer)

thanks!
found all info needed to decide it was not the proper idea for CW,
will make the solidstate version of fold-back detector instead

73, LA8AK
--
remove ,xnd to reply

7978. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 14:00:50 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3C2C7AF6.64000DC2@tampabay.rr.com>
Source record: 47775
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

hi jason
i dont know what your situation is but 2 meter SSB is not like FM it takes a lot more than a simple unity gain antenna to be able to work SSB and it takes very good feedline and height the higher the better if you where going to be using the halo for mobile i would say go for it but for a base station do yourself a favor and get a good high gain yagi atleast 13 elements on a 15 foot boom feed it with a low loss coax say 9913F or LMR400 and get the antenna as high as possible around 50 feet would be good i have worked a good number of states here from florida with that height and 2 cushcraft 11 ele yagis
good luck

Jason Dugas wrote:

> Hi,
>
> I've heard that these small 2m horizontal loop antennas (sometimes stacked 2
> or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see
> them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are
> interested in building one for fun. Does anyone know if the plans for this
> type of antenna can be found in QST or in the Antenna book?
>
> We are interested in using one or two of them for 2m SSB (we're just getting
> started).
>
> Thanks for any help you can provide,
>
> Jason
> KB5URQ

7979. Need Manual for MOT HT H23AAM-1001AB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 15:02:17 UTC
From: James Gerwitz <jgerwitzsprint@earthlink.net>
Message-ID: <3C2C86A6.477FF6FC@earthlink.net>
Source record: 47776

I have a Mot HT that I would like to restore. Model number is
H23AAm-1001AB.

Anybody got a manual at a resonable price?

Jim
AC7FN

jgerwitzsprint@earthlink.net

7980. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 16:29:39 UTC
From: 'Doc <w5lz@icok.net>
Message-ID: <3C2C9CC3.519F31A1@icok.net>
Source record: 47778
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Jason,
Ought to work just fine. Not just SSB, but AM, FM, CW
and what ever other mode you can think of.
'Doc

7981. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 16:31:41 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3C2C9E6D.D0CA5F6@dialpoint.net>
Source record: 47777
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I don't know what you mean by 'excellent' for ssb. The loops will not have any gain and are not directional. While you can have some fun with the loops, you should be looking at a beam on no less than a 10 foot boom and longer if you can support it. If you can stack 4 of the horizontal loops you may get close to 6 db of gain over a dipole. Not much to brag on when a 3 element beam will give around 8 or 9 db. The beam will usually be easier to build and get working than several loops stacked and phased correctly. If you want to build something , the quagi type might be a good starter project for the antenna. It is a beam with the reflector and driven element made like square loops and the director elements made like a regular beam.

Jason Dugas wrote:
>
> Hi,
>
> I've heard that these small 2m horizontal loop antennas (sometimes stacked 2
> or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see
> them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are
> interested in building one for fun. Does anyone know if the plans for this
> type of antenna can be found in QST or in the Antenna book?
>
> We are interested in using one or two of them for 2m SSB (we're just getting
> started).
>
> Thanks for any help you can provide,
>
> Jason
> KB5URQ

7982. Re: Need Manual for MOT HT H23AAM-1001AB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 17:18:57 UTC
From: Bruce Lane <spammers@buzz.off>
Message-ID: <MPG.1696495d467837a698975e@localhost>
Source record: 47779

In article <3C2C86A6.477FF6FC@earthlink.net>,
jgerwitzsprint@earthlink.net says...

> I have a Mot HT that I would like to restore. Model number is
> H23AAm-1001AB.

Holy Cow... that's an HT200...

> Anybody got a manual at a resonable price?

EBay would be your best bet. I don't think Motorola is even
archiving the manuals for those any more...

--
Bruce Lane, Owner and Head Hardware Heavy,
Blue Feather Technologies -- http://www.bluefeathertech.com
Amateur Radio: KC7GR (Formerly WD6EOS) since 12-77.
kyrrin (a/t) bluefeathertech dot-com (Reassemble to use)
"I'll get a life when someone demonstrates to me it would be superior to
what I have now..." (Taki Kogoma)

7983. ARNewsline 1272 - Dec 28 2001

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 18:52:33 UTC
From: radionews@aol.com
Message-ID: <20011228135233.07199.00003312@mb-dh.aol.com>
Source record: 47780

AMATEUR RADIO NEWSLINE(tm) REPORT #1272 - DECEMBER 28 2001

==========

A NOTE TO THOSE WHO ONLY “READ” AMATEUR RADIO NEWSLINE(tm)

For those of you who only know of the Amateur Radio Newsline (tm) as a text newsletter we would like to invite you to listen to the audio version. This Amateur Radio Newsline (tm) script is actually written for the “spoken word.” It is recorded each by professional broadcasters and is available for private listening or rebroadcast over your repeater. Three methods of delivery are available: Streaming audio using RealAudio, FTP RealAudio or dial-in telephone. Please visit our website at http://www.arnewsline.org for a list of telephone numbers (you have to pay your own long distance charges) and links to audio servers providing our voice newscast (for free).

de
The Newsline Production Team

==========

Amateur Radio Newsline report number 1272 with a release date of Friday, December 28th, 2001 to follow in 5-4-3-2-1.

The following is a Q-S-T.

A not so welcome FCC Christmas present for several hams and an ARRL survey says that most hams no longer want the novice bands. These stories are first on this New Years week edition of the Amateur Radio Newsline coming your way right now.

(Billboard Cart Here)

**

ENFORCEMENT: FCC DESIGNATES KEVIN MITNICK, N6NHG, LICENSE RENEWAL APPLICATION TO PUBLIC HEARING

A convicted computer hacker now has to face an FCC if he wants to keep his ham radio license. This, as the regulatory agency designates the Amateur Radio license renewal application of Kevin David Mitnick, N6NHG, for hearing. We have this report:

--

According to the FCC, Kevin David Mitnick is best known to the world as a hacker who admitted that he broke into a number of computer systems and stole proprietary software belonging to Motorola, Novell, Fujitsu, Sun Microsystems and other companies. He has also admitted using a number of means to commit

his crimes including social engineering, cloned cellular phones ad sniffer programs placed on a victims computer system. Mitnick even acknowledged altering the programming of computer systems belonging to the University of Southern California and using these computers to store programs that he had misappropriated.

Mitnick was sentenced to forty six months in federal prison for his August 9th 1999 conviction. He had previously been sentenced to twenty-two months in prison for possessing cloned cellular phones after his arrest in North Carolina in 1995 and for violating his supervised release that had been imposed after his conviction for unrelated computer fraud in 1989. He is currently on probation following his release from prison in January of 2001. And in December of 1999, Kevin David Mitnick, N6NHG, applied for renewal of his Amateur Radio Station and his General Class Operators License.

His license expired on December 12th 1999. The FCC put the renewal application on hold pending further inquiry. Now the agency has made public that it intends to challenge Mitnick’s right to hold a ham radio license and has issued a Hearing Designation Order. In plain English, that means Kevin David Mitnick has to prove to the government why it should renew his ham ticket or have his license cancelled.

The FCC is challenging Mitnick’s license renewal request on the ground that his past criminal behavior raises a substantial and material question as to whether Mitnick possesses what the it terms as the requisite character qualifications to remain a Commission licensee. The FCC says that in the context of broadcasting licenses, it has long held that evidence of any conviction for misconduct constituting a felony will be considered as relevant to its evaluation of an applicant’s character. It also says that the broadcast character qualifications standards have been used as guidelines in the evaluation of non broadcast licenses including those in the Amateur Service and that the courts have upheld the Commission’s right to do this.

The agency cites two recent cases. That of Herbert L. Schoenbohm, the ex-KV4FZ and Leslie Brewer who used to be KC4HAZ. Brewer, also known as the Tampa Party Pirate lost his ticket because of his unlicensed broadcasting in the commercial F-M band . Schoenbohm lost his based on a fraud conviction of using an unauthorized telephone access device. And the FCC says that any conviction for fraudulent conduct calls in question a licensee’s ability to act in a manner consistent with FCC regulations.

And so the FCC has ordered that a hearing be held before an Administrative Law Judge to determine the effect of the criminal convictions of Kevin David Mitnick on his qualifications to be a Commission licensee. It also says that pursuant to provisions of the Communications Act, the burden will be on Kevin David Mitnick, N6NHG, to provide proof that his license renewal application should be granted. Mitnick was given 20 days of the mailing of the Hearing Designation Order to file a response.

For the Amateur Radio Newsline. I’m Andy Jarema, N6TCQ.

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The hearing designation order on Mitnick’s license was adopted by the Commission on December 11th but not released until Friday, December 21st. Ironically, less than twenty-four hours earlier, Mitnick had made a guest appearance on Art Bell’s Coast to Coast A-M where he discussed his future plans. At that time he was apparently unaware that the FCC had some plans of its own in regard to whether or not N6NHG will remain a radio amateur and Commission licensee.

The complete text of the Mitnick FCC Hearing Designation Order is on the web at: http://www.fcc.gov/Daily_Releases/Daily_Business/2001/db1221/fcc01359.txt (FCC)

**

ENFORCEMENT: GERRITSON LICENSE PLACED ON HOLD PENDING POSSIBLE HEARING

Kevin Mitnick, N6NHG, is not the only person hearing from the FCC in recent days. So have a number of others including another Southern California resident who could face the same kind of a hearing. Riley Hollingsworth, K4ZDH, is the FCC’s Special Counsel for Amateur Radio Enforcement:

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Hollingsworth: “We notified a Bell California licensee; Jack Gerritson, ex-KG6IRO, that the Wireless Telecommunications Bureau, had set aside his Technician grant so that a recent conviction for radio interference could be evaluated. Now, he has no authority to operate Amateur Radio equipment until the matter is resolved.”
--

The action to place Gerritson's license up for hearing was taken November 14, 2001 and is based in part upon complaints about the operation of his station and questions regarding Gerritson's qualifications to be a Commission licensee. The FCC says that both issues were raised as the result of Gerritson's 1999 arrest and year 2000 conviction for interference to police radio communications. (FCC)

**

ENFORCEMENT: FCC REOPENS KY-W.VA REPEATER CASE

The FCC is also continuing its crackdown in the area of repeater interference issues. In fact it is taking a second look at a coordinated versus uncoordinated issue in the Tennessee and West Virginia border area. Again, Riley Hollingsworth, K4ZDH:

--
Hollingsworth: “We notified parties in a repeater dispute in West Virginia that we would be reopening that case after information that one of the repeaters is coordinated after all. We had declined to intervene earlier this year in that case.”
--

The letter stating that the FCC is reopening that case went to Michael Horn, KB8GDF, of Lenore West Virginia, Kenneth Brown KF8HL of Davin West Virginia and Carl Tussey, KB4UCE of South Williamson Kentucky. Back on January 24, 2001,

had notified the three that it had received a complaint that they were operating an uncoordinated repeater on 145.390 MHz in Mingo County, West Virginia, and that this repeater was causing interference to the coordinated KC8FKP repeater operated by the Portsmouth Radio Club that uses the same frequency. The matter was closed when the FCC interpreted a notation in the South-Eastern Repeater Associations Repeater Journal that the status of the KC8FKP repeater was not known and interpreted this as meaning that the repeater was also was not coordinated.

But now the FCC says that it has recently come to it's attention that although in the SERA Repeater Journal says that the KC8FKP repeater may be listed as unknown, it is still a coordinated system. Therefore, the FCC is re-opening its review of the issues in this matter. (FCC)

**

ENFORCEMENT: IS A GOVERNMENT AGENCY RUNNING A HAM REPEATER?

Is a government agency operating ham radio repeaters in violation of Part 97 rules? Specifically, the FCC wants to know who is really running the KD6LSO and W6SON repeaters in Sonoma County California.

The FCC says that it has received allegations that the county is in charge not the hams whose call signs appear on the machines. Since a county governmental entity cannot be an Amateur licensee, the FCC is collecting information in order to determine if there are breach of its rules. (FCC)

**

BREAK 1

This is ham radio news coming to you from the United States of America. We are the Amateur Radio Newsline, heard on bulletin stations around the world, including Rocky Mountain Radio League repeaters serving Denver and Bloomfield Colorado.

(5 Sec Pause Here)

**

RESTRUCTURING: ARRL STUDY SAYS NOVICE BANDS MAY NOT BE NEEDED

An ARRL study group has recommended doing away with the current novice bands and divvying them up among the remaining licenses classes. Amateur Radio Newsline's Norm Seeley, KI7UP, has the details:

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An ARRL Novice Spectrum Study Committee has recommended that the League petition the FCC to eliminate the CW novice subbands. It also wants a rules change that will allow Novice and Technician licensees with element 1 credit to be permitted to operate Morse code on the General 80, 40, 15 and 10 meter C-W allocations at up to 200 watts power out.

These are just two of the suggestions contained in a report that will be presented to the Leagues Board of Directors when that group convenes in mid January. The study committee will also suggest recognizing portions of the 80, 40, 15 and 10 meter Morse bands for what it calls ''slow CW operation.'' The committee says that this would aid new operators in enhancing their Morse code skills.

Finally, the panel also recommends re-farming -- that’s another way of saying reapportioning -- reapportioning the current Novice and Tech Plus subbands in part. This, to allow expansion of the phone allocations on 80, 40 and 15 meters.

What will the ARRL Board of Directors do? We should know in less then a month.

For the Amateur Radio Newsline, I’m Norm Seeley, KI7UP

--

The committee's determinations were based on opinions expressed by 4744 hams who respond to an ARRL Novice Spectrum Study survey launched last June. Those expressing their opinions included ARRL members and also non-members. What’s really interesting is that nearly 61% of those responding were Extra class licensees. (ARRL bulletin)

**

FCC INSPECTOR GENERAL'S REPORT: THE NAMES THE SAME

The latest report of the FCC's Office of the Inspector General contained very few items of intrigue. But according to the C-G-C Communicator, one of the more colorful incidents involved a person who allegedly used the name of an FCC employee to obtain the government-rate for a hotel room in conjunction with a government-sponsored event.

Well, it turns out that the subject was legitimately attending the event, was entitled to the government room rate and just happened to have the same name as the FCC employee. The bottom line: Case dismissed.

The complete report is on the FCC website at http://www.fcc.gov/oig/Semiannual093001-1101.pdf (CGC Communicator)

**

AMERICA AT WAR: NYC PHONE SERVICE STILL SPOTTY

It's been almost four months since the attack on the World Trade Center, and telephone service near ground zero in lower Manhattan is anything but normal.

According to news reports, repair people have restored service to most customers, but thousands of lines still aren't working. As a result, customers complain that some business lines can call out, but customers can't call in.

The collapse of Seven World Trade Center crushed thousands of underground cables at Verizon's nearby switching station. About 200-thousand telephone lines and three-point-five million data circuits were affected. The company says it'll spend as much as one-point-nine billion dollars to repair the

damage. (Telecommunications Online)

**

INTERNET SECURITY: PROBLEMS WITH XP

If you just bought a new computer equipped with the Microsoft X-P operating system, or have upgraded your old one, listen up. The Federal Bureau of Investigation says that you should take certain steps to protect yourself against hackers who might try to take advantage of major flaws that have been found in X-P.

The bureau's National Infrastructure Protection Center says that in addition to installing a free software fix offered by Microsoft on the company's Web site, consumers and corporations using Windows XP should disable the product's universal plug and play features as well. The FBI also warned computer system administrators to actively monitor for specific types of Internet traffic that might indicate an attack was under way.

The FBI did not provide detailed instructions how to disable plug and play. Outside experts also caution that disabling the affected Windows XP features threatens to render unusable an entire category of high-tech devices about to go on the market. This includes a new class of computer printers that are easier to set up. But the same experts also acknowledge that disabling plug and play in X-P could afford some protection against similar flaws discovered in the future.

Microsoft considers disabling plug and play options as being unnecessary but the company does acknowledge that Windows X-P suffers from serious problems that can let hackers steal or destroy data files across the Internet or implant their own unwanted software. The FBI says that the glitches were unusually serious because they allow hackers to seize control of all Windows X-P operating system software without requiring a computer user to do anything except connect to the Internet. (Published news reports)

**

THE LAW: A FIGHT AGAINST GRAY MARKET ELECTRONICS

A group of American high-tech companies is opening the year 2002 with a campaign to protect consumers from unwittingly buying consumer electronic products intended for foreign markets. Electronics that the manufacturers claim may not work in the United States.

Compaq Computer is one of the companies involved in the campaign. It says that the group will warn consumers about the dangers of buying such products, and how to avoid getting duped. The other companies in the group are Hewlett-Packard, 3 Com, Nortel Networks, and Xerox. The effort may prompt more lawsuits against distributors who resell so called gray market items in the United States. (Computer Products Daily)

**

SPECIAL EVENTS: USS ARIZONA K7A A SUCCESS

Steve Gurley, KJ7WK the coordinator of the USS Arizona Special Events Station K7A tells the Amateur Radio Newsline that the event was an overwhelming success. Gurley says that the memorial station contacted amateurs in all 50 states, and 8 other countries while handling over 2600 QSO's. In fact says KJ7WK, the sponsoring group has already received certificate requests from 609 stations as we go to air. There were ten operators in three counties in the Phoenix Arizona metroplex operational during most of the three days K7A was on the air. (KJ7WK)

**

SCHOLARSHIPS: DARA SCHOLARSHIPS FOR 2002

The Dayton Amateur Radio Association says that the nominating period for its annual scholarship program is now open. The deadline to receive applications is June 1, 2002 and the announcement of winners will occur around June 15, 2002. Applications are available from the DARA Scholarship Committee, 9873 Lower Valley Pike, Medway, Ohio 45341. Please note that this is a new address from years past. Again it is the DARA Scholarship Committee, 9873 Lower Valley Pike, Medway, Ohio 45341. Also, for more information on the Dayton Amateur Radio Association and its programs, please visit www.dara-w8bi.com on the world wide web. (DARA)

**

AWARDS: DARA OPENS NOMINATIONS FOR HAM OF THE YEAR

The Dayton Amateur Radio Association also asks that we remind you that the nominating period for the 2002 Dayton Hamvention Awards is now open. There are three awards presented each year. They are the Radio Amateur of the Year, Special Achievement, and Technical Excellence.

All amateurs Novice through Extra are eligible. Awards are decided by the Awards Committee, based partially upon the information received. Magazine articles, newsletters, newspaper clippings, videos and the like are appreciated but cannot be returned. The deadline for nominations is January 31, 2002. Nominations should be sent to Post Office Box 964, Dayton Ohio 45401. They can also be submitted by completing the e-form on the web at www.hamvention.org. (DARA)

**

BREAK 2

News never takes a holiday and neither do we. Ringing in the New Year from the United States of America, we are the Amateur Radio Newsline, with links to the world from our only official website - www.arnewsline.org.

(5 sec pause here)

**

CHANGING OF THE GUARD: BADGER STATE SMOKE SIGNALS EDITOR JIM ROMALFANGER, K9ZZ - SK

I’m Bill Pasternak, WA6ITF.

The ham who put the state of Wisconsin on the ham radio map has passed away. This, with word that Jim Romelfanger, K9ZZ died Saturday evening December 22nd of an apparent heart attack..

According to Romalfanger's close friend Ken Ebneter, K9EN, Jim has been in declining health for some time. Romalfanger had a stroke a few weeks ago, affecting his right arm which was already weakened by polio. But Ebneter says that K9ZZ seemed to be improving until just recently. Ebneter says that Romalfanger had been in the hospital early last week but was home when he passed away of an apparent heart attack. In fact, K9ZZ had stopped by to visit a ham radio friend that afternoon. Another friend found him dead that evening when he stopped by to visit.

His full name was Arthur James Louis Romelfanger but to the world of ham radio he was Jim, K9ZZ. And Jim Romalfanger made Wisconsin a ham radio household word by editing as three decade state-wide ham radio monthly newspaper called Badger State Smoke Signals -- and doing so as a volunteer.

Notice we said newspaper and not newsletter. This is because Smoke Signals is just that. A newspaper that at its peak ran up to 40 pages filled with articles about ham radio in the Badger State. In addition to being the 32 year editor of Smoke Signals, Romalfanger was nationally published over the years in CQ, QST, 73, Ham Radio, Popular Electronics, and other magazines.

Jim Romalfanger was first licensed January 1958 in Pacific Beach, California, as KN6LWB. Upgraded to General in May of 1958. He returned to Wisconsin that summer and became K9PKQ. In 1977, changed call to K9ZZ and held that call sign the rest of his life. Funeral services were scheduled for Friday, December 27th at St. Joseph Catholic Church in Baraboo Wisconsin.

Jim, from all of your friends at the Amateur Radio Newsline: We are going to miss you. (The Baraboo News Republic, K9EN, WB9QZB, and other friends of K9ZZ contributed to this report.)

**

AMAZING DISCOVERIES: CIRCLES WITHIN A CIRCLE

One of the most curious pure mathematical discoveries for 2001 was announced in the easy-to-read article at an incredibly long website. In brief the article says that research has led to some remarkable geometric findings involving interrelationships between tangent circles and spheres. In other words, mysterious circles within a circle.

As one researcher put it, "Where do these numbers come from? What's going on here?" Find out by going to www.sciencenews.org/20010421/bob18.asp (CGC Communicator)

**

INTERENATIONAL - CANADA: NEW ALBERTA SM

On the international front, word that Thomas Martens, VE6TRM, has been appointed the new Radio Amateurs of Canada Section Manager for the province of Alberta and the North West Territories. Martens replaces Alan Faint VE6QQ will

be stepping down from the position due to personal reasons. Martens will serve the remainder of Faint’s term which runs through June 30th, 2003. (RAC)

**

INTERNATIONAL-AUSTRALIA: CSIRO MICROTURBINES

Australian hospitals, restaurants and schools could soon source clean, reliable energy from mini power generators that operate independent of the main grid. This as CSIRO has installed Australia's first commercial microturbine, at their North Ryde Laboratory, Sydney.

The size of a small refrigerator, the turbine produces 30 kilowatts of power, independent of the electricity grid. And it does this with reduced greenhouse and other gas emissions. Thirty kilowatts is enough to power a medium commercial building such as a restaurant.

Along with fuel cells, gas engines, storage technologies and some renewable technologies, microturbines can be used to generate power close to the end-user and provide major gains in reliability and power quality. Once the design can trickle down to the home user level and price range, it could offer hams a way of always having emergency power always at hand. (Q-News)

**

SHORTWAVE MONITORING : RADIO NORWAY CLOSES

The Board of Directors of the Norwegian Broadcasting Corporation has decided to stop its own programs by Radio Norway International. This is effective as of December 31st of 2001.

According to DF5SX and G3VGW, Radio Norway’s final show was hosted by veteran broadcaster Einar Lie on New Years Eve. Also, the 1200 kilowatt Medium Wave transmitter on 1314 kHz on Kvitsoy was supposed to cease operation by December the 31st as well.

The Norwegian Broadcasting Corporation will have to negotiate with transmitter providers Norkring and Radio Denmark to close down as well. The Norwegian Broadcasting Corporation and Norkring have a contract for running the transmissions that goes through December 31st, 2003. The agency also has a leasing agreement with Radio Denmark for the same period. (Media Network)

**

DX

In D-X, keep an ear open for King George Island in the South Shetland group. HFZ0POL is reported on all H-F bands, including the newer ones, using CW, SSB, RTTY and PSK31. QSL HF0POL via SQ5TA.

And the United Arab Emerates has been heard lately A61AJ. He has been QRV on 40 meters CW around 1400 UTC. Q-S-L A61AJ via N4QB. (Various DX sources)

**

THAT FINAL ITEM: RILEY SAYS THANKS

And finally as the year 2001 comes to an end, the FCC’s Chief Rules enforcer, Riley Hollingsworth has some words of praise for the ham radio community. He passed them along through his bi-weekly Enforcement Log at www.rainreport.com, and thanks to them, we have is words for you:

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Hollingsworth: “I would like to point out Hap, that this is the end of the third year of Amateur Radio enforcement and I will honestly say that the overall level of compliance in the Amateur Radio Service is outstanding. The Amateur licensees do a great job and they do a great job of showing that the Amateur Radio Service is -- indeed -- the only fail-safe communications system in the world and we are very proud of them.”
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And if I can take off my reporters hat for a moment and editorialize a bit, I guess I speak for many who truly appreciate what you have done to return the Amateur Radio bands to the law abiding members of the nations ham radio community. (ARNewsline(tm), RAIN)

**

NEWSCAST CLOSE

With thanks to Alan Labs, Amateur News Weekly, AMSAT, the ARRL, the CGC Communicator, CQ Magazine, the FCC, the Ohio Penn DX Bulletin, Radio Netherlands, Rain, the RSGB and Australia's Q-News, that's all from the Amateur Radio Newsline(tm). Our e-mail address is newsline @arnewsline.org. More information is available at Amateur Radio Newsline's(tm) only official website located at www.arnewsline.org. You can also write to us or support us at Amateur Radio Newsline(tm), P.O. Box 660937, Arcadia, California 91066.

For now, with Bill Pasternak, WA6ITF, at the editors desk, I'm Don Wilbanks, KC5MFA, saying Happy 2002, God Bless America, and we thank you for listening."
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7984. Trance-Formation of America: Epilogue

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-28 22:06:26 UTC
From: alexandra@trance-formation.org
Message-ID: <MPG.48abc58f7687@195.238.3.180>
Source record: 47781
Cross-posted to: rec.aviation.ultralight,rec.radio.amateur.dx,rec.travel.africa,rec.radio.amateur.homebrew

The safety and serenity of Alaska provided an atmosphere conducive to deprogramming, despite the pandemonium that ensued. Mark Phillips was the first man who not only did not abuse us, but cared for our welfare and well being. His patient, gentle manner was therapeutic, while his propensity for handling weapons and apparent intellect kept us safe against all odds. Through his noble actions, Mark taught Kelly and me that the world of human interaction in which we had existed for so long was contrary to most human behavior. We learned that goodness does exist on this Earth, and that there were those in Washington, D.C. who refused to tolerate the mind-control atrocities they witnessed us and others enduring.

As my eyes opened and I woke up to reality, I became enraged. Enraged for the traumas inflicted on my daughter. Enraged for a lifetime of abuse at the hands of our country's so called "leaders". Enraged that the American public had no idea as to who and what was/is running their country. Mark helped me refocus my rage in a productive direction when he told me, "The best revenge is total recovery."

I began recovering at the rate of 18 hours a day through intensive therapy destined to restore my memory and, ultimately, my mind. I learned the ins and outs of my own mind and recovered my memories in a journal. The stack of journals grew as over a decade of White House/ Pentagon-level abuse flooded my mind and intruded on my thoughts. Pictures from my past flashed across my mind as neuron pathways opened in my brain. I was regaining access to my own mind and control over my future by recovering my memory of my past.

Best of all, I was falling deeply in love with Mark Phillips. Why wouldn't I fall in love? He rescued my daughter and me from certain demise, restored my free will, and was helping me recover in total safety, and was the polar opposite of my abusers. He treated me with love, respect, and thoughtful consideration . Equally as important, Mark proved to be an ideal father figure to Kelly. He provided here with unconditional love and deep understanding. Through him, Kelly caught a glimpse of how kind men could be--and how good life could be. I had long since ceased to know that such a man even existed.

The love factor in my recovery is considerable. Not only did Mark Phillips save my life, but now I had a reason to live it! The love we share kept me going at times--like when Kelly was institutionalized in 1989 for homicidal/suicidal behavior. The loving relationship that Mark shared with Kelly during our short year together as a family was sufficient to arm here with the strength to survive her ensuing ordeal

as a victim of the so-called mental health and criminal justice system.

Kelly, now 15, remains a political prisoner in the custody of the State of Tennessee where she is denied qualified therapy for the MK-Ultra Project Monarch Mind-Control abuses she endured. The state of Tennessee, under the politically powerful influence of Kelly's abusers, is in violation of numerous laws and basic civil rights in their determined efforts to keep Kelly from qualified therapy and the family she loves.

While many of those in positions to make a difference in Kelly's case operate on a "Need to Know" basis rather than deliberately conspire with the bad guys, a closer look into Kelly's case history should raise serious questions in their minds. Questions like; "What could a child have to do with the so called "National Security" of our country?" The Juvenile court judge presiding over Kelly's case closed the doors to the media and onlookers for "reasons of National Security" while gross and blatant violations of laws and rights ensued.

For over three long years, Kelly and I have been denied our right to an unbiased attorney while court-appointed advocates and so-called "guardians" join forces with attorneys paid off by me pedophile father. My own court-appointed attorney, who doubles for the Juvenile Court judge when he takes a day off, has yet to represent my interest. My interest is in Kelly's well being and future-- and if she will have a future at all.

While Kelly is still amnesic with regard to most of her past, she is deliberately denied therapeutical access to her past, due to who and what she will recall. I am denied access to Kelly for fear she would be triggered into remembering by my mere presence. As for my deliberately "triggering" Kelly to remember what she was supposed to forget, as her abusers fear, it has been my experience that recovery must come from the inside out. Not from outside input. I want no less for Kelly that the piece/peace of mind I have gained through qualified rehabilitation. Which raises the questions: Why has the Juvenile court prohibited us from saying the name "George Bush?" Why is the "Wizard of Oz" a taboo subject for Kelly while the State of Tennessee provides her with Stephen King horror novels? Why are Kelly and I forbidden by the court to say the words "President," "politics," New World Order", and "mind-control"?.

In an attempt by state employees to "normalize" our relationship, Kelly and I are forbidden to discuss the past, my immediate efforts to affect her dire and desperate situation, or future plans as a family.

Most appalling and unjust in Kelly's view is the State of Tennessee's refusal to allow her any contact whatsoever with Mark Phillips. While I am hindered from having private conversations with my daughter due to court ordered supervisions and censorship, Kelly is denied the right to even wave to Mark across the parking lot. Considering that, like me,

Mark has never been named as an abuser, declared unfit, or violated any court orders, the questions must be asked: "Why does the State of Tennessee go to such lengths to ban all communication between Kelly and the man who rescued her and taught her the meaning of unconditional love?"

Kelly has asked these questions for years to no avail. The State of Tennessee refuses to even acknowledge her request for"an unbiased attorney who will represent her interests instead of those of the state". Kelly's pleas for an attorney to represent her go no farther than the deaf ears of the assigned state social worker "managing" her case. This social worker is operating on a "Need to Know" basis that has no basis, and she "Needs to Know" that she, along with the State of Tennessee, will be held accountable in the event that Kelly hurts someone or herself.

Kelly's frustrations have mounted beyond her ability to cope. I applaud Kelly for her determined but weakened efforts to stay in control of her own mind despite being denied qualified rehabilitation for the devastating results of Project Monarch Mind-Control abuses. Kelly's daily attempts to accomplish the impossible by psychoLOGICALLY managing her psychiatric disorder is proportionate to her high intellect and willful determination. But it is not enough to fend off the Psychological Warfare that has been waged against her through CIA Damage Containment practices designed to keep her contained in amnesic silence. She needs help. She needs a collective voice.

Kelly can be helped through public outcry and through abolishment of the 1947 National Security Act (and 1984 Reagan Amendment to same) that has destroyed the true security of our once great nation. You can write the State of Tennessee demanding to know why Kelly is being denied her right to qualified rehabilitation.

Thank you. - Cathy O'Brien

Every submitted comment of encouragement will be greatly appreciated!

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http://www.trance-formation.org/
http://www.trance-formation.com/

Trance-Formation of America:

Project Monarch (excerpt #1)
http://www.trance-formation.com/book_excerpts/monarch.htm
http://howardk.moonfall.com/msgid.cgi?ID=100925768100
http://groups.google.com/groups?selm=EC8F5BAE.8523C14B%40trance-formation.com&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3CEC8F5BAE.8523C14B@trance-formation.com%3E

From Dorothy to Tinker-Belle (excerpt #2)
http://www.trance-formation.com/book_excerpts/dorothy.htm

http://howardk.moonfall.com/msgid.cgi?ID=100925953900
http://groups.google.com/groups?selm=11757353565781042415208 78%40news.clara.net&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3C62371BB7.8BC522F0@news.clara.net%3E

The Most Dangerous Game (excerpt #3)
http://www.trance-formation.com/book_excerpts/game.htm
http://howardk.moonfall.com/msgid.cgi?ID=100930112200
http://groups.google.com/groups?selm=MPG.3f72db4fab9e%40166.82.1.9&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3CMPG.3f72db4fab9e@166.82.1.9%3E

You Are What You Read (excerpt #4)
http://www.trance-formation.com/book_excerpts/read.htm
http://howardk.moonfall.com/msgid.cgi?ID=100933907900
http://groups.google.com/groups?selm=1ef3ad%245oz%241%40168.95.195.16&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3C1ef3ad%245oz%241@168.95.195.16%3E

The Most Dangerous Game: Revisited (excerpt #5)
http://www.trance-formation.com/book_excerpts/regame.htm
http://howardk.moonfall.com/msgid.cgi?ID=100949997400
http://groups.google.com/groups?selm=e138c973.25b3142c%40trance-formation.org&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3Ce138c973.25b3142c@trance-formation.org%3E

Clinton Coke Lines (excerpt #6)
http://www.trance-formation.com/book_excerpts/cokelines.htm
http://howardk.moonfall.com/msgid.cgi?ID=100950207100
http://groups.google.com/groups?selm=311e7c95.f10eeeaa%40trance-formation.org&output=gplain
http://howardk.moonfall.com/msgid.cgi?STYPE=msgid&MSGI=%3C311e7c95.f10eeeaa@trance-formation.org%3E
--

7985. Alliance HD73 - Need info ASAP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 00:08:29 UTC
From: Scott McClements <yetbbwa@grove.iup.edu>
Message-ID: <3C2D097D.6B5F275B@grove.iup.edu>
Source record: 47782
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space

Hopefully somebdy can help me with this one quick before I fall off my tower into a snow bank!

There was some remodeling done in my room where my rotot box was once hooked to my Alliance HD73. Problem is, the wires were removed from the control box without being marked.

So, here is the good part, I broke down, in 20 degree weather, with snow flying, wind blowing, I climbed to the 30 foot height and opened up the rotor wire cover to see what wires went where.

Here is the part I couldn't totally confirm for sure, I could only see a number "2" mark on one terminal connection.

So, here is the terminal connections as if the rotor was oriented as it were mounted in a tower and you where standing on the ground looking at it:

A 2 C
X X X

X X X
D E F

The "X"'s represent the terminal hookups. The letters represent the terminal (number) hookups in question. The "2" was the only terminal I could confirm.

So, the question is, which terminal is which number?

My rotor is the latest model, the HD-73-1, I believe its called. I found the manual online (ftp://bama.sbc.edu/downloads/alliance/hd-73/) - but it was for the HD-73. I went to the troubleshooting section and found where it tells you was resistance to look for between the wires to help straighten out which wire is which. All the resistance values checked out except the last note on the troubleshooting section where it says "Also, leads 1,3, and 6 should not show continuity to leads 2,4, or 5"

I see a some resistance between all combinations of these leads they state should show "no continuity" (open?)

Help, please!

Scott.

7986. Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 00:34:00 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3c2d0efb$0$16044@echo-01.iinet.net.au>
Source record: 47784
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

Boards are available via Paypal via a Direct Digital Synthesizer using the AD9854. Article rewritten with links to component suppliers, references etc Software and controller board available for single tone and sweep functions settable by keypad or rotary encoder 1Hz to 65 MHz in 1 Hz steps - source code is public for modification if desired

see http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

7987. Microcontroller board for AVR AT90S8535

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 00:37:05 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3c2d0fb4$0$16032@echo-01.iinet.net.au>
Source record: 47783
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

Boards are available for this micro
LCD, serial, programming,general purpose I/O, rotary encoder ports

see http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

7988. VFO Freq counter/PLL stabilizer

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 00:41:07 UTC
From: Richard Hosking <zaprichardh@iinet.net.au>
Message-ID: <3c2d10a6$0$16041@echo-01.iinet.net.au>
Source record: 47785
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

Boards and controllers are available for this project
Article rewritten with references and links
Counts to approx 40 MHz @10 Hz resolution
16 user settable +/- offsets
PLL to stabilize free running VFO

see http://www.iinet.net.au/~richardh/VK6BRO.htm

Richard

7989. FS: Bags of Inductors CHEEP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 03:50:27 UTC
From: rlucch2098@aol.com
Message-ID: <20011228225028.14760.00001835@mb-bj.aol.com>
Source record: 47786

Hi Guys;
Any builders out there that need some inductors?
Here are a few bags of them>>
1)- 95 NOS Wire Wound on Ferrite(?)
Price is $20ppd (sold pending payment)

http://www.baltimorepress.com/~wa2rqy/95inductors.jpg
2)- 39 NOS Wire Wound, read about 395-398uh on my B&K bridge, $18.00ppd

http://www.baltimorepress.com/~wa2rqy/39inductors.jpg
3)- 70 NOS 180uh Wire wound, 5/16"d x 3/8"lg + base.
have Yellow, Brown & grey dots on each, $20ppd

http://www.baltimorepress.com/~wa2rqy/70inductors1.jpg

http://www.baltimorepress.com/~wa2rqy/70inductors2.jpg
Thanks es 73.....RICH-WA2RQY RLUCCH2098@aol.com
Web-Page URL> HTTP://members.aol.com/rlucch2098/index.html

7990. Re: Need Manual for MOT HT H23AAM-1001AB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 06:52:17 UTC
From: "Barry L. Ornitz" <ornitzNO@SPAMusa.net>
Message-ID: <sKdX7.92547$7l5.53052@atlpnn01.usenetserver.com>
Source record: 47787

"Bruce Lane" <spammers@buzz.off> wrote in message
news:MPG.1696495d467837a698975e@localhost...
> In article <3C2C86A6.477FF6FC@earthlink.net>,
> jgerwitzsprint@earthlink.net says...
>
> > I have a Mot HT that I would like to restore. Model number is
> > H23AAm-1001AB.
>
> Holy Cow... that's an HT200...

No, it's even older than that. It uses "instant heat" vacuum tubes (peanut tubes like the 1AD4). I still have a P33BAM which is the 7 watt model (used a 2E24 in the final).

73, Barry WA4VZQ

7991. Re: Convert an industrial RF generator to a linear amp?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 09:03:48 UTC
From: wheeler@cts.com
Message-ID: <3c2d86f3$0$79589$e2e8da3@nntp.cts.com>
Source record: 47788

I haven't played with the RF sources much, but the tuner is kind of wicked.
Picture trying to dump some DC or some RF in to quartz, which is what we
were vaporizing. When you start and the quartz is cold, it is a pretty good
insulator. (but then, you knew that.) When you warm it up it starts to
conduct pretty good. The tuner has to follow the load impedance from
an open circuit down to a pretty low impedance.

The tubes are kind of big, and so is the power supply. Also, it all needs
to be water cooled.

I played a lot with the electron gun supplies, they ran 15KV at 1Amp and it
is my understanding that is not really all that much as those things go.

It seems like a bit much, tho, if all you are trying to run is a full
legal gallon...

In article <87po2uskntrbis8sp22i92d7r17sbjjjp5@4ax.com>, tom2000@mindspring.com
says...
>
>
>Folks,
>
> I stumbled across an eBay auction for a Henry 2000 watt RF generator.
>The seller doesn't seem to know much about it, but mentions "13.56 MHz."
>This might have been used as a sputtering source.
>
> Looking at the picture, it appears to have a power supply, an amplifier
>module, and some other good stuff.
>
> Although I have no need for an amp these days (apartment dweller) the
>picture makes me wonder if industrial surplus sputtering sources might be a
>relatively inexpensive source of parts for homebrew high-powered linear
>amps. They must have appropriate power and bias supplies, tubes (or a
>lot of transistors), a maybe-convertible output network, shielded
>metalwork, etc. A veritable linear amp construction junkbox.
>
> Has anyone ever taken a good look at the inside of one of these things?
>
> (If anyone's interested, the auction can be found at
>
> http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=1682291894
>
> I have no connection with the seller.)
>
>Very 73,

>
> Tom AB9B
>

7992. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 09:51:18 UTC
From: Bill Nelson <billn@spock.peak.org>
Message-ID: <a0k3mm$1p2$9@quark.scn.rain.com>
Source record: 47789
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

In rec.radio.amateur.antenna Ralph Mowery <rmowery@dialpoint.net> wrote:
> horizontal loops you may get close to 6 db of gain over a dipole. Not
> much to brag on when a 3 element beam will give around 8 or 9 db.

The only place a three element beam will gove 8 dBd is in the dreams of
some antenna designers/merchants.

--
Bill Nelson (billn@peak.org)

7993. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 10:52:25 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <_bhX7.117$Zg2.133178@news11-gui.server.ntli.net>
Source record: 47790
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

"Richard Hosking" <zaprichardh@iinet.net.au(remove the zap)> wrote in
message news:3c2d0efb$0$16044@echo-01.iinet.net.au...
> Boards are available via Paypal via a Direct Digital Synthesizer using the
> AD9854. Article rewritten with links to component suppliers, references
etc
> Software and controller board available for single tone and sweep
functions
> settable by keypad or rotary encoder 1Hz to 65 MHz in 1 Hz steps - source
> code is public for modification if desired
>
> see http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> Richard

Thanks for posting Richard. I'm wanting to obtain a digital VFO to replace the analogue Local Oscillators/VFO's in some tube rigs, and to have digital readout. I think, (not being an educated man in electronics) that what you have designed might be the kind of thing I'm after. Interesting about using stepper motors as tuning knobs (rotary encoder).

7994. Re: Alliance HD73 - Need info ASAP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 14:16:38 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3C2DD013.AE377454@tampabay.rr.com>
Source record: 47791
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space

scott i use to own one but dont remember
try emailing the guys at rotordoc at www,.rotordoc,com
they are pretty good at repling

Scott McClements wrote:

> Hopefully somebdy can help me with this one quick before I fall off my
> tower into a snow bank!
>
> There was some remodeling done in my room where my rotot box was once
> hooked to my Alliance HD73. Problem is, the wires were removed from the
> control box without being marked.
>
> So, here is the good part, I broke down, in 20 degree weather, with snow
> flying, wind blowing, I climbed to the 30 foot height and opened up the
> rotor wire cover to see what wires went where.
>
> Here is the part I couldn't totally confirm for sure, I could only see a
> number "2" mark on one terminal connection.
>
> So, here is the terminal connections as if the rotor was oriented as it
> were mounted in a tower and you where standing on the ground looking at
> it:
>
> A 2 C
> X X X
>
> X X X
> D E F
>
> The "X"'s represent the terminal hookups. The letters represent the
> terminal (number) hookups in question. The "2" was the only terminal I
> could confirm.
>
> So, the question is, which terminal is which number?
>
> My rotor is the latest model, the HD-73-1, I believe its called. I
> found the manual online (ftp://bama.sbc.edu/downloads/alliance/hd-73/) -
> but it was for the HD-73. I went to the troubleshooting section and
> found where it tells you was resistance to look for between the wires to
> help straighten out which wire is which. All the resistance values
> checked out except the last note on the troubleshooting section where it
> says "Also, leads 1,3, and 6 should not show continuity to leads 2,4, or

> 5"
>
> I see a some resistance between all combinations of these leads they
> state should show "no continuity" (open?)
>
> Help, please!
>
> Scott.

7995. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 14:46:43 UTC
From: Ralph Mowery <rmowery@dialpoint.net>
Message-ID: <3C2DD753.A13A03D8@dialpoint.net>
Source record: 47792
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

You are correct, but like the merchants I just said db and left out the i. Also maybe I should have added in the ground reflection that one of the vhf merchants use and get about 6 more db.. The whole point was that a small beam is easier to construct and match than it is to build and phase several horizontal loops. Especially for a beginner.

Bill Nelson wrote:
>
> In rec.radio.amateur.antenna Ralph Mowery <rmowery@dialpoint.net> wrote:
> > horizontal loops you may get close to 6 db of gain over a dipole. Not
> > much to brag on when a 3 element beam will give around 8 or 9 db.
>
> The only place a three element beam will gove 8 dBd is in the dreams of
> some antenna designers/merchants.
>
> --
> Bill Nelson (billn@peak.org)

7996. Re: Alliance HD73 - Need info ASAP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 15:25:24 UTC
From: k5ofy <k5ofy@arrl.net>
Message-ID: <a0kn9e$kphv4$1@ID-44314.news.dfncis.de>
Source record: 47793
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space

Just happen to have one on the bench that I want to sell. All cleaned and
re-greased. Below is the wiring:

1-2-3
4-5-6
No need to fall off the tower :-)

Bill - k5ofy
"Scott McClements" <yetbbwa@grove.iup.edu> wrote in message
news:3C2D097D.6B5F275B@grove.iup.edu...
> Hopefully somebdy can help me with this one quick before I fall off my
> tower into a snow bank!
>
> There was some remodeling done in my room where my rotot box was once
> hooked to my Alliance HD73. Problem is, the wires were removed from the
> control box without being marked.
>
> So, here is the good part, I broke down, in 20 degree weather, with snow
> flying, wind blowing, I climbed to the 30 foot height and opened up the
> rotor wire cover to see what wires went where.
>
> Here is the part I couldn't totally confirm for sure, I could only see a
> number "2" mark on one terminal connection.
>
>
> So, here is the terminal connections as if the rotor was oriented as it
> were mounted in a tower and you where standing on the ground looking at
> it:
>
>
> A 2 C
> X X X
>
> X X X
> D E F
>
> The "X"'s represent the terminal hookups. The letters represent the
> terminal (number) hookups in question. The "2" was the only terminal I
> could confirm.
>
> So, the question is, which terminal is which number?
>
> My rotor is the latest model, the HD-73-1, I believe its called. I

> found the manual online (ftp://bama.sbc.edu/downloads/alliance/hd-73/) -
> but it was for the HD-73. I went to the troubleshooting section and
> found where it tells you was resistance to look for between the wires to
> help straighten out which wire is which. All the resistance values
> checked out except the last note on the troubleshooting section where it
> says "Also, leads 1,3, and 6 should not show continuity to leads 2,4, or
> 5"
>
> I see a some resistance between all combinations of these leads they
> state should show "no continuity" (open?)
>
> Help, please!
>
> Scott.
>
>
>
>
>

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.311 / Virus Database: 172 - Release Date: 27/12/01

7997. Re: Need Manual for MOT HT H23AAM-1001AB

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 15:47:37 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-2912011049300001@dplane-176-88-250.pompano.net>
Source record: 47795

In article <sKdX7.92547$7l5.53052@atlpnn01.usenetserver.com>, "Barry L. Ornitz" <ornitzNO@SPAMusa.net> wrote:

> "Bruce Lane" <spammers@buzz.off> wrote in message
> news:MPG.1696495d467837a698975e@localhost...
> > In article <3C2C86A6.477FF6FC@earthlink.net>,
> > jgerwitzsprint@earthlink.net says...
> >
> > > I have a Mot HT that I would like to restore. Model number is
> > > H23AAm-1001AB.
> >
> > Holy Cow... that's an HT200...
>
> No, it's even older than that. It uses "instant heat" vacuum tubes (peanut
> tubes like the 1AD4). I still have a P33BAM which is the 7 watt model
> (used a 2E24 in the final).
>
> 73, Barry WA4VZQ

If it is that old then you might be able to get some help from the people that run the Motorola museum. Call 954-723-5000 and that will get you to the operator at Moto in Plantation Florida. Ask to speak to Mike Briley. Tell him your situation and that you heard his name from Steve Carlton. He is a great guy and can probably guide you into someone that can help.

BTW, if you are a golfer, let him know as he is a fanatic. :-)

Hope this gets you info.

Steve
WB4CZR
Plantation, FL
ex Moto eng

7998. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 16:01:28 UTC
From: Dale Parfitt <parinc@gte.net>
Message-ID: <3C2DE831.612E369E@gte.net>
Source record: 47794
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

Richard Hosking wrote:

> Boards are available via Paypal via a Direct Digital Synthesizer using the
> AD9854. Article rewritten with links to component suppliers, references etc
> Software and controller board available for single tone and sweep functions
> settable by keypad or rotary encoder 1Hz to 65 MHz in 1 Hz steps - source
> code is public for modification if desired
>
> see http://www.iinet.net.au/~richardh/VK6BRO.htm
>
> Richard

Your E-Mail is bouncing- how can we contact you?
Dale W4OP

7999. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 16:49:27 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <c1vBNoFXQfL8Ewho@ntlworld.com>
Source record: 47699
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

In message <3C2DE831.612E369E@gte.net>, Dale Parfitt <parinc@gte.net>
writes
>Your E-Mail is bouncing- how can we contact you? Dale W4OP

Did you remove the 'zap' from his e-mail address as per his 'From:'
e-mail header?

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

8000. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 17:06:10 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <IPmX7.3947$4x4.617577@news2-win.server.ntlworld.com>
Source record: 47796
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

> Thanks for posting Richard. I'm wanting to obtain a digital VFO to
replace
> the analogue Local Oscillators/VFO's in some tube rigs, and to have
digital
> readout. I think, (not being an educated man in electronics) that what
you
> have designed might be the kind of thing I'm after. Interesting about
using
> stepper motors as tuning knobs (rotary encoder).
========
For a homebrew digital VFO see QST January 2002 pages 35 -38 by Jim
Hagerty , WA1FFL

Frank gm0csz.kn6wh@ntlworld.com

8001. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 18:18:23 UTC
From: Richard Daventry <newsgps_email@ntlworld.com>
Message-ID: <wJnX7.3435$ll6.588438@news6-win.server.ntlworld.com>
Source record: 47697
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

"Frank Dinger" <gm0csz.kn6wh@ntlworld.com> wrote in message
news:IPmX7.3947$4x4.617577@news2-win.server.ntlworld.com...
> For a homebrew digital VFO see QST January 2002 pages 35 -38 by Jim
> Hagerty , WA1FFL
>
> Frank gm0csz.kn6wh@ntlworld.com

To Frank: Thanks for the info.You must mean 2001 I think.

To anyone: Ahem.... if that article turned up as a binary in my Inbox, I would not say anything!! :c) (You could check things out with me before scanning). I know, slapp my hand. :c)

8002. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 20:18:07 UTC
From: Rick Dykstra <rickdykstra@attbi.com>
Message-ID: <3ypX7.15894$7p6.199999@rwcrnsc51.ops.asp.att.net>
Source record: 47698
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I use one from M2 on my truck, along with 150 watts and have no problem talking to bases with horizonal beams a few hundred miles away. A horizontal beam for the base will work better if you don't need to hear in all directions at the same time.
Rick

"Jason Dugas" <jdugas@ems.jsc.nasa.gov> wrote in message news:gnZW7.2249$4D6.491871363@newssvr15.news.prodigy.com...
> Hi,
>
> I've heard that these small 2m horizontal loop antennas (sometimes stacked 2
> or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see
> them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are
> interested in building one for fun. Does anyone know if the plans for this
> type of antenna can be found in QST or in the Antenna book?
>
> We are interested in using one or two of them for 2m SSB (we're just getting
> started).
>
> Thanks for any help you can provide,
>
> Jason
> KB5URQ
>
>
>
>
>
>
>

8003. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 21:13:55 UTC
From: Duncan Clark <NEWS@[127.0.0.1]>
Message-ID: <AIuWS4BTIjL8EwhP@ntlworld.com>
Source record: 47700
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

In message <wJnX7.3435$ll6.588438@news6-win.server.ntlworld.com>,
Richard Daventry <newsgps_email@ntlworld.com> writes
>To anyone: Ahem.... if that article turned up as a binary in my Inbox,
>I would not say anything!! :c) (You could check things out with me
>before scanning). I know, slapp my hand. :c)

I couldn't possibly object to a garphic or .pdf winging it's way here
either - but check with me first. I may have broadband but ....

Duncan
G4ELJ
--
Support bacteria. They are the only culture some people have.

Duncan Clark

8004. Help: unknown valve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 21:27:54 UTC
From: arnoldg@c2i.net
Message-ID: <3c2e359b.13249100@news1.c2i.net>
Source record: 47701
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

Hil,

A box of totally unknown valves was found when we were counting valves
and other components in these last days of 2001.
It is a 7-pin miniature type, like 6C4 and others, and it is made by
the Swedish factory LM Ericsson. It is RZC 1021 and I would guess that
it is some kind of a trigger or maybe a voltage stabilizer. It has
only two vertical metalplates inside the bulb. No ordinary cathode or
grid.
Can anyone help?

Best regards,

Arnold Goksyr

DEMOSTENES - N6899 Balestrand, Norway
Tlf. +47 5769 1340 Fax +47 5769 1267
http://www.demostenes.no

Thousands of different valves in stock as well as
sockets,transformers,books,caps,resistors and
other components. Web site is updated every week.
You can order on-line.

8005. building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 21:35:44 UTC
From: gil <gilpi@mindspring.com>
Message-ID: <a0lctf$t5m$1@slb1.atl.mindspring.net>
Source record: 47702

Any web pages or ideas/plans on building your own microphone?

I hear the Rat Shack elements are very good.

Thanks

Gil

8006. Re: Quadrature DDS board available

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 23:12:48 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <dmsX7.11598$Zg2.559034@news11-gui.server.ntli.net>
Source record: 47705
Cross-posted to: aus.electronics,rec.radio.amateur.homebrew,sci.electronics.design

> To Frank: Thanks for the info.You must mean 2001 I think.
=========
No it is QST - January 2002 , just arrived .

HNY

Frank gm0csz.kn6wh@ntlworld.com

8007. Re: Alliance HD73 - Need info ASAP!

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 23:25:35 UTC
From: Dennis Kaylor <k4oxg@tampabay.rr.com>
Message-ID: <3C2E50CF.580723E7@tampabay.rr.com>
Source record: 47703
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.misc,rec.radio.amateur.homebrew,rec.radio.amateur.dx,rec.radio.amateur.equipment,rec.radio.amateur.space

hey there
what ya asking for the HD73?

k5ofy wrote:

> Just happen to have one on the bench that I want to sell. All cleaned and
> re-greased. Below is the wiring:
>
> 1-2-3
> 4-5-6
> No need to fall off the tower :-)
>
> Bill - k5ofy
> "Scott McClements" <yetbbwa@grove.iup.edu> wrote in message
> news:3C2D097D.6B5F275B@grove.iup.edu...
> > Hopefully somebdy can help me with this one quick before I fall off my
> > tower into a snow bank!
> >
> > There was some remodeling done in my room where my rotot box was once
> > hooked to my Alliance HD73. Problem is, the wires were removed from the
> > control box without being marked.
> >
> > So, here is the good part, I broke down, in 20 degree weather, with snow
> > flying, wind blowing, I climbed to the 30 foot height and opened up the
> > rotor wire cover to see what wires went where.
> >
> > Here is the part I couldn't totally confirm for sure, I could only see a
> > number "2" mark on one terminal connection.
> >
> >
> > So, here is the terminal connections as if the rotor was oriented as it
> > were mounted in a tower and you where standing on the ground looking at
> > it:
> >
> >
> > A 2 C
> > X X X
> >
> > X X X
> > D E F
> >
> > The "X"'s represent the terminal hookups. The letters represent the
> > terminal (number) hookups in question. The "2" was the only terminal I

> > could confirm.
> >
> > So, the question is, which terminal is which number?
> >
> > My rotor is the latest model, the HD-73-1, I believe its called. I
> > found the manual online (ftp://bama.sbc.edu/downloads/alliance/hd-73/) -
> > but it was for the HD-73. I went to the troubleshooting section and
> > found where it tells you was resistance to look for between the wires to
> > help straighten out which wire is which. All the resistance values
> > checked out except the last note on the troubleshooting section where it
> > says "Also, leads 1,3, and 6 should not show continuity to leads 2,4, or
> > 5"
> >
> > I see a some resistance between all combinations of these leads they
> > state should show "no continuity" (open?)
> >
> > Help, please!
> >
> > Scott.
> >
> >
> >
> >
> >
>
> ---
> Outgoing mail is certified Virus Free.
> Checked by AVG anti-virus system (http://www.grisoft.com).
> Version: 6.0.311 / Virus Database: 172 - Release Date: 27/12/01

8008. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-29 23:29:17 UTC
From: Frank Dinger <gm0csz.kn6wh@ntlworld.com>
Message-ID: <emsX7.11599$Zg2.559034@news11-gui.server.ntli.net>
Source record: 47704

> Any web pages or ideas/plans on building your own microphone?
>
> I hear the Rat Shack elements are very good.
============
If you mean electret microphone elements , these are excellent and very low
in price.

A low cost 'booster' mic was described in QST -August 1989 , pages 19-20-21
.Article by Doug DeMaw , W1FB (now SK).
The mic element is electret ,its signal amplified by a NPN transistor
,2N3904 followed by a 741 opamp. It incorporates low- and high boost tone
control to be set by potmeters or trimpots.
It gets its power supply from a 9 V battery (nowadays a similar supply is
often available from one of the microphone socket pins of a transceiver.

Frank gm0csz.kn6wh@ntlworld.com

8009. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 01:12:06 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrna2srr9.5i1.w9wi@linux1.localdomain>
Source record: 47706

On Sat, 29 Dec 2001 23:29:17 -0000, Frank Dinger <gm0csz.kn6wh@ntlworld.com>
wrote:

>
>> Any web pages or ideas/plans on building your own microphone?
>>
>> I hear the Rat Shack elements are very good.
>============
>If you mean electret microphone elements , these are excellent and very low
>in price.
>
>A low cost 'booster' mic was described in QST -August 1989 , pages 19-20-21
>.Article by Doug DeMaw , W1FB (now SK).
> The mic element is electret ,its signal amplified by a NPN transistor
>,2N3904 followed by a 741 opamp. It incorporates low- and high boost tone
>control to be set by potmeters or trimpots.
>It gets its power supply from a 9 V battery (nowadays a similar supply is
>often available from one of the microphone socket pins of a transceiver.

The Radio Shack elements will do a good job of directly driving a Kenwood
radio, without any amplifiers. Some other models of radio (Icom?) will
require the amp.

One design I used with good luck... Solder a stiff solid wire (#12 or
larger, about 6" long) to the grounded lead of the element. Also connect
the shield of two feet or so of shielded wire to this point - connect the
center conductor to the "hot" lead of the element.

Solder a large alligator clip to the other end of the solid wire. Clip it
to your glasses to hold the mike in front of your mouth. (if you don't wear
glasses you're out of luck<grin>)

At the radio, connect the shield to ground. Connect the center conductor to
a 10K-ohm resistor and a 0.1uF capacitor. (as small as possible, you want
them to fit inside the mike plug.) The values are not critical, 2.2K-47K-ohm
and 0.05-0.5uF will probably work just as well. Connect the other end of
the resistor to the +8V pin on the mike plug, and the other end of the
capacitor to the mike audio pin on the plug.

I've worked a few thousand QSOs that way before finding out that computer
multimedia headsets are the same thing & don't require nearly as much work
to build<grin>! (plus you get a fairly decent set of lightweight,
comfortable headphones...) (plus they work even if you don't wear glasses)
--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66

http://www.w9wi.com

8010. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 02:15:14 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <SMuX7.152724$Zd.14368270@bin1.nnrp.aus1.giganews.com>
Source record: 47707

I don't see that buying an element is the right thing to do if you want to build a microphone. The element is, after all, the microphone; everything else is just connection and mechanical support.

Now, if you wanted to wind a little coil and get a magnet to make a dynamic microphone, you might get my attention.

8011. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 03:24:37 UTC
From: Michael Black <blackm00@gloria.cam.org>
Message-ID: <Pine.LNX.4.33.0112292222430.2249-100000@gloria.cam.org>
Source record: 47708

On Sun, 30 Dec 2001, Bob wrote:

> I don't see that buying an element is the right thing to do if you want to
> build a microphone. The element is, after all, the microphone; everything
> else is just connection and mechanical support.
>
> Now, if you wanted to wind a little coil and get a magnet to make a dynamic
> microphone, you might get my attention.
>
>
>
No, No, No. None of this modern dynamic microphone stuff.

Build a carbon rod microphone. Two razor blades on a piece of wood,
and a carbon rod from the inside of a D cell.

It actually does work, but they aren't exactly reliable. I helped
someone make one a few years back for her science fair project.

Michael VE2BVW

8012. WTB SSB Filters

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 06:52:28 UTC
From: bprats@telis.org
Message-ID: <3c2eb8e8.5776806@news.inreach.com>
Source record: 47709

I'm looking for 9Mhz 2.2 or 2.4 Khz wide filter to a solid state SSB
QRP transmitter and receiver project. The matching osc. crystals
would be a bonus too. KVG is one such brand.

Also need a narrow SSB filter for the Kenwood TS-450.

Please send info, thanks K6ACJ

8013. rf oscillators

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 08:31:14 UTC
From: wavesrc@nvbell.net
Message-ID: <ed4abb0f.0112300031.1fe85f49@posting.google.com>
Source record: 47710

rf and microwave oscillators and synthesizers.
http://home.nvbell.net/wavesrc

8014. Re: Help: unknown valve

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 12:10:38 UTC
From: "D. S. Platt" <jeepp@erols.com>
Message-ID: <3C2F043E.97E93F4B@erols.com>
Source record: 47711
Cross-posted to: rec.audio.tubes,rec.radio.amateur.boatanchors,rec.radio.amateur.homebrew

"DEMOSTENES A. Goksï¿½yr" wrote:

> Hil,
>
> A box of totally unknown valves was found when we were counting valves
> and other components in these last days of 2001.
> It is a 7-pin miniature type, like 6C4 and others, and it is made by
> the Swedish factory LM Ericsson. It is RZC 1021 and I would guess that
> it is some kind of a trigger or maybe a voltage stabilizer. It has
> only two vertical metalplates inside the bulb. No ordinary cathode or
> grid.
> Can anyone help?
>
> Best regards,
>
> Arnold Goksï¿½yr
>
> DEMOSTENES - N6899 Balestrand, Norway
> Tlf. +47 5769 1340 Fax +47 5769 1267
> http://www.demostenes.no
>
> Thousands of different valves in stock as well as
> sockets,transformers,books,caps,resistors and
> other components. Web site is updated every week.
> You can order on-line.

In MIL HDBK 213A, the 1021 is said to be a Geiger-Mueller counter tube
(for radiation counters.). Maybe this is your tube??

8015. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 13:39:02 UTC
From: mark <markII@nospam.com>
Message-ID: <3C2F1900.65913FC7@nospam.com>
Source record: 47712
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi Jason,

try a quad beam two to five elements (11 units gain if you use five elements)

here is site for plans: http://www.softcom.net/users/kd6dks/quad.html

yes, you can stack them if you want, just watch the phasing cables.

http://www.cebik.com is another great antenna resource.

73 mark II

Jason wrote:

> Hi,
>
> I've heard that these small 2m horizontal loop antennas (sometimes stacked 2
> or 4 at a time) (also known as sqkloops?) are excellent for sideband. I see
> them offered for relatively cheap by KB6KQ(.com). However, my Dad and I are
> interested in building one for fun. Does anyone know if the plans for this
> type of antenna can be found in QST or in the Antenna book?
>
> We are interested in using one or two of them for 2m SSB (we're just getting
> started).
>
> Thanks for any help you can provide,
>
> Jason
> KB5URQ

8016. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 16:44:17 UTC
From: "Clyde R. Shappee" <cshappee@ieee.org>
Message-ID: <3C2F4461.68E7878C@ieee.org>
Source record: 47713

Please shed some light on how this is done.

I have an audiophile acquaintance who built his own, but I doubt that I could get his attention to talk about it.

How do you make it linear in frequency response and what are the pitfalls? Reference reading you can recommend?

Clyde

Bob wrote:

> I don't see that buying an element is the right thing to do if you want to
> build a microphone. The element is, after all, the microphone; everything
> else is just connection and mechanical support.
>
> Now, if you wanted to wind a little coil and get a magnet to make a dynamic
> microphone, you might get my attention.

8017. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 17:42:04 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <MIIX7.91126$m05.8004844@bin5.nnrp.aus1.giganews.com>
Source record: 47714

Well I am no expert on this but I imagine the major consideration is the diaphragm and its support.

Basically, a dynamic microphone is a tiny loudspeaker. You build it essentially the same way. Then the enclosure will determine its directional characteristic. Normally microphone diaphragms are rigid, more like tweeters. They need to be very light so as to respond most readily to pressure variations, and small to be a negligible part of a wave length of the highest frequency sound desired.

I read a book called Microphones. It was published in England I believe, and it is about 40 years old. There is much good information in there; perhaps you can locate a copy. I'm sure there are other publications extant but I don't know any specifically.

Pezoelectric microphones are harder to obtain flat frequency response, I believe. These are called crystal or ceramic and have lots of peaks and valleys. Capacitor microphones offer some interesting possiblilities and might be easy to build. They are essentially a parallel plate capacitor and the capacitance varies with the sound. It does require some interesting circuitry but that's the easy part.

8018. WTB: YK-88A A.M. filter for Kenwood TS-430

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 18:11:55 UTC
From: Argus <argus2400@hotmail.com>
Message-ID: <LNIX7.493$%C1.93534@newsread1.prod.itd.earthlink.net>
Source record: 47715

Please advise if you have such a unit for sale.

8019. kolla den h�r - kanske kan vara n�got?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 18:42:12 UTC
From: Lars <lars.nyberg@sundsvall.mail.telia.com>
Message-ID: <8eJX7.7081$l93.1792829@newsb.telia.net>
Source record: 47716

http://www.iinet.net.au/~richardh/VK6BRO.htm
Har bokat upp mig p� 2 st AD9857 och 2 st AD9854 varuprover fr�n Analog Devices. Vi f�r se om dom kommer. I s� fall skiter jag i att best�lla fr�n Minikits. V�ntar till 15 jan innan jag skickar bankchecken.

lars

8020. Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 21:14:37 UTC
From: Dan Richardson <Xk6mhe@arrl.net>
Message-ID: <po0v2u0h46j6lqi6gml1oae1re6a4tg850@4ax.com>
Source record: 47717

Hi,

Would like to get some suggestions for removing fine scratches from
plastic meter faces (covers).

Thanks,

Danny, K6MHE

8021. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 21:47:02 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C2F8B56.5F9C50D7@coqui.net>
Source record: 47718

Dan Richardson wrote:
>
> Hi,
>
> Would like to get some suggestions for removing fine scratches from
> plastic meter faces (covers).
>
> Thanks,
>
> Danny, K6MHE

There's some Novus products available at AES
http://www.tubesandmore.com The finest grade will do on transparent plastic lenses. I have some GT88, a 'miracle' 1-800 toothpaste tube substance sold on late night TV in Canada by the DiDiSeven folks. It works great also. There was some equivalent US brand years ago...there probably still is.
Its a nice product for this use...takes a tiring bit of rubbing but an old plastic face can be made to look like new if there's no bad gouges.

73,
Bill WX4A

8022. Wiring diagram + schematic for Turner +3 Mic

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 22:17:19 UTC
From: w3nj@aol.com
Message-ID: <20011230171719.24922.00002547@mb-md.aol.com>
Source record: 47719

Hello,
I'm looking for documenation on the Turner +3 Microphone. Wiring diagrams and schematics appreciated. Also would like to know how to ire it up to support VOX operation.

Tnx es 73!

de Bruce- W3NJ
B. Sawtelle - W3NJ (Ham Radio)

8023. Boost/Buck transformer ratings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-30 22:17:20 UTC
From: w9wi@linux1.localdomain
Message-ID: <slrna2v6ci.f4j.w9wi@linux1.localdomain>
Source record: 47720

Just replaced the defective transformer in an AL-80A amplifier. The replacement works fine, but it's lacking the boost/buck winding. (it was an after-the-fact option in the original Ameritron design) The 230V in this house is closer to 246 and as a result the HV is pretty high, higher than I'd like.

I presume I can safely stick a 230v=>18v control transformer in a box & wire the secondary in series with the AC line going to the amp. (of course making sure the phase is such that I get 228v and not 264!) I also presume the rating of the 18v winding needs to be equal to the rated full-load draw of the amplifier. (plus a reasonable safety margin) Any hidden gotchas in this scheme?

--
Doug Smith W9WI
Pleasant View (Nashville), TN EM66
http://www.w9wi.com

8024. Re: Boost/Buck transformer ratings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 00:56:37 UTC
From: Bob <balbert@cnmnetwork.com>
Message-ID: <9JOX7.97640$m05.8394784@bin5.nnrp.aus1.giganews.com>
Source record: 47721

Nope you have the right idea. The bucking transformer will actually absorb power and send it back to the power line.

8025. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 02:05:27 UTC
From: Owen Duffy <owen@oda.com.au>
Message-ID: <3C2FC7E7.267079C6@oda.com.au>
Source record: 47722

In Oz, we have a product called Brasso which is a metal polish for copper and brass. It includes a very fine abrasive and is applied and polished with a soft cloth, it works a treat on lots of plastics.

You probably have similar products, but test them on something of no value.

Owen

Dan Richardson wrote:
>
> Hi,
>
> Would like to get some suggestions for removing fine scratches from
> plastic meter faces (covers).
>
> Thanks,
>
> Danny, K6MHE

8026. Re: Boost/Buck transformer ratings?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 02:39:12 UTC
From: 2w8ji@contesting.com
Message-ID: <3c2fcbdb.49253773@news.akorn.net>
Source record: 47723

On Sun, 30 Dec 2001 22:17:20 GMT, w9wi@linux1.localdomain (Doug Smith
) wrote:

>making sure the phase is such that I get 228v and not 264!) I also presume
>the rating of the 18v winding needs to be equal to the rated full-load draw
>of the amplifier. (plus a reasonable safety margin) Any hidden gotchas in
>this scheme?

Yes, there are hidden problems.

First, I hope the replacement transformer you have is a good one and
has the correct filament voltage. the voltage at the TUBE pins should
be around 5 volts no load.

The bandswitch gets marginal with no-load HV about about 3000 volts or
so, so you want to stay below that voltage. You want good regulation
so no-load to full-load voltage does not change an excessive amount.
14% change is about the maximum you want.

The addtional transformer will increase the ESR of the transformer in
the amplfier, so you would be well-advised to greatly overkill the
secondary rating of the buck-boost transformer.

Keep in mind most control transfomers aren't designed to be "stiff",
they generally have very high ESR. You want the buck-boost transformer
to handle the PEAK current of the amplifier primary winding, not just
the RMS current. There is considerable power factor in the amplifier,
because it is capacitor input. That means any additional ESR has a
much greater effect than you might think.

That's why a buck-boost on the actual AL80 core (where the flux is
common in that big core, and there is no need for the resistance of an
additional primary) does not cause much loss of regulation, but an
external buck-boost often does ruin regulation!

With a control transformer designed at about three or more times the
RMS primary current things are often OK.

73 Tom

8027. Re: building a microphone

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 04:14:12 UTC
From: Richard Crowley <rcrowley7@xprt.net>
Message-ID: <u2vpgls02ek326@corp.supernews.com>
Source record: 47724

"gil" wrote ...
> Any web pages or ideas/plans on building your own microphone?

What do YOU mean by "building" a microphone?

There are at least a half-dozen completely different ways to interperet that question, presumably only one of which is what YOU are talking about. What do you want to use it for?

RC

8028. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 06:36:46 UTC
From: Pete Gianakopoulos <n.gianakopoulos@worldnet.att.net>
Message-ID: <2ITX7.316992$W8.11942262@bgtnsc04-news.ops.worldnet.att.net>
Source record: 47725

I have used plastic lens polish, and it works fairly well. This would be about a 0.7 micron grit.

Pete KE9OA

Owen Duffy <owen@oda.com.au> wrote in message news:3C2FC7E7.267079C6@oda.com.au...
> In Oz, we have a product called Brasso which is a metal polish for
> copper and brass. It includes a very fine abrasive and is applied and
> polished with a soft cloth, it works a treat on lots of plastics.
>
> You probably have similar products, but test them on something of no
> value.
>
> Owen
>
> Dan Richardson wrote:
> >
> > Hi,
> >
> > Would like to get some suggestions for removing fine scratches from
> > plastic meter faces (covers).
> >
> > Thanks,
> >
> > Danny, K6MHE

8029. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 10:46:49 UTC
From: Web Williams <Doncha@WishuKnew.com>
Message-ID: <MPG.169a0e50ca3ff8cc989822@news-server.sc.rr.com>
Source record: 47726
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I can't find the plans now, I did have them bookmarked,
and the website told you everything you needed to build
the loops. But- like you're finding out, they're not
necessarily for base station use. In mobile use, however,
that's the best thing going. Do a search on the 'net for
"build a loop antenna" and you'll probably get back a
couple of the sites I found. Make sure the search request
is in quotation marks, or you'll get back a bunch of junk.

73, -Web Williams in Myrtle Beach, SC

8030. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 11:47:19 UTC
From: mike@corn2.freeserve.co.uk
Message-ID: <3c304ff4.1265576@news.freeserve.net>
Source record: 47727
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Just found a plan at
http://members.aol.com/n2kbk/2mhalo.html

also interesting site at
http://www.ac6v.com/antprojects.htm

hth, HNY , Mike W G8NXD
On Mon, 31 Dec 2001 10:46:49 GMT, Web Williams <Doncha@WishuKnew.com>
wrote:

>I can't find the plans now, I did have them bookmarked,
>and the website told you everything you needed to build
>the loops. But- like you're finding out, they're not
>necessarily for base station use. In mobile use, however,
>that's the best thing going. Do a search on the 'net for
>"build a loop antenna" and you'll probably get back a
>couple of the sites I found. Make sure the search request
>is in quotation marks, or you'll get back a bunch of junk.
>
>73, -Web Williams in Myrtle Beach, SC

8031. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 14:39:45 UTC
From: Eike Lantzsch <eikelan@gmx.net>
Message-ID: <slrna30u5g.95v.eikelan@ID-77364.user.dfncis.de>
Source record: 47728

Pete Gianakopoulos wrote:
> I have used plastic lens polish, and it works fairly well. This would be
> about a 0.7 micron grit.
>
> Pete KE9OA
>
> Owen Duffy <owen@oda.com.au> wrote in message
> news:3C2FC7E7.267079C6@oda.com.au...
> > In Oz, we have a product called Brasso which is a metal polish for
> > copper and brass. It includes a very fine abrasive and is applied and
> > polished with a soft cloth, it works a treat on lots of plastics.
> >
> > You probably have similar products, but test them on something of no
> > value.
> >
> > Owen
> >
> > Dan Richardson wrote:
> > >
> > > Hi,
> > >
> > > Would like to get some suggestions for removing fine scratches from
> > > plastic meter faces (covers).
> > >
> > > Thanks,
> > >
> > > Danny, K6MHE
>
>

Finding it difficult to purchase some special product for this purpose
in a third world country I just use car-polish and water.
That is the polish which contains the very fine abrasive
to make old paint shine again - not just wax. Works OK on
plexiglas/acryl and all. Be carefull not to apply too much pressure when
using a lambswool polishing disk in the drill. It will heat up the acryl
and make everything worse. To avoid cracks in the meter cover I would
also make a little wooden block that fits into the cover from the
backside and fix this to my workbench. Then you can apply pressure without
breaking the cover. Work slowly and have patience.
You can even polish out deeper scratches. Well, they do not really
disapear but the edges of the scratch get smoothend out so it isn't
visible anymore.

Regards, Ike
--
. . Eike Lantzsch ZP6CGE
<___> CdC 1519 ASUNCION PY
____|\|\ ____ .ooo../ www.geocities.com/cgelantzsch/index.html
_________\ _____/ rattle, aim, sting, wait, incorporate

8032. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 15:00:36 UTC
From: tom_bruhns@agilent.com
Message-ID: <3832adca.0112310700.32e7bcef@posting.google.com>
Source record: 47729

No flames, just a few questions that may help folk make up their own minds.

o If we put an unmodulated signal into a quad detector (MC3359
for example), and set it on-frequency and then above and below
the center frequency, is the response we get like we expect
from a phase (PM) detector, or from a frequency (FM) detector?
(What IS the expected response of each type?)

o If the quad detector behaves like we expect an FM detector
to behave for that "DC modulated FM" signal, does it behave
any differently as we raise the modulation frequency (into
the audio range for example)? If it does, is the change
immediate as we go from "DC" to "AC" modulation, or gradual?
If it's gradual, when (over what range of modulation
frequencies) does it happen? (If there's a change like
that, what causes it? What do we need to pay attention
to in the design of the detector to make it consistent
from one unit to the next?)

o If we feed an FM signal that's modulated with a square
wave into a PM detector, what output do we expect? To make
that output back into a square wave, do we need to pass
it through an integrator (AKA LP filter) or through a
differentiator (AKA HP filter)?

(AFAIK, it's quite normal to put an FM detector's output through
a de-emphasis network--that is, a LP filter--to (nominally) match
the pre-emphasis used on the transmitter side. Unlike broadcast
and TV audio, communications FM doesn't seem to stick to a
universally accepted time constant for the pre/de-emphasis though.)

Cheers,
Tom

motsteve@mediaone.net (carltons) wrote in message
news:<motsteve-2612012055430001@dplane-176-88-250.pompano.net>...
>
> Note: Non engineers please ignore below as it is a response to
> obfuscation perceived by me of the original thread's question. :-)
>
> I guess I shouldn't say anything, but this thread is getting
> open-loop.
>
> No matter how you do it, all "FM" detectors involved are phase
> detectors. Over a length of time the phase changes in an FM
> signal can be noted and will deliver eventually the information

> conveyed by the carrier via the modulating signal. Remember
> delta phi over delta T? Otherwise, why add the lowpass filter to
> the output of all of them? Clue: The >average< DC level output varies
> per delta freq, but it is supposed to.
>
>
> The constant S problem noted above, I would assume, involves a
> digital modulated signal. This would have a constantly changing
> duty cycle. This causes a problem in a detector that is ac
> coupled as the recovered audio would have a varying average DC
> level. If this variation is at a frequency much lower than the
> time constant of the coupling circuit it would not be conveyed to
> subsequent circuits accurately causing grief for the engineer
> designing those particular stages. That is ungood as sometimes
> it is me doing the design. :-)
>
> Believe me, I am not throwing rocks here, I am only pointing out
> that the FM detector is really not an "FM" detector directly.
> If you want to flame me for being picky then do it. I am used to
> it as I have taken grief for 24 years now.
>
> Steve
> WB4CZR
> Plantation, FL

8033. Re: 2m Horizontal Loop Antenna Plans

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 15:30:24 UTC
From: Alan Yates <alany@ay.com.au>
Message-ID: <3C30848F.806764D2@ay.com.au>
Source record: 47730
Cross-posted to: rec.radio.amateur,rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Ralph Mowery wrote:
>
> You are correct, but like the merchants I just said db and left out the
> i. Also maybe I should have added in the ground reflection that one of
> the vhf merchants use and get about 6 more db.. The whole point was
> that a small beam is easier to construct and match than it is to build
> and phase several horizontal loops. Especially for a beginner.

For a whole whopping 1/2 S-point more gain the larger yagi's only good point is its nulls and F/B ratio to put some noise in.

I agree that the 3-el yagi is a well known design and will work as advertised using any of the large number of mechanical and matching designs out there, where as the horizontal loop is pretty uncommon in the books.

I'd build the loop though, it is much smaller physically which I can use in my limited space and I like fooling with 'exotic' designs, even if I shoot myself in the foot a few times, it is all the more fun that way.

A quad might be a good compromise.

--
Alan Yates
http://www.vk2zay.net/
The Moon is Waning Gibbous (98% of Full)

8034. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 16:51:38 UTC
From: jcplpsm@aol.communicate
Message-ID: <20011231115138.24121.00001998@mb-me.aol.com>
Source record: 47731

>Finding it difficult to purchase some special product for this purpose
>in a third world country I just use car-polish and water.

This will work well in most cases but beware of static problems later,
especially with meter movements. This can be overcome by finishing with a
light spray of Static Guard or some other anti-static spray.

8035. Re: Quad. Detector Coil Adjustment?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 17:23:07 UTC
From: motsteve@mediaone.net
Message-ID: <motsteve-3112011224590001@dplane-176-88-250.pompano.net>
Source record: 47732

In article <3832adca.0112310700.32e7bcef@posting.google.com>,
tom_bruhns@agilent.com (Tom Bruhns) wrote:

> No flames, just a few questions that may help folk make up their own minds.
>

No point in flaming anyone on this. I guess I could be flamed
for not getting out the calculus book and putting all this info
down in math, but that I feel is unnecessary.

> o If we put an unmodulated signal into a quad detector (MC3359
> for example), and set it on-frequency and then above and below
> the center frequency, is the response we get like we expect
> from a phase (PM) detector, or from a frequency (FM) detector?
> (What IS the expected response of each type?)
>
> o If the quad detector behaves like we expect an FM detector
> to behave for that "DC modulated FM" signal, does it behave
> any differently as we raise the modulation frequency (into
> the audio range for example)? If it does, is the change
> immediate as we go from "DC" to "AC" modulation, or gradual?
> If it's gradual, when (over what range of modulation
> frequencies) does it happen? (If there's a change like
> that, what causes it? What do we need to pay attention
> to in the design of the detector to make it consistent
> from one unit to the next?)
>

In all cases, you will get an output from the detector whose
average value will be directly related to the input frequency
deviation. You will also get a bunch of other stuff in the
process which can be filtered out with a low pass filter. The
detector itself whether you talk about a quad, Foster-Seily (sp?)
ratio detector, etc perform this through phase comparison. One
exception could be the slope-detector which uses an IF filter
with the centre frequency moved off the IF so that the incoming
FM signal is given AM sidebands related to the FM dev. The
signal then is AM detected and then post processed. This is
used in some of the broadcast radios and TV's. BTW, in IC's
it is easy to build a phase detector in a small area so the
AM detection can be easily done with synchronous detection.

> o If we feed an FM signal that's modulated with a square
> wave into a PM detector, what output do we expect? To make
> that output back into a square wave, do we need to pass
> it through an integrator (AKA LP filter) or through a

> differentiator (AKA HP filter)?

I see the above as a two part question. The square wave is comprised of many frequencies and so you must do your normal detection and filtering such that enough of the higher freq's get through so that a square output can be obtained. As far as the de-emphasis is concerned both commercial broadcast and commercial two-way products must comply to standards set by agencies such as EIA, TIA, CEPT, etc. If someone decides that the pre-emphasis should be 12db/octave instead of 6, then they are on their own and you can only guess as to what to do about it. In the case of de-emphasis, the roll off is done on the in band and useful stuff and the low pass filter on the detector takes care of the non-useful stuff outside the desired freq range.

I think some of the other questions coming up about this whole thing relate more to do with what is done with the recovered audio rather than the detection, but that is an area I leave to the digital designers.

73,

Steve WB4CZR
Plantation, FL

8036. Diagram for 110V to 12vDC convertor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 18:59:35 UTC
From: Walt Stanley <walterms@prodigy.NOSPAM.net>
Message-ID: <m9d13u4uvtauq50te5erjut9em41o9as25@4ax.com>
Source record: 47733

Can anyone point me to where I can find diagrams for building a converter so I can power a car radio with house current? TIA

--
Walt Stanley

Skeptics are seldom deceived.

8037. Re: Diagram for 110V to 12vDC convertor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 19:29:00 UTC
From: Your Friend Bill <"Remove The NO In The Reply Address"@coqui.net>
Message-ID: <3C30BC7C.A76588D0@coqui.net>
Source record: 47734

Walt Stanley wrote:
>
> Can anyone point me to where I can find diagrams for building a converter so I
> can power a car radio with house current? TIA
>
> --
> Walt Stanley
>
> Skeptics are seldom deceived.

Just use a *good* wall-wart if its a solid state radio.

8038. Re: Diagram for 110V to 12vDC convertor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 20:40:57 UTC
From: xpyttl <xpyttl_nospam@earthling.net>
Message-ID: <u31jc3n43die57@corp.supernews.com>
Source record: 47735

I'm not so sure you even need "good". Assuming it's a regular car radio, it will probably work on anything from 12 - 15 volts, likely could stand more, probably pretty immune to noise, might be bothered if the wall wart has a lot of ripple, but I bet not.

If there is too much hum from the wall wart, I'd just put a 12 volt regulator on the output of the wall wart. Again, assuming it's not some high powered stereo or transceiver, I would think nothing fancier than a 3 terminal regulator would do it. Wall warts are easier to come by and cheaper than trying to find the right transformer.

Any idea how much current this radio needs?

..

"Your Friend Bill" <"Remove The NO In The Reply Address"@coqui.net> wrote in message news:3C30BC7C.A76588D0@coqui.net...
> Walt Stanley wrote:
> >
> > Can anyone point me to where I can find diagrams for building a converter so I
> > can power a car radio with house current? TIA
> >
> > --
> > Walt Stanley
> >
> > Skeptics are seldom deceived.
>
> Just use a *good* wall-wart if its a solid state radio.
>

8039. UPDATED! - Parts for sale

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 21:39:03 UTC
From: Scrounger <brian@iquest.net>
Message-ID: <DQ4Y7.460$Pe5.118315@news1.iquest.net>
Source record: 47736
Cross-posted to: rec.radio.swap,rec.radio.amateur.homebrew

```
Parts for Sale as of 01/01/2002
===============================

Caps
====
NEW .1 uF Poly/Film caps - 10% 250v, new stock, paper tape, nice
long leads. These are not NPO and are made by S&M Components
50/$3.00 or 100/$5.00

NOS .01 uF ceramic caps, 10% 100v brand new by Kyocera
50/$3 or 100/$5

NOS 1000pf blue mono caps, 10% 100
50/$3 or 100/$5

NOS 470pf ceramics on paper tape, rated 5%
50/$3 or 100/$5

NOS 12pf NPO ceramics on tape
50/$4 or 100/$7

22uF 35v electrolytics These caps are on paper tape, NOS (New, but old
stock) made by Richey.
100/$2

Connectors
==========
I have NEW BNC chassis connectors for (includes nut and lock
washer)
============================================================
25 for $14.00
50 for $24.00
100 for $40.00

Voltage Regulators
==================
LM7805C voltage regulators. TO220 case. 5 for $4.00
L7806CV voltage regulators. TO220 case. 5 for $4.00
LM7808CT voltage regulators. TO220 case. 5 for $4.00
LM7812T voltage regulators. TO220 case. 5 for $4.00

3 of each for $10 (12 total VR's)

Key/Headphone Jacks
===================
These are 3.5mm female stereo PCB mount jacks. Can be used in
```

ugly/manhattan building projects with no problems.
3/$1.35 (or send a buck and a stamp)

Transistors
==========
2N2222A'S in plastic TO92, NPN - 50/$4.50 NEW PARTS
2N3906's plastic TO92. PNP - 50/$4.00 NEW PARTS
2N3704's plastic TO92, NPN - 50/$4.00 NEW PARTS

I AM OUT OF METAL 2N2222'S!!! BUMMER!!

IRF540's TMOS Power FET, N-Channel, 27A, 100v RDS(on) = .070 Ohms
http://www.onsemi.com/pub/Collateral/IRF540-D.PDF for data sheet
$1.00 each.

BC847B - Surface Mount NPN's, general purpose
CBO = 50v, CEO = 45v, EBO = 6v, Collector Current Max = 100 mA,
electrical characteristic curves for this unit are the same as the
PN2222A, SST222A, MMST2222A, and UMT222A transistor. These are new
stock, on SM tape.
100pcs/$2.50

2N2700 MOSFET - 5/$2 10/$3.50

Crystals
========
3.579545 Mhz Crystals for 80m - These are pulled colorburst crystals,
2/$1

POTS
====
10K 1 Turn Panel mount pots. These are pulls. No knobs, just
shafts. Most are Allen Bradley. Pot is about as big as a quarter.
With nut. 5/$4.00

Diodes
======
1N4148 - You always need these. 75 for $2.00 These are NEW.

Let me know if you're interested. All prices are post paid to the
USA, unless otherwise noted. I will ship to non USA addresses but we
need to discuss the shipping charges first.

--

=======================================
KB9BVN/QRP - New Whiteland IN - EM69WN
QRP-ARCI #10223 QRP-L #1540 FIST #5695
FISTS CC #764 - Proud Member ARRL
TEN TEC SCOUT @ 5W or NORCAL 40A @ 1.3W
INTO INFAMOUS AF4PS ATTIC DIPOLE
SOC #400 AND FLYING PIGS QRP #-57
=======================================

8040. Re: Diagram for 110V to 12vDC convertor

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 21:59:47 UTC
From: robrk <robrk@pgh.net>
Message-ID: <3C30DFD3.8E99A88E@pgh.net>
Source record: 47737

Go to Radio Shack and get one of their solid state project books and read up
on making one,
then buy one of their power supplies. By the time you get all the parts,
case,tools. and test
meter to see if it's working right, you've spent three times the price.

8041. Thanks guys

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 22:17:56 UTC
From: Walt Stanley <walterms@prodigy.NOSPAM.net>
Message-ID: <4to13u0e4glpofe19049r1pvkc0248apoi@4ax.com>
Source record: 47738

Thanks: It's just that I had an old 1.75Amp converter that needed a couple of condensers that I could not find. I always seem to do things the hard way:-)

>Go to Radio Shack and get one of their solid state project books and read up
>on making one,
>then buy one of their power supplies. By the time you get all the parts,
>case,tools. and test
>meter to see if it's working right, you've spent three times the price.

--
Walt Stanley

Skeptics are seldom deceived.

8042. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 22:57:38 UTC
From: Doug <doug@ycsi.net>
Message-ID: <a0qqh2$7rk$0@63.90.193.199>
Source record: 47739

Try Maguire's plastic cleaner. Have used it for years here, a little of the liquid goes a long way. We used it in the phone company for cleaning and polishing the plastic parts in phone booths and the dials on the old 500 sets. Works very well, polishes out all but the worst scratches. Should still be available in automotive parts stores. Got a touch left, but will be looking for some soon myself.

73

Doug, K7YD

Dan Richardson wrote:

> Hi,
>
> Would like to get some suggestions for removing fine scratches from
> plastic meter faces (covers).
>
> Thanks,
>
> Danny, K6MHE

8043. Need help figuring out one-stage circuit

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 23:00:52 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C30EE24.2C1BDEE8@clifto.com>
Source record: 47740

This one's part of a Radio Shack "AM / shortwave radio" demonstrator they put on clearance a while back. I can't make sense of the stage I'm looking at.

The ferrite-or-powdered-iron (I can't tell which) loopstick has two windings. The larger is paralleled with the tuning capacitor. One end of the takeoff winding goes to the base of a 2SC945. Collector supply: 9V battery through 1K resistor to a 33 uF cap sets the "master" supply voltage; from there through a 3.9K and then a 200 uH coil to the collector. Base biasing via 330K from collector to base. Output from collector through 0.1 uF cap to anode of a germanium diode, diode cathode has 0.05 uF to ground and then goes to the other end of the takeoff coil. Emitter is at ground. Circuit stage output from the transistor collector to a two-stage audio amp.

In practice it works terribly. It clips on all but the weakest stations ("weakest" example is a 5 KW station 20 miles from here). Yes, it's wired right. I did find one stoopid misteak already. (Had swapped a 1K and a 10K.)

Anyone have any clues for me as to how this circuit is *supposed* to work? I'm baffled. I can only guess they're trying to feed audio back through the takeoff coil for extra amplification. My guess as to how the biasing *should* work doesn't come close to measurements, etc. etc.

P.S.: I bought it for the ferrite-or-powdered-iron rod. I *thought* I'd be able to toss the rest. I oughta know better by now.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare, but in spamming, it's considered unnecessary precision. -- Alun Jones

8044. Re: Thanks guys

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 23:03:10 UTC
From: "Clifton T. Sharp Jr." <clifto@clifto.com>
Message-ID: <3C30EEAE.72C2D3FE@clifto.com>
Source record: 47741

Walt Stanley wrote:
> >Go to Radio Shack and get one of their solid state project books and read up
> >on making one,
> >then buy one of their power supplies. By the time you get all the parts,
> >case,tools. and test
> >meter to see if it's working right, you've spent three times the price.
>
> Thanks: It's just that I had an old 1.75Amp converter that needed a couple of
> condensers that I could not find. I always seem to do things the hard way:-)

My house is filled with projects just like that one. :)

What capacitors do you need? Bet you can find them on the web.

These days a 3A regulated supply doesn't cost much more than $40, and I've
seen a few under $25 at hamfests.

--
Remember, "close" counts in horse-shoes, hand-grenades and nuclear warfare,
but in spamming, it's considered unnecessary precision. -- Alun Jones

8045. Re: Removing scratches form plastic meters?

Newsgroup: rec.radio.amateur.homebrew
Date: 2001-12-31 23:35:55 UTC
From: Dan Richardson <Xk6mhe@arrl.net>
Message-ID: <dht13u0jqo3ovdtk0h3he8pbnos7emgv9l@4ax.com>
Source record: 47742

Thanks one and all. Got more than enough information.

Again thanks and Happy New Year.

73
Dann6, K6MHE

On Sun, 30 Dec 2001 13:14:37 -0800, Dan Richardson <Xk6mhe@arrl.net>
wrote:

>Hi,
>
>Would like to get some suggestions for removing fine scratches from
>plastic meter faces (covers).
>
>Thanks,
>
>Danny, K6MHE
>